ACS 600

Product Catalogue

ACS 600 MultiDrive Modules

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Product Catalogue

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Chapter 1 – Overview

Introduction

This Catalogue describes the hardware, features, and specifications of the ACS 600 MultiDrive Modules line of products. The Catalogue assists you in selecting the suitable components and optional devices for the system application.

ACS 600 MultiDrive in Brief

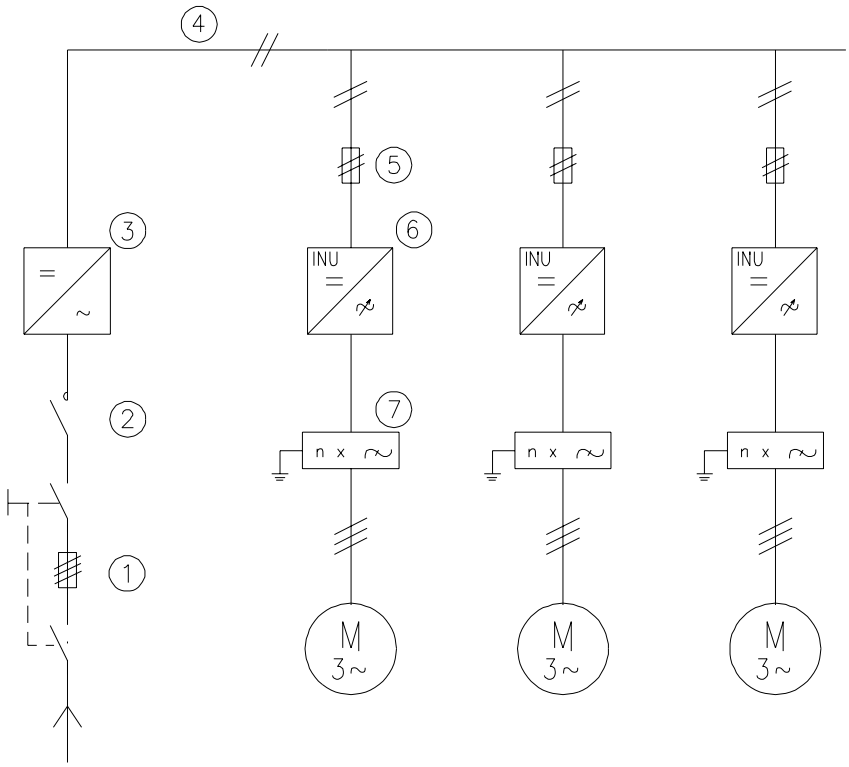
The ACS 600 MultiDrive is a new generation frequency converter for system applications that achieves the ultimate in AC motor control performance. Thanks to the Direct Torque Control (DTC) technology, the ACS 600 MultiDrive offers precise speed and torque control of standard squirrel cage motors. The ACS 600 MultiDrive has a modular construction with a common DC bus design.

ACS 600 MultiDrive Modules

The ACS 600 MultiDrive Modules product range comprises an assortment of ACS 600 MultiDrive components which can be used for building a customised common DC bus system drive. The components that are not available in the product range are standard components widely available from various manufacturers.The components of the drive system are discussed in Chapters 2 to 5.

The diagram below depicts a typical common DC bus system drive. More examples of drive configurations are given in Appendix B.

1 – Input Fuses or Switch Fuse
2 – Main Contactor or
Air Circuit Breaker
3 – Supply Unit
4 – DC Bus
5 – Fuses or Switch Fuse
6 – Inverter Module(s)
7 – du/dt Filter(s)



What This Catalogue Contains

Chapter 2 and ***Chapter 3*** present the supply and drive unit components respectively.

Chapter 4 contains general information on dynamic (resistor) braking as well as dimensioning instructions.

Chapter 5 is a summary of the Drive*Ware* family of PC tools for commissioning, use and maintenance of ABB drives.

Appendix A contains the dimensional drawings and weights of ACS 600 MultiDrive Modules components.

Appendix B includes single-line connection examples.

Appendix C lists the auxiliary power consumptions of the components in the ACS 600 MultiDrive Modules product line.

Appendix D includes master tables which give the components of a supply or drive unit configuration based on actual ACS 600 MultiDrive section types.

Terms and Abbreviations Used in This Catalogue

APC2
Type of an application controller.

CMF
Common Mode Filter.

DDCS
Distributed Drives Communication System (a communication protocol used in optical fibre communication inside and between ABB drives).

Drive Unit
An entity containing all inverter modules controlling one motor, together with their control electronics, I/O and auxiliary components.

DSU
Diode Supply Unit.

DTC
Direct Torque Control.

EMC
Electromagnetic Compatibility.

Frame (Size)
Relates to the construction type of the component in question. For example, several supply modules with different nominal powers may have the same basic construction. This term is often used as a reference to a group of components that share a similar construction.

The frame of each component is given in the selection tables in the appropriate chapter.

IGBT
Insulated Gate Bipolar Transistor, a voltage-controlled semiconductor type widely used in inverters due to their easy controllability and high switching frequency.

I/O
Input/output.

ISU
IGBT Supply Unit.

LCMF
Light Common Mode Filter.

NAMC
The Application and Motor Controller board of the ACS 600.

NDBU
DDCS Branching Unit. Type of optical branching boards for fibre links that use the DDCS protocol.

NDCU
The Drive Control Unit. The NDCU consists of a NAMC board and a NIOC board built into a metal housing.

NGPS
Gate Driver Power Supply Board. An optional board used to implement the Prevention of Unexpected Start function.

NIOB
Input/Output Board used in the ACS 600 series (mainly MultiDrive).

NIOC
Input/Output Board used in the ACS 600 series.

NMBO
SRAM Memory Backup Board for the NAMC-51 board.

NPBU
PPCS Branching Unit. Type of optical branching unit used for connecting parallel-connected inverter modules or IGBT supply modules to the NDCU.

LCD
Liquid Crystal Display.

LED
Light Emitting Diode.

PLC
Programmable Logic Controller.

PPCS
Power Plate Communication System (a communication protocol used in the optical fibre link that controls the output semiconductors of an inverter).

RFI
Radio Frequency Interference.

TSU
Thyristor Supply Unit.

CSA Marking

The CSA marking is often required in North America. ACS 600 MultiDrive Modules are CSA marked as components up to a voltage of 600 V.

The ACS 600 MultiDrive Modules (Supply and Inverter) shall be used together to build up a drive and installed according to the Installation Manual in order to conform to the CSA requirements.

ACS 600 MultiDrive Modules are suitable for use in a circuit capable of delivering not more than 100 kA rms symmetrical amperes at 600 V maximum (690 V units).

ACS 600 MultiDrive Modules (Inverter) provide overload protection in accordance with the CSA standard C22.2 No 14 and the National Electrical Code (US). See the appropriate *Firmware Manual* for the parameter setting. By default, the protection is OFF; it must be activated at start-up.

ACS 600 MultiDrive Modules are to be used in a heated indoor controlled environment. See the cooling condition specifications in the *Installation Manual* for specific limits.

Chapter 2 – Supply Unit Components

Configuration

The following pages describe typical diode/thyristor and IGBT supply units.

Boldface text refers to components available in the ACS 600 MultiDrive Modules product line.

Note: Power cable/busbar recommendations are given in the *ACS 600 MultiDrive Modules Installation Manual.*

Diode/Thyristor Supply Unit

A typical diode or thyristor supply unit comprises the following components:

- **Line (RFI) filter** (optional for diode supply units; not for thyristor supply units or floating [IT] supply networks).
- Main switch/disconnector or contactor.
- **Input fuses** (Frames B1/B2/B3 only).
- **Diode or thyristor supply modules** (1 or 2 depending on selected configuration).
  The modules are supplied with the following components:
  – cooling fan(s)
  – control unit
  – branch fuses (for Frames B4/B5)
  – DC reactor (for Frames B1/B2/B3)
  – AC current transformers (for thyristor supply modules).
- 230 or 115 V AC auxiliary power for supply module control electronics, 1-phase cooling fans and control circuitry.
- Control wiring and relays.
- **Output fuse** (Frame B1/B2/B3 thyristor supply units only).
- **DC reactor** (Frames B4/B5).
- DC busbars.

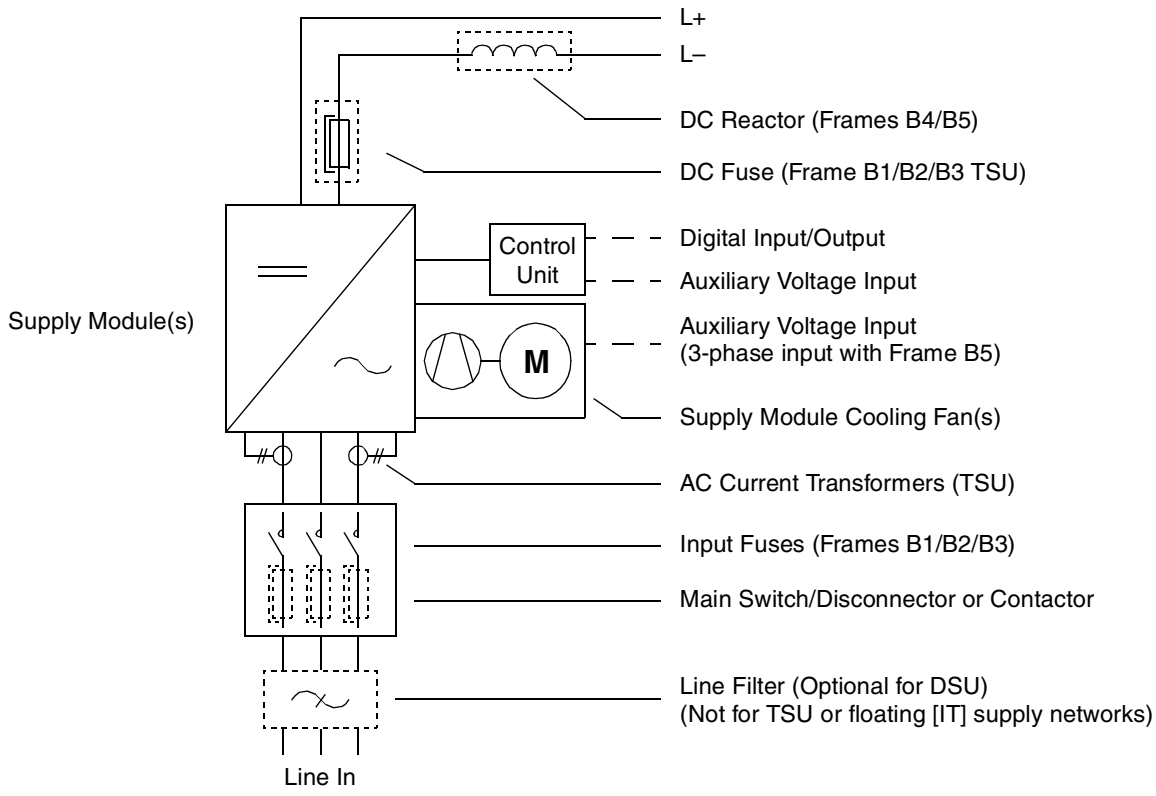


Figure 2-1 Diode/thyristor supply unit configuration.

IGBT Supply Unit A typical IGBT supply unit comprises the following components:

- Main switch/disconnector or contactor.
- **Input fuses**.
- Charging circuitry including
  – **Fuses** and **fuse bases**
  – **Charging resistor(s)**
  – **Charging contactor**.
- **AC choke**.
- **AC choke cooling fan(s)**.
- **Supply module(s)**.
- **Supply module cooling fan(s).**
- **Control unit.**
- 230 or 115 V AC auxiliary power for supply module control electronics, 1-phase cooling fans and control circuitry.
- Control wiring and relays.
- **Output fuses**.
- DC busbars.

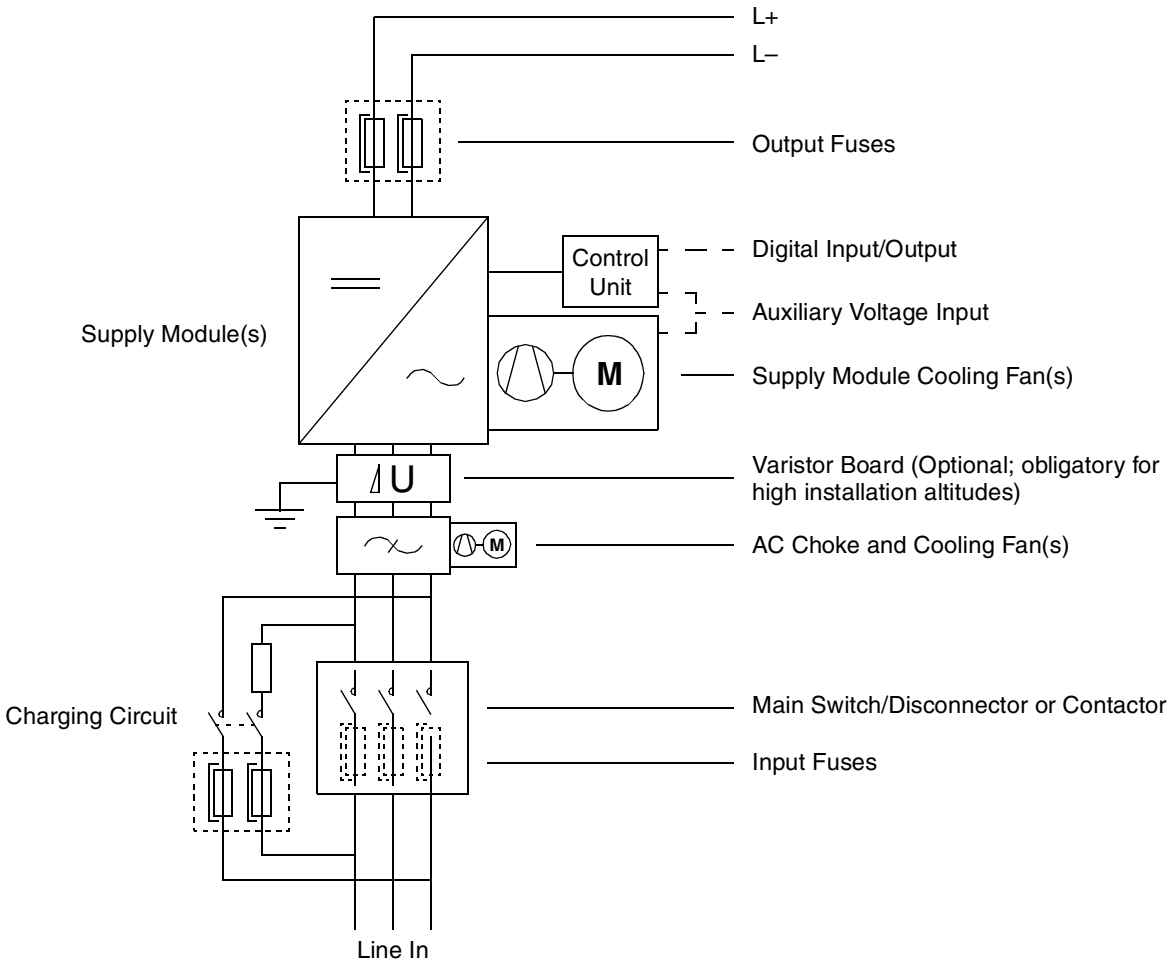


Figure 2-2 IGBT supply unit configuration.

Diode Supply Modules

The input bridge of a diode supply module consists of three thyristors and three diodes. (This configuration is often called *half-controlled.*) The thyristors (positive half) are controlled by a microprocessor to implement DC capacitor charging without a conventional resistor charging circuit. The microprocessor is located on the built-in control board (NDSC) which is also able to provide information such as voltage, current, phase loss, overtemperature and earth fault.

Further Information

Refer to the *Diode Supply Sections User's Manual* (3BFE 61451544 [English]).

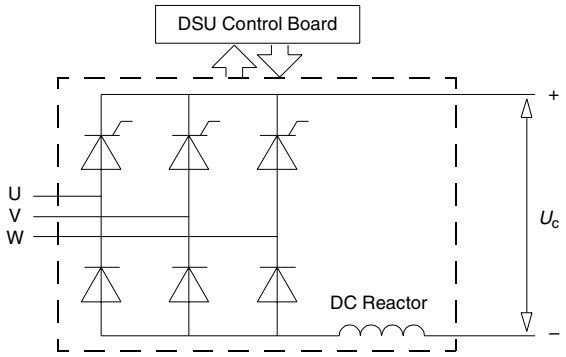


Figure 2-3 A diode supply module.

12-pulse Connection

Two diode supply modules can be used to form a 12-pulse input. The inputs of the two modules should be 30° apart from each other; the DC outputs are connected in parallel as shown in the diagram below.

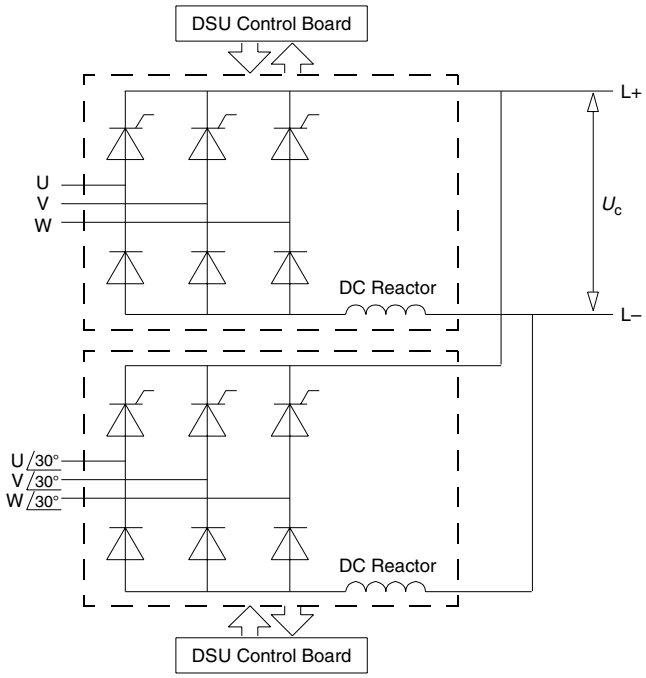


Figure 2-4 Two diode supply modules connected to form a 12-pulse input.

Control Electronics, Inputs and Outputs

All diode supply modules contain the necessary controller boards. The following is a description of the DSU Control Unit.

Power Supply Board SDCS-POW-1

The SDCS-POW-1 is the power supply board of the DSU control unit. It provides all necessary DC voltages for the NDSC-01 board. The input voltage can be selected to be 230 or 115 V AC (or 190…350 V DC). Figure 2-5 shows the instructions for the selection of the AC input voltage.

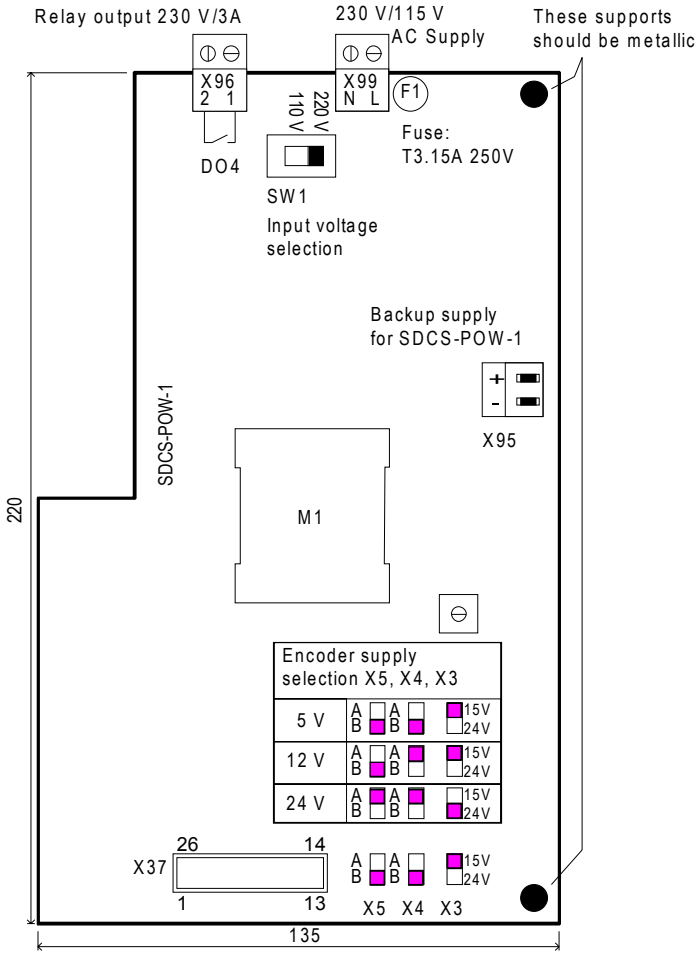


Figure 2-5 Layout of the power supply board SDCS-POW-1 (Revision B or later) and jumper settings.

Control Board NDSC-01

The control board NDSC-01 comprises:

- 3 digital inputs (LED indication)
- 3 + 1 digital outputs (LED indication)
- DDCS communication link (LED indication)
- +24 V DC (500 mA) for supply auxiliary equipment (LED indication)
- isolated firing pulses
- voltage measurements; Uc (DC busbar voltage), Uac (supply voltage), synchronisation
- heatsink temperature measurement
- current measurement
- earth fault current measurement
- 7-segment status display
- two 8-way DIP switches for application specific configuration.

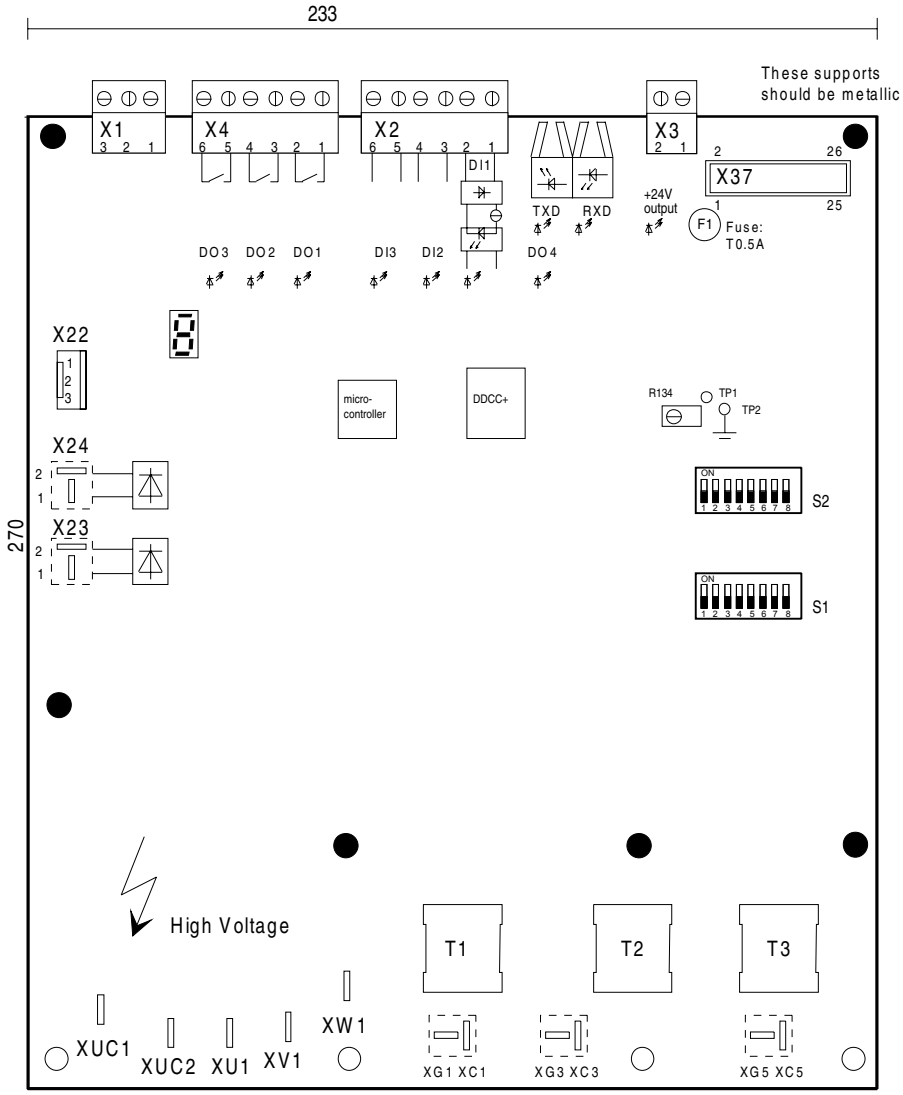


Figure 2-6 Layout of the control board NDSC-01.

Digital Inputs and Outputs

The control board contains three digital inputs which are self-adaptive for the voltage range 24 V DC ... 230 V AC. The channels are galvanically isolated from each other and other parts of the board. The filtering time constant for digital inputs is 10 ms. The status of each channel is indicated by LEDs. Digital outputs are relays. Test voltage between channels is 1500 V AC.

Connector X3 is a 24 V DC (500 mA) output which can be used for digital inputs or as a power supply for other equipment. This voltage is fuse-protected. The status of the fuse is indicated with a LED.

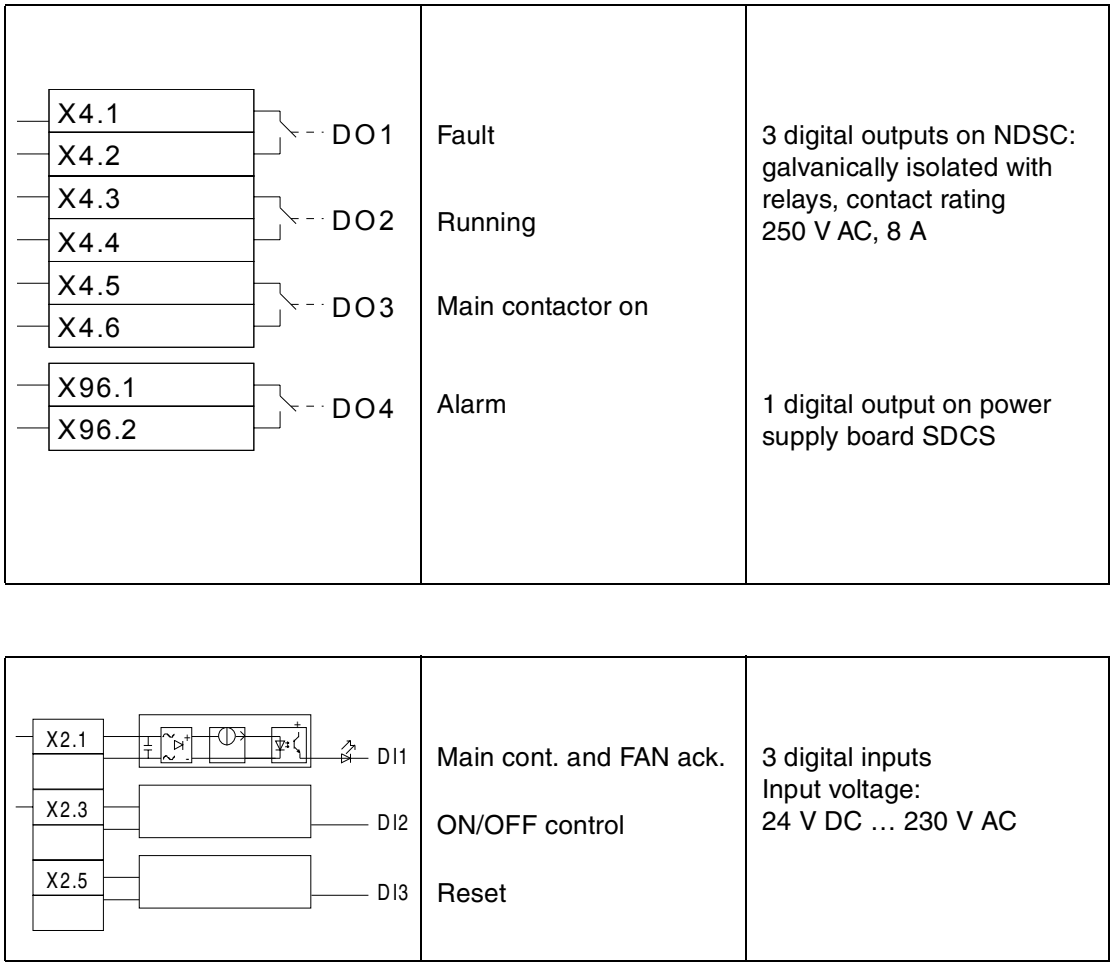


Figure 2-7 Digital inputs (DI) and outputs (DO) in the control unit.

Resistor Braking

As diode supply units are not capable of feeding energy back to the supply network, a separate braking unit is required for effective motor braking and short deceleration times. See Chapter 4 for more information.

Diode Supply Modules – Technical Data

Input Voltage:

- 500 V units: 380…500 V ± 10%
- 690 V units: 525…690 V ± 10%

Input Voltage Unbalance: ± 2% (EN 60204-1)

Input Frequency: 50/60 Hz ± 5%

Transformer Requirements for 12-pulse Supply:

- Connection: Dyn 11 d0
- Phase shift between secondaries: 30° electrical
- Voltage difference between secondaries: < 0.3%
- Short circuit impedance of secondaries: > 5%
- Short circuit impedance difference between secondaries: < 3%
- Static screen recommended

Dynamic df/dt: 17 % / s

Output Voltage:

- 500 V units: 510…675 V ± 10% (1.35 × input voltage)
- 690 V units: 710…930 V ± 10% (1.35 × input voltage)

Voltage Dip: < 20%

Efficiency: > 0.99 (approx.; at I_{2N} and nominal input voltage)

Power Factor (cos φ_1): 0.97 (fundamental)

Power Factor (cos φ): 0.93…0.95 (total [U_{DC} = 100%])

Limits:

- Undervoltage Alarm Limit: 60% of rated voltage. Starts charging mode
- Overcurrent Trip Limit: 300% of nominal current. Function only available using additional current transformers

Degree of Protection: IP 00 (EN 60 529)

Insulation Class:

- Altitude up to 2000 m: Voltage category III (IEC 664-1)
- Altitude up to 4000 m: Voltage category I (IEC 664-1)

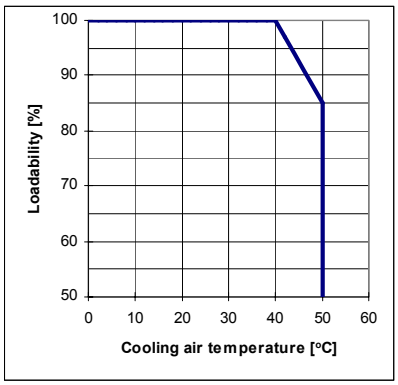
Vibration (IEC 68-2-6):

- Storage: ≤ 1.5 mm (2…9 Hz); ≤ 5 m/s^2 (9…200 Hz) (sinusoidal)
- Operation: ≤ 0.3 mm (2…9 Hz); ≤ 1 m/s^2 (9…200 Hz) (sinusoidal)

Cooling Method: Dry clean air

Ambient Temperature:

- Transportation: -40…+70 °C
- Storage: -40…+55 °C
- Operation: 0…+40 °C (see diagram below)



Relative Humidity:

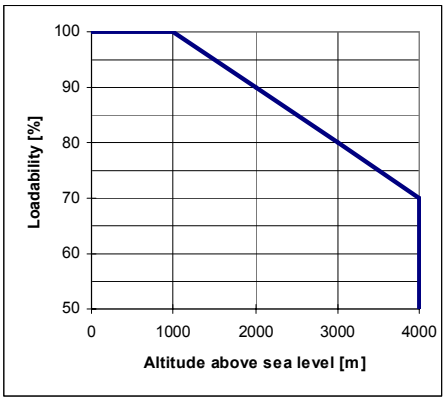
- Transportation: ≤ 95%
- Storage: < 95%, no condensation allowed
- Operation: 5…95%, no condensation allowed

Contamination Levels (IEC 721-3-3):

- Chemical gases: Class 3C1
- Solid particles: Class 3S2
- No conductive dust allowed

Installation Altitude and Derating:

- Altitude 0…1000 m above sea level: Derating not required
- Altitude 1000…2000 m above sea level: Derating required (see diagram below)
- Altitude 2000…4000 m above sea level: Derating required (see diagram below), varistors option required



Diode Supply Modules													
Type	**Auxiliary Voltage (V AC)**	**Ordering Code**	**T_A = 40 °C, IP22**				**Duty Cycle (10/60 s)**		**Duty Cycle (1/5 min)**		**Power Loss (kW)**	**Air Flow (m^3/h)**	**Frame**
			S_{N400V} (kVA)	**S_{N500V} (kVA)**	**I_{1N} (A)**	**I_{DC} (A)**	**I_{DCBase} (A)**	**I_{DCMax} (A)**	**I_{DCBase} (A)**	**I_{DCMax} (A)**			
500 V													
ACN 684 0175 5	230	10031231	140	175	202	247	148	317	148	289	0.88	370	B2
	115	10036828											
ACN 684 0250 5	230	10031257	200	250	289	354	212	455	212	414	1.25		
	115	10036861											
ACN 684 0375 5	230	10031273	300	375	433	530	318	795	318	700	1.88	770	B3
	115	10036909											
ACN 684 0525 5	230	10031290	420	525	606	742	445	1113	445	979	2.63		
	115	10036941											
ACN 684 0855 5	230	10036984	680	850	981	1202	721	1947	721	1406	4.25	1000	B4
	115	10037077											
ACN 684 1405 5	230	10037034	1120	1400	1617	1980	1188	3208	1188	2317	7.00		
	115	10037115											
ACN 684 2120 5	230/115*	10031338	1700	2120	2449	3000	1800	4860	1800	3798	10.60	1700	B5
ACN 684 2600 5	230/115*	10030056	1860	2475	2858	3500	2100	5670	2100	4431	12.38		
(Continued)													

Diode Supply Modules *(Continued)*												
Type	**Auxiliary Voltage (V AC)**	**Ordering Code**	**T_A = 40 °C, IP22**			**Duty Cycle (10/60 s)**		**Duty Cycle (1/5 min)**		**Power Loss (kW)**	**Air Flow (m^3/h)**	**Frame**
			S_{N690V} (kVA)	**I_{1N} (A)**	**I_{DC} (A)**	**I_{DCBase} (A)**	**I_{DCMax} (A)**	**I_{DCBase} (A)**	**I_{DCMax} (A)**			
690 V												
ACN 684 0090 6	230	10031371	90	75	92	55	118	55	108	0.45	370	B2
	115	10036801										
ACN 684 0175 6	230	10031397	175	146	179	107	230	107	209	0.88		
	115	10036844										
ACN 684 0250 6	230	10031419	250	209	256	154	329	154	300	1.25		
	115	10036887										
ACN 684 0375 6	230	10031435	375	314	384	230	576	230	507	1.88	770	B3
	115	10036925										
ACN 684 0525 6	230	10031451	525	439	538	323	807	323	710	2.63		
	115	10035066										
ACN 684 0855 6	230	10037018	850	711	871	523	1411	523	1019	4.25	1000	B4
	115	10037093										
ACN 684 1405 6	230	10037051	1400	1171	1435	861	2325	861	1679	7.00		
	115	10037131										
ACN 684 2600 6	230/115*	10030285	2600	2176	2664	1598	4316	1598	3373	13.00	1700	B5
ACN 684 3600 6	230/115*	10030234	3415	2858	3500	2100	5670	2100	4431	17.08		

*These modules include a 3-phase cooling fan powered from the mains supply (no auxiliary voltage required).

S_{N400V}, S_{N500V}, S_{N690V} = Nominal power at 400 V, 500 V and 690 V supply voltages respectively
I_{1N} = Total RMS input current (continuous AC current)
I_{DC} = Continuous DC current
I_{DCBase} = Maximum base current (60%I_{DC}) with I_{DCMax}
I_{DCMax} = Short-term DC overload current with I_{DCBase}
Duty Cycle; e.g. 10/60 s = I_{DCMax} for 10 seconds every 60 seconds

Input Fuses for Frame B1, B2 and B3 Diode Supply Units

Frame B1 to B3 supply units require input fuses. Applicable Bussmann types are listed below; equivalent fuses from other manufacturers can also be used.

Input (AC) Fuses for Frame B1, B2 and B3 Diode and Thyristor Supply Units

Supply Module Type	Ordering Code	Type	U_N (V)	I_N (A)	Size
ACN 684 0175 5	10029481	170M5806	660	315	2
ACN 684 0250 5	10012708	170M5810	660	500	2
ACN 684 0375 5	10003580	170M6812	660	800	3
ACN 684 0525 5	10030625	170M6814	690	1000	3
ACN 684 0090 6	10029511	170M5804	690	200	2
ACN 684 0175 6					
ACN 684 0250 6	10028582	170M3818	660	350	1
ACN 684 0375 6	10003555	170M5812	660	630	2
ACN 684 0525 6	10003580	170M6812	660	800	3

Thyristor Supply Modules

Frame B1, B2 and B3 (up to 525 kVA) thyristor supply modules contain two six-thyristor bridges in an antiparallel connection.

Frame B4 and B5 thyristor supply units contain two six-thyristor bridges i.e. supply modules. In this configuration, one of the bridges acts as the rectifying (alternatively called the *forward* or *motoring)* bridge, the other as the regenerative (or *generating)* bridge. Both bridges are controlled by one TSU control board, located in the rectifying bridge.

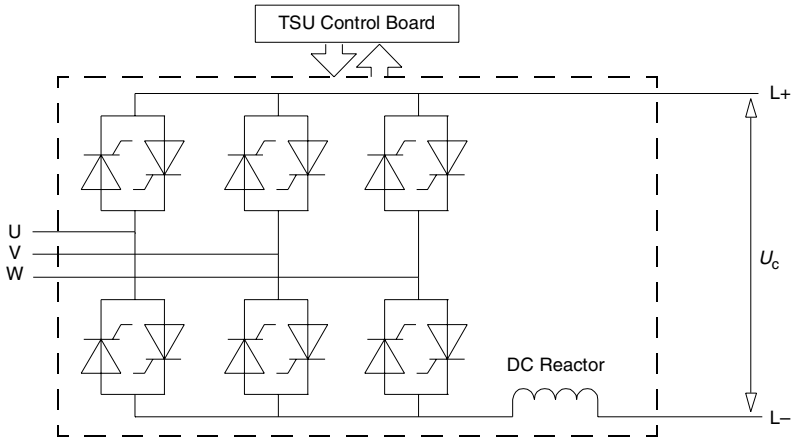


Figure 2-8 A thyristor supply module with integrated rectifying and regenerative bridges. This configuration is available for Frames B1, B2 and B3 (up to 525 kVA). Frame B4 and B5 supply units consist of two separate supply modules and a separate DC reactor.

The presence of the regenerative bridge eliminates the need for resistor braking equipment while simultaneously saving energy. Moreover, the rectifying and the regenerative bridges need not be the same size, thus the regenerative bridge can be dimensioned according to the braking power actually required.

Further Information Refer to the *Thyristor Supply Sections User's Manual* (3BFE 64170597 [English]).

Using an Autotransformer

The commutation ability of the regenerative thyristor bridge can be improved with an autotransformer connected as illustrated in Figure 2-9 below. The autotransformer boosts the regenerative bridge voltage by 20%. This improves commutation, gives better immunity to supply voltage dips, and makes it possible to retain the DC voltage level at 100% during braking.

It is generally recommended to use an autotransformer. It is especially useful when

- the supply line is weak
- the supply cables are long
- high braking power is required
- quick switching into braking mode is required.

The autotransformer connection is especially recommended for cranes, centrifuges, rolling mills, roller tables, winders etc.

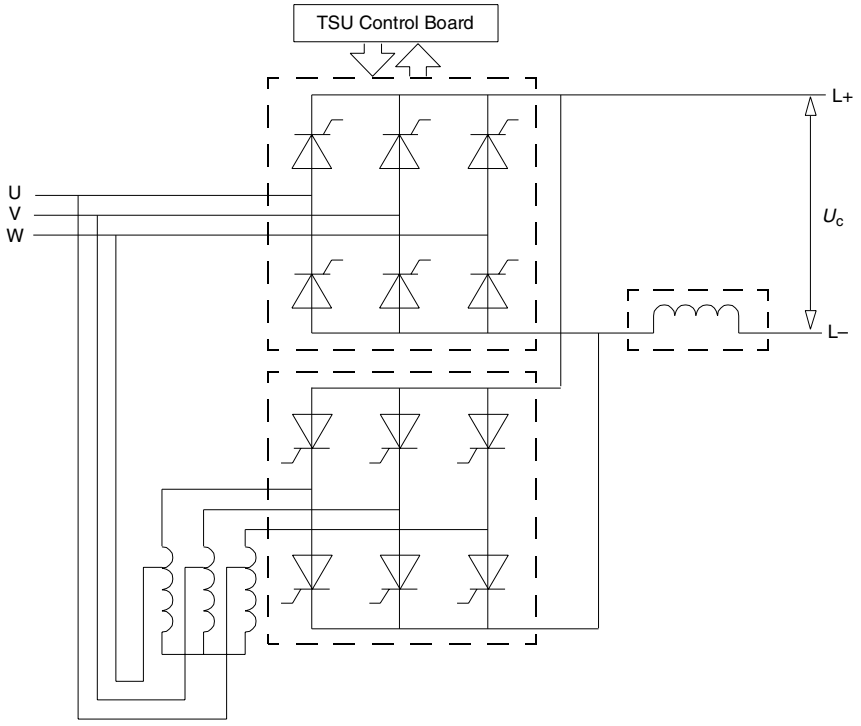


Figure 2-9 The connection of an autotransformer.

The technical requirements for the autotransformer are given under ***Thyristor Supply Modules – Technical Data*** later in this chapter.

Note that a higher-voltage regenerative bridge may have to be selected.

Nominal Supply Voltage	Rectifying Bridge Voltage Rating	Regenerative Bridge Voltage Rating for Use with Autotransformer
380…416 V	500 V	500 V
417…500 V	500 V	690 V
501…690 V	690 V	830 V

It should be noted that the nominal power of the regenerative bridge is lower at lower supply voltages. (The power is limited by the DC current.) For example, if a 3600 kVA/690 V regenerative bridge is used in a 500 V supply, its nominal power is 3600 kVA × 500 V / 690 V ≈ 2609 kVA.

AC Current Transformers

AC current transformers are necessary for the functionality of the thyristor supply unit. They are automatically included with a TSU delivery.

Control Electronics, Inputs and Outputs

All thyristor supply modules contain the necessary controller boards with the exception of digital I/O board SDCS-IOB-2x.

AMC-DC Communication Board

There are three fibre optic channels on the AMC-DC board. CH0 is used to control the supply unit from an overriding system (e.g. Advant Controller 80); CH2 is reserved; CH3 is used for PC (Drive*Window)* connection.

SDCS-CON-2 TSU Control Board

The SDCS-CON-2 board has a connector for a CDP 312 Control Panel. Refer to ***Man/Machine Interfaces*** in Chapter 3.

Digital I/O Board SDCS-IOB-2x

The SDCS-IOB-2x has 8 digital inputs and 8 digital outputs. The inputs are filtered and galvanically isolated. The inputs can form two galvanically separated groups (one is always earthed to the chassis).

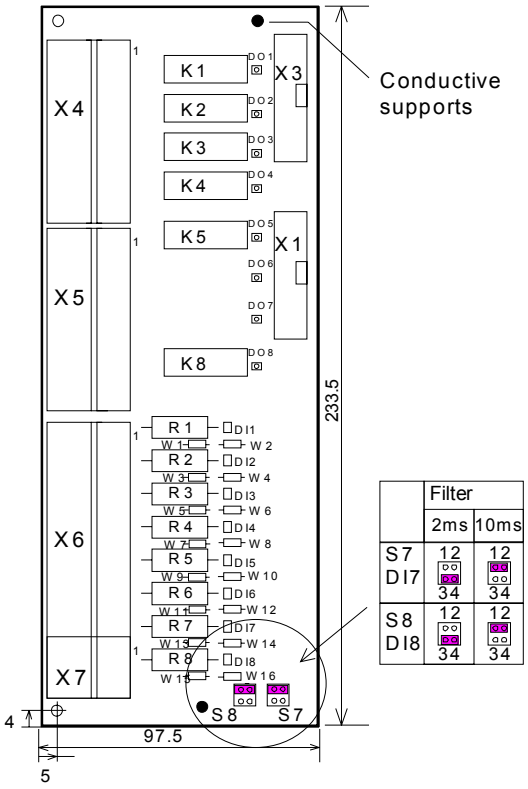


Figure 2-10 Layout of the digital I/O board SDCS-IOB-2x.

Digital I/O Board for Thyristor Supply Units		
Auxiliary Voltage (V AC)	**Ordering Code**	**Type**
230	64124340	SDCS-IOB-23
115	64124358	SDCS-IOB-22

The SDCS-IOB-22 kits contain a three-metre ribbon cable for connecting the board to the thyristor supply unit (SCDS-CON board).

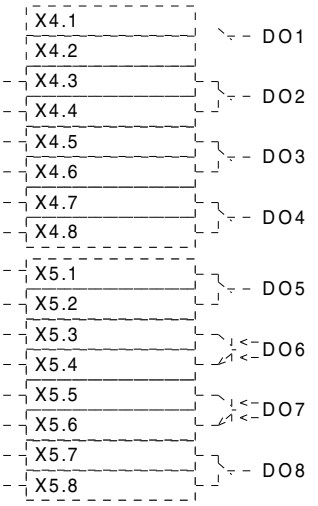
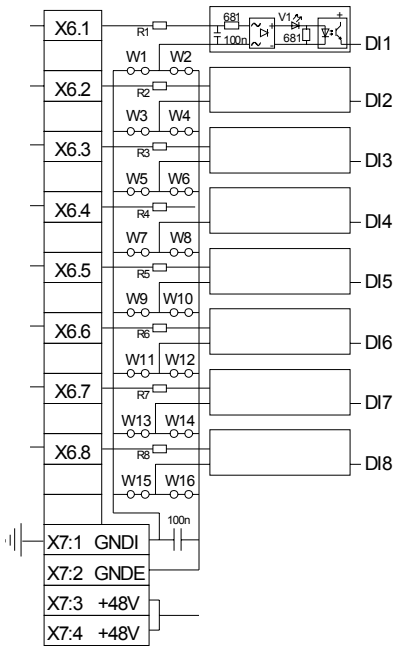
	Fan Control Ready Main Contactor Programmable Programmable Programmable Programmable Fault Indication	8 digital outputs Outputs DO1…5 and DO8 galvanically isolated with relays (contacts rated 250 V AC 3 A) Outputs DO6 and DO7 optocouplers (50 mA 48 V DC)
	Fan/Thermistor Supervision ON/OFF Control Main Contactor Supervision Earth Fault Detection 12-pulse Input Monitoring Reset Enable Regenerative Bridge (Programmable) Programmable High-frequency earthing capacitor (100 nF) Power supply 48 V 50 mA	8 digital inputs Input voltage: “1” = 115/230 V AC Filter time constant: DI1…6: 10 ms DI7 and DI8: Jumper-selectable, 10 or 2 ms

Figure 2-11 An example of the SDCS-IOB-2x terminal connections.

Thyristor Supply Modules – Technical Data

Input Voltage:

- 500 V units: 380…500 V ± 10%
- 690 V units: 525…690 V ± 10%
- 830 V units: 525…830 V ± 10%

Input Voltage Unbalance: ± 2% (EN 60204-1)

Input Frequency: 50/60 Hz ± 5%

Transformer Requirements for 12-pulse Supply:

- Connection: Dyn 11 d0
- Phase shift between secondaries: 30° electrical
- Voltage difference between secondaries: < 0.3%
- Short circuit impedance of secondaries: > 5%
- Short circuit impedance difference between secondaries: < 3%
- Static screen recommended

Dynamic df/dt: 17% / s

Output Voltage:

- 500 V units: 510…675 V ± 10% (1.35 × input voltage)
- 690 V units: 710…930 V ± 10% (1.35 × input voltage)
- 830 V units: 710…930 V ± 10%

In regenerative mode without autotransformer: 90% of above

Voltage Dip:

- Rectifying bridge: < 20%
- Regenerating bridge: < 10% (U_{DC} = 90%)
- Regenerating bridge: < 20% (U_{DC} = 100%, autotransformer)

Efficiency: > 0.99 (approx.; at I_{2N} and nominal input voltage)

Power Factor (cos φ_1): 0.97 (fundamental)

Power Factor (cos φ): 0.93…0.95 (total [U_{DC} = 100%])

Limits:

- Overvoltage Trip Limit: 130% of rated voltage
- Undervoltage Trip Limit: 80% of rated voltage
- Overcurrent Trip Limit: 230% of nominal current

Requirements for Autotransformer:

- Transformation Ratio: U_{2N}/U_{1N} = 1.20
- Short Circuit Impedance: < 1.5%

Degree of Protection: IP 00 (EN 60 529)

Insulation Class:

- Altitude up to 2000 m: Voltage category III (IEC 664-1)
- Altitude up to 4000 m: Voltage category I (IEC 664-1)

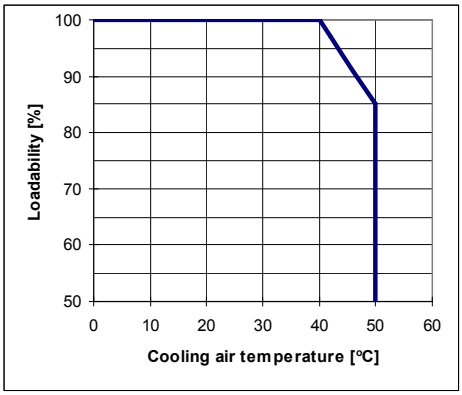
Vibration (IEC 68-2-6):

- Storage: ≤ 1.5 mm (2…9 Hz); ≤ 5 m/s^2 (9…200 Hz) (sinusoidal)
- Operation: ≤ 0.3 mm (2…9 Hz); ≤ 1 m/s^2 (9…200 Hz) (sinusoidal)

Cooling Method: Dry clean air

Ambient Temperature:

- Transportation: -40…+70 °C
- Storage: -40…+55 °C
- Operation: 0…+40 °C (see diagram below)



Relative Humidity:

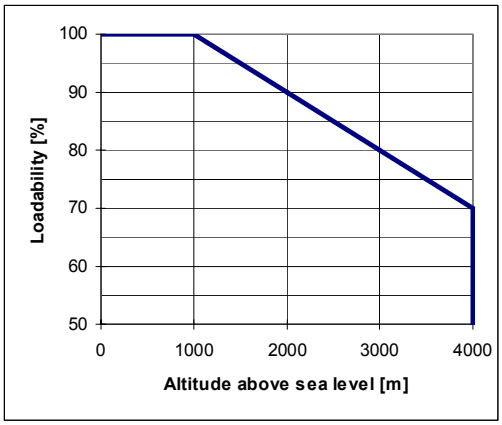
- Transportation: ≤ 95%
- Storage: < 95%, no condensation allowed
- Operation: 5…95%, no condensation allowed

Contamination Levels (IEC 721-3-3):

- Chemical gases: Class 3C1
- Solid particles: Class 3S2
- No conductive dust allowed

Installation Altitude and Derating:

- Altitude 0…1000 m above sea level: Derating not required
- Altitude 1000…2000 m above sea level: Derating required (see diagram below)
- Altitude 2000…4000 m above sea level: Derating required (see diagram below), varistors option required



Thyristor Supply Modules (Integrated rectifying and regenerating bridges)												
Type	**Auxiliary Voltage (V AC)**	**Ordering Code**	**T_A = 40 °C, IP22**			**Duty Cycle (10/60 s)**		**Duty Cycle (1/5 min)**		**Power Loss (kW)**	**Air Flow (m^3/h)**	**Frame**
			S_N (kVA)	**I_{1N} (A)**	**I_{DC} (A)**	**I_{DCBase} (A)**	**I_{DCMax} (A)**	**I_{DCBase} (A)**	**I_{DCMax} (A)**			
500 V												
ACN 674 0016 5	230**	64147013	16	18	22	13	28	13	26	0.08	150	B1
ACN 674 0032 5	230**	64147021	32	37	45	27	58	27	53	0.16		
ACN 674 0047 5	230**	64147030	47	55	67	40	86	40	78	0.24		
ACN 674 0088 5	230**	64147048	88	102	125	75	161	75	146	0.44		
ACN 674 0175 5	230	64147099	175	202	247	148	317	148	289	0.88	370	B2
	115	64147102										
ACN 674 0250 5	230	64147161	250	289	354	212	455	212	414	1.25		
	115	64147170										
ACN 674 0375 5	230	64147200	375	433	530	318	795	318	700	1.88	770	B3
	115	64147218										
ACN 674 0525 5	230	64147242	525	606	742	445	1113	445	979	2.63		
	115	64147251										
690 V												
ACN 674 0090 6	230	64147137	90	75	92	55	118	55	108	0.45	370	B2
	115	64147081										
ACN 674 0175 6	230	64147111	175	146	179	107	230	107	209	0.88		
	115	64147145										
ACN 674 0250 6	230	64147188	250	209	256	154	329	154	300	1.25		
	115	64147196										
ACN 674 0375 6	230	64147226	375	314	384	230	576	230	507	1.88	770	B3
	115	64147234										
ACN 674 0525 6	230	64147269	525	439	538	323	807	323	710	2.63		
	115	64147277										

Thyristor Supply Modules (Rectifying bridge only)												
Type	**Auxiliary Voltage (V AC)**	**Ordering Code**	**T_A = 40 °C, IP22**			**Duty Cycle (10/60 s)**		**Duty Cycle (1/5 min)**		**Power Loss (kW)**	**Air Flow (m^3/h)**	**Frame**
			S_N (kVA)	**I_{1N} (A)**	**I_{DC} (A)**	**I_{DCBase} (A)**	**I_{DCMax} (A)**	**I_{DCBase} (A)**	**I_{DCMax} (A)**			
500 V												
ACN 654 0250 5	230	64146181	250	289	354	212	455	212	414	1.25	370	B2
	115	64146190										
ACN 654 0525 5	230	64146271	525	606	742	445	1113	445	979	2.63	770	B3
	115	64146289										
ACN 654 0855 5	230	64146327	850	981	1202	721	1947	721	1406	4.25	1000	B4
	115	64146335										
ACN 654 1405 5	230	64146360	1400	1617	1980	1188	3208	1188	2317	7.00		
	115	64146378										
ACN 654 2120 5	230/115*	64146432	2120	2449	3000	1800	4860	1800	3798	10.60	1700	B5
ACN 654 2600 5	230/115*	64146441	2475	2858	3500	2100	5670	2100	4431	12.38		
690 V												
ACN 654 0855 6	230	64146343	850	711	871	523	1411	523	1019	4.25	1000	B4
	115	64146351										
ACN 654 1405 6	230	64146386	3100	2156	2640	1584	4277	1584	3342	15.50		
	115	64146394										
ACN 654 2600 6	230/115*	64146459	2600	2176	2664	1598	4316	1598	3373	13.00	1700	B5
ACN 654 3600 6	230/115*	64146483	3415	2858	3500	2100	5670	2100	4431	17.08		
830 V												
ACN 654 1685 8	230	64146408	1680	1169	1432	859	2320	859	1675	8.40	1000	B4
	115	64146424										
ACN 654 3100 8	230/115***	64146467	3100	2156	2640	1584	4277	1584	3342	15.50	1700	B5
ACN 654 3520 8	230/115***	64146475	3520	2449	3000	1800	4860	1800	3798	17.60		
ACN 654 4310 8	230/115***	64146491	4110	2858	3500	2100	5670	2100	4431	20.55		

Thyristor Supply Modules (Regenerative bridge only)												
Type	**Auxiliary Voltage (V AC)**	**Ordering Code**	**T_A = 40 °C, IP22**			**Duty Cycle (10/60 s)**		**Duty Cycle (1/5 min)**		**Power Loss (kW)**	**Air Flow (m^3/h)**	**Frame**
			S_N (kVA)	**I_{1N} (A)**	**I_{DC} (A)**	**I_{DCBase} (A)**	**I_{DCMax} (A)**	**I_{DCBase} (A)**	**I_{DCMax} (A)**			
500 V												
ACN 664 0855 5	230	10036330	850	981	1202	721	1947	721	1406	4.25	1000	B4
	115	10036437										
ACN 664 1405 5	230	10036356	1400	1617	1980	1188	3208	1188	2317	7.00		
	115	10036453										
ACN 664 2120 5	230/115*	10031664	2120	2449	3000	1800	4860	1800	3798	10.60	1700	B5
ACN 664 2600 5	230/115*	10030102	2475	2858	3500	2100	5670	2100	4431	12.38		
690 V												
ACN 664 0855 6	230	10036348	850	711	871	523	1411	523	1019	4.25	1000	B4
	115	10036445										
ACN 664 1405 6	230	10036364	3100	2156	2640	1584	4277	1584	3342	15.50		
	115	10036461										
ACN 664 2600 6	230/115*	10031826	2600	2176	2664	1598	4316	1598	3373	13.00	1700	B5
ACN 664 3600 6	230/115*	10030030	3415	2858	3500	2100	5670	2100	4431	17.08		
830 V												
ACN 664 1685 8	230	10036372	1680	1169	1432	859	2320	859	1675	8.40	1000	B4
	115	10036470										
ACN 664 3100 8	230/115***	10033136	3100	2156	2640	1584	4277	1584	3342	15.50	1700	B5
ACN 664 3520 8	230/115***	10033161	3520	2449	3000	1800	4860	1800	3798	17.60		
ACN 664 4310 8	230/115***	10033195	4110	2858	3500	2100	5670	2100	4431	20.55		

* These modules include a 3-phase cooling fan powered from the mains supply.
** Not available for 115 V.
*** The cooling fans must be powered from a 3-phase 380…500 V external supply.

I_{1N} = Total RMS input current (continuous AC current)
I_{DC} = Continuous DC current
I_{DCBase} = Maximum base current (60%I_{DC}) with I_{DCMax}
I_{DCMax} = Short-term DC overload current with I_{DCBase}
Duty Cycle; e.g. 10/60 s = I_{DCMax} for 10 seconds every 60 seconds

Input Fuses for Frame B1, B2 and B3 Thyristor Supply Units

Frame B1 to B3 supply units require input fuses. Suitable Bussmann types are listed below; equivalent fuses from other manufacturers can also be used.

Input (AC) Fuses for Frame B1, B2 and B3 Diode and Thyristor Supply Units

Supply Module Type	Ordering Code	Type	U_N (V)	I_N (A)	Size
ACN 674 0016 5	09838767	170M1564	660	50	000
ACN 674 0032 5	09838791	170M1566	660	80	000
ACN 674 0047 5	10012686	170M1568	660	125	000
ACN 674 0088 5	10003521	170M1569	660	160	000
ACN 674 0175 5	10029481	170M5806	660	315	2
ACN 674 0250 5	10029520	170M5371	660	450	2SHT
ACN 674 0375 5	10029538	170M6206	660	700	3SHT
ACN 674 0525 5	10029490	170M6207	660	900	3SHT
ACN 674 0090 6	10001731	170M4700	1250	200	1SHT
ACN 674 0175 6					
ACN 674 0250 6	10001749	170M5403	1250	315	2SHT
ACN 674 0375 6	10001757	170M5404	1250	400	2SHT
ACN 674 0525 6	10001773	170M6205	1250	630	3SHT

Output Fuses for Frame B1, B2 and B3 Thyristor Supply Units

Frame B1 to B3 thyristor supply units require an output DC fuse on the negative bus. Suitable Bussmann types are listed below. Fuses from other manufacturers can also be used if they meet the ratings given in the table.

Output (DC) Fuses for Frame B1, B2 and B3 Thyristor Supply Units

Supply Module Type	Ordering Code	Type	U_N (V)	I_N (A)	Size
ACN 674 0016 5	10035457	170M4722	1250	63	1
ACN 674 0032 5					
ACN 674 0047 5	10035465	170M4724	1250	100	1
ACN 674 0088 5	10012554	170M4699	1250	160	1
ACN 674 0175 5	10032849	170M5140	1250	315	2
ACN 674 0250 5	10028183	170M5142	1250	400	2
ACN 674 0375 5	10028191	170M5146	1250	630	2
ACN 674 0525 5	10032857	170M5148	1250	800	2
ACN 674 0090 6	10032865	170M4139	1250	200	1
ACN 674 0175 6					
ACN 674 0250 6	10032849	170M5140	1250	315	2
ACN 674 0375 6	10028183	170M5142	1250	400	2
ACN 674 0525 6	10028191	170M5146	1250	630	2

Line (RFI) Filter for Diode Supply Units

A line filter can be used in order to minimise the RFI emission of the drive and to comply with the EN 50081-2 and EN 50082-2 standards in an industrial environment.

Note: It is NOT allowed to use a line filter with a thyristor or IGBT supply unit, or in a “floating” or unearthed (IT) supply network.

In an unearthed supply network, a dedicated transformer with a static screen between the primary and secondary can be used instead.

The following line filters are available as ACS 600 MultiDrive Modules components:

Line Filters for Diode Supply Units

Type	Rated Current (A)	Rated Voltage (V)	Ordering Code	Power Loss (W)	Dimensions				Connections		Fixing Points
					Height (mm)	Width (mm)	Depth (mm)	Weight (kg)	Max. Cable Size (mm^2)	Hole Diameter (mm)	
B84143-A50-R37	50	690	10033764	10*	216	156	140	6.0	10	–	4 × Ø6.6 mm
B84143-A80-R37	80	690	10031893	10*	300	171	141	10.5	25	–	4 × Ø6.6 mm
B84143-B150-S21	150	760	10031907	10	330	170	140	15.5	3 × 20	9	4 × Ø6.6 mm
B84143-B320-S21	320	760	10031915	30*	392	260	115	21.0	5 × 30	11	6 × Ø12 mm
B84143-B600-S21	600	760	10031923	57	442.5	260	115	22.0	5 × 30	11	6 × Ø12 mm
B84143-B1000-S21	1000	760	10031931	100	462.5	300	165	28.0	8 × 40	14	6 × Ø12 mm

*Estimated

DC Reactors for Frame B4 and B5 Diode and Thyristor Supply Modules

Diode and thyristor supply modules of Frame B1, B2 and B3 have internal DC reactors. Frames B4 and B5 require an external DC reactor. The table below lists the reactor modules available. These reactor modules contain an internal cooling fan that has to be supplied with 115 or 230 V AC.

DC Reactors for Frame B4 and B5 Diode and Thyristor Supply Units

Supply Module Frame	Auxiliary Voltage (V AC)	Ordering Code	I_N (A)	L (µH)	Power Loss (kW)	Air Flow (m^3/h)
B4	230	61332341	1980	55	2.2	600
	115	61444769				
B5	230	61332448	3690	30	5.4	700
	115	61444777				

Spare Branch Fuses for Frame B4 and B5 Diode and Thyristor Supply Modules

Frame B4 to B5 diode and thyristor supply modules employ internal branch fuses instead of input or output fuses. The branch fuses are always included in the delivery. Spare branch fuses are available as detailed in the table below. The table lists the applicable Bussmann types. Fuses from other manufacturers can also be used if they meet the ratings given in the table.

Spare Branch Fuses for Frame B4 and B5 Diode and Thyristor Supply Modules

Supply Module Type	Ordering Code	Type	U_N (V)	I_N (A)	Size
ACN 654 0855 5 ACN 664 0855 5 ACN 684 0855 5	10032610	170M6163	660	900	3/110
ACN 654 1405 5 ACN 664 1405 5 ACN 684 1405 5	10032628	170M6168	660	1500	3/110
ACN 654 2120 5 ACN 664 2120 5 ACN 684 2120 5	10032628 (2 in parallel per branch)				
ACN 654 2600 5 ACN 664 2600 5 ACN 684 2600 5					
ACN 654 0855 6 ACN 664 0855 6 ACN 684 0855 6	09838872	170M6144	1250	630	3/110
ACN 654 1405 6 ACN 664 1405 6 ACN 684 1405 6	10032636	170M6149	1250	1100	3/110
ACN 654 2600 6 ACN 664 2600 6 ACN 684 2600 6	10032636 (2 in parallel per branch)				
ACN 654 3600 6 ACN 664 3600 6 ACN 684 3600 6	10032644 (2 in parallel per branch)	170M6151	1110	1400	3/110
ACN 654 1685 8 ACN 664 1685 8	10032636	170M6149	1250	1100	3/110
ACN 654 3100 8 ACN 664 3100 8	10032636 (2 in parallel per branch)				
ACN 654 3520 8 ACN 664 3520 8	10032644 (2 in parallel per branch)	170M6151	1110	1400	3/110
ACN 654 4310 8 ACN 664 4310 8					

IGBT Supply Modules

An IGBT supply module consists of six insulated gate bipolar transistors (IGBTs) with free-wheeling diodes and DC capacitors. IGBTs and supply modules are connected in parallel in larger frame sizes to achieve higher power.

The hardware of an IGBT supply module is the same as that of an inverter module. One NDCU Drive Control Unit, running the IGBT Supply Unit Control Program, controls the supply module.

IGBT supply modules are also available with coated circuit boards (to be specified upon ordering).

Figure 2-12 shows the basic configuration of an IGBT supply unit. More detailed diagrams are included in Appendix B.

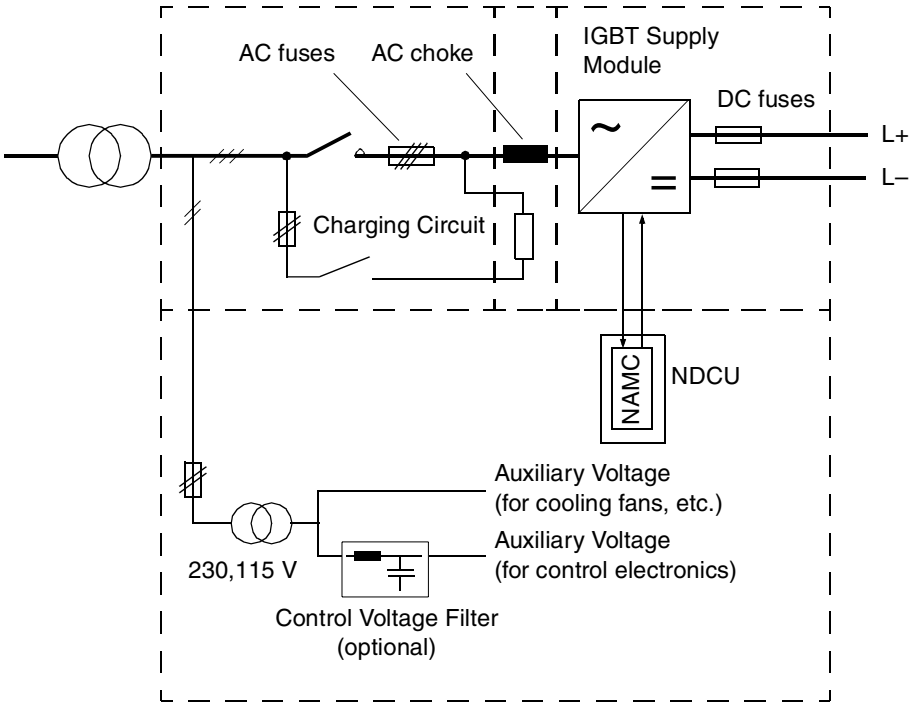


Figure 2-12 The basic configuration of an IGBT supply unit.

Larger IGBT supply units are constructed from parallel-connected IGBT modules as shown in Figure 2-13. One NDCU unit controls all the modules through an NPBU optical branching unit.

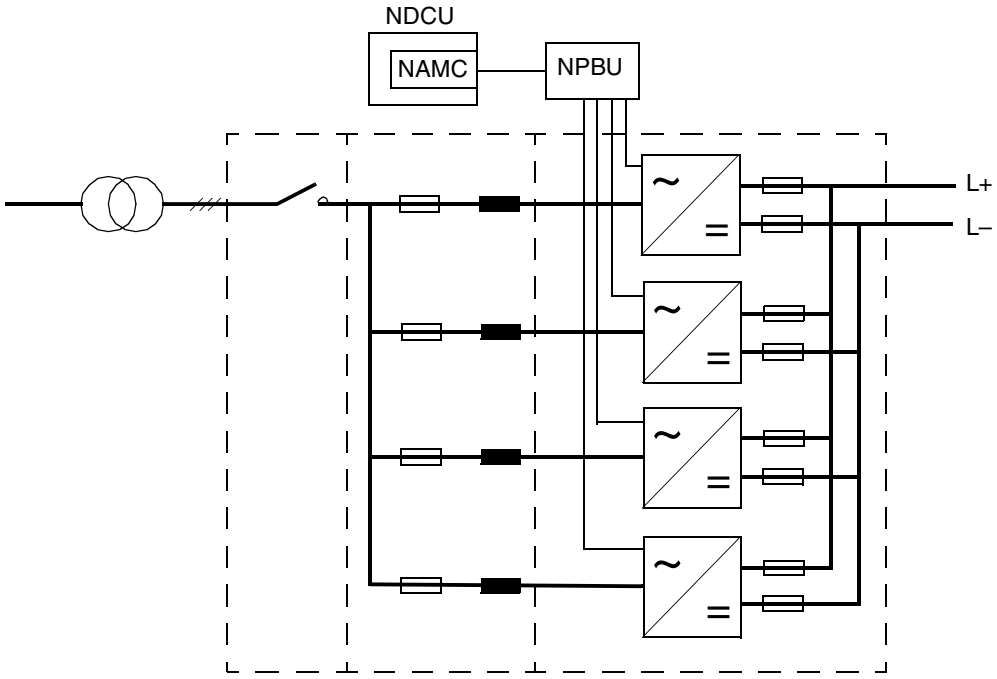


Figure 2-13 Parallel-connected IGBT supply modules.

Further Information Refer to the *IGBT Supply Sections User's Manual* (3BFE 64013700 [English]).

Control Electronics, Inputs and Outputs

The IGBT supply unit is controlled by an NDCU-21 or NDCU-22 control unit containing the NAMC (Application and Motor Controller) and NIOC (Input/Output) boards.

The NDCU-21 and NDCU-22 are identical except for the optical component type of fibre optic channel CH0: NDCU-21 has a 10 MBd transmitter and receiver while the NDCU-22 has 5 MBd. This is only important when using an overriding controller on Channel CH0 with the ISU, as the optical components must be of the same type at each end of the link. As a rule of thumb, use an NDCU-21 when the supply unit is to be controlled by an Advant Controller (AC) 80; use an NDCU-22 with a fieldbus adapter.

The boards of the NDCU are coated. Dimensional drawings of the NDCU units are presented in Appendix A.

ISU Control Unit Hardware		
Type	**Ordering Code**	**Boards Included**
NDCU-21C (Coated)	64009095	NAMC-21C and NIOC-01C
NDCU-22C (Coated)	64009125	NAMC-22C and NIOC-01C

IGBT Supply Unit Control Program	
Application Program	**Ordering Code**
ISU Control Program	64157540

Optical (PPCS) Branching Unit for IGBT Supply Modules *(Frames 2×R11i, 2×R12i, 4×R11i and 4×R12i only)*	
Type	**Ordering Code**
NPBU-42	63985287
NPBU-42C (Coated)	64011821

NIOC Board Connections External control connections for the IGBT Supply Unit on the NIOC board are shown below.

Cross-sectional areas accepted by terminal blocks:
X21, X22: 0.5 to 1.5 mm^2
X23, X25, X26, X27: 0.5 to 2.5 mm^2

NIOC Board — **Factory Settings**

X21 — **Programmable**

1	VREF	Reference voltage 10 V DC
2	GND	1 kΩ ≤ R_L ≤ 10 kΩ
3	AI1+	By default, not in use. 0(2) ... 10 V
4	AI1-	R_{in} > 200 kΩ
5	AI2+	By default, not in use.
6	AI2-	0(4) ... 20 mA, R_{in} = 100 Ω
7	AI3+	By default, not in use.
8	AI3-	0(4) ... 20 mA, R_{in} = 100 Ω
9	AO1+	By default, not in use.
10	AO1-	0(4) ... 20 mA, R_{in} = 100 Ω
11	AO2+	By default, not in use.
12	AO2-	0(4) ... 20 mA, R_{in} = 100 Ω

X22 — **Fixed**

1	DI1	Acknowledgement of converter fan
2	DI2	Stop/Start
3	DI3	Acknowledgement of main contactor
4	DI4	Earth fault
5	DI5	External fault input
6	DI6	Reset
7	+24V	+24 V DC max. 100 mA
8	+24V	
9	DGND	Digital Ground

X23 — **Fixed**

1	+24 V	Auxiliary voltage output, non-isolated,
2	GND	24 V DC 250 mA

X25 — **Fixed**

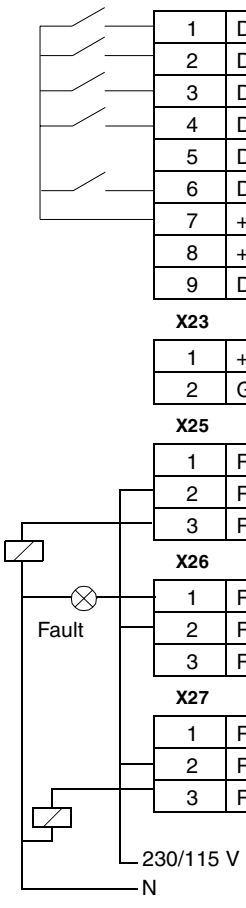
1	RO11	Relay output 1
2	RO12	Charging contactor control
3	RO13	

X26 — **Fixed**

1	RO21	
2	RO22	Relay output 2
3	RO23	Fault (-1)

X27 — **Fixed**

1	RO31	Relay output 3
2	RO32	Main contactor control
3	RO33	



IGBT Supply Modules – Technical Data

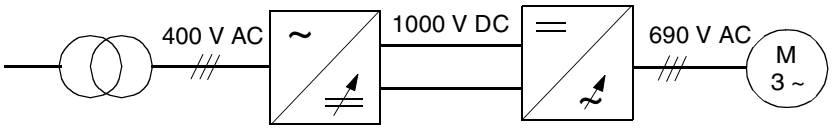
Input Voltage:

- 380/400/415 V AC 3-phase for 415 V AC units
- 380/400/415/440/460/480/500 V AC 3-phase for 500 V AC units
- 525/550/575/600/660/690 V AC 3-phase for 690 V AC units

A variation in voltage of –40 … +10% is allowable.

An IGBT supply unit can raise the voltage through a parameter setting.

Example: With a supply voltage of 400 V and an intermediate voltage of 1000 V DC, it is possible to drive a 690 V motor with the nominal motor voltage. (It should be noted that the inverter module must be rated for 690 V.)



Input Voltage Unbalance: ± 3% of nominal phase-to-phase input voltage

Input Frequency: 50/60 Hz ± 2 Hz

Supply Transformer Power Requirement:

$S_{transformer} \geq 1.11 \times S_{N\_ISU}$

Voltage Dip: Max. 15%

Efficiency: 97% at nominal power

Power Factor:

- cos φ1 = 1.00 (fundamental at nominal load)
- λ = I1/Irms · cos φ1 > 0.98 (total)

where
λ is power factor, I_1 is fundamental rms input current,
I_{rms} is total rms input current.

Switching Frequency: 2 kHz (average)

Harmonic Distortion: The table below indicates Total Harmonic Distortion (THD) at L = 20%. See also section *AC Chokes for IGBT Supply Units* on page 2-42.

THD Voltage (%)	**THD** Current (%)	R_{sc}
8	4	20
2	4	100

Total Harmonic Distortion (THD):

$$THD = \sqrt{\sum_{2}^{40}\left(\frac{I_n}{I_1}\right)^2}$$

I_n n[th] harmonic component

I_1 fundamental current

THD equals the ratio of the rms value of the harmonics (n = 2...40) to the rms value of the fundamental. THD is related to the short-circuit ratio. The spectrum of the distortion also contains interharmonics.

The ratio of the short-circuit power of the supply network (source) to the fundamental apparent power of the IGBT supply unit at point of common coupling can be presented as

$R_{sc} = S_{cc}/S_{equ}$

where

S_{cc} = short-circuit power at point of common coupling (PCC),

S_{equ} = apparent power of the equipment calculated using rated rms line current.

Limits: The default limits shown below can be adjusted through parameters.

- Overvoltage Trip Limit: 740 V DC (400 V units); 891 V DC (500 V units); 1230 V DC (690 V units)
- Undervoltage Trip Limit: 293 V DC (400 V units); 354 V DC (500 V units); 488 V DC (690 V units)
- Overcurrent Trip Limit: 190% of nominal current I_{1N}

Degree of Protection: IP 00 (EN 60 529)

Insulation Class:

- Altitude up to 2000 m: Voltage category III (IEC 664-1)
- Altitude up to 4000 m: Voltage category I (IEC 664-1)

Vibration (IEC 68-2-6):

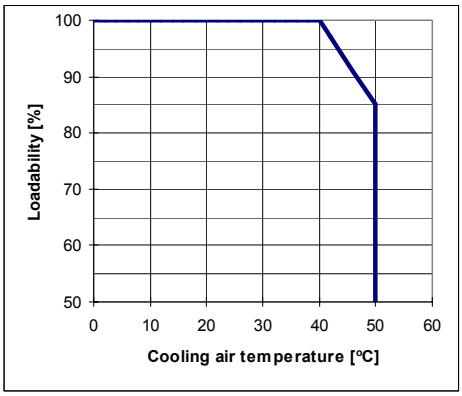
- Storage: ≤ 1.5 mm (2…9 Hz); ≤ 5 m/s^2 (9…200 Hz) (sinusoidal)
- Operation: ≤ 0.3 mm (2…9 Hz); ≤ 1 m/s^2 (9…200 Hz) (sinusoidal)

Cooling Method: Dry clean air

Ambient Temperature:

- Transportation: -40…+70 °C
- Storage: -40…+55 °C

- Operation: 0…+40 °C (see diagram below)



Relative Humidity:

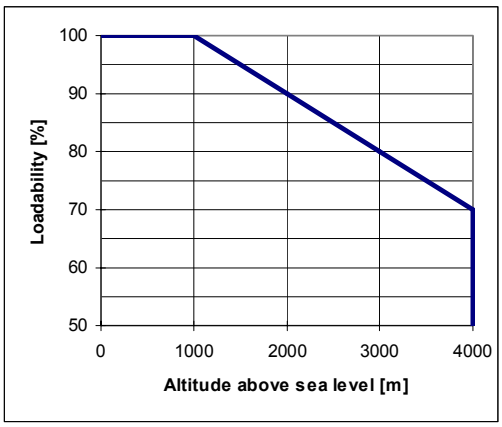
- Transportation: ≤ 95%
- Storage: < 95%, no condensation allowed
- Operation: 5…95%, no condensation allowed

Contamination Levels (IEC 721-3-3):

- Chemical gases: Class 3C1
- Solid particles: Class 3S2
- No conductive dust allowed

Installation Altitude and Derating:

- Altitude 0…1000 m above sea level: Derating not required
- Altitude 1000…2000 m above sea level: Derating required (see diagram below)
- Altitude 2000…4000 m above sea level: Derating required (see diagram below), varistors option required



IGBT Supply Modules														
Type	**Ordering Code***	**T_A = 40 °C, IP22**				**Duty Cycle (10/60 s)**		**Duty Cycle (1/5 min)**		**Power Loss (kW)**	**Noise Level (dBA)**	**Air Flow (m^3/h)**	**DC Capaci-tance (mF)**	**Frame**
		S_N (kVA)	**I_{1N} (A)**	**I_{2N} (A)**	**P_{2N} (kW)**	**I_{1Base} (A)**	**I_{1Max} (A)**	**I_{1Base} (A)**	**I_{1Max} (A)**					
400 V														
ACN 634 0060 3	64118561	60	89	103	58	76	152	76	114	1.8	68	960	2.35	R6i
ACN 634 0070 3	64118641	70	112	120	68	89	178	89	134	2.1	68	960	2.35	
ACN 634 0100 3	64118722	100	147	171	97	112	224	112	168	3.0	68	960	3.30	R7i
ACN 634 0120 3	64118765	120	178	206	116	147	294	147	221	3.6	68	960	4.70	
ACN 634 0185 3	64120786	180	259	309	175	178	356	194	291	5.4	68	2300	4.95	R8i
ACN 634 0225 3	64120859	220	312	377	213	216	432	234	351	6.6	68	2300	6.60	
ACN 634 0265 3	64120905	260	379	449	254	260	520	284	426	7.8	62	2300	9.40	
ACN 634 0335 3	64120999	330	474	566	320	316	632	356	533	10.0	68	2300	9.40	R9i
ACN 634 0405 3	64121073	400	576	682	386	395	790	432	684	12.0	62	2300	11.75	
ACN 634 0505 3	64123564	500	720	852	482	494	988	540	810	15.0	67	4650	14.10	R10i
ACN 634 0635 3	64124030	585	834	1003	567	552	1106	625	938	19.0	67	4650	21.15	R11i
ACN 634 0755 3	64124374	697	1006	1190	673	691	1384	755	1132	20.9	67	4650	21.15	
ACN 634 0935 3	61454942	859	1229	1473	833	829	1658	922	1383	25.8	70	6200	28.20	R12i
ACN 634 1125 3	61434151	1035	1494	1768	1000	1036	2072	1121	1681	31.1	70	6200	35.25	
ACN 634 1445 3	64124501	1325	1913	2263	1280	1381	2762	1434	2152	39.8	70	9300	42.30	2×R11i
ACN 634 1775 3	61454951	1626	2353	2788	1577	1657	3313	1766	2647	48.9	72	12400	56.40	2×R12i
ACN 634 2145 3	61454969	1966	2838	3359	1900	2072	4144	2129	3193	59.0	72	12400	70.50	
ACN 634 2820 3	64124561	2594	3744	4430	2506	2762	5524	2809	4212	77.8	73	18600	84.60	4×R11i
(Continued)														

IGBT Supply Modules *(Continued)*														
Type	**Ordering Code***	**T_A = 40 °C, IP22**				**Duty Cycle (10/60 s)**		**Duty Cycle (1/5 min)**		**Power Loss (kW)**	**Noise Level (dBA)**	**Air Flow (m^3/h)**	**DC Capacitance (mF)**	**Frame**
		S_N (kVA)	**I_{1N} (A)**	**I_{2N} (A)**	**P_{2N} (kW)**	**I_{1Base} (A)**	**I_{1Max} (A)**	**I_{1Base} (A)**	**I_{1Max} (A)**					
500 V														
ACN 634 0070 5	64119508	70	84	96	68	65	130	65	98	2.1	68	960	2.27	R6i
ACN 634 0100 5	64119541	100	112	137	97	84	168	84	126	3.0	68	960	2.27	
ACN 634 0120 5	64119591	120	135	165	116	112	224	112	168	3.6	68	960	4.53	R7i
ACN 634 0140 5	64119630	140	164	192	136	135	270	135	203	4.2	68	960	4.53	
ACN 634 0215 5	64121791	210	246	288	204	164	328	185	278	6.3	62	2300	4.53	R8i
ACN 634 0255 5	64121847	250	295	343	243	200	400	221	332	7.5	62	2300	6.80	
ACN 634 0325 5	64121880	320	368	436	308	240	480	276	414	9.6	62	2300	6.80	
ACN 634 0395 5	64121928	390	448	535	378	300	600	336	504	11.7	62	2300	9.07	R9i
ACN 634 0495 5	64121961	490	565	669	473	365	730	424	636	14.7	62	2300	11.33	
ACN 634 0615 5	64124790	610	700	829	586	456	912	525	788	18.3	67	4650	13.60	R10i
ACN 634 0775 5	64125001	708	816	971	687	524	1049	612	918	21.3	67	4650	20.40	R11i
ACN 634 0925 5	64125281	855	987	1168	826	638	1277	741	1111	25.7	67	4650	20.40	
ACN 634 1095 5	61455019	1003	1162	1376	973	787	1574	871	1307	30.1	70	6200	27.20	R12i
ACN 634 1385 5	61434160	1270	1466	1735	1227	957	1914	1099	1649	38.1	70	6200	34.00	
ACN 634 1765 5	64125681	1625	1876	2220	1570	1276	2552	1407	2110	48.8	70	9300	40.80	2×R11i
ACN 634 2165 5	61455027	1988	2301	2727	1928	1574	3146	1726	2589	59.6	72	12400	54.40	2×R12i
ACN 634 2625 5	61455035	2411	2784	3294	2329	1915	3829	2088	3133	72.3	72	12400	68.00	
ACN 634 3450 5	64125842	3181	3673	4346	3073	2552	5104	2754	4132	95.4	73	18600	81.60	4×R11i
(Continued)														

IGBT Supply Modules *(Continued)*														
Type	**Ordering Code***	**T_A = 40 °C, IP22**				**Duty Cycle (10/60 s)**		**Duty Cycle (1/5 min)**		**Power Loss (kW)**	**Noise Level (dBA)**	**Air Flow (m^3/h)**	**DC Capaci-tance (mF)**	**Frame**
		S_N (kVA)	**I_{1N} (A)**	**I_{2N} (A)**	**P_{2N} (kW)**	**I_{1Base} (A)**	**I_{1Max} (A)**	**I_{1Base} (A)**	**I_{1Max} (A)**					
690 V														
ACN 634 0060 6	64120344	60	52	60	58	44	88	44	66	1.8	68	960	1.57	R6i
ACN 634 0070 6	64120395	70	65	70	68	52	104	52	78	2.1	68	960	1.57	
ACN 634 0100 6	64120433	100	88	99	97	65	130	65	98	3.0	68	960	2.20	R7i
ACN 634 0120 6	64120484	120	105	119	116	88	176	88	132	3.6	68	960	2.20	
ACN 634 0185 6	64122011	180	149	179	175	106	212	112	168	5.4	62	2300	3.13	R8i
ACN 634 0205 6	64125851	210	176	209	204	127	254	132	198	6.3	62	2300	3.13	
ACN 634 0255 6	64125893	250	210	249	243	150	300	158	236	7.5	62	2300	4.70	
ACN 634 0315 6	64125931	310	264	313	305	179	358	198	297	9.3	62	2300	4.70	
ACN 634 0375 6	64125974	370	310	368	359	225	450	233	349	11.1	62	2300	6.27	R9i
ACN 634 0485 6	64126016	490	410	485	473	265	530	308	461	14.7	62	2300	7.83	
ACN 634 0605 6	64126491	600	502	594	580	340	680	377	565	18.0	67	4650	9.40	R10i
ACN 634 0755 6	64126679	693	580	689	672	394	787	435	652	22.5	67	4650	14.10	R11i
ACN 634 0905 6	64126776	831	695	822	802	464	927	521	781	24.9	67	4650	14.10	
ACN 634 1045 6	61455086	958	804	952	929	590	1179	604	904	37.6	70	6200	18.80	R12i
ACN 634 1385 6	61434178	1271	1064	1259	1229	695	1389	798	1196	38.1	70	6200	23.50	
ACN 634 1715 6	64127152	1578	1320	1562	1524	926	1853	990	1485	47.3	70	9300	28.20	2×R11i
ACN 634 2125 6	61455094	1954	1635	1942	1895	1180	2361	1226	1840	63.6	72	12400	37.60	2×R12i
ACN 634 2545 6	61455108	2341	1959	2318	2262	1390	2780	1469	2204	70.2	72	12400	47.00	
ACN 634 3350 6	64127217	3088	2584	3058	2984	1853	3706	1938	2907	92.6	73	18600	56.40	4×R11i
ACN 634 5140 6	61455124	4728	3956	4681	4568	2778	5557	2967	4451	141.8	73	24800	94.00	4×R12i

*This is the ordering code for units with non-coated boards. Specify coated-boards option upon ordering if required.
I_{1N} = Total RMS input current (continuous AC current)
I_{2N} = Nominal DC current
I_{1Base} = Maximum base current (60%I_1) with I_{1Max}
I_{1Max} = Short-term AC overload current with I_{1Base}
Duty Cycle; e.g. 10/60 s = I_{1Max} for 10 seconds every 60 seconds

Cooling Fans for IGBT Supply Modules

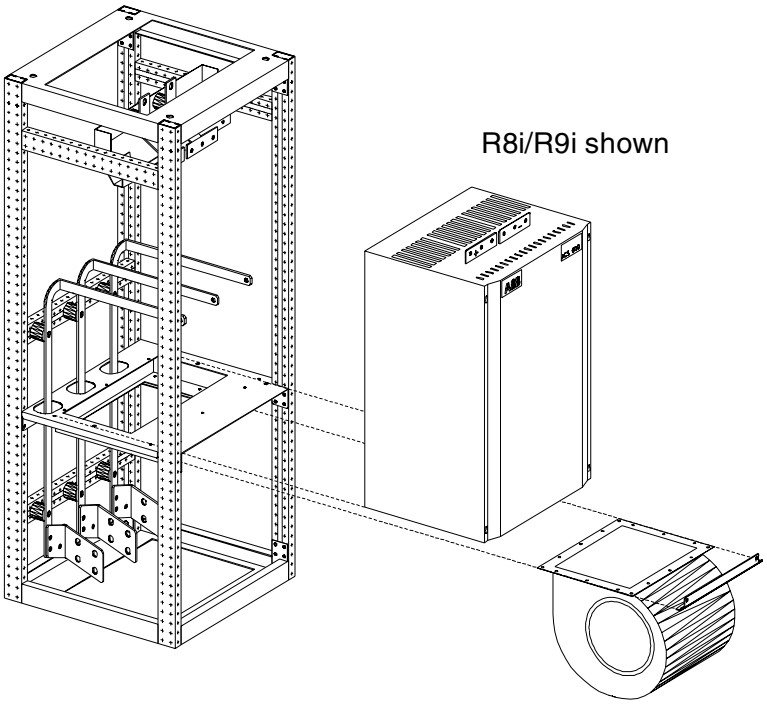
The IGBT supply modules require an external cooling fan, which is to be supplied from the 230/115 V AC auxiliary voltage circuit.

Cable and plug are included.

Cooling Fans for IGBT Supply Modules					
Supply Module Frame	**Auxiliary Voltage (V AC)**	**Qty**	×	**Ordering Code**	**Connection Cable Length**
R6i, R7i	230	1	×	64114158	1.5 m
	115	1	×	64114191	
R8i, R9i	230	1	×	64114336	2.1 m
	115	1	×	64114344	
R10i, R11i	230	2	×	64114336	
	115	2	×	64114344	
R12i	230	3	×	64114336	
	115	3	×	64114344	
2×R11i	230	4	×	64114336	
	115	4	×	64114344	
2×R12i	230	6	×	64114336	
	115	6	×	64114344	
4×R11i	230	8	×	64114336	
	115	8	×	64114344	
4×R12i	230	12	×	64114336	
	115	12	×	64114344	

Mounting Frames for IGBT Supply Modules

Optional mounting frames are available for the IGBT supply modules. The mounting frame makes the supply module/input busbars/cooling fan assembly an easy-to-install entity.



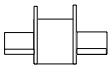
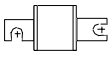
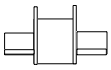
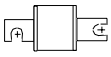
For Frame R6i and R7i supply modules, a mounting plate is available only. The plate connects the module and the cooling fan, and is fixed to the rear wall of the cabinet.

Mounting Frames for IGBT Supply Modules				
Supply Module Frame	**Ordering Code**	**Dimensions**		
		Height (mm)	**Width (mm)**	**Depth (mm)**
R6i, R7i	64138375*	984*	228*	367*
R8i, R9i	64138383	1400	500	500
R10i, R11i, 2×R11i**, 4×R11i**	64138391	1400	975	500
R12i, 2×R12i**, 4×R12i**	64138405	1400	1475	500

*The Ordering Code refers to a module/fan installation plate only. The dimensions given include the module.
** Two or four mounting frames required.

Input Fuses for IGBT Supply Units

Frame B1 to B3 supply units require input fuses. Suitable Bussmann types are listed below; equivalent fuses from other manufacturers can also be used.

Input (AC) Fuses for IGBT Supply Units									
Supply Module Type - ACN 634…			Qty	×	Ordering Code	Type		Size	U_N (V)	I_N (A)
0060 3 0070 3	0070 5 0100 5	0060 6 0070 6 0100 6 0120 6	3	×	10012694	170M3815		01	660	200
0100 3 0120 3	0120 5 0140 5		3	×	10028582	170M3818		01	660	350
		0185 6 0205 6 0255 6 0315 6	3	×	10037166	170M6303	DIN 43620 	03SHT	1250	400
0185 3 0225 3 0265 3	0215 5 0255 5 0325 5		3	×	10030617	170M6810		03	660	630
		0375 6 0485 6	3	×	10001773	170M6205		03SHT	1250	630
		0605 6	3	×	10029881	170M6203		03SHT	1250	800
		0755 6 0905 6	3	×	10006031	170M5876	DIN 43653 	02	690	900
0335 3 0405 3	0395 5 0495 5		3	×	10030625	170M6814	DIN 43620 	03	660	1000
0505 3	0615 5		3	×	64356577	170M6299		03SHT	1250	1250
0635 3 0755 3	0775 5 0925 5	1045 6 1385 6	6	×	10037557	170M5874		02	690	700
0935 3 1125 3	1095 5 1385 5	1715 6	6	×	10006031	170M5876	DIN 43653 	02	690	900
1445 3	1765 5	2125 6 2545 6	12	×	10037557	170M5874		02	690	700
1775 3 2145 3	2165 5 2625 5	3350 6	12	×	10006031	170M5876		02	690	900
2820 3	3450 5	5140 6	24	×	10037557	170M5874		02	690	700

Charging Circuit Components for IGBT Supply Units

The charging circuit – consisting of fuses, charging contactor and resistor(s) – bypasses the main switch/disconnector on the supply side of the ISU. At start-up, the circuit is used to charge the capacitor banks of the ISU and the inverter modules connected to the DC link with a low current before the main switch/disconnector is closed.

Note: The charging components specified below are dimensioned for a maximum DC link capacitance of 3 × ISU DC capacitance. If the total DC link capacitance (including ISU DC capacitance) exceeds this limit, the components must be redimensioned. Contact an ABB representative for more information.

The capacitances of the IGBT supply module types and the inverter module types are specified in their respective selection tables.

Charging Circuit Fuses for IGBT Supply Units

Supply Module Type - ACN 634…			Qty	×	Ordering Code	Type	U_N (V)	I_N (A)	Size
0060 3 0070 3 0100 3 0120 3 0185 3 0225 3 0265 3 0335 3 0405 3 0505 3	0070 5 0100 5 0120 5 0140 5 0215 5 0255 5 0325 5	0060 6 0070 6 0100 6 0120 6 0185 6 0205 6 0255 6 0315 6	2	×	09712321	OFAA 00H 16	690	16	00
0635 3 0755 3	0395 5 0495 5 0615 5 0775 5 0925 5		2	×	09712330	OFAA 00H 20	690	20	00
		0375 6 0485 6 0605 6	2	×	09712348	OFAA 00H 25	690	25	00
0935 3 1125 3			2	×	09712356	OFAA 00H 35	690	35	00
1445 3	1095 5 1385 5 1765 5	0755 6 0905 6	2	×	64208021	OFAA 00H 40	690	40	00
		1045 6 1385 6	2	×	09712364	OFAA 00H 50	690	50	00
1775 3 2145 3	2165 5 2625 5	1715 6	2	×	09712372	OFAA 00H 63	690	63	00
2820 3	3450 5		2	×	09712381	OFAA 00H 80	690	80	00
		2125 6 2545 6	2	×	09712399	OFAA 00H 100	690	100	00
		3350 6 5140 6	2	×	64079638	OFAA 00H 125	690	125	00

Fuse Base for ISU Charging Circuit Fuses					
Fuse Size	**Qty**	**Ordering Code**	**Type**	**U_N (V)**	**I_N (A)**
00	1	58065749	OFAX 00 S2L	690	2 × 125

Charging Resistors for IGBT Supply Units							
Supply Module Type - ACN 634…			**Qty**	×	**Ordering Code**	**Type**	**Ohms Total**
0060 3 0070 3 0100 3 0120 3 0185 3 0225 3 0265 3 0335 3 0405 3	0070 5 0100 5 0120 5 0140 5 0215 5 0255 5 0325 5	0060 6 0070 6 0100 6 0120 6 0185 6 0205 6 0255 6 0315 6	1	×	10003997	RRYB 117/CE	10.00
0505 3 0635 3 0755 3	0395 5 0495 5 0615 5 0775 5 0925 5	0375 6 0485 6 0605 6	2	×	10003997	RRYB 117/CE	5.00
0935 3 1125 3		0755 6 0905 6	3	×	10003997	RRYB 117/CE	3.33
1445 3	1095 5 1385 5 1765 5		4	×	10003997	RRYB 117/CE	2.50
		1045 6 1385 6	5	×	10003997	RRYB 117/CE	2.00
1775 3 2145 3		1715 6	6	×	10003997	RRYB 117/CE	1.67
2820 3	2165 5 2625 5		7	×	10003997	RRYB 117/CE	1.43
	3450 5		8	×	10003997	RRYB 117/CE	1.25
		2125 6 2545 6	10	×	10003997	RRYB 117/CE	1.00
		3350 6	12	×	10003997	RRYB 117/CE	0.83
		5140 6	14	×	10003997	RRYB 117/CE	0.71

Charging Contactors for IGBT Supply Units							
Supply Module Type - ACN 634…			**Auxiliary Voltage (V AC)**	**Qty**	×	**Ordering Code**	**Type**
0060 3 0070 3 0100 3 0120 3 0185 3 0225 3 0265 3 0335 3 0405 3 0505 3	0070 5 0100 5 0120 5 0140 5 0215 5 0255 5 0325 5	0060 6 0070 6 0100 6 0120 6 0185 6 0205 6 0255 6 0315 6	230	1	×	59017608	A9-30-10-80
			115	1	×	59016989	A9-30-10-89
0635 3 0755 3	0395 5 0495 5 0615 5 0775 5 0925 5	0375 6 0485 6 0605 6	230	1	×	59017632	A16-30-10-80
			115	1	×	59016997	A16-30-10-89
0935 3 1125 3 1445 3 1775 3 2145 3 2820 3	1095 5 1385 5 1765 5 2165 5 2625 5	0755 6 0905 6 1045 6 1385 6 1715 6	230	1	×	64114395	A30-30-10-80
			115	1	×	64315242	A30-30-10-89
	3450 5	2125 6 2545 6	230	1	×	59015915	A50-30-11-80
			115	1	×	59017012	A50-30-11-89
		3350 6 5140 6	230	1	×	64262742	A75-30-11-80
			115	1	×	64262751	A75-30-11-89

AC Chokes for IGBT Supply Units

An AC choke is used at the input of the IGBT supply module to reduce the voltage harmonics caused by the supply unit. It decreases voltage spikes on the supply side. (For more information, see the *ACA 635 IGBT Supply Sections [ISU] User's Manual*.)

Short-circuit ratio (R_{sc}) and relative inductance (L [%]) are parameters that affect the level of the voltage and current harmonics generated to the supply network by the supply unit. The diagrams below show the estimated voltage and current harmonics as a function of short-circuit ratio and relative inductance.

The relative inductance can be calculated as follows:

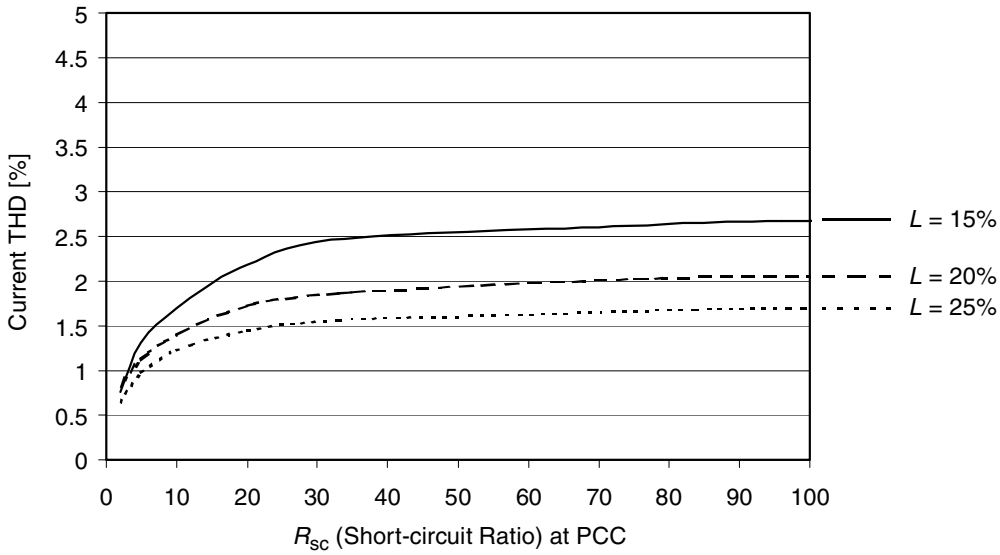
$$L\ [\%] = \frac{2\pi \times f \times L}{\left(\frac{U^2}{S_N}\right)}$$

where
f = supply network frequency (50 or 60 Hz)
L = choke inductance (from selection table)
U = nominal supply voltage (400, 500 or 690 V)
S_N = apparent power of the supply module (from selection table)

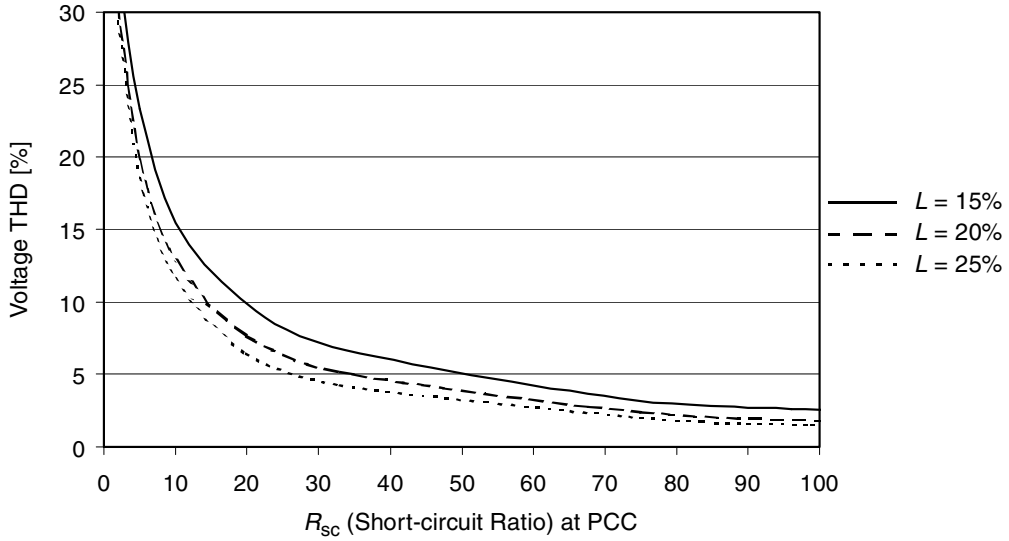
The short-circuit ratio can be calculated as shown in the technical data section, starting page 2-30.

Please note that the curves are merely a visualisation of the effect of the AC choke and supply network characteristics on the harmonics, not a specification.

Current Harmonics (up to 200th) Generated by the Supply Unit at PCC (Point of Common Coupling)



Voltage Harmonics (up to 200th) Generated by the Supply Unit at PCC (Point of Common Coupling)



AC Chokes for IGBT Supply Units						
Supply Module Type - ACN 634…	Qty ×	Ordering Code	Type	U_N (V)	I_{RMS} (A)	L (µH)
0060 3 0070 5 0070 3 0100 5 0100 3 0120 5 0120 3 0140 5	1 ×	64408119	ISUL_5R7i	400/500	179	840
0185 3 0215 5 0225 3 0255 5 0265 3 0325 5	1 ×	64041398	ISUL_5R8i	400/500	370	494
0335 3 0395 5 0405 3 0495 5	1 ×	64041428	ISUL_5R9i	400/500	568	320
0505 3 0615 5	1 ×	64152971	ISUL_5R10i	400/500	703	260
0635 3 0775 5 0755 3 0925 5	1 ×	64037498	ISUL_5R11i	400/500	992	186
0935 3 1095 5 1125 3 1385 5	1 ×	64037501	ISUL_5R12i	400/500	1473	124
1445 3 1765 5	2 ×	64037498	ISUL_5R11i	400/500	992	186
1775 3 2165 5 2145 3 2625 5	2 ×	64037501	ISUL_5R12i	400/500	1473	124
2820 3 3450 5	4 ×	64037498	ISUL_5R11i	400/500	992	186
0060 6 0070 6 0100 6 0120 6	1 ×	64409425	ISUL_6R7i	690	106	1812
0185 6 0205 6 0255 6 0315 6	1 ×	64041525	ISUL_6R8i	690	265	966
0375 6 0485 6	1 ×	64041541	ISUL_6R9i	690	412	616
0605 6	1 ×	64152963	ISUL_6R10i	690	504	500
0755 6 0905 6	1 ×	10037590	ISUL_6R11i	690	698	361
1045 6 1385 6	1 ×	10037603	ISUL_6R12i	690	1069	241
1715 6	2 ×	10037590	ISUL_6R11i	690	698	361
2125 6 2545 6	2 ×	10037603	ISUL_6R12i	690	1069	241
3350 6	4 ×	10037590	ISUL_6R11i	690	698	361
5140 6	4 ×	10037603	ISUL_6R12i	690	1069	241

Cooling Fans for ISU AC Chokes

Cable and plug are included wherever a cable length is given.

Cooling Fans for ISU AC Chokes					
Supply Module Type - ACN 634…			**Auxiliary Voltage (V AC)**	**Qty × Ordering Code**	**Connection Cable Length**
0060 3 0070 3 0100 3 0120 3	0070 5 0100 5 0120 5 0140 5	0060 6 0070 6 0100 6 0120 6	230	1 × 64114158	1.5 m
			115	1 × 64114191	
0185 3 0225 3 0265 3 0335 3 0405 3	0215 5 0255 5 0325 5 0395 5 0495 5	0185 6 0205 6 0255 6 0315 6 0375 6 0485 6	230	1 × 64421077	1.5 m
			115	1 × 64421093	
0505 3	0615 5	0605 6	230	1 × 10028841	Not included
			115	1 × 10032318	
0635 3 0755 3 0935 3 1125 3	0775 5 0925 5 1095 5 1385 5	0755 6 0905 6 1045 6 1385 6	230	1 × 64114336	2.1 m
			115	1 × 64114344	
1445 3 1775 3 2145 3	1765 5 2165 5 2625 5	1715 6 2125 6 2545 6	230	2 × 64114336	
			115	2 × 64114344	
2820 3	3450 5	3350 6 5140 6	230	4 × 64114336	
			115	4 × 64114344	

Mounting Accessories for ISU AC Chokes

The table below shows the mounting accessories available for the ISU AC chokes. Other choke types can be installed as such.

Mounting Accessories for ISU AC Chokes			
Choke Type		**Qty × Ordering Code**	**Note**
ISUL_5R10I	ISUL_6R10I	1 × 64457136	Mounting Base only. The choke also needs to be fixed at the top.
ISUL_5R11I ISUL_5R12I	ISUL_6R11I ISUL_6R12I	1 × 64450158	Mounting Frame.

Output Fuses for IGBT Supply Units

IGBT supply units require output (DC) fuses. Suitable Bussmann types are listed below; equivalent fuses from other manufacturers can also be used.

Output (DC) Fuses for IGBT Supply Units

Supply Module Type - ACN 634…	Qty	×	Ordering Code	Type	U_N (V)	I_N (A)	Size
0060 3 0070 3 0070 5 0100 5	2	×	10003539	170M1570	660	200	00
0100 3 0120 3 0120 5 0140 5	2	×	10028582	170M3818	660	350	1
0185 3 0225 3 0265 3 0215 5 0255 5 0325 5	2	×	10030617	170M6810	690	630	3
0335 3 0405 3 0395 5 0495 5	2	×	10030625	170M6814	690	1000	3
0505 3 0615 5	4	×	10030617	170M6810	690	630	3
0635 3 0755 3 0775 5 0925 5	4	×	10030625	170M6814	690	1000	3
0935 3 1125 3 1095 5 1385 5	6	×	10030625	170M6814	690	1000	3
1445 3 1765 5	8	×	10030625	170M6814	690	1000	3
1775 3 2145 3 2165 5 2625 5	12	×	10030625	170M6814	690	1000	3
2820 3 3450 5	16	×	10030625	170M6814	690	1000	3
0060 6 0070 6	2	×	10029813	170M2682	1000	125	00
0100 6 0120 6	2	×	10001731	170M4700	1250	200	1
0185 6 0205 6 0255 6 0315 6	2	×	10037166	170M6303	1250	400	3
0375 6 0485 6	2	×	10001773	170M6205	1250	630	3
0605 6	4	×	10037166	170M6303	1250	400	3
0755 6 0905 6	4	×	10001773	170M6205	1250	630	3
1045 6 1385 6	6	×	10001773	170M6205	1250	630	3
1715 6	8	×	10001773	170M6205	1250	630	3
2125 6 2545 6	12	×	10001773	170M6205	1250	630	3
3350 6	16	×	10001773	170M6205	1250	630	3
5140 6	24	×	10001773	170M6205	1250	630	3

Fuse Bases for ISU Output (DC) Fuses					
Fuse Size	**Qty**	**Ordering Code**	**Type**	**U_N (V)**	**I_N (A)**
00	1	58065749	OFAX 00 S2L	690	2 × 125
1	1	10029082	OFAX1S2	690	2 × 250
3	= Qty of fuses. See previous table.	35009841	OFASA 3	690	630

Control Voltage Filter

On drive systems connected to a weak (total harmonic voltage distortion > 5%) supply network, an optional filter can be installed in the control electronics infeed for added protection against distortion. (Cooling fans and similar devices can be supplied directly from the auxiliary power transformer.) See the circuit diagrams in Appendix B.

Control Voltage Filter for ISU		
Ordering Code	**Type**	**Data**
64312359	AB-202-20R2	115/230 V, 50/60 Hz, 17 A

Varistor Boards

On drive systems installed at 2000 metres or higher above sea level, a varistor boards must be fitted for overvoltage protection. One board is required at the input of each IGBT supply module as shown in the single-line diagrams in Appendix B.

Varistor Boards for ISU		
Supply Voltage	**Ordering Code**	**Type**
400 V or 500 V	64284771	K2001C
690 V	64284827	K2002C

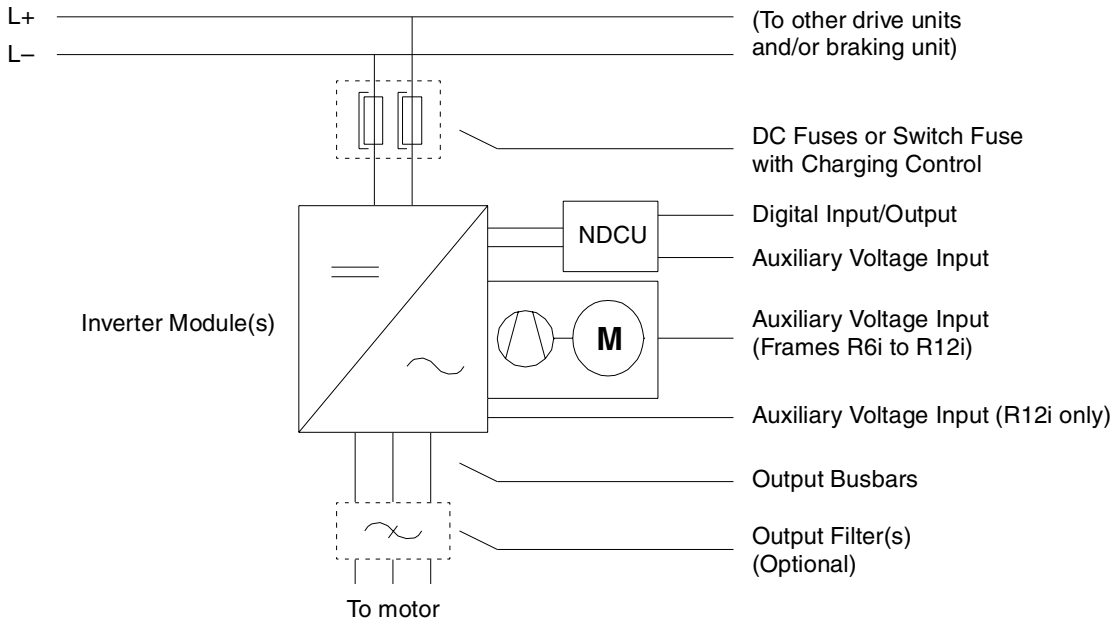
Chapter 3 – Drive Unit Components

Configuration

The drive unit consists of the inverter modules controlling one motor. The typical drive unit configuration comprises the parts listed below. **Boldface** text refers to components available in the ACS 600 MultiDrive Modules product line.

- Input busbars or cables (from the L+ and L– busses).
- **DC Fuses** or **Switch Fuse with Charging Circuitry.**
- **Inverter Module(s).** Optionally available with coated circuit boards and/or Prevention of Unexpected Start (specify upon ordering).
- **Inverter Module Cooling Fans** (Frames R6i to R12i only).
- **Mounting Frames** (for Frame R6i to R12i inverter modules). These are optional frames that facilitate the installation of the inverter module/cooling fan assembly.
- **Drive Control Units.**
- 230 or 115 V AC auxiliary power for inverter module cooling fans (Frames R6i to R12i) and control circuitry.
- Control wiring and relays.
- **Output Filters** (optional).
- **I/O Options** (I/O extension and fieldbus adapter modules, pulse encoder interface module, man/machine interfaces).
- **Other options** (Prevention of Unexpected Start, fibre optic cables, branching units).

Note: Power cable/busbar recommendations are given in the *Installation Manual.*



Inverter Modules – Technical Data

Input Voltage:

- 400 V units: 510…560 V DC
- 500 V units: 510…675 V DC
- 690 V units: 710…930 V DC

Output Voltage: 0…0.70 × Input Voltage (fundamental)

Output Frequency:

- 400 and 500 V units (without du/dt filtering): 0…± 300 Hz
- 400, 500 and 690 V units (with du/dt filtering): 0…± 120 Hz

Frequency Resolution: 0.01 Hz

Continuous Current: 1.0 × I_{2N} (rated at nominal input voltage)

Field Weakening Point: 8…300 Hz

Switching Frequency: 2 kHz (average)

Efficiency: > 0.985 (approx.; at I_{2N}, f_{OUT} = 50 Hz, U_{DC} = 100%)

Limits:

- Overvoltage Trip Limit: 130% × $U_{InputMax}$ (728 V for 400 V units; 877.5 V for 500 V units; 1209 V for 690 V units)
- Undervoltage Trip Limit: 60% × $U_{InputMin}$ (306 V for 400 V and 500 V units; 426 V for 690 V units)

Torque Control

Torque Step Rise Time:

- Open loop: < 5 ms with nominal torque
- Closed loop: < 5 ms with nominal torque

Non-linearity:

- Open loop: ±4% with nominal torque
- Closed loop: ±1% with nominal torque

Speed Control:

Static Accuracy:

- Open loop: 10% of motor slip
- Closed loop: 0.01% of nominal speed

Dynamic Accuracy:

- Open loop: 0.3…0.4% sec. with 100% torque step
- Closed loop: 0.1…0.2% sec. with 100% torque step

Degree of Protection: IP 00 (EN 60 529)

Insulation Class:

- Altitude up to 2000 m: Voltage category III (IEC 664-1)
- Altitude up to 4000 m: Voltage category I (IEC 664-1)

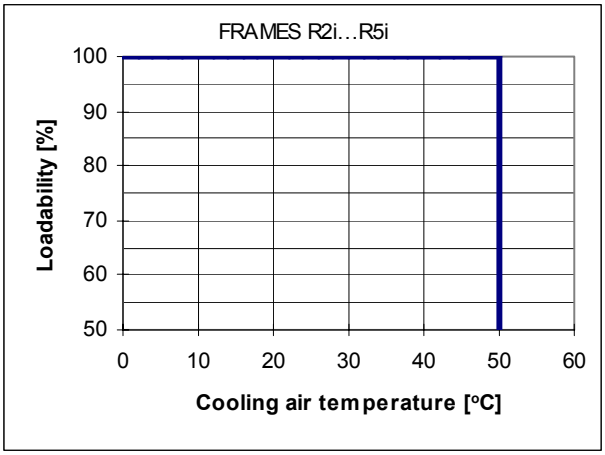
Vibration:

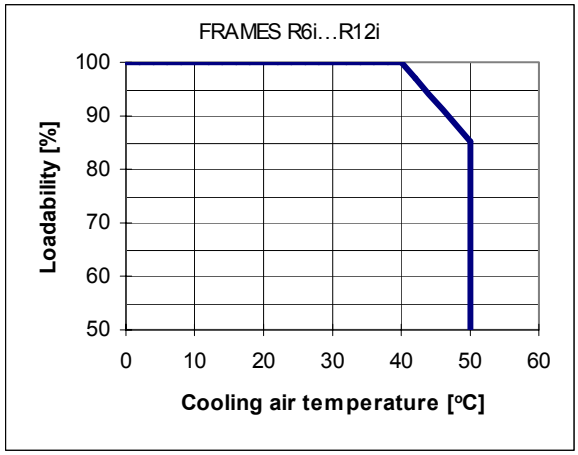
- Storage: ≤ 1.5 mm (2…9 Hz); ≤ 5 m/s^2 (9…200 Hz) (sinusoidal)
- Operation: ≤ 0.3 mm (2…9 Hz); ≤ 1 m/s^2 (9…200 Hz) (sinusoidal)

Cooling Method: Dry clean air

Ambient Temperature:

- Transportation: -40…+70 °C
- Storage: -40…+55 °C
- Operation: 0…+50 °C (Frames R2i…R5i); 0…+40 °C (Frames R6i…R12i) (see diagram below)





Relative Humidity:

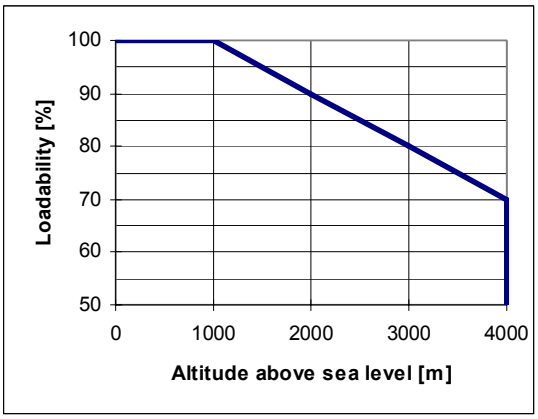
- Transportation: ≤ 95%
- Storage: < 95%, no condensation allowed
- Operation: 5…95%, no condensation allowed

Contamination Levels (IEC 721-3-3):

- Chemical gases: Class 3C1
- Solid particles: Class 3S2
- No conductive dust allowed

Installation Altitude and Derating:

- Altitude 0…1000 m above sea level: Derating not required
- Altitude 1000…2000 m above sea level: Derating required (see diagram below)
- Altitude 2000…4000 m above sea level: Derating required (see diagram below), varistors option required



Inverter Modules												
Type	**Ordering Code***	**S_N (kVA)**	**P_N (kW)**	**I_{2N} (A)**	**Duty Cycle 200% (10/60 s)**		**Duty Cycle 150% (1/5 min)**		**Power Loss (kW)**	**Air Flow (m^3/h)**	**DC Capaci-tance (mF)**	**Frame**
					I_{2Base} (A)	**I_{2Max} (A)**	**I_{2Base} (A)**	**I_{2Max} (A)**				
400 V												
ACN 634 0005 3	64115944	5	3	7.6	6.2	12	6.2	9.3	0.08	40	0.24	R2i
ACN 634 0006 3	64116053	6	4	11	7.6	15	7.6	11	0.09	40	0.34	
ACN 634 0009 3	64116231	9	5.5	15	11	22	17	11	0.14	40	0.34	
ACN 634 0011 3	64116363	11	7.5	18	15	30	15	23	0.17	60	0.75	R3i
ACN 634 0016 3	64116509	16	11	24	18	36	18	27	0.24	60	0.75	
ACN 634 0020 3	64116550	20	15	32	24	48	24	36	0.30	70	1.10	R4i
ACN 634 0025 3	64116592	25	18.5	41	32	64	32	48	0.38	100	1.10	
ACN 634 0030 3	64116690	30	22	47	41	82	41	62	0.45	260	1.65	R5i
ACN 634 0040 3	64118315	40	30	62	47	94	47	71	0.60	260	1.65	
ACN 634 0050 3	64118528	50	37	76	62	124	62	93	0.75	260	2.35	
ACN 634 0060 3	64118561	60	45	89	76	152	76	114	0.90	480	2.35	R6i
ACN 634 0070 3	64118641	70	55	112	89	178	89	134	1.05	480	2.35	
ACN 634 0100 3	64118722	100	75	147	112	224	112	168	1.50	480	3.30	R7i
ACN 634 0120 3	64118765	120	90	178	147	294	147	221	1.80	480	4.70	
ACN 634 0185 3	64120786	180	135	259	178	356	194	291	2.70	1550	4.95	R8i
ACN 634 0225 3	64120859	220	165	312	216	432	234	351	3.30	1550	6.60	
ACN 634 0265 3	64120905	260	200	379	260	520	284	426	3.90	1550	9.40	
ACN 634 0335 3	64120999	330	250	474	316	632	356	533	4.95	1550	9.40	R9i
ACN 634 0405 3	64121073	400	315	576	395	790	432	648	6.00	1550	11.75	
ACN 634 0505 3	64123564	500	400	720	494	988	540	810	7.50	3100	14.10	R10i
ACN 634 0635 3	64124030	630	500	907	600	1200	680	1020	9.45	3100	21.15	R11i
ACN 634 0755 3	64124374	760	630	1094	751	1502	821	1231	11.40	3100	21.15	
ACN 634 0935 3	61454942	930	–	1336	901	1802	1002	1503	13.95	4650	28.20	R12i
ACN 634 1125 3	61434151	1120	–	1624	1126	2252	1218	1827	16.80	4650	35.25	

(Continued)

Inverter Modules *(Continued)*												
Type	**Ordering Code***	**S_N (kVA)**	**P_N (kW)**	**I_{2N} (A)**	**Duty Cycle 200% (10/60 s)**		**Duty Cycle 150% (1/5 min)**		**Power Loss (kW)**	**Air Flow (m^3/h)**	**DC Capaci-tance (mF)**	**Frame**
					I_{2Base} (A)	**I_{2Max} (A)**	**I_{2Base} (A)**	**I_{2Max} (A)**				
500 V												
ACN 634 0006 5	64118862	6	4	7.6	6.2	12	6.2	9.3	0.09	40	0.24	R2i
ACN 634 0009 5	64118901	9	5.5	11	7.6	15	7.6	11	0.14	40	0.34	
ACN 634 0011 5	64119079	11	7.5	15	11	22	11	17	0.17	40	0.34	
ACN 634 0016 5	64119125	16	11	18	15	30	15	23	0.24	60	0.75	R3i
ACN 634 0020 5	64119214	20	15	24	18	36	18	27	0.30	60	0.75	
ACN 634 0025 5	64119257	25	18.5	31	24	48	24	36	0.38	70	1.10	R4i
ACN 634 0030 5	64119303	30	22	41	31	62	31	47	0.45	100	1.10	
ACN 634 0040 5	64119346	40	30	47	41	82	41	62	0.60	260	1.57	R5i
ACN 634 0050 5	64119389	50	37	58	47	94	47	71	0.75	260	1.57	
ACN 634 0060 5	64119435	60	45	65	58	116	58	87	0.90	260	2.27	
ACN 634 0070 5	64119508	70	55	84	65	130	65	98	1.05	480	2.27	R6i
ACN 634 0100 5	64119541	100	75	112	84	168	84	126	1.50	480	2.27	
ACN 634 0120 5	64119591	120	90	135	112	224	112	168	1.80	480	4.53	R7i
ACN 634 0140 5	64119630	140	110	164	135	270	135	203	2.10	480	4.53	
ACN 634 0215 5	64121791	210	160	246	164	328	185	278	3.15	1550	4.53	R8i
ACN 634 0255 5	64121847	250	200	295	200	400	221	332	3.75	1550	6.80	
ACN 634 0325 5	64121880	320	250	368	240	480	276	414	4.80	1550	6.80	
ACN 634 0395 5	64121928	390	315	448	300	600	336	504	5.85	1550	9.07	R9i
ACN 634 0495 5	64121961	490	400	565	365	730	424	636	7.35	1550	11.33	
ACN 634 0615 5	64124790	610	500	700	456	912	525	788	9.15	3100	13.60	R10i
ACN 634 0775 5	64125001	770	630	887	570	1140	665	998	11.55	3100	20.40	R11i
ACN 634 0925 5	64125281	930	–	1073	694	1388	805	1208	13.95	3100	20.40	
ACN 634 1095 5	61455019	1090	–	1263	855	1710	947	1421	16.35	4650	27.20	R12i
ACN 634 1385 5	61434160	1380	–	1593	1040	2080	1195	1793	20.70	4650	34.00	
(Continued)												

Inverter Modules *(Continued)*												
Type	**Ordering Code***	**S_N (kVA)**	**P_N (kW)**	**I_{2N} (A)**	**Duty Cycle 200% (10/60 s)**		**Duty Cycle 150% (1/5 min)**		**Power Loss (kW)**	**Air Flow (m^3/h)**	**DC Capaci-tance (mF)**	**Frame**
					I_{2Base} (A)	**I_{2Max} (A)**	**I_{2Base} (A)**	**I_{2Max} (A)**				
690 V												
ACN 634 0009 6	64119699	9	5.5	7.6	6.2	12	6.2	9.0	0.14	60	0.50	R3i
ACN 634 0011 6	64119826	11	8	10	7.6	15	7.6	11	0.17	60	0.50	
ACN 634 0016 6	64120026	16	11	14	11	20	11	17	0.24	60	0.50	
ACN 634 0020 6	64120093	20	15	20	15	30	15	23	0.30	60	0.50	
ACN 634 0025 6	64120182	25	19	25	20	40	20	30	0.38	70	0.73	R4i
ACN 634 0030 6	64120221	30	22	28	25	50	25	38	0.45	100	0.73	
ACN 634 0040 6	64120263	40	30	36	28	56	28	42	0.60	260	1.10	R5i
ACN 634 0050 6	64120301	50	37	44	36	72	36	54	0.75	260	1.10	
ACN 634 0060 6	64120344	60	45	52	44	88	44	66	0.90	480	1.57	R6i
ACN 634 0070 6	64120395	70	55	65	52	104	52	78	1.05	480	1.57	
ACN 634 0100 6	64120433	100	75	88	65	130	65	98	1.50	480	2.20	R7i
ACN 634 0120 6	64120484	120	90	105	88	176	88	132	1.80	480	2.20	
ACN 634 0185 6	64122011	180	132	149	106	212	112	168	2.70	1550	3.13	R8i
ACN 634 0205 6	64125851	210	160	176	127	254	132	198	3.15	1550	3.13	
ACN 634 0255 6	64125893	250	200	210	150	300	158	236	3.75	1550	4.70	
ACN 634 0315 6	64125931	310	250	264	179	358	198	297	4.65	1550	4.70	
ACN 634 0375 6	64125974	370	315	310	225	450	233	349	5.55	1550	6.27	R9i
ACN 634 0485 6	64126016	490	400	410	265	530	308	461	7.35	1550	7.83	
ACN 634 0605 6	64126491	600	500	502	340	680	377	565	9.00	3100	9.40	R10i
ACN 634 0755 6	64126679	750	630	630	428	856	473	709	11.25	3100	14.10	R11i
ACN 634 0905 6	64126776	900	–	755	504	1008	566	849	13.50	3100	14.10	
ACN 634 1045 6	61455086	1040	–	874	641	1282	656	983	15.60	4650	18.80	R12i
ACN 634 1385 6	61434178	1380	–	1156	755	1510	867	1301	20.70	4650	23.50	

*This is the ordering code for units with non-coated boards, and without the Prevention of Unexpected Start option (see page 3-37). Specify either option upon ordering if required.

Cooling Fans for Frame R6i…R12i Inverter Modules

Frame R6i to R12i inverter modules require an external cooling fan, which is to be supplied from the 230/115 V AC auxiliary voltage circuit. (Frames R2i to R5i have an internal cooling fan which does not require external power.)

Cable and plug are included.

Cooling Fans for R6i…R12i Inverter Modules				
Inverter Module Frame	**Auxiliary Voltage (V AC)**	**Qty**	**Ordering Code**	**Connection Cable Length**
R6i, R7i	230	1 ×	64114158	1.5 m
	115	1 ×	64114191	
R8i, R9i	230	1 ×	64114336	2.1 m
	115	1 ×	64114344	
R10i, R11i	230	2 ×	64114336	
	115	2 ×	64114344	
R12i	230	3 ×	64114336	
	115	3 ×	64114344	

Drive Control Units

Hardware

The drive control unit hardware kits consist of the following components:

- NDCU Drive Control Unit, comprising the boards listed in the table below, assembled in a sheet metal enclosure
- one pair of fibre optic cables (2000 mm; for connecting inverter module [NINT board] and NAMC)
- one pair of fibre optic cables for connecting the NAMC and NIOC (or NIOB) boards together
- power cable (1900 mm; for powering the NDCU from the NPOW board of the inverter module).

The connectors of the boards are described in sections *NDCU Optical Links*, *NIOC-01(C) Board Connections*, and *NIOB-01(C) Board Connections* below. Dimensional diagrams of the drive control units are presented in Appendix A.

Drive Control Unit Hardware

Type	Remark	Ordering Code	Boards Included
NDCU-21C (Coated)		64282565	NAMC-21C + NIOC-01C
NDCU-22C (Coated)		64282531	NAMC-22C + NIOC-01C
NDCU-51CKFB (Coated)	1)	64448021	NAMC-51C + NIOC-01C + NDCO-01C + NMBO-01C
NDCU-51CKPB (Coated)	1)	64448064	NAMC-51C + NIOC-01C + NDCO-02C + NMBO-01C
NDCU-55CKFB (Coated)	1), 2)	64448307	NAMC-51C + NIOB-01C + NDCO-01C + NMBO-01C
NDCU-55CKPB (Coated)	1), 2)	64448331	NAMC-51C + NIOB-01C + NDCO-02C + NMBO-01C

1) NDCU-51 is not supported by the System Application Program at the time of printing; ask your ABB representative for details on compatibility with future program versions.
NMBO is an SRAM memory backup module for the NAMC-51.
2) NIOB-01 is not supported by the Standard or Crane Application Programs at the time of printing; ask your ABB representative for details on compatibility with future program versions.

NDCU Optical Links

The following optical links are used in the NDCU control units. Note that the connectors at each end of a fibre optic link must be of the same type.

Channel	For the Connection of…	Optical Component Type		
		NDCU-21C	NDCU-22C	NDCU-51C
CH0	Overriding controller, such as a fieldbus adapter (5 MBd) or Advant Controller (10 MBd).	10 MBd	5 MBd	NDCO required
CH1	I/O Board (NIOC or NIOB) I/O Extension modules (NDIO/NAIO) Pulse Encoder Interface module (NTAC) (System Application Program)	5 MBd	5 MBd	5 MBd
CH2	Master/Follower link Pulse Encoder Interface module (NTAC) (Standard Application Program)	10 MBd	10 MBd	NDCO required
CH3	PC, e.g. Drive*Ware* tools (see Chapter 5).	10 MBd	10 MBd	NDCO required
INT	Inverter module NINT board	5 MBd	5 MBd	5 MBd

NDCO Boards for NAMC-51C

Channel	For the Connection of…	Optical Component Type	
		NDCO-01C	NDCO-02C
CH0	Overriding controller, such as a fieldbus adapter (5 MBd) or Advant Controller (10 MBd).	10 MBd	5 MBd
CH2	Master/Follower link Pulse Encoder Interface module (NTAC) (Standard Application Program)	10 MBd	10 MBd
CH3	PC, e.g. Drive*Ware* tools (see Chapter 5).	10 MBd	10 MBd

Application Programs

The application program resides in the memory of the NAMC (Application and Motor Controller) board which is part of the NDCU Drive Control Unit. All the application programs available utilise the same advanced motor control solutions.

Drive Unit Application Programs			
Application Program	**Ordering Code**	**Supported Languages**	**Recommended Control Unit**
System	61449981	English	NDCU-21C NDCU-22C NDCU-51C NDCU-55C
Standard	58977292	English, German, Italian, Dutch	NDCU-51C
Crane	64192876	English	NDCU-51C
Template (programmable with AdvaBuild tool)	58982415	–	NDCU-21C NDCU-22C

System This application program is designed for system drives. It is especially suitable for integration into larger control systems due to its efficient communication capabilities and versatile I/O. The System Application Program also has highly customisable speed control.

Standard The Standard Application Program is a multi-purpose program for a variety of single-drive applications. The program is equipped with application macros for basic industrial applications, local and remote operation, closed-loop processes, torque control and sequential control.

Crane The Crane Application Program includes advanced functions for a standard crane system, such as torque memory, power optimisation, limit switch supervision, mechanical brake control, and torque proving.

Template The Application Program Template can – using the AdvaBuild for Windows tool – be freely programmed to suit the application. By adding and deleting parts of the basic program, an application-specific program can be created. The template has ready-made I/O extension and fieldbus communication options.

NIOC-01(C) Board Connections

The connections and specifications of the NIOC-01(C) board are shown below.

Terminal Block Size
X21, X22: 0.5 to 1.5 mm^2 (20 to 16 AWG)
X23, X25, X26, X27: 0.5 to 2.5 mm^2 (20 to 14 AWG)

Connector X28 for RS-485 connection

1	TRANS	Standard Modbus Link
2	GND	
3	B–	
4	A+	
5	GND	
6	+24 V	
SHIELD		Connected via RC filter to frame

Connector X29 for RS 485 connection

1	TRANS	Standard Modbus Link
2	FAULT	
3	B-	
4	A+	
5	GND	
6	+24 V	
SHIELD		Connected via RC filter to frame

X21

1	VREF	Reference voltage 10 V DC
2	GND	1 kΩ ≤ R_L ≤ 10 kΩ
3	AI1+	Analogue Input AI1
4	AI1-	R_{in} > 200 kΩ
5	AI2+	Analogue Input AI2
6	AI2-	0(4) ... 20 mA, R_{in} = 100 Ω
7	AI3+	Analogue Input AI3
8	AI3-	0(4) ... 20 mA, R_{in} = 100 Ω
9	AO1+	Analogue Output AO1
10	AO1-	0(4) ... 20 mA, R_L ≤ 700 Ω
11	AO2+	Analogue Output AO2
12	AO2-	0(4) ... 20 mA, R_L ≤ 700 Ω

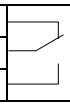
X22

1	DI1	Digital Inputs DI1…6
2	DI2	
3	DI3	
4	DI4	
5	DI5	
6	DI6	
7	+24V	+24 V DC max. 100 mA
8	+24V	
9	DGND	Digital Ground

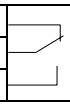
X23

1	+24 V	Auxiliary voltage output, non-isolated,
2	GND	24 V DC 250 mA

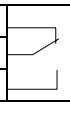
X25

1	RO11	 Relay Output RO1
2	RO12	
3	RO13	

X26

1	RO21	 Relay Output RO2
2	RO22	
3	RO23	

X27

1	RO31	 Relay Output RO3
2	RO32	
3	RO33	

Analogue Inputs The advantage of the differential analogue input is that the earth potential of the device or transmitter sending an analogue signal can differ up to ± 15 V from the earth potential of the drive chassis without disturbing the signal. Differential input also efficiently attenuates common mode disturbances coupled to control cables.	**Two Programmable Differential Current Inputs:** 0 (4) to 20 mA, R_{in} = 100 Ω **One Programmable Differential Voltage Input:** 0 (2) to 10 V, R_{in} > 200 kΩ **Common Mode Voltage:** ± 15 V DC, max. **Common Mode Rejection Ratio:** ≥ 60 dB at 50 Hz **Resolution:** 0.1% (10 bit) **Inaccuracy:** ± 0.5% (Full Scale Range) at 25 °C. Temperature Coefficient: ± 100 ppm/°C, max.
Constant Voltage Output	**Voltage:** 10 V DC ± 0.5% (Full Scale Range) at 25 °C. Temperature Coefficient: ± 100 ppm/°C, max. **Maximum Load:** 10 mA **Applicable Potentiometer:** 1 kΩ to 10 kΩ
Auxiliary Power Output	**Voltage:** 24 V DC ± 10%, Short circuit proof **Maximum Current:** 250 mA (130 mA with NLMD-01 option)
Analogue Outputs	**Two Programmable Current Outputs:** 0 (4) to 20 mA, R_L ≤ 700 Ω **Resolution:** 0.1% (10 bit) **Inaccuracy:** ± 1% (Full Scale Range) at 25 °C. Temperature Coefficient: ± 200 ppm/°C, max.
Digital Inputs	**Six Programmable Digital Inputs (Common Ground):** 24 V DC, -15% to +20% **Logical Thresholds:** < 8 V DC ≙ "0", > 12 V DC ≙ "1" **Input Current:** DI1 to DI 5: 10 mA, DI6: 5 mA **Filtering Time Constant:** 1 ms **Thermistor Input:** 5 mA, < 1.5 kΩ ≙ "1" (normal temperature), > 4 kΩ ≙ "0" (high temperature), Open Circuit ≙ "0" (high temperature) **Internal Supply For Digital Inputs (+24 V DC):** Short circuit proof, group isolated **Isolation Test Voltage:** 500 V AC, 1 minute **An external 24 V DC supply can be used instead of the internal supply.**
Relay Outputs	**Three Programmable Relay Outputs** **Switching Capacity:** 8 A at 24 V DC or 250 V AC, 0.4 A at 120 V DC **Minimum Continuous Current:** 5 mA rms at 24 V DC **Maximum Continuous Current:** 2 A rms **Contact Material:** Silver Cadmium Oxide (AgCdO) **Isolation Test Voltage:** 4 kV AC, 1 minute
DDCS Fibre Optic Link	**Protocol:** DDCS (ABB Distributed Drives Communication System)

NIOB-01(C) Board Connections

The connections and specifications of the NIOB-01(C) board are shown below.

Terminal Block Size
0.5 to 2.5 mm^2 (20 to 14 AWG)

Connector **X14** for RS-485 connection

1	$\overline{\text{TRANS}}$	Data direction, transmit/receive (open collector). Transmit = Active low.
2	Not used	
3	DATA–	Negative terminal of differential data
4	DATA+	Positive terminal of differential data
5	0 V	RS-485 ground and power supply return
6	+24 V	+24 V power supply

X16

1	AI1+	Analogue Input AI1
2	AI1–	
3	AI2+	Analogue Input AI2
4	AI2–	
5	AO1U	Analogue Output AO1 (Voltage)
6	AO1I	Analogue Output AO1 (Current)
7	AO1C	Analogue Output AO1 (Common)
8	AO2U	Analogue Output AO2 (Voltage)
9	AO2I	Analogue Output AO2 (Current)
10	AO2C	Analogue Output AO2 (Common)

X15

1	EA+	Positive pulse encoder input, channel A
2	EA–	Negative pulse encoder input, channel A
3	EB+	Positive pulse encoder input, channel B
4	EB–	Negative pulse encoder input, channel B
5	EZ+	Positive pulse encoder input, zero pulse
6	EZ–	Negative pulse encoder input, zero pulse
7	+24VE	Pulse encoder supply voltage (+24 V DC)
8	+15VE	Pulse encoder supply voltage (+15 V DC)
9	0VE	Pulse encoder supply return (0 V)
10	0VE	

X13

1	24V	Positive power supply input (24 V DC)
2	0V	Power supply return
3	24V	Positive power supply input (24 V DC)
4	0V	Power supply return

X12

1	DI1A	Digital Input DI1, terminal A
2	DI1A	
3	DI1B	Digital Input DI1, terminal B
4	DI1B	
5	–	Not in use
6	DI2A	Digital Input DI2, terminal A
7	DI2B	Digital Input DI2, terminal B
8	–	Not in use
9	DI3A	Digital Input DI3, terminal A
10	DI3B	Digital Input DI3, terminal B

X11

1	RO1C	Relay Output RO1
2	RO1NO	
3	–	Not in use
4	RO2C	Relay Output RO2
5	RO2NO	

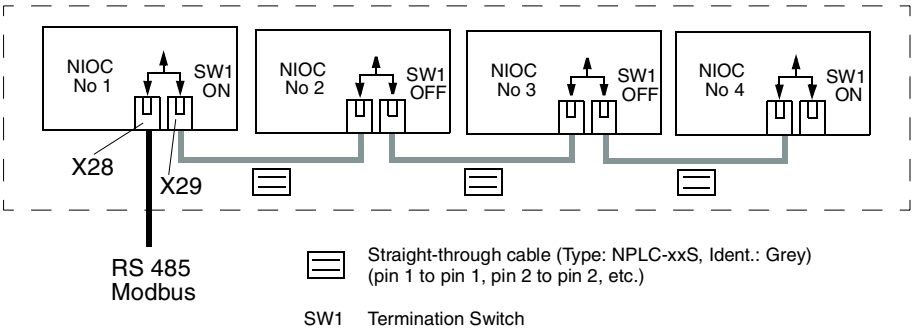
Analogue Inputs The advantage of the differential analogue input is that the earth potential of the device or transmitter sending an analogue signal can differ up to ±15 V from the earth potential of the drive chassis without disturbing the signal. Differential input also efficiently attenuates common mode disturbances coupled to control cables.	**Two Programmable Differential Bipolar Voltage or Current Inputs:** ± 20 mA, ± 2 V, or ± 10 V **Overrange Capacity:** +10% **Impedance:** 200 kΩ (voltage ranges); 100 Ω (current range) **Common Mode Voltage:** ± 15 V, max. **Common Mode Rejection Ratio:** ≥ 60 dB at 50 Hz **Resolution:** 0.024% (12 bits + sign bit) **Inaccuracy:** ± 0.5% (Full Scale Range) at 25 °C. Temperature Coefficient: ± 100 ppm/°C, max. **Input Read Cycle:** 20 ms, min.
Analogue Outputs	**Two Programmable Current Outputs:** ± 10 V and 0 to 20 mA **Overrange Capacity:** +10% **Load Impedance:** 1 kΩ, min. (voltage range); 800 Ω, max. (current range) **Resolution:** 0.024% (12 bits) **Inaccuracy:** ± 0.5% (Full Scale Range) at 25 °C. Temperature Coefficient: ± 100 ppm/°C, max. **Output Update Cycle:** 20 ms, min.
Digital Inputs	**Three Individually Isolated Programmable Digital Inputs:** 24 V DC, –15% to +20% or 115/230 V AC, –15% to +10% Digital Input DI1 is reserved for the Emergency Stop input signal. **Logical Thresholds:** 24 V DC: ≤ 14 V ≙ "0", ≥ 16 V ≙ "1" 115/230 V AC: ≤ 14 V ≙ "0", ≥ 50 V ≙ "1" **Input Current:** 12 mA at 24 V DC; 1.5 mA at 115 V AC; 2.2 mA at 230 V AC **Filtering (HW) Time Constant:** 8 ms, typical **Isolation Test Voltage:** Input to logic: 4 kV AC, 1 min Input to another digital input or output: 4 kV AC, 1 min Input to ground: 2.5 kV AC, 1 min
Relay Outputs	**Two Programmable Relay Outputs:** 1 closing contact Relay Output RO1 is reserved for the Emergency Stop acknowledgement signal. **Switching Capacity (Resistive Load):** 6 A at 24 V DC; 0.4 A at 120 V DC; 6 A at 250 V AC **Maximum Continuous Current:** 2 A rms **Contact Material:** Silver tin oxide with gold plating ($AgSnO^2$ + Au) **Contact Protection:** Overvoltage: Varistor, 275 V; Overcurrent: Fuse, 2.5 A time-lag **Isolation Test Voltage:** Output to logic, output to output: 4 kV AC, 1 min Output to ground: 2.5 kV AC, 1 min
Pulse Encoder Interface	**Isolated** **Signals:** A, B, Z; differential or single-ended; max. frequency 100 kHz **Signal Level:** 15 or 24 V **Input Current:** 15 mA, max. **Cable Length:** 300 m, max. **Encoder Power Supply Output:** +15 or +24 V DC, 300 mA

Chaining of NIOC/NIOB Boards

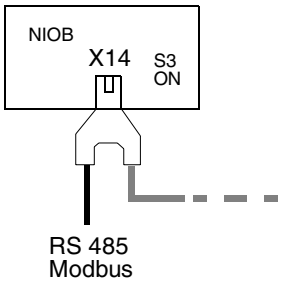
Several NIOC or NIOB boards can be daisy-chained for common control from an external Standard Modbus device. The drive units must be at a common earth potential (eg. installed in the same cabinet).

If the drive units are not at a common earth potential, or a long-distance connection (> 3 m) is required, NBCI modules can be used. See section *NBCI-02 Bus Connection Interface Module* on page 3-29.

The NIOC boards of multiple drive units are connected as shown below.

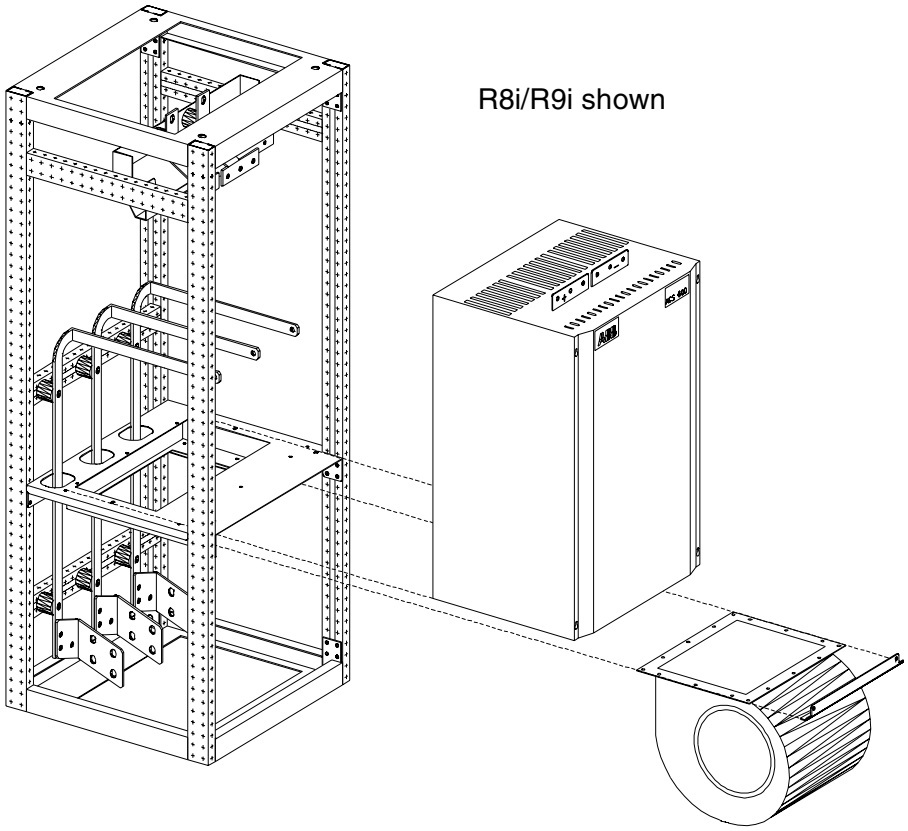


NIOB boards only have one RS-485 connector, so dual outlet adapters must be used. The termination switches of the boards (designated S3) are set following the same principle as with NIOC above.



Mounting Frames for Frame R6i…R12i Inverter Modules

Optional mounting frames are available for Frame R8i to R12i inverter modules. The mounting frame makes the inverter module/output busbars/cooling fan assembly an easy-to-install entity.



R8i/R9i shown

For Frame R6i and R7i inverter modules, a mounting plate is available only. The plate connects the module and the cooling fan, and is fixed to the rear wall of the cabinet.

Mounting Frames for R6i…R12i Inverter Modules				
Inverter Module Frame	**Ordering Code**	**Dimensions**		
		Height (mm)	**Width (mm)**	**Depth (mm)**
R6i, R7i	64138375*	984*	228*	367*
R8i, R9i	64138383	1400	500	500
R10i, R11i	64138391	1400	975	500
R12i	64138405	1400	1475	500

*The Ordering Code refers to a inverter/fan installation plate only. The dimensions include the inverter module.

DC Fuses/Switch Fuses with Charging Control

Each drive unit can be connected to the DC bus through either fuses only or a switch fuse/charging control circuitry.

Using a switch fuse enables the isolation and reconnection of an inverter module even when the DC bus is live. The charging of the inverter module capacitor bank(s) is controlled by a separate circuit whose components are included in the switch fuse kit.

Input (DC) Fuses for Inverter Modules

Inverter Module Type - ACN 634…						Ordering Code	U_N (V)	I_N (A)	Type	Size
0005 3	0006 3	0009 3	0006 5	0009 5	0011 5	10028566	660	25	170M1561	00
0011 3	0016 3		0016 5	0020 5		09838767	660	50	170M1564	00
0020 3	0025 3		0025 5	0030 5		09838791	660	80	170M1566	00
0030 3	0040 3	0050 3	0040 5	0050 5	0060 5	10003521	660	160	170M1569	00
0060 3	0070 3		0070 5	0100 5		10003539	660	200	170M1570	00
0100 3	0120 3		0120 5	0140 5		10028582	660	350	170M3818	01
0185 3	0225 3	0265 3	0215 5	0255 5	0325 5	10030617	660	630	170M6810	03
0335 3	0405 3		0395 5	0495 5		10030625	660	1000	170M6814	03
0505 3			0610 5			10030617	660	630	170M6810	03
0635 3 1125 3	0765 3	0935 3	0775 5 1385 5	0935 5	1095 5	10030625	660	1000	170M6814	03
0009 6	0011 6					10032041	1000	25	170M2674	00
0016 6	0020 6					10033250	1000	35	170M2676	00
0025 6	0030 6					10029791	1000	63	170M2679	00
0040 6	0050 6					10029805	1000	80	170M2680	00
0060 6	0070 6					10029813	1000	125	170M2682	00
0100 6	0120 6					10001731	1250	200	170M4700	01SHT
0185 6	0205 6					10037158	1250	315	170M6301	03SHT
0255 6	0315 6					10037166	1250	400	170M6303	03SHT
0375 6	0485 6					10001773	1250	630	170M6205	03SHT
0605 6						10029881	1250	800	170M6203	03SHT
0755 6	0905 6	1045 6	1385 6			10001773	1250	630	170M6205	03SHT

Fuseholders for Inverter Module Input (DC) Fuses

Fuse Size	Ordering Code	Type	Rated Current (A)	Specification	Height (mm)	Width (mm)	Depth (mm)
00	58065749	OFAX00S2L	< 125	2 × 125 A 690 V	148	77	111
01, 01SHT	10029082	OFAX1S2	125…250	2 × 250 A 690 V	250	119	133
03, 03SHT	35009841	OFASA 3	> 250	630 A 690 V	250	50	97

Switch Fuse Kits for Inverter Modules Kit contents listing follows this table.				
Inverter Module Frame	**Inverter Module Nominal Supply Voltage (V DC)**	**Auxiliary Voltage (V AC)**	**Ordering Code**	**Charging Circuit Type** (see Fig. 3-1)
R2i…R4i	400/500/690	230/115	64089650	1
R5i	400/500	230/115	64089676	2
	690	230/115	64089684	2
R6i	400/500	230/115	64089561	2
	690	230/115	64089684	2
R7i	400/500	230	64089510	3
		115	64089692	3
	690	230	64089579	3
		115	64089706	3
R8i, R9i	400/500	230	64089609	3
		115	64089731	3
	690	230	64089587	3
		115	64089714	3
R10i	400/500	230	64089625	3
		115	64089765	3
	690	230	64089595	3
		115	64089811	3
R11i	400/500	230	64089625	3
		115	64089765	3
	690	230	64089617	3
		115	64089757	3
R12i	400/500	230	64089641	3
		115	64089790	3
	690	230	64089633	3
		115	64089773	3

Contents of the Inverter Module Switch Fuse Kits Fuses and fuseholders are not included.	
Kit Ordering Code	**Kit Contents**
64089510	1–Switch Fuse (OESA250DR2PL-21/1, including: locking device, charging contacts, 1–NC contact, 1–NO contact) • 1–Aux. Contact (OZXK 2, including: 2–NC contact, 2–NO contact) • 2–Resistor (ZRF 30×167.5) • 1–Charging Monitoring Unit (NCHM-21) • 1–Wire Set, OESA control wiring
64089561	1–Switch Fuse (OESA00-160D2PL) • 1–Mounting Frame for 4 aux. contacts • 4–Aux. Contact (2–NO, 1–NO gold-plated, 1–NC) • 1–Resistor (ZRF 30×167.5) • 1–Contactor (LP1-D501124) • 1–Relay, 11-pole • 1–Relay Base
64089579	1–Switch Fuse (OESA250DR2PL-21/1, including: locking device, charging contacts, 1–NC contact, 1–NO contact) • 1–Aux. Contact (OZXK 2, including: 2-NC contact, 2–NO contact) • 2–Resistor (ZRF 30×165) • 1–Charging Monitoring Unit (NCHM-21) • 1–Wire Set, OESA control wiring
64089587	1–Switch Fuse (OESA630D2PL-21/1, including: locking device, charging contacts, 1–NC contact, 1–NO contact) • 2–Resistor (ZRF 30×165) • 1–Charging Monitoring Unit (NCHM-21) • 1–Wire Set, OESA control wiring
64089595	1–Switch Fuse (OESA630D2PL-21/1, including: locking device, charging contacts, 1–NC contact, 1–NO contact) • 4–Resistor (ZRF 30×165) • 1–Charging Monitoring Unit (NCHM-21) • 1–Wire Set, OESA control wiring
64089609	1–Switch Fuse (OESA630D2PL-21/1, including: locking device, charging contacts, 1–NC contact, 1–NO contact) • 2–Resistor (ZRF 30×167.5) • 1–Charging Monitoring Unit (NCHM-21) • 1–Wire Set, OESA control wiring
64089617	1–Switch Fuse (OESA630DF4PL-21/1, including: locking device, charging contacts, 1–NC contact, 1–NO contact) • 4–Resistor (ZRF 30×165) • 1–Charging Monitoring Unit (NCHM-21) • Wire Set, OESA control wiring
64089625	1–Switch Fuse (OESA630DF4PL-21/1, including: locking device, charging contacts, 1–NC contact, 1–NO contact) • 4–Resistor (ZRF 30×167.5) • 1–Charging Monitoring Unit (NCHM-21) • 1–Wire Set, OESA control wiring
64089633	1–Switch Fuse (OESA630D6PL-21/1, including: locking device, charging contacts, 1–NC contact, 1–NO contact) • 6–Resistor (ZRF 30×165) • 1–Charging Monitoring Unit (NCHM-21) • 1–Wire Set, OESA control wiring
64089641	1–Switch Fuse (OESA630D6PL-21/1, including: locking device, charging contacts, 1–NC contact, 1–NO contact) • 6–Resistor (ZRF 30×167.5) • 1–Charging Monitoring Unit (NCHM-21) • 1–Wire Set, OESA control wiring
64089650	1–Switch Fuse (OESA00-160D2PL) • 1–Mounting Frame for 4 aux. contacts • 4–Aux. Contact (2–NO, 1–NO gold-plated, 1–NC)
64089676	1–Switch Fuse (OESA00D2PL) • 1–Mounting Frame for 4 aux. contacts • 4–Aux. Contact (2–NO, 1–NO gold-plated, 1–NC) • 1–Resistor (ZRF 30×167.5) • 1–Contactor (BC 25-30-10/24) • 1–Relay, 11-pole • 1–Relay Base
64089684	1–Switch Fuse (OESA00D2PL) • 1–Mounting Frame for 4 aux. contacts • 4–Aux. Contact (2–NO, 1–NO gold-plated, 1–NC) • 2–Resistor (ZRF 30×165) • 1–Contactor (BC 25-30-10/24) • 1–Relay, 11-pole • 1–Relay Base
64089692	1–Switch Fuse (OESA250DR2PL-X, including: locking device, charging contacts, 1–NC contact, 1–NO contact) • 1–Aux. Contact (OZXK 2, including: 2-NC contact, 2–NO contact) • 2–Resistor (ZRF 30×167.5) • 1–Charging Monitoring Unit (NCHM-11) • 1–Wire Set, OESA control wiring
64089706	1–Switch Fuse (OESA250DR2PL-X, including: locking device, charging contacts, 1–NC contact, 1–NO contact) • 1–Aux. Contact (OZXK 2, including: 2-NC contact, 2–NO contact) • 2–Resistor (ZRF 30×165) • 1–Charging Monitoring Unit (NCHM-11) • 1–Wire Set, OESA control wiring
64089714	1–Switch Fuse (OESA630D2PL-21/2, including: locking device, charging contacts, 1–NC contact, 1–NO contact) • 2–Resistor (ZRF 30×165) • 1–Charging Monitoring Unit (NCHM-11) • 1–Wire Set, OESA control wiring
64089731	1–Switch Fuse (OESA630D2PL-21/2, including: locking device, charging contacts, 1–NC contact, 1–NO contact) • 2–Resistor (ZRF 30×167.5) • 1–Charging Monitoring Unit (NCHM-11) • 1–Wire Set, OESA control wiring
64089757	1–Switch Fuse (OESA630DF4PL-X, including: locking device, charging contacts, 1–NC contact, 1–NO contact) • 4–Resistor (ZRF 30×165) • 1–Charging Monitoring Unit (NCHM-11) • 1–Wire Set, OESA control wiring
64089765	1–Switch Fuse (OESA630DF4PL-X, including: locking device, charging contacts, 1–NC contact, 1–NO contact) • 4–Resistor (ZRF 30×167.5) • 1–Charging Monitoring Unit (NCHM-11) • 1–Wire Set, OESA control wiring
64089773	1–Switch Fuse (OESA630D6PL-21/2, including: locking device, charging contacts, 1–NC contact, 1–NO contact) • 6–Resistor (ZRF 30×165) • 1–Charging Monitoring Unit (NCHM-11) • 1–Wire Set, OESA control wiring
64089790	1–Switch Fuse (OESA630D6PL-21/2, including: locking device, charging contacts, 1–NC contact, 1–NO contact) • 6–Resistor (ZRF 30×167.5) • 1–Charging Monitoring Unit (NCHM-11) • 1–Wire Set, OESA control wiring
64089811	1–Switch Fuse (OESA630D2PL-21/2, including: locking device, charging contacts, 1–NC contact, 1–NO contact) • 4–Resistor (ZRF 30×165) • 1–Charging Monitoring Unit (NCHM-11) • 1–Wire Set, OESA control wiring

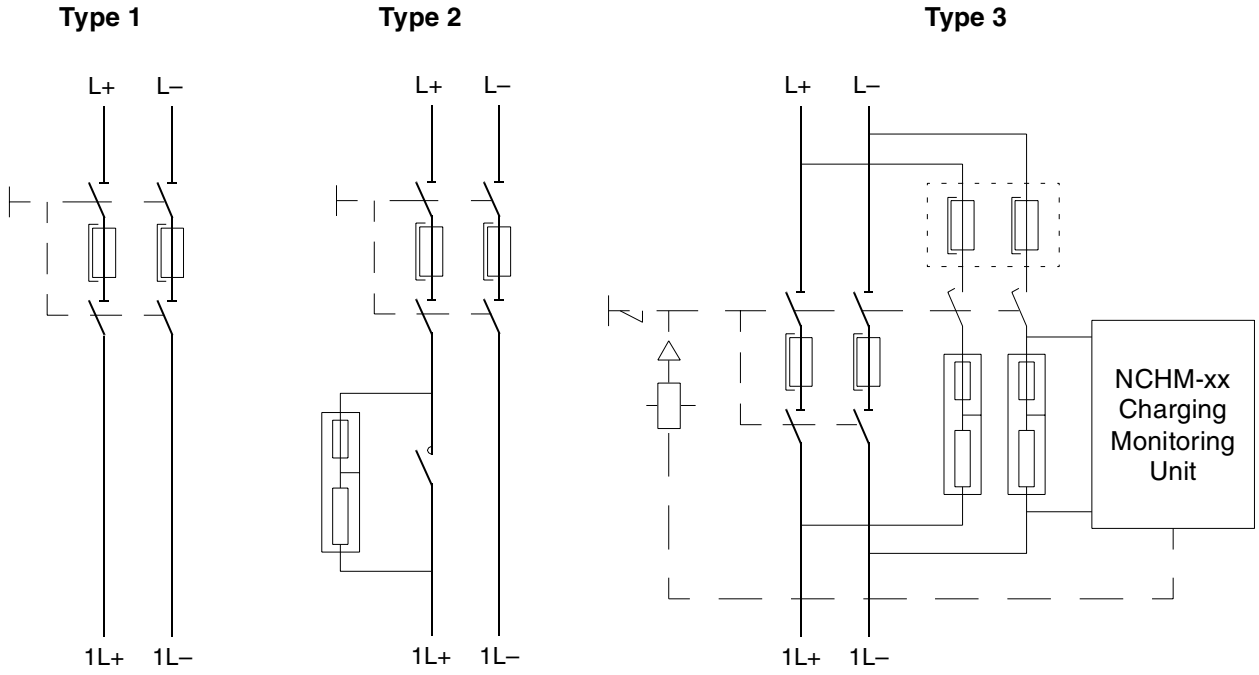


Figure 3-1 Charging Circuit Types.

Type 1

The inverter has an internal charging circuitry (fuses or switch fuse only required).

Type 2

The inverter has an internal charging control which operates the charging contactors (included in the kit).

Type 3

The charging circuitry is exterior to the inverter. All required components – with the exception of fuses and fusebases – are included in the kit.

Output Filters

As with all frequency converters employing the most modern IGBT inverter technology, the ACx 600 output comprises – regardless of output frequency – pulses of approximately 1.35 times the supply network voltage with a very short rise time.

The voltage of the pulses can be almost double at the motor terminals, depending on motor cable properties. This, in turn, can cause additional stress on the motor insulation.

Modern variable speed drives with their fast-rising voltage pulses and high switching frequencies can cause current pulses through the motor bearings which can gradually erode the bearing races.

Protecting the Motor Winding

The stress on the motor insulation can be avoided by using du/dt filters. du/dt filters also reduce bearing currents.

Protecting the Motor Bearings

To avoid damage to motor bearings, insulated N (non-driven end) bearings and output filters must be used according to the following table. In addition, the cables must be selected and installed according to the instructions given in the appropriate installation manuals.

Three types of filters are used individually or in combinations:

- du/dt Filters (for protection of motor insulation system and reduction of bearing currents)
- Common Mode Filters (mainly for reduction of bearing currents)
- Light Common Mode Filters (mainly for reduction of bearing currents).

The Common Mode Filters consist of toroidal cores installed onto the motor cable.

Requirements

The following table shows how to select the motor insulation system and when optional du/dt filters, insulated N-end (non-driven end) motor bearings or common mode filters are required. The motor manufacturer should be consulted regarding the construction of the motor insulation and additional requirements for explosion-safe motors.

Failure of the motor to fulfil the following requirements or improper installation may shorten the motor life or damage the motor bearings.

Manufacturer	Motor Type	Nominal Mains Voltage	Requirement for			
			Motor Insulation System	du/dt Filter (“du/dt”), Insulated N-end Bearing (“N”), Common Mode Filter (“LCMF” or “CMF”)		
				P_N < 100 kW and Frame Size < IEC 315	100 kW ≤ P_N < 350 kW or Frame Size ≥ IEC 315	P_N ≥ 350 kW
ABB	Random-wound M2_ and M3_	U_N ≤ 500 V	Standard	–	+ N	+ N + CMF
		500 V < U_N ≤ 600 V	Standard	+ du/dt	+ du/dt	+ du/dt + N + LCMF
			or			
			Reinforced	–	+ N	+ N + CMF
		600 V < U_N ≤ 690 V	Reinforced	+ du/dt	+ du/dt	+ du/dt + N + LCMF
	Form-wound HXR and AM_	380 V < U_N ≤ 690 V	Standard	N/A	+ N + CMF	+ N + CMF
	Old* form-wound HX_ and modular	380 V < U_N ≤ 690 V	Check with motor manufacturer.	+ du/dt filter with voltages over 500 V + N + CMF		
	Random-wound HXR	380 V < U_N ≤ 690 V	Check with motor manufacturer.	+ du/dt filter with voltages over 500 V + N + CMF		
NON-ABB	Random-wound and form-wound	U_N ≤ 420 V	Standard: $\hat{U}_{LL}$ = 1300 V	–	+ N or CMF	+ N + CMF
		420 V < U_N ≤ 500 V	Standard: $\hat{U}_{LL}$ = 1300 V	+ du/dt	+ du/dt + N	+ du/dt + N + CMF
					or	
					+ du/dt + CMF	
			or			
			Reinforced: $\hat{U}_{LL}$ = 1600 V, 0.2 microsecond rise time	–	+ N or CMF	+ N + CMF
		500 V < U_N ≤ 600 V	Reinforced: $\hat{U}_{LL}$ = 1600 V	+ du/dt	+ du/dt	+ du/dt + N + LCMF
			or			
			Reinforced: $\hat{U}_{LL}$ = 1800 V	–	+ N or CMF	+ N + CMF
		600 V < U_N ≤ 690 V	Reinforced: $\hat{U}_{LL}$ = 1800 V	+ du/dt	+ du/dt	+ du/dt + N + LCMF
	Form-wound	600 V < U_N ≤ 690 V	Reinforced: $\hat{U}_{LL}$ = 2000 V, 0.3 microsecond rise time	N/A	+ N + CMF	+ N + CMF

*Manufactured before 1992

Note 1: The abbreviations used in the table are defined below.

Abbreviation	Definition
U_N	nominal mains voltage
$\hat{U}_{LL}$	peak line-to-line voltage at motor terminals which the motor insulation must withstand
P_N	motor nominal power
du/dt	du/dt Filter
CMF	Common Mode Filter: 3 toroidal cores per each motor cable
LCMF	Light Common Mode Filter: 1 toroidal core per each motor cable
N	N-end bearing: insulated motor non-driven end bearing
N/A	Non-standard. Consult the motor manufacturer.

Note 2*: IGBT Supply Units*
If voltage is raised by the IGBT supply unit, select the motor insulation system according to the increased intermediate circuit DC voltage level, especially in the 500 V (+10%) supply voltage range.

Note 3: *HXR and AMA Motors*
All AMA machines (manufactured in Helsinki) to be supplied by a frequency converter have form-wound windings. All HXR machines manufactured in Helsinki since 1997 have form-wound windings.

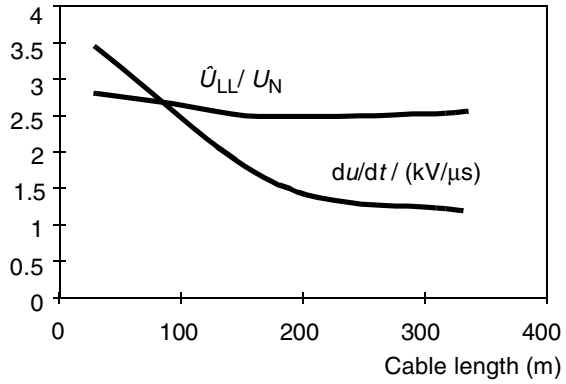
Note 4: *Resistor Braking*
When the drive is in braking mode for a large part of its operation time, the intermediate circuit DC voltage of the drive increases, the effect being similar to increasing the supply voltage by up to 20 percent. This should be taken into consideration when determining the motor insulation requirement.

Example: Motor insulation requirement for a 400 V application must be selected as if the drive were supplied with 480 V.

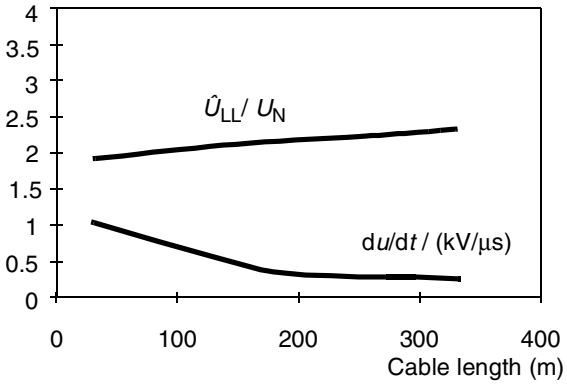
Note 5: This table applies to NEMA motors with the following heading.

P_N < 134 HP and Frame Size < NEMA 500	134 HP ≤ P_N < 469 HP or Frame Size ≥ NEMA 500	P_N ≥ 469 HP

Note 6: *Calculating the Rise Time and the Peak Line-to-line Voltage*
The peak line-to-line voltage at the motor terminals generated by the ACS 600 as well as the voltage rise time depend on the cable length. The requirements for the motor insulation system given in the table are “worst case” requirements covering the ACS 600 installations with 30 metre and longer cables. The rise time can be calculated as follows: $\triangle t = 0.8 \cdot \hat{U}_{LL}/(du/dt)$. Read $\hat{U}_{LL}$ and du/dt from the diagrams below.



Without du/dt Filter



With du/dt Filter

du/dt Filters for Inverter Modules										
Inverter Module Type - ACN 634…			**Qty**	**Ordering Code**	**Type**	**I_{RMS} (A)**	**L (μH)**	**Power Loss (W)**	**Cable Size (mm^2)**	**Connection Size**
0005 3 0006 3 0009 3 0011 3	0006 5 0009 5 0011 5 0016 5	0009 6 0011 6 0016 6	1 ×	58983527	NOCH0016-60	15	150	110	0.2…10	M5
0016 3 0020 3	0020 5 0025 5	0020 6 0025 6 0030 6	1 ×	58983519	NOCH0030-60	28	140	167	0.5…16	M5
0025 3 0030 3 0040 3 0050 3 0060 3	0030 5 0040 5 0050 5 0060 5 0070 5	0040 6 0050 6 0060 6 0070 6	1 ×	58983501	NOCH0070-60	65	115	210	10…35	M6
0070 3 0100 3 0120 3	0100 5 0120 5 0140 5	0100 6 0120 6	3 ×	10030366	NOCH0120-60	105	92	80	–	M8
0185 3 0225 3	0215 5 0255 5	0185 6 0205 6 0255 6 0315 6	3 ×	10030358 58982938*	NOCH0260-60	225	74	147	–	M10
0265 3 0335 3	0325 5 0395 5	0375 6 0485 6	3 ×	10030340 58982911*	NOCH0400-60	351	52	250	–	M10
0405 3 0505 3	0495 5 0615 5 0775 5	0605 6 0755 6 0905 6	3 ×	10030731	NOCH0760-60	672	35	475**	–	M10
0635 3 0755 3 0935 3	0925 5 1095 5	1045 6 1385 6	9 ×	10030340 58982911*	NOCH0400-60	351	52	250	–	M10
1125 3	1385 5		6 ×	10030731	NOCH0760-60	672	35	475**	–	M10

*Connecting busbars and insulating supports included
**Estimated

Common Mode Filters / Light Common Mode Filters for Inverter Modules								
Inverter Module Type - ACN 634…			**Common Mode Filters (CMF)**			**Light Common Mode Filters (LCMF)**		
			Qty		**Ordering Code**	**Qty**		**Ordering Code**
0185 3 0225 3 0265 3 0335 3	0215 5 0255 5 0325 5 0395 5	0185 6 0205 6 0255 6 0315 6 0375 6	1	×	64315811	1	×	64392611
0405 3	0495 5	0485 6	2	×	64315811	2	×	64392611
0505 3 0635 3	0615 5	0605 6 0755 6	3	×	64315811	3	×	64392611
0755 3	0775 5 0925 5	0905 6	4	×	64315811	4	×	64392611
0935 3 1125 3	1095 5 1385 5	1045 6 1385 6	6	×	64315811	6	×	64392611

I/O Options

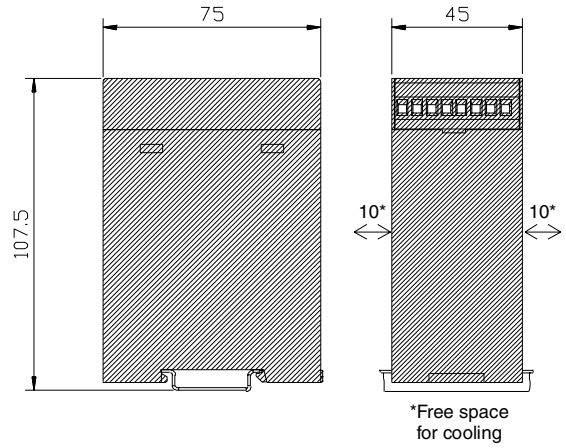
This section includes I/O extensions, pulse encoder interfaces, the Panel Bus interface and fieldbus adapters.

Housing

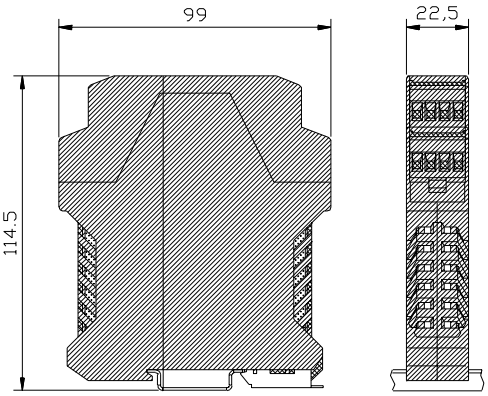
The I/O options listed in this section mainly use the IP20 plastic housings illustrated below. (The housing type of each option is indicated in the selection table at the end of this section.) The modules can be mounted onto a standard EN 50022/DIN rail without tools.

All dimensions in millimetres

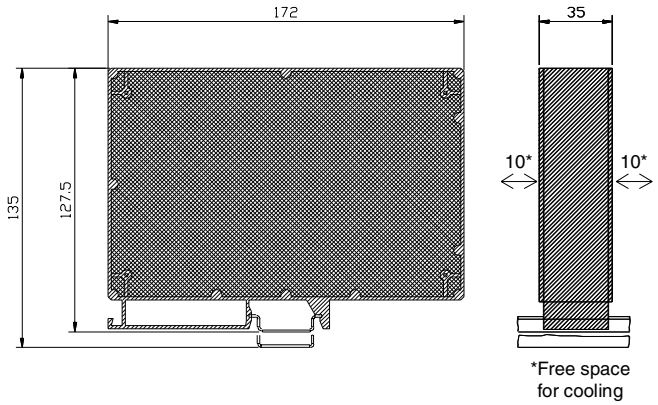
Housing Type 1



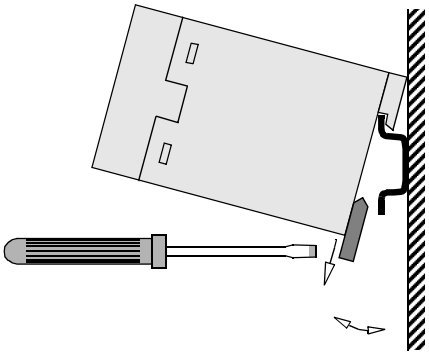
Housing Type 2



Housing Type 3



Mounting/Removal of Module



Module Power Supply

All I/O Options require an external 24 V DC power supply. The power consumption of each module is given in Appendix C.

Package Contents

The I/O option packages contain the module, fibre optic cables for drive connection (whenever required), a piece of mounting rail, and an instruction manual.

NAIO-03 Analogue I/O Extension Module

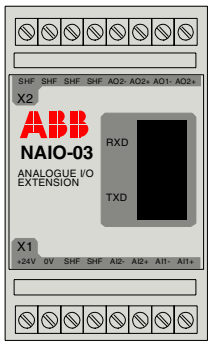
The NAIO-03 Analogue I/O Extension Module offers two current (±0[4] to ±20 mA) or voltage (±0[2] to ±10 V) inputs and two current (0[4] to 20 mA) outputs. The Module is connected to a high speed (4 Mbit/s) fibre optic I/O link on the ACS 600. The NAIO module provides:

- bipolar inputs, unipolar outputs
- better A/D and D/A decoding accuracy: 12-bit (unipolar) or 11-bit (+ sign bit) (bipolar) signal resolution
- distributed I/O connections through the module
- galvanic isolation thanks to the fibre optic connection.

NAIO-03

Housing: Type 1
Weight: 0.2 kg

Front view



Screw terminal block
for power supply connection

Fibre optic connectors
for ACS 600 I/O link connection:
RXD = Receiver
TXD = Transmitter

Screw terminal block
for analogue I/O connection

NDIO-02 Digital I/O Extension Module

The NDIO-02 Digital I/O Extension Module provides two digital inputs (24 to 250 V DC or 110 to 230 V AC) and two relay outputs (8 A/24 V d.c., 0.4 A/120 V DC, 2000 VA/250 V AC). The inputs are galvanically isolated from each other and from the power supply.

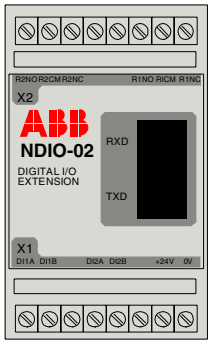
According to the drive application program, the digital inputs of the module replace or extend the standard I/O on the NIOC board. The relay outputs of each NDIO module increase the total number of the relay outputs available.

The NDIO module is connected to a high speed (4 Mbit/s) fibre optic I/O link on the ACS 600.

NDIO-02

Housing: Type 1
Weight: 0.2 kg

Front view



Screw terminal block
for the relay output connection

Fibre optic connectors
for the ACS 600 I/O link connection
RXD = Receiver
TXD = Transmitter

Screw terminal block
for digital input and power supply connection

NTAC-02 Pulse Encoder Interface Module

The NTAC-02 Pulse Encoder Interface Module offers an interface for an incremental pulse encoder connection. By measuring the motor actual speed with a pulse encoder, speed control accuracy can be improved.

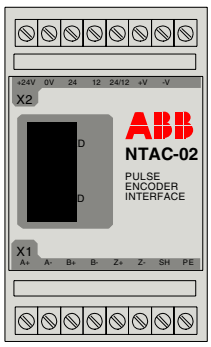
To achieve accurate speed control, special attention should be paid to the pulse encoder resolution/signal accuracy. These are the requirements for the encoder:

- Supply voltage 15 V DC or 24 V DC (supplied from the module)
- Available signal channels: 1/A, 2/B, 0/Z/N; for differential connection also $\overline{1}/\overline{A}$, $\overline{2}/\overline{B}$, $\overline{0}/\overline{Z}/\overline{N}$
- 90° (electrical) phase shift between channels 1 and 2
- Recommended output rate: 1024 pulses per revolution
- Recommended output sinking/sourcing capability: 40 mA
- Maximum signal frequency ≤ 100 kHz.

NTAC-02

Housing: Type 1
Weight: 0.2 kg

Front view



Screw terminal block for the power supply/source connections

Fibre optic connectors for the ACx 600 I/O link connection
RXD = Receiver
TXD = Transmitter

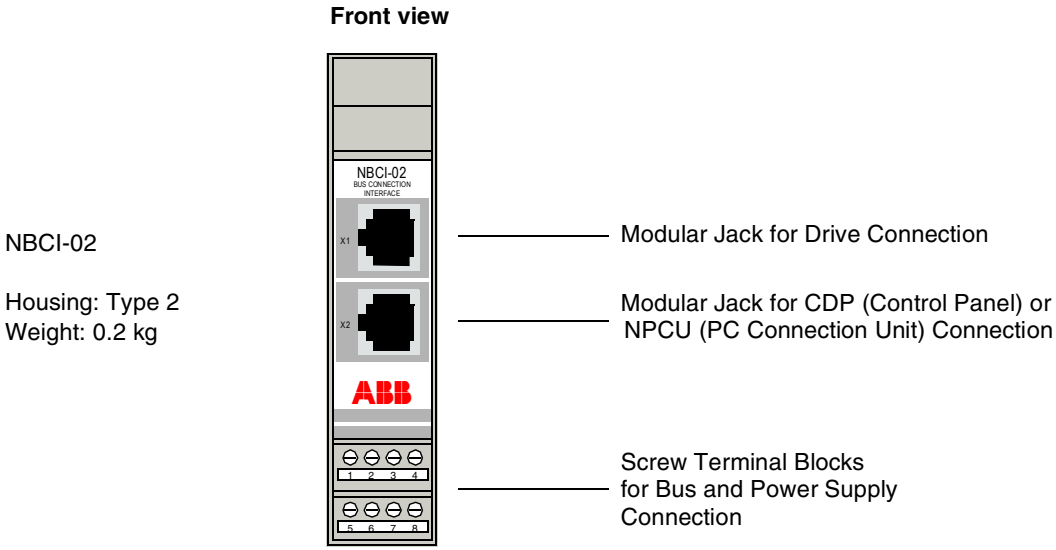
Screw terminal block for pulse encoder connection

NBCI-02 Bus Connection Interface Module

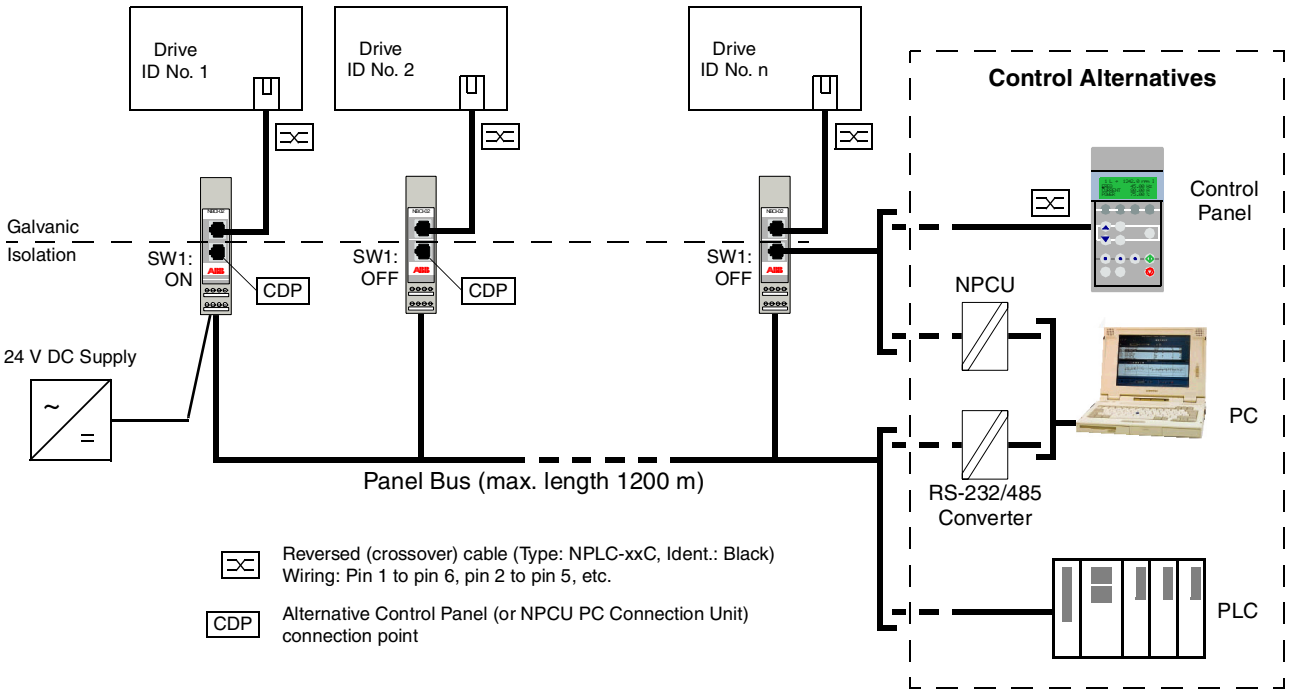
The NBCI-02 is used to connect a drive to a panel bus, which is controlled by a CDP 312 Control Panel or a Modbus controller (PLC or PC). PC connection usually requires an RS-232/485 converter, such as the NPCU-01 (see page 3-31).

The panel bus is a serial communication bus that uses the RS-485 physical interface. The panel bus employs the Modbus protocol at a transfer rate of 9600 bit/s (max.). Through the use of the panel bus, it is possible to

- install the Control Panel (or a PC with an RS-232/485 converter) at a distance of up to 1200 metres from the drive(s)
- control, supervise and program any drive on the panel bus at a time
- obtain a galvanically isolated connection between the drive and the panel bus.



The figure below gives an example of a panel bus configuration.

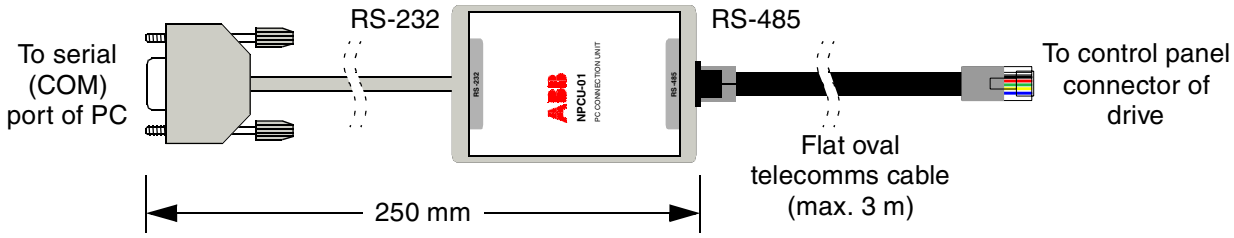


The NBCI-02 requires 24 V DC power (20 mA). All modules on the panel bus must be powered by an external supply in order to retain galvanic isolation between the panel bus and the drives.

NPCU-01 PC Connection Unit

The NPCU-01 PC Connection Unit is a galvanically-isolated RS-232/485 converter that enables the use of a PC – instead of the Control Panel – for controlling the drive.

The NPCU-01 is plugged into a serial port on the PC. The drive is connected to the NPCU-01 using the 3-metre (also the maximum length) flat oval telephone cable included. Locating the PC up to 1200 metres away from the drive is possible by constructing a panel bus using two NBCI Bus Interface Connection Modules. See text at *NBCI-02 Bus Connection Interface Module* above.



Fieldbus Adapter Modules Nxxx-0x

There are several fieldbus adapter modules available for the ACx 600, including:

- NAFA-01 Advant Fieldbus AF100 Adapter Kit
- NBAA-01 Building Automation Adapter Module
- NCAN-02 CANopen Adapter Module
- NCSA-01 CS 31 Adapter Module
- NDNA-02 DeviceNet Adapter Module
- NIBA-01 InterBus-S Adapter Module
- NLON-01 LONWORKS® Adapter Module
- NMBA-01 Modbus Adapter Module
- NMBP-01 Modbus Plus Adapter Module
- NPBA-12 PROFIBUS Adapter Module.

The fieldbus cable connects to the terminal block(s) on the adapter module. The adapter communicates with the ACx 600 via a fast (4 Mbit/s) half duplex fibre optic link.

Note: All fieldbus adapter are not compatible with all application programs. Contact your ABB representative for further information.

I/O Options for Drive Units			
Module	**Ordering Code**	**Housing**	**Weight Net (Gross) (kg)**
NAIO-03 Analogue I/O Extension	64212389	Type 1	0.2 (0.4)
NDIO-02 Digital I/O Extension	58976059	Type 1	0.2 (0.4)
NTAC-02 Pulse Encoder Interface	58976008	Type 1	0.2 (0.4)
NBCI-02 Bus Connection Interface	64248979	Type 2	0.2 (0.4)
NPCU-01 PC Connection Unit	64060465	see picture at text	0.1 (0.3)
NAFA-01 (CI810) AF100 Adapter	58919403	170 × 84 × 122 mm	0.5 (0.7)
NBAA-01 Building Automation Adapter	64286773	Type 1	0.2 (0.4)
NCAN-02 CANopen Adapter	64286731	Type 2	0.2 (0.4)
NCSA-01 CS 31 Adapter	58920002	Type 1	0.2 (0.4)
NDNA-02 DeviceNet Adapter	64286765	Type 2	0.2 (0.4)
NIBA-01 InterBus-S Adapter	58919381	Type 1	0.2 (0.4)
NLON-01 LonWorks® Adapter	59025091	Type 2	0.2 (0.4)
NMBA-01 Modbus Adapter	58919390	Type 1	0.2 (0.4)
NMBP-01 Modbus Plus Adapter	58919446	Type 3	0.3 (0.6)
NPBA-12 PROFIBUS Adapter	64348221	Type 2	0.2 (0.4)

Man/Machine Interfaces

CDP 312 Control Panel

The CDP 312 Control Panel is an man/machine interface for monitoring, adjusting parameters and controlling the drive unit. The CDP 312 has a multilingual alphanumeric LCD display of 4 × 20 characters.

Note: The cable is not included with the panel. It is included in the Panel Mounting Platform Kit (see page 3-35), and separately available as NPLC-03C (page 3-37).

CDP 312

Dimensions (H x W x D):
170 x 80 x 21 mm
Weight: 0.2 kg

Using the panel it is possible to

- enter start-up data into the drive unit
- control the drive unit with a reference signal and with Start, Stop and Direction commands
- display three drive actual values simultaneously
- display and adjust drive unit parameters
- display information on five most recent faults
- upload and download complete parameters settings from one drive unit to another, which simplifies the start-up procedure of several identical drive units.

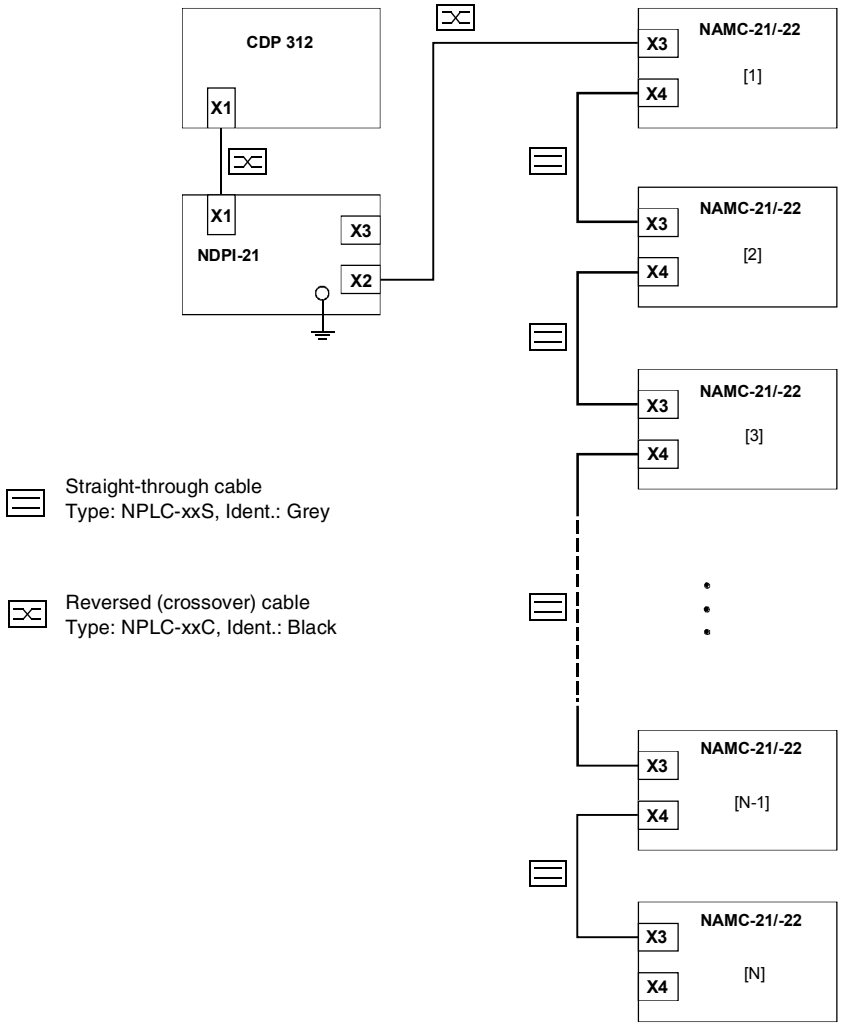
Control of Multiple Drive Units

One CDP 312 Control Panel can be used for controlling multiple drive units by chaining the NAMC-21/22 boards of several drive units as shown below. (The modular connectors on the NIOC board are not used for Control Panel connection; they are reserved for the Standard Modbus connection. See page 3-16.)

The Control Panel can be connected to the panel connector on the NAMC-21/22 board (X3) either directly or through the NDPI-21 connection board.

The maximum cable length between any two units on the link is 10 metres. In the presence of high level radiofrequency disturbance the length should be limited to 3 metres.

The maximum total length of the bus is 30 metres. The length can be extended up to 1200 metres by using NBCI-0x Bus Connection Interface Modules; see page 3-29 for more information.



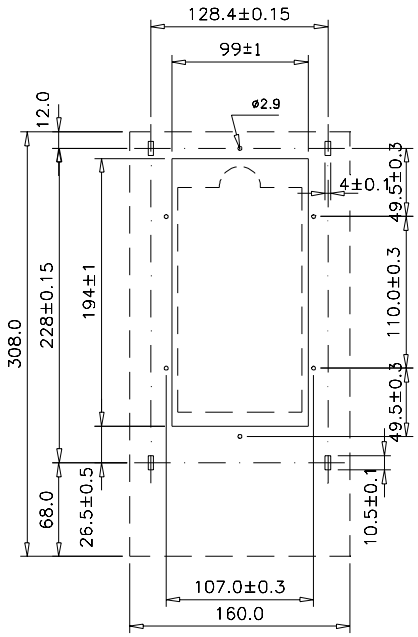
Panel Mounting Platform Kit

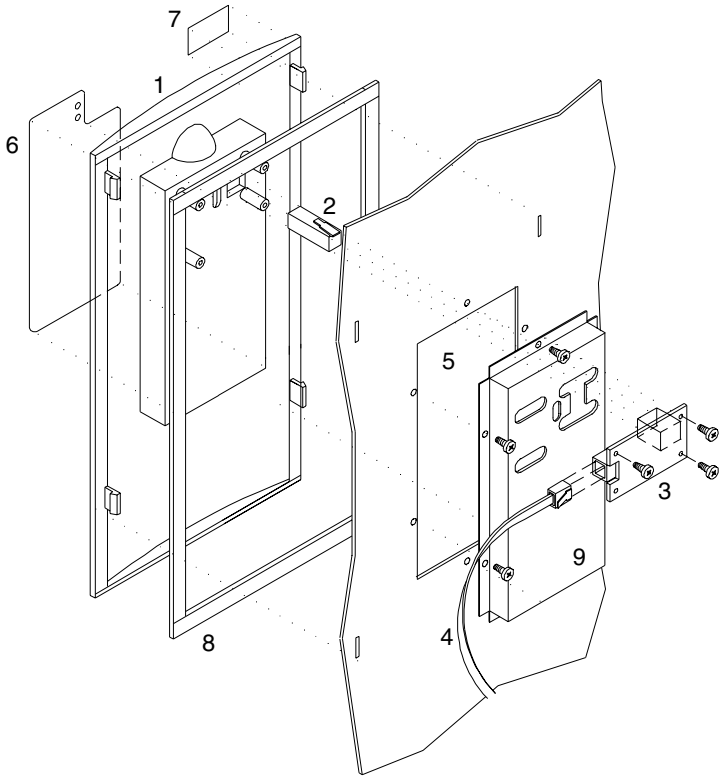
This kit contains the parts needed for the installation of a CDP 312 panel on a cabinet door, control desk, or other sheet metal base.

The panel is attached to the platform by inserting it into the recess. The enclosure class of the panel is IP54 when attached to the platform.

The parts included in the kit are the mounting platform (1), a modular connector (2), NDPI-21 connection board with fixing screws (3), gaskets for IP54 protection (8), an EMC shielding enclosure (9), a 3-metre flat oval telecommunications cable (4), and an earthing wire for an NLMD LED Monitoring Display (see separate entry on page 3-36).

1 Control Panel Mounting Platform
2 Connector
3 NDPI-21
4 Cable to drive unit (NDCU)
5 Opening in the cabinet door
6 Sticker
7 ABB label
8 IP54 gaskets
9 EMC enclosure





Mounting Platform

Dimensions (H x W x D):
320 x 193 × 47.5 mm
Protrusion: 22 mm

NLMD-01 LED Monitoring Display

The NLMD-01 LED Monitoring Display is a door-mountable unit for monitoring drives. It is available with one to three rows. Each row has three status indicators (Ready, Run, Fault) and an LED bar display with the scale of 0…150%. One row shows the status and a parameter-selectable actual value from one drive unit.

Note: The NLMD-01 is only supported by the System Application Program.

NLMD-01
(3-row type shown)

Man/Machine Interfaces	
Type and Description	**Ordering Code**
CDP 312 Control Panel	58975931
CDP 312 Mounting Platform Kit	64180088
NLMD-01-KIT-1 LED Monitoring Display (1 row)	61356185
NLMD-01-KIT-2 LED Monitoring Display (2 rows)	61356215
NLMD-01-KIT-3 LED Monitoring Display (3 rows)	61356231

Other Options

Prevention of Unexpected Start

The drive unit can be equipped with the Prevention of Unexpected Start option according to standards EN 292-1: 1991; EN 292-2: 1991; EN 954-1: 1996; EN 60204-1-1: 1992 + Corr. 1993; and EN 1037: 1995. The main component of the option is the NGPS (Gate Driver Power Supply) board, installed inside the inverter module. The wiring must be done using safety relays (not included) to comply with the standards.

The Prevention of Unexpected Start function makes it possible for the operator to prevent an inadvertent starting of the drive so that maintenance work on the machinery can be carried out. The function is implemented by disconnecting the control voltage to the power semiconductors of the inverter module, so that no AC voltage can be generated to rotate the motor. Note that the function does not disconnect the supply or control voltages from the drive, so work on the electrical parts of the system can only be carried out after disconnecting the drive system from the main supply.

Specify the option upon ordering if required.

For further information, see the wiring instructions in the *ACS 600 MultiDrive Modules Installation Manual,* or *Prevention of Unexpected Start* (under *User Documentation)* on the *ACS 600 MultiDrive Modules Engineering CD-ROM.*

NPLC-0xy Panel Link Cables

The NPLC series consists of screened telecommunications cables with crossover wiring (suffix **C**) or straight-through wiring (suffix **S**).

Panel Link Cables			
Type	**Length (m)**	**Wiring**	**Example Application**
NPLC-00C	0.5	Crossover (1 to 6, 2 to 5, etc.)	Control Panel connection
NPLC-02C	2		
NPLC-03C	3		
NPLC-00S	0.5	Straight-through (1 to 1, 2 to 2, etc.)	Linking of NIOC boards for common control
NPLC-01S	1		
NPLC-02S	2		

NLWC-xx Fibre Optic Cables

Plastic fibre optic cables (POF) are available as sets of two cables.

Plastic Fibre Optic Cables (POF)		
Type	**Length (m)**	**Ordering Code**
NLWC-02	2	58988821
NLWC-03	3	58948233
NLWC-05	5	58948250
NLWC-07	7	58948268
NLWC-10	10	58948276

NDBU-xx DDCS Branching Units

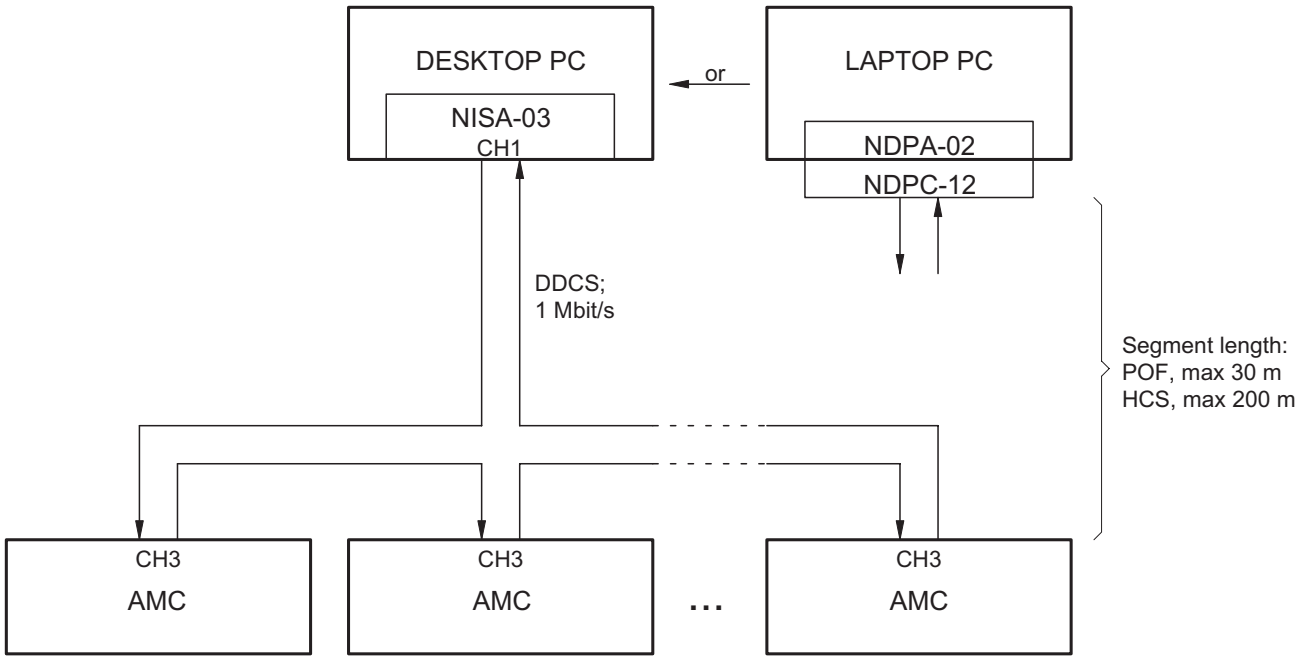
Normally, DDCS-protocol fibre optic connections have a ring topology. The ring topology is more vulnerable to communication failures than the star topology; for example, if Drive*Window* is used to control several drive units, the failure or power cut of one drive control unit stops the communication to all drives. Likewise, one drive unit cannot be disconnected without disrupting the entire system.

The NDBU branching units provide a star topology for optical fibre connections. Branching units can also be chained (the CH0 channel of the master is connected to the MSTR channel of the slave). See the diagrams on the following pages for connection examples, and Chapter 5 for information on Drive*Ware* PC tools.

Optical (DDCS) Branching Units							
Type	**Optical Component Types (MBd)**			**Transmission Speed (Mbit/s)**	**Protocol**	**Data Routing Mode**	**Ordering Code**
	MSTR	CH0	CH1…8				
NDBU-85	10	10	5	1, 2 or 4	DDCS	Master to Slave only	63985261
NDBU-95	10	10	10	1, 2, 4 or 8	DDCS or DriveBus	DDCS: Master to Slave only DriveBus: Also Slave to Slave	63985252

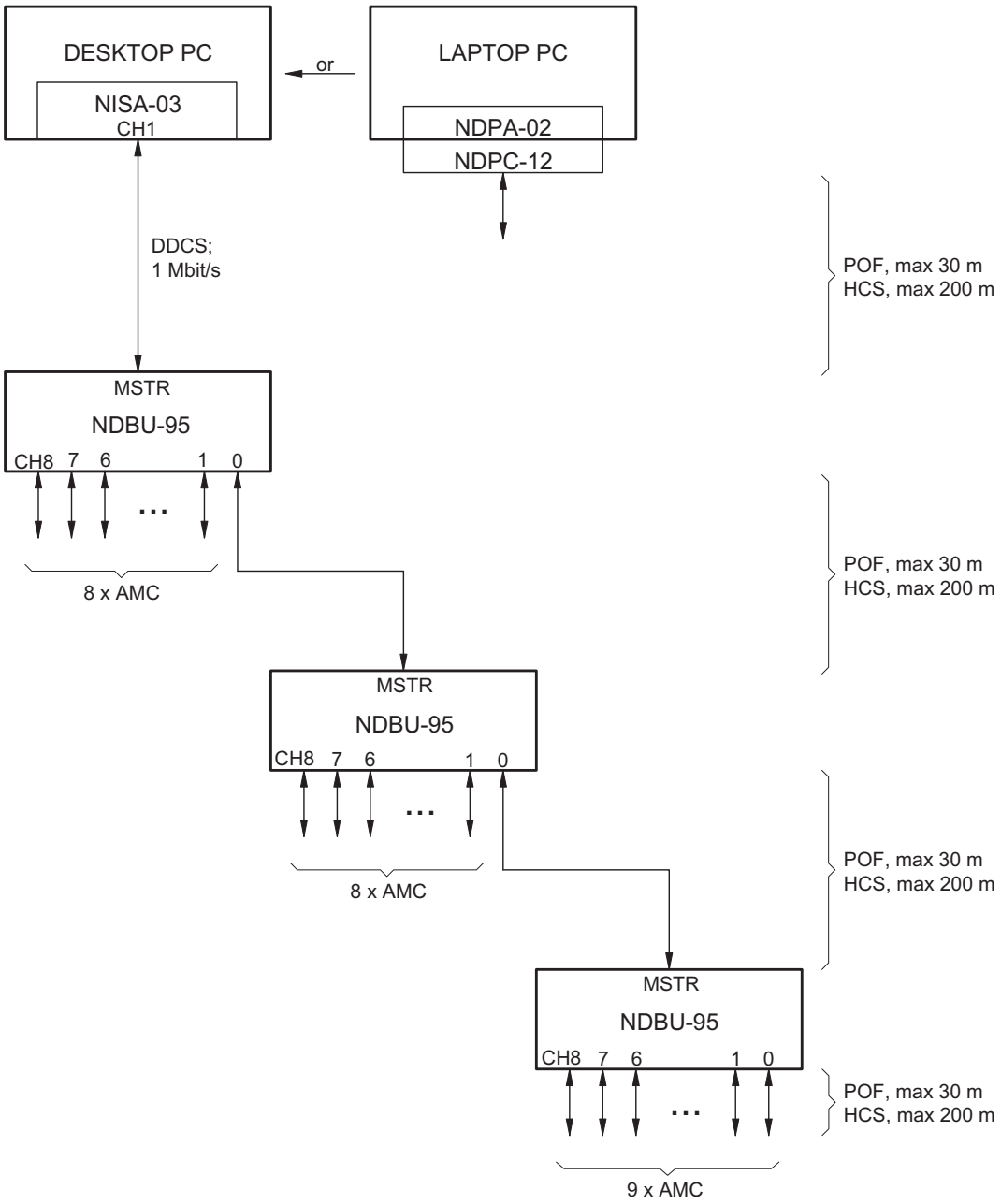
DDCS Branching Examples

OPTICAL RING



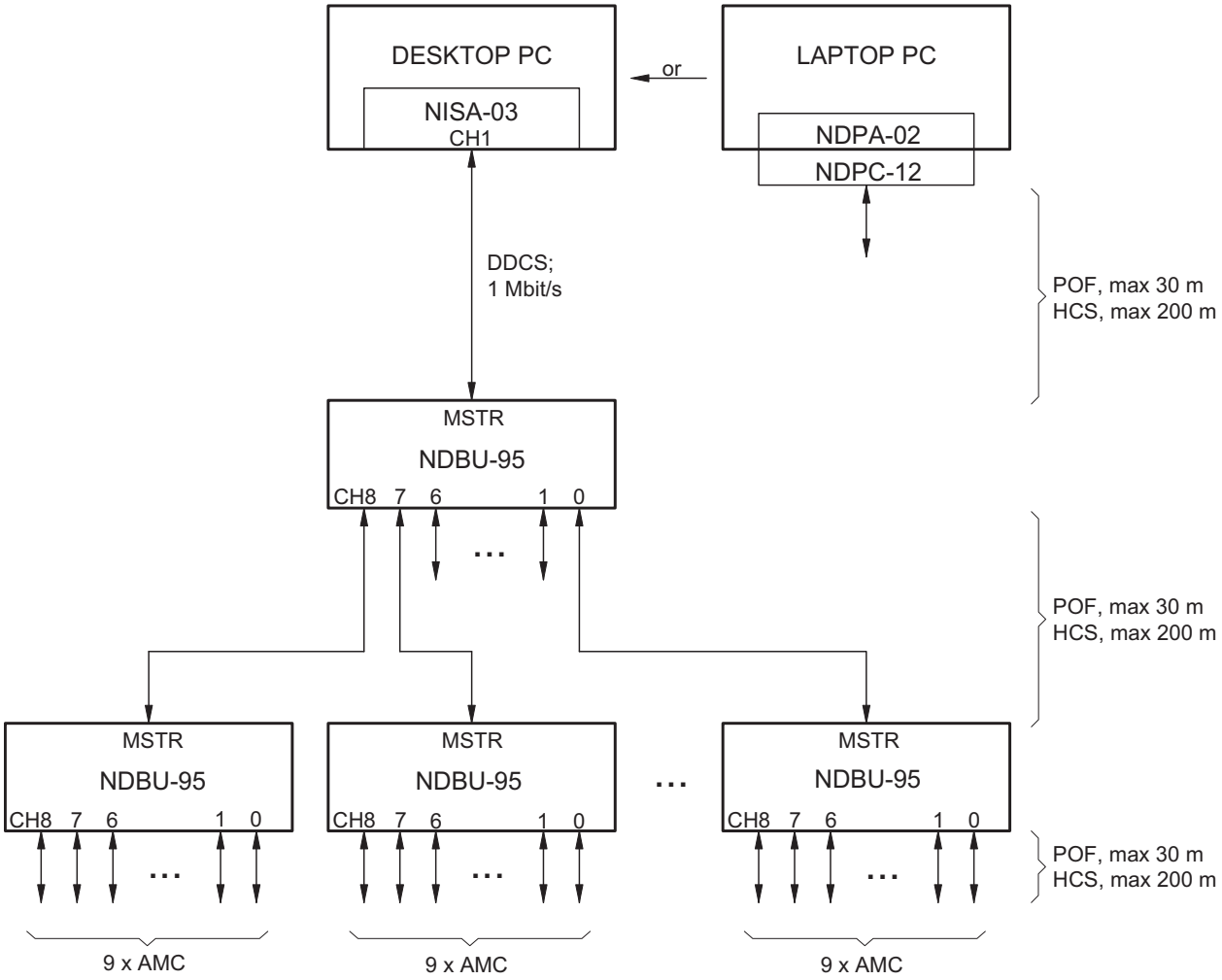
AMC	= NAMC-11 + NDCO-01/-02	(AMC 1)
	or NAMC-51 + NDCO-01/-02	(AMC 5)
	or NAMC-21/-22	(AMC 2)
NDPA-02	= DDCS / PC Card Adapter	
NDPC-12	= DDCS / PC Card Cable	
NISA-03	= DDCS Interface for ISA Bus	
HCS	= Hard Clad Silica Fibre	
POF	= Plastic Optical Fibre	

POINT - TO - POINT



AMC	= NAMC-11 + NDCO-01/-02	(AMC 1)
	or NAMC-51 + NDCO-01/-02	(AMC 5)
	or NAMC-21/-22	(AMC 2)
NDBU-95	= DDCS Branching Unit, 9 Ch	
NDPA-02	= DDCS / PC Card Adapter	
NDPC-12	= DDCS / PC Card Cable	
NISA-03	= DDCS Interface for ISA Bus	
HCS	= Hard Clad Silica Fibre	
POF	= Plastic Optical Fibre	

POINT - TO - POINT



AMC	= NAMC-11 + NDCO-01/-02	(AMC 1)
	or NAMC-51 + NDCO-01/-02	(AMC 5)
	or NAMC-21/-22	(AMC 2)
NDBU-95	= DDCS Branching Unit, 9 Ch	
NDPA-02	= DDCS / PC Card Adapter	
NDPC-12	= DDCS / PC Card Cable	
NISA-03	= DDCS Interface for ISA Bus	
HCS	= Hard Clad Silica Fibre	
POF	= Plastic Optical Fibre	

Chapter 4 – Dynamic Braking Units

Resistor Braking

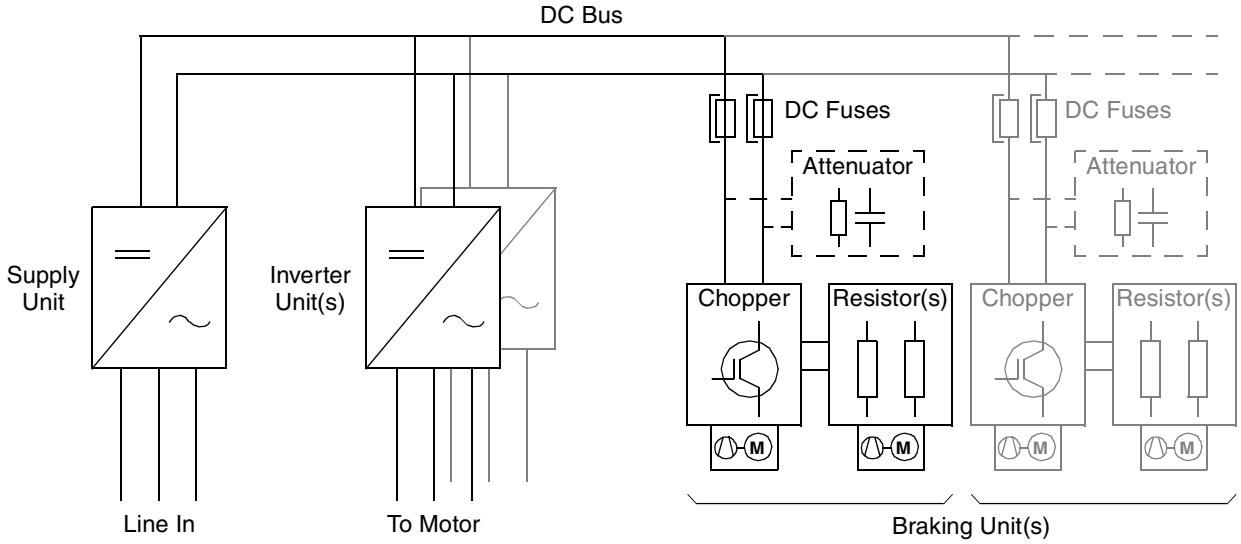
In drive systems without a regenerative supply unit, the power generated by a decelerating motor has to be conducted to a braking resistor in order to prevent the excessive rise of the DC bus voltage. In resistor braking, a braking chopper monitors the DC bus voltage. Whenever the voltage rises above a defined limit, the chopper connects a braking resistor to the DC bus. After the voltage has dropped, the chopper disconnects the resistor.

The figure below shows a drive system with a braking unit. In addition to the chopper and resistor(s), the braking unit contains DC fuses to protect the chopper and the braking circuit cables in a cable short-circuit situation. If all inverter modules are equipped with a switch fuse, an attenuator must be installed in order to suppress DC bus voltage spikes at the input of the chopper.

For high braking powers, several braking units can be connected in parallel. (Note that resistors cannot be shared; each chopper must have an individual resistor.) With multiple braking units, one chopper acts as the master with which the other choppers are synchronised.

A typical braking unit consists of:

- **DC fuses** for protection of the braking circuit.
- **Attenuator** (optional) for suppressing voltage spikes at chopper input. Must be fitted if it is possible to disconnect all inverter units from the DC bus with the supply unit on.
- **Braking chopper** and **cooling fan**.
- **Braking resistor(s)** and **cooling fan(s)**.



DC Fuses

DC Fuses for Braking Units				
Chopper Type	**Quantity**	**Ordering Code**	**Type**	**Data**
NBRA-658	2 per chopper	10028183	170M 5142	400 A, 1000-1250 V, UR
NBRA-659 NBRA-669	2 per chopper	10028191	170M 5146	630A, 1000-1250 V, UR

Fuse Base for Braking Unit DC Fuses			
Qty	**Ordering Code**	**Type**	**Data**
1 per fuse	10028205	170H 3005	630 A, 1400 V

Attenuator

Attenuator for Braking Choppers		
Quantity	**Ordering Code**	**Type**
1 per chopper	64019236	NRCB-01

Braking Choppers

The ACS 600 MultiDrive Modules product line employs the NBRA-658/659/669 braking choppers. The NBRA-65x types are intended for 400 and 500 V drives; the NBRA-669 is used with 690 V AC drives. The choppers have a jumper for voltage setting.

The braking choppers are optionally available with a conformal-coated control board. These choppers have a type designation with the suffix **C** (e.g. **NBRA-659C**).

For dimensional drawings of the choppers, see Appendix A.

Note: All loadability values are valid for nominal voltage, recommended resistance, and assumed DC bus capacitance.

Braking Choppers															
U_N (V)	Ordering Code, with		Type	P_{brmax} (kW)	P_{cont} (kW)	I_{max} (A)	I_{rms} (A)	R (ohm)	C (mF)	Duty Cycle (10/60 s)		Duty Cycle (1/5 min)		U_{br_on} (V)	U_{br_off} (V)
	Non-coated Boards	Coated Boards								P_{br} (kW)	I_{rms} (A)	P_{br} (kW)	I_{rms} (A)		
400	58914886	58974676	NBRA-658	230	70	384	109	1.7	11.1	230	355	230	355	674	660
	58915009	58972720	NBRA-659	353	96	545	149	1.2	15.5	353	545	303	468		
500	58914886	58974676	NBRA-658	268	81	380	101	2.15	13.2	268	331	268	331	811	795
	58915009	58972720	NBRA-659	403	109	571	136	1.43	18.5	403	498	317	391		
690	58915009	58972720	NBRA-669	404	119	414	107	2.72	20.1	404	361	298	267	1120	1096

U_N = Nominal voltage
P_{brmax} = Maximum short-term (1 min every 10 mins) braking power
P_{cont} = Maximum continuous braking power
I_{max} = Maximum peak current
I_{rms} = Corresponding RMS current
R = Recommended resistance
C = Assumed DC bus capacitance (including supply and inverter modules) per chopper. If actual DC bus capacitance (per chopper) is lower than this value, see derating instructions on *ACS 600 MultiDrive Modules Engineering CD-ROM,* or contact an ABB representative.
P_{br} = Braking power for the specified duty cycle
U_{br_on} = DC bus voltage at which chopper starts conducting
U_{br_off} = DC bus voltage at which chopper stops conducting

Cooling Fans for Braking Choppers

Each braking chopper requires a cooling fan, which is to be supplied from the auxiliary voltage circuit. The fan is to be fastened to a mounting plate below the chopper; see the *Installation Manual* for details.

Cooling Fan Kit for Braking Choppers			
Auxiliary Voltage (V AC)	**Qty**	**Ordering Code**	**Connection Cable Length**
230	1 per chopper	64114158	1.5 m
115	1 per chopper	64114191	

Braking Resistors

The braking resistors listed below are available in the ACS 600 MultiDrive Modules product line. The resistors are built in an IP00 metal frame. A dimensional diagram is included in Appendix A.

Braking Resistors					
Type	**U_N (V)**	**R (ohm)**	**E_R (kJ)**	**P_{Rcont} (kW)**	**Ordering Code**
SAFUR125F500	500	4.0	3600	9.0	57446951
SAFUR210F575	575	3.4	4200	10.5	57446994
SAFUR200F500	500	2.7	5400	13.5	57446960
SAFUR180F460	460	2.4	6000	15.0	57446935

Cooling Fans for Braking Resistors

One cooling fan is sufficient for two of the above resistors when they are installed side by side. The fan is to be supplied from the auxiliary voltage circuit. The fan is to be installed below the resistors using a mounting plate; see the *Installation Manual* for details.

Cooling Fan Kit for 2 Braking Resistors			
Auxiliary Voltage (V AC)	**Quantity**	**Ordering Code**	**Connection Cable Length**
230	1 per 2 resistors	64114336	2.1 m
115	1 per 2 resistors	64114344	

Chopper/Resistor Selection

The suitable chopper/resistor combination can be determined on the basis of the required braking power as shown in section *Calculating the Maximum Braking Power* later in this chapter. The following table recommends chopper/resistor combinations for different braking powers.

Note: All loadability values are valid for nominal voltage, recommended resistance, and assumed DC bus capacitance. Derating instructions follow.

U_N	Chopper(s)	Resistors	R (ohm)	P_{brmax} (kW)	P_{cont} (kW)	I_{max} (A)	Duty Cycle (10/60 s)		Duty Cycle (1/5 min)	
							P_{br} (kW)	I_{rms} (A)	P_{br} (kW)	I_{rms} (A)
400 V	NBRA-658	2 × SAFUR210F575	1.7	230	42	384	224	345	130	200
	NBRA-659	2 × SAFUR180F460	1.2	353	54	545	287	444	167	257
	2 × NBRA-659	2 × (2 × SAFUR180F460)	1.2	706	108	545	575	444	333	257
	3 × NBRA-659	3 × (2 × SAFUR180F460)	1.2	1058	162	545	862	444	500	257
	4 × NBRA-659	4 × (2 × SAFUR180F460)	1.2	1411	216	545	1150	444	667	257
	5 × NBRA-659	5 × (2 × SAFUR180F460)	1.2	1764	270	545	1437	444	833	257
	6 × NBRA-659	6 × (2 × SAFUR180F460)	1.2	2117	324	545	1724	444	1000	257
500 V	NBRA-658	2 × SAFUR125F500	2.0	268	36	408	192	237	111	137
	NBRA-659	2 × SAFUR200F500	1.35	403	54	605	287	355	167	206
	2 × NBRA-659	2 × (2 × SAFUR200F500)	1.35	806	108	605	575	355	333	206
	3 × NBRA-659	3 × (2 × SAFUR200F500)	1.35	1208	162	605	862	355	500	206
	4 × NBRA-659	4 × (2 × SAFUR200F500)	1.35	1611	216	605	1150	355	667	206
	5 × NBRA-659	5 × (2 × SAFUR200F500)	1.35	2014	270	605	1437	355	833	206
	6 × NBRA-659	6 × (2 × SAFUR200F500)	1.35	2417	324	605	1724	355	1000	206
690 V	NBRA-669	2 × SAFUR200F500	1.35	404	54	835	287	355	167	206
	2 × NBRA-669	2 × (2 × SAFUR200F500)	1.35	807	108	835	287	355	333	206
	3 × NBRA-669	3 × (2 × SAFUR200F500)	1.35	1211	162	835	575	355	500	206
	4 × NBRA-669	4 × (2 × SAFUR200F500)	1.35	1615	216	835	862	355	667	206
	5 × NBRA-669	5 × (2 × SAFUR200F500)	1.35	2019	270	835	1150	355	833	206
	6 × NBRA-669	6 × (2 × SAFUR200F500)	1.35	2422	324	835	1724	355	2000	206

U_N = Nominal voltage
R = Resistance of specified resistors (per chopper)
P_{brmax} = Maximum short-term (1 min every 10 mins) braking power
P_{cont} = Maximum continuous braking power
I_{max} = Maximum peak current (per chopper)
P_{br} = Braking power for the specified duty cycle
I_{rms} = Corresponding RMS current (per chopper)

Calculating the Maximum Braking Power

The Maximum Braking Power (P_{brmax}) for each braking chopper is given in the table above. The rated value is specified for a reference braking cycle (ten minute braking cycle: one minute braking, nine minutes at rest). If the actual braking cycle does not correspond to the reference cycle, the maximum allowed braking power must be calculated.

1. Braking energy transferred during any ten minute period must be less than or equal to the energy transferred during the reference braking cycle.

2. The braking power must not exceed the rated maximum value P_{brmax}.

1. $n \cdot P_{br} \cdot t_{br} \leq P_{brmax} \cdot 60\ s$

2. $P_{br} \leq P_{brmax}$

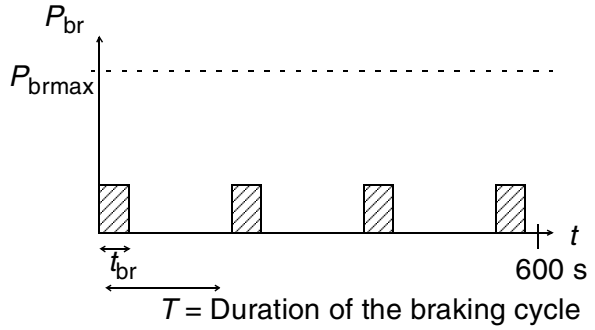
n	=	Number of braking pulses during a ten minute period
P_{br}	=	Maximum allowed braking power (kW).
t_{br}	=	Braking time (s)
P_{brmax}	=	Maximum Braking Power for a reference cycle (kW)

Example 1 Duration of a braking cycle is 30 minutes. The braking time is 15 minutes.

Result: If the braking time exceeds ten minutes the braking is considered continuous. The allowed continuous braking power is ten percent of the Maximum Braking Power (P_{brmax}).

Example 2 Duration of a braking cycle is three minutes. The braking time is 40 seconds.

1. $P_{br} \leq \frac{P_{brmax} \cdot 60\ s}{4 \cdot 40\ s} = 0.375 \cdot P_{brmax}$

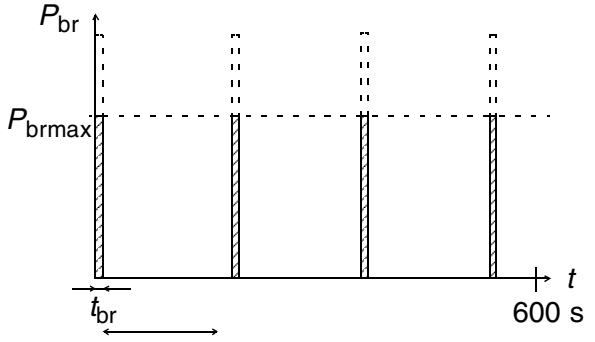


2. $P_{br} < P_{brmax}$ O.K.

Result: The maximum allowed braking power for the cycle is 37 % of the rated value given for the reference cycle.

Example 3 Duration of a braking cycle is three minutes. The braking time is 10 seconds.

1. $P_{br} \leq \frac{P_{brmax} \cdot 60\ s}{4 \cdot 10\ s} = 1.5 \cdot P_{brmax}$



2. $P_{br} > P_{brmax}$ Not allowed.

Result: The maximum allowed braking power for the cycle is equal to the Maximum Braking Power (P_{brmax}) given for the reference cycle.

Chapter 5 – DriveWare

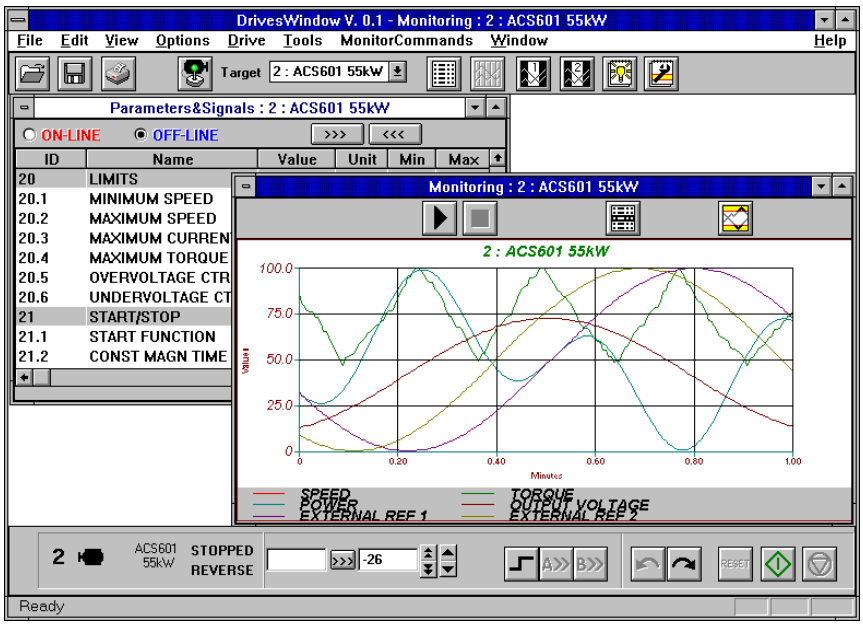
Drive*Ware* PC Tools

The Drive*Ware* family of PC tools includes Windows applications for dimensioning, and on-line commissioning, control and maintenance of ACx 600 drives.

Note: The on-line tools connect to Channel CH3 on the NAMC board of the drive. If the drive is equipped with an NAMC-11 or NAMC-51 control board, an NDCO board is also required. See page 3-10.

Drive*Window*

Drive*Window* is designed for on-line commissioning and maintenance. It is possible to adjust the parameters, read the actual values and control the drive with Drive*Window* instead of the Control Panel. It is also possible to follow trends, draw graphs and load custom-made application software to the drive.



Drive*Size*

Drive*Size* is designed for dimensioning of motors (ABB or customer-specified AC motors), drives and transformers in a drive system. Drive*Size* comes with Mot*Size,* a dimensioning tool for direct-on-line motors.

Drive*Link*

Drive*Link* is an application for connecting ABB drives with PC-based monitoring systems. Drive*Link* is compatible with all Windows applications that support DDE (Dynamic Data Exchange), such as WonderWare Intouch®, Genesis®, Excel®, Visual Basic®, Drive*Support* and Adva Command®.

Drive*Ware PC Tools*		
Application	**Media**	**Ordering Code**
Drive*Window* – incl. PCMCIA (Laptop) connection kit*	CD	61475141
Drive*Window* – incl. ISA (Desktop) connection kit**	CD	61476431
Drive*Window* – media only	CD	61475133
Drive*Size*	CD	61403779
Drive*Link* – incl. PCMCIA (Laptop) connection kit*	3.5” FD	61408967
Drive*Link* – incl. ISA (Desktop) connection kit**	3.5” FD	61408975

*PCMCIA/DDCS Adapter (with 5 MBd and 10 MBd optical components) and a pair of fibre optic cables (length: 10 m)

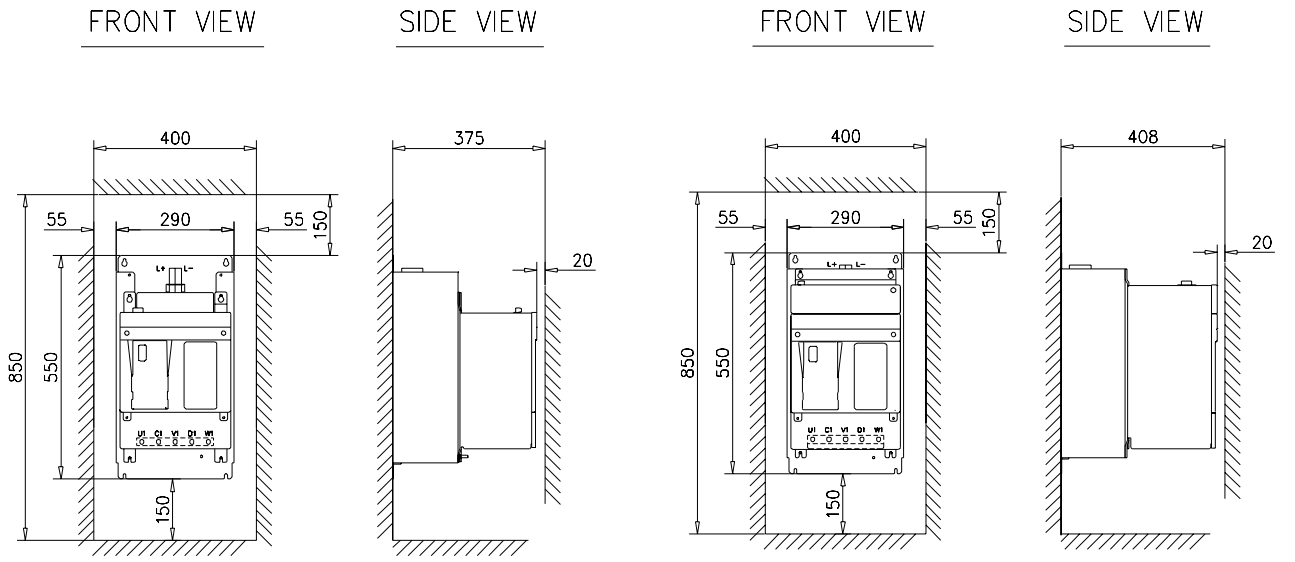
**ISA/DDCS Adapter (with 5 MBd and 10 MBd optical components) and a pair of fibre optic cables (length: 10 m)

Appendix A – Dimensional Drawings

This Appendix contains the dimensional drawings for the ACS 600 MultiDrive Modules components.

Diode and Thyristor Supply Modules

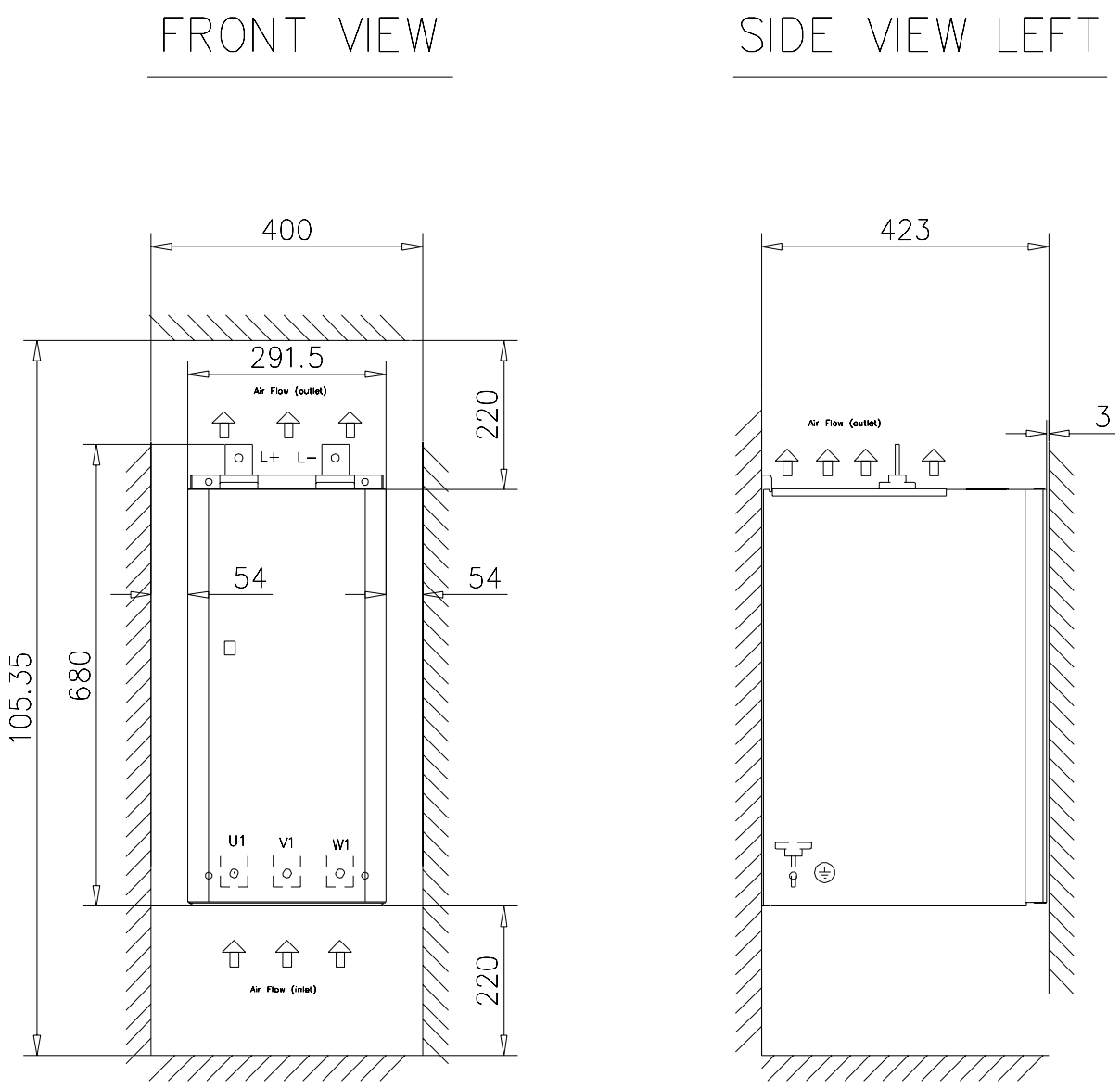
Frame B1



ACN 6x4-0016 to -0050
Weight: 36 kg

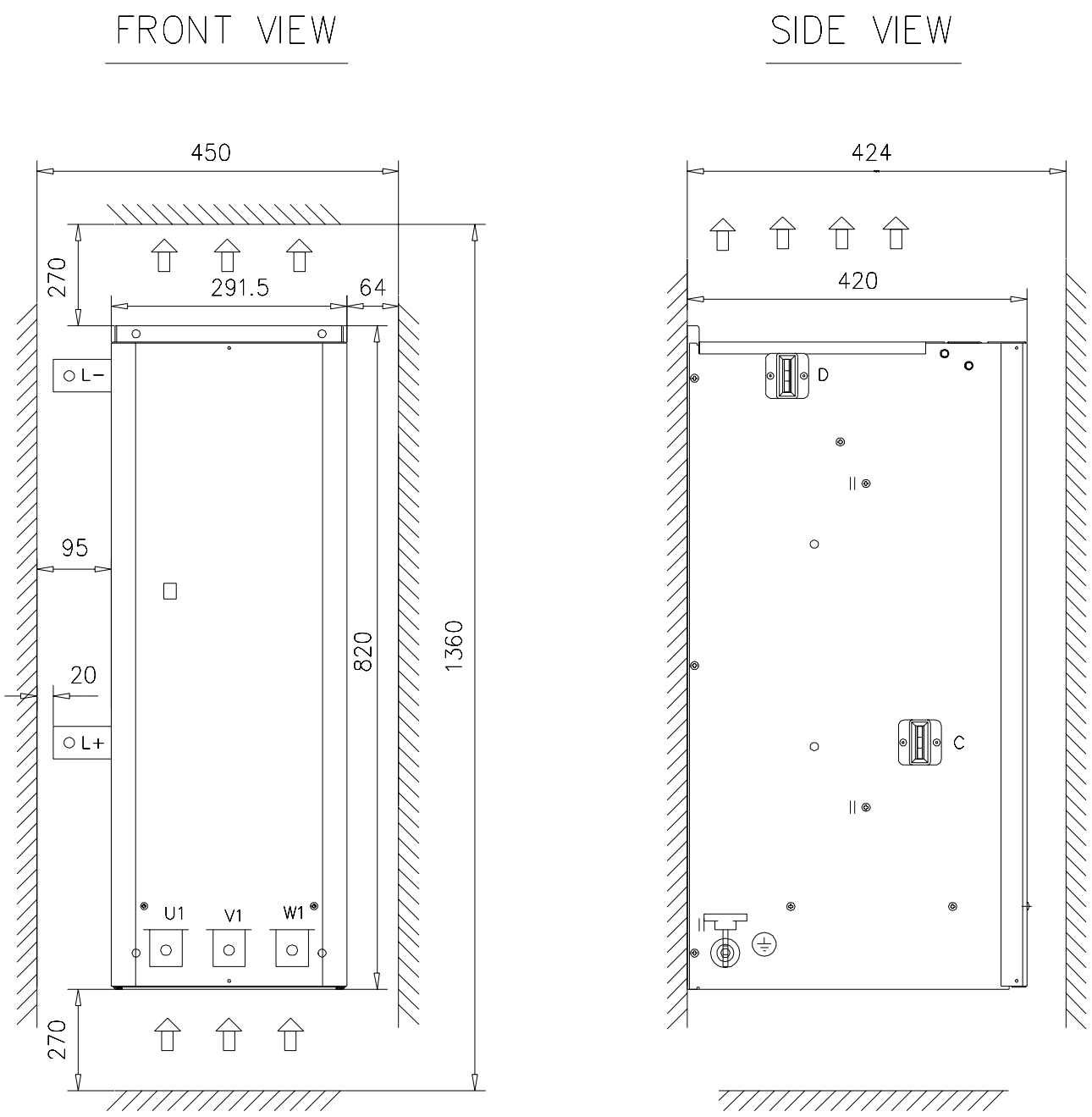
ACN 6x4-0090
Weight: 36 kg

Frame B2



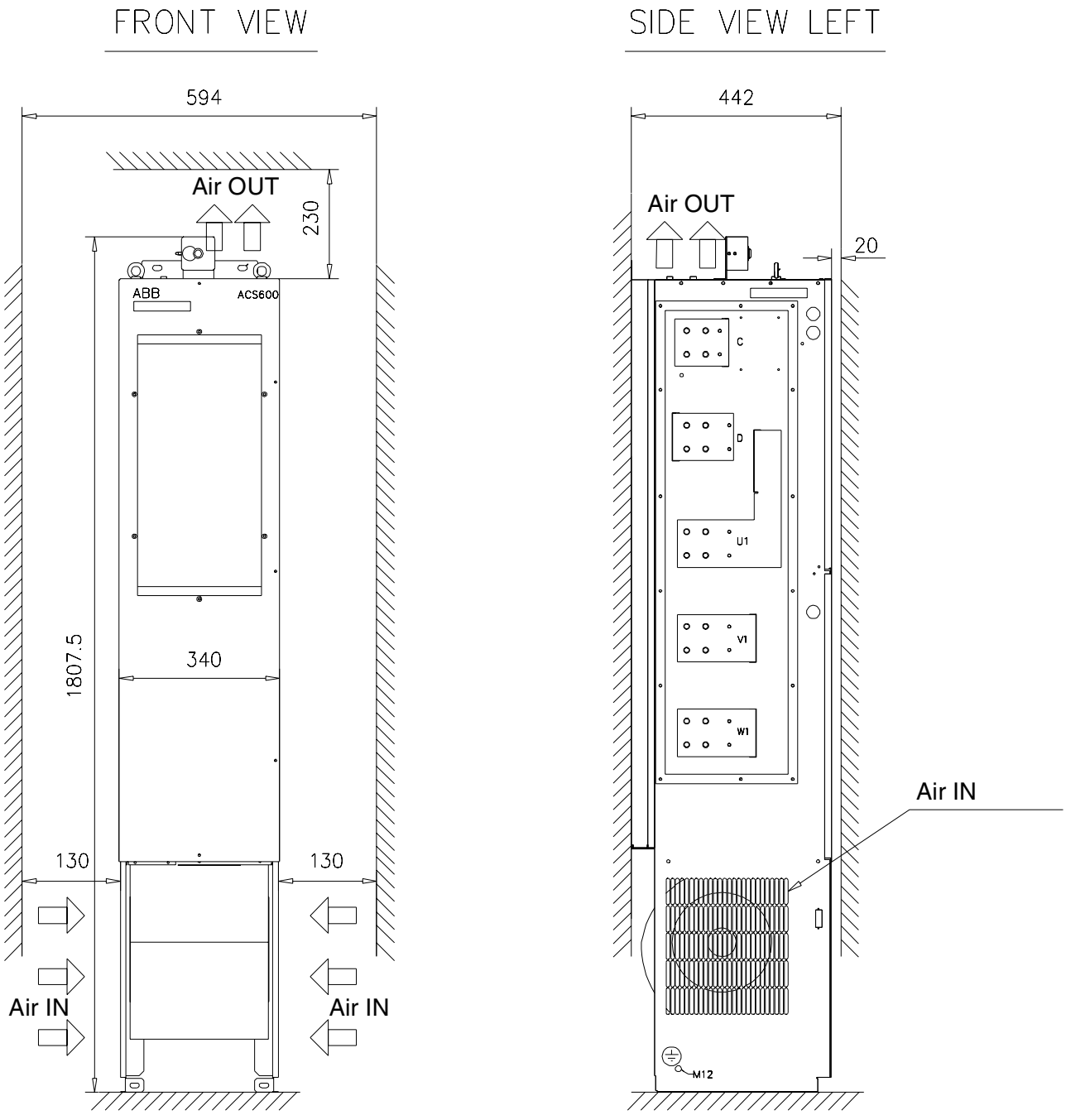
FRAME SIZE B2 (SUPPLY MODULE)
WEIGHT 65 kg

Frame B3



FRAME SIZE B3 (SUPPLY MODULE)
WEIGHT 90kg

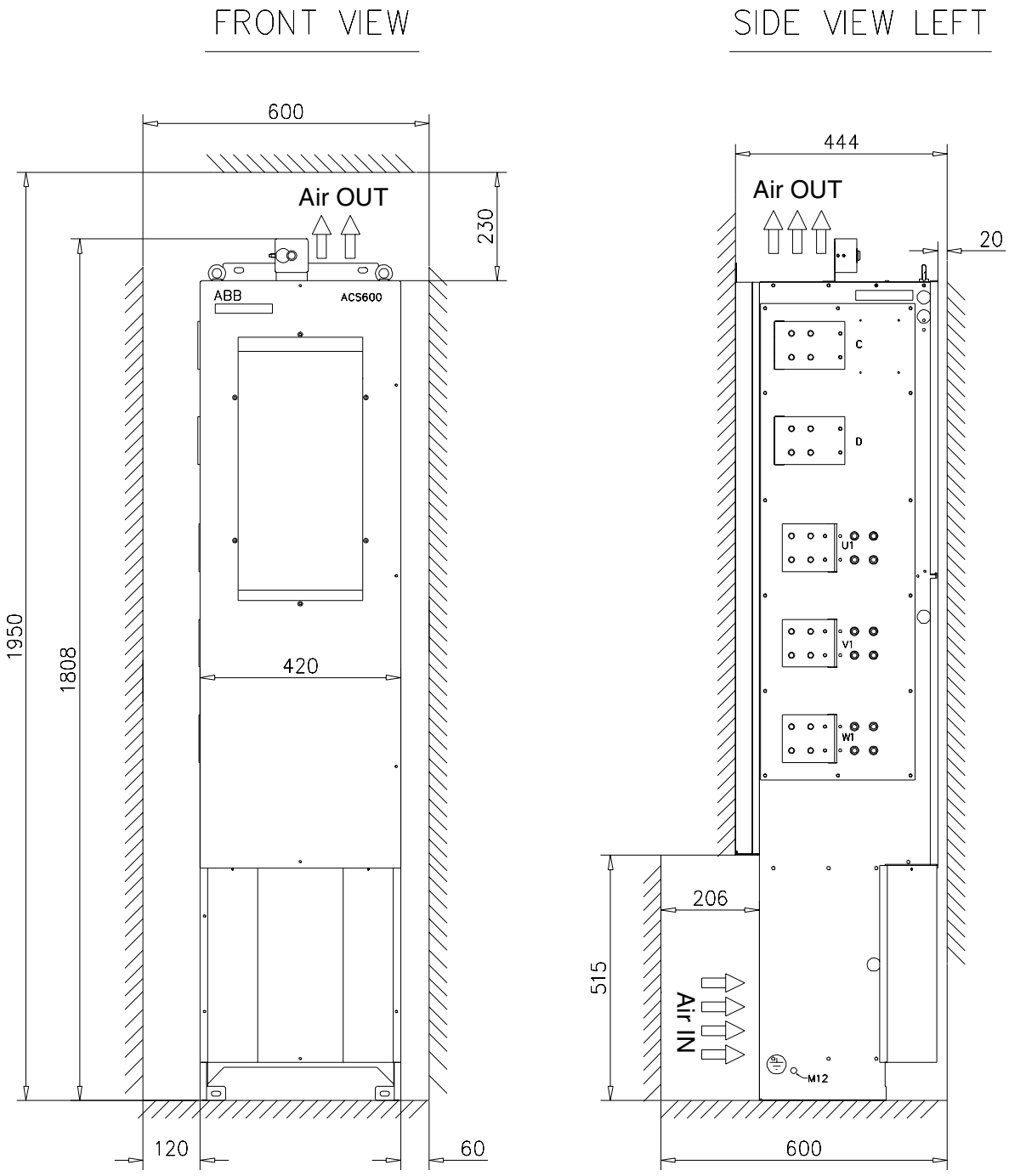
Frame B4



FRAME SIZE B4 (SUPPLY MODULE)

Weight 110 kg

Frame B5

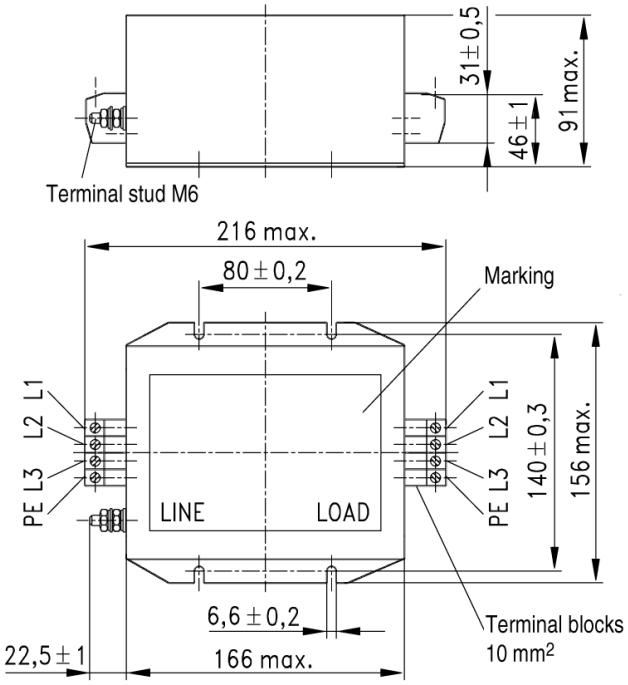


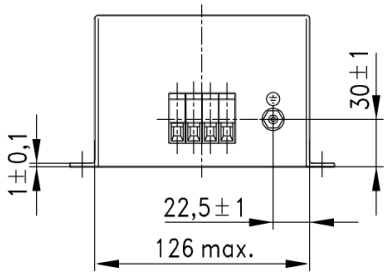
FRAME SIZE B5 (SUPPLY MODULE)

Weight 150 kg

Line (RFI) Filters

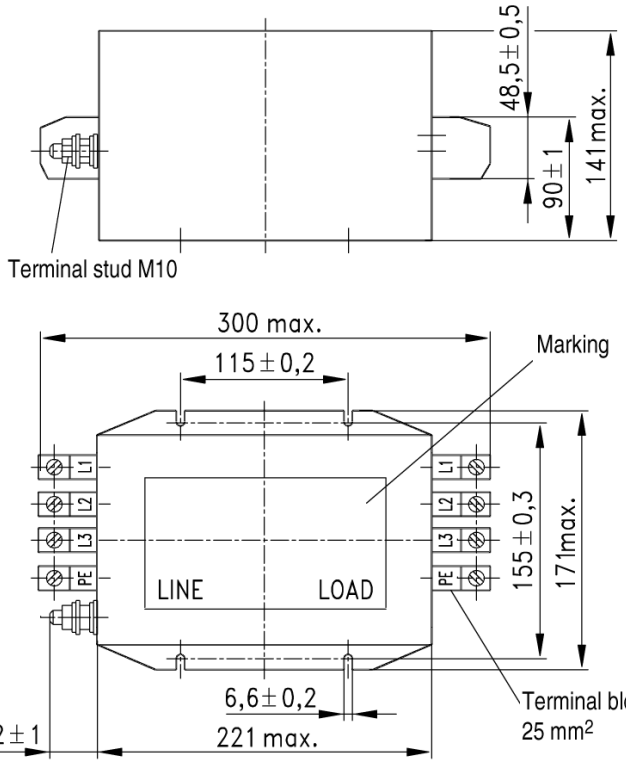
B84143-A50-R37

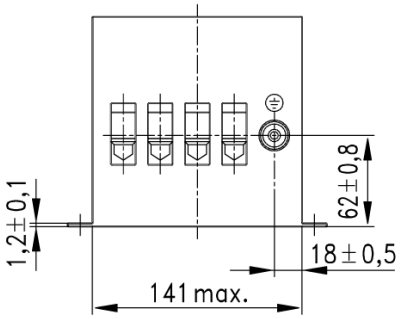




3 × 50 A
Weight: 4 kg

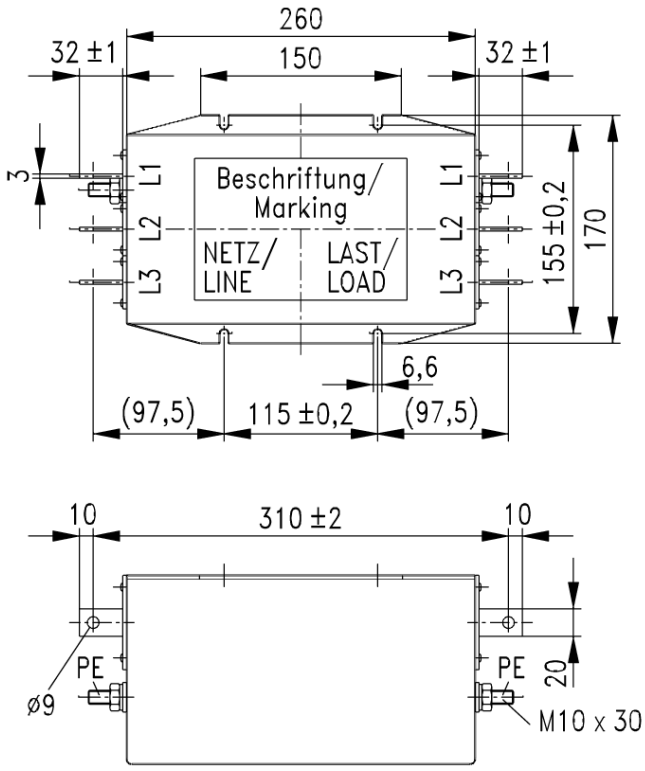
B84143-A80-R37

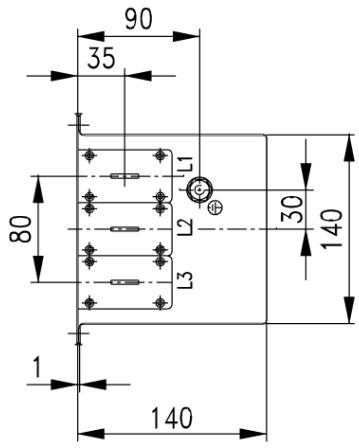




3 × 80 A
Weight: 9.5 kg

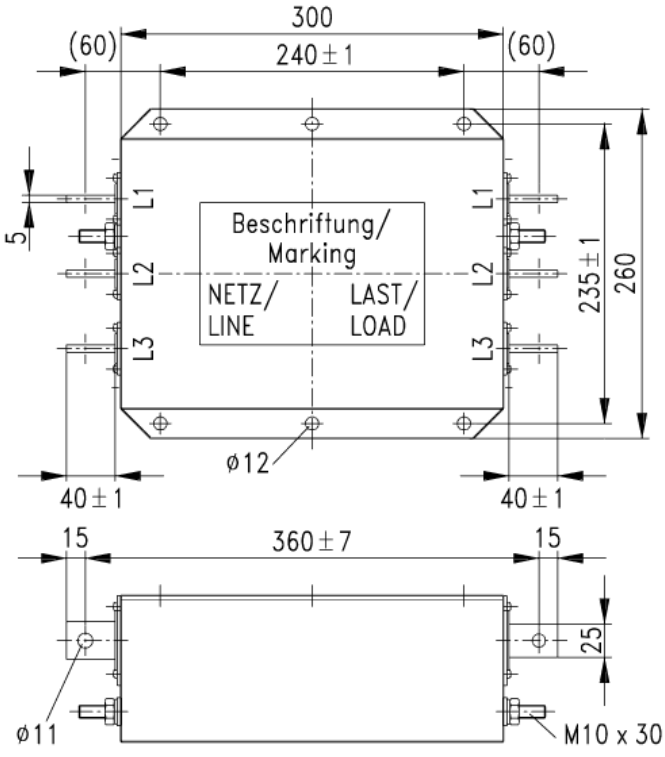
B84143-B150-S21

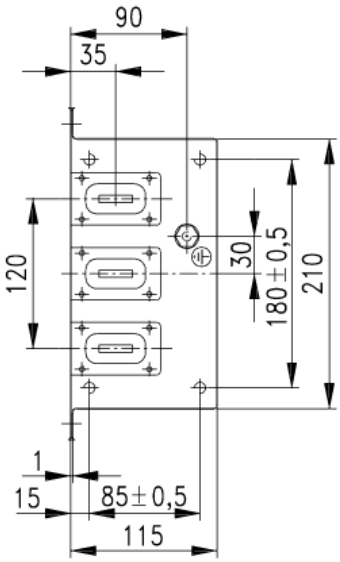




3 × 150 A
Weight: 13 kg

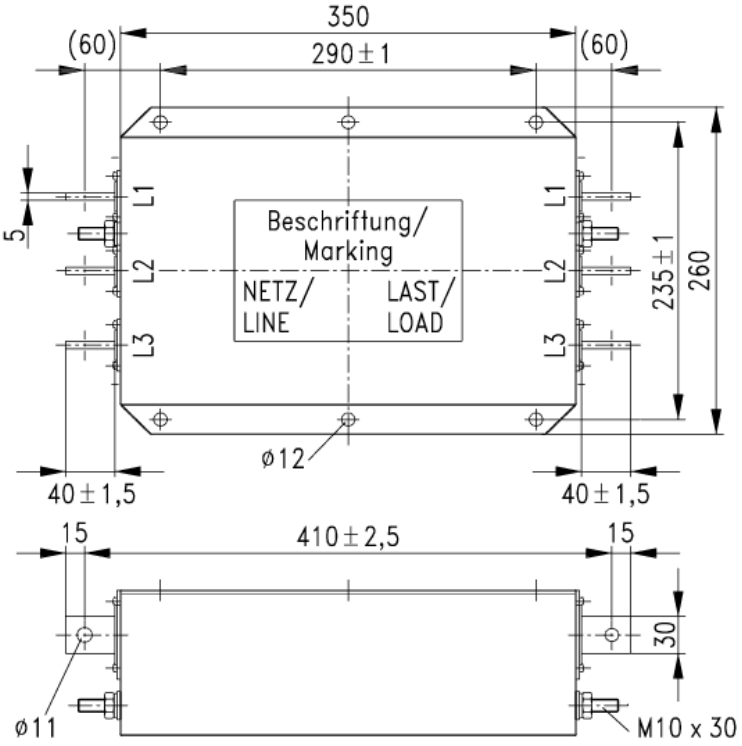
B84143-B320-S21

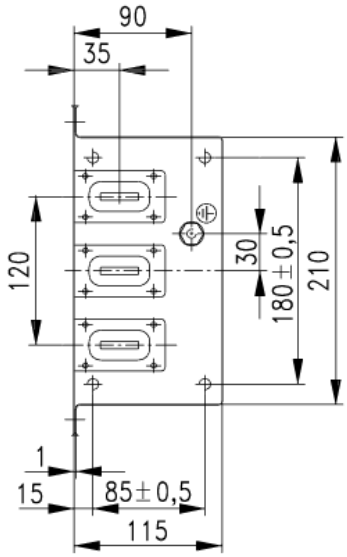




3 × 320 A
Weight: 21 kg

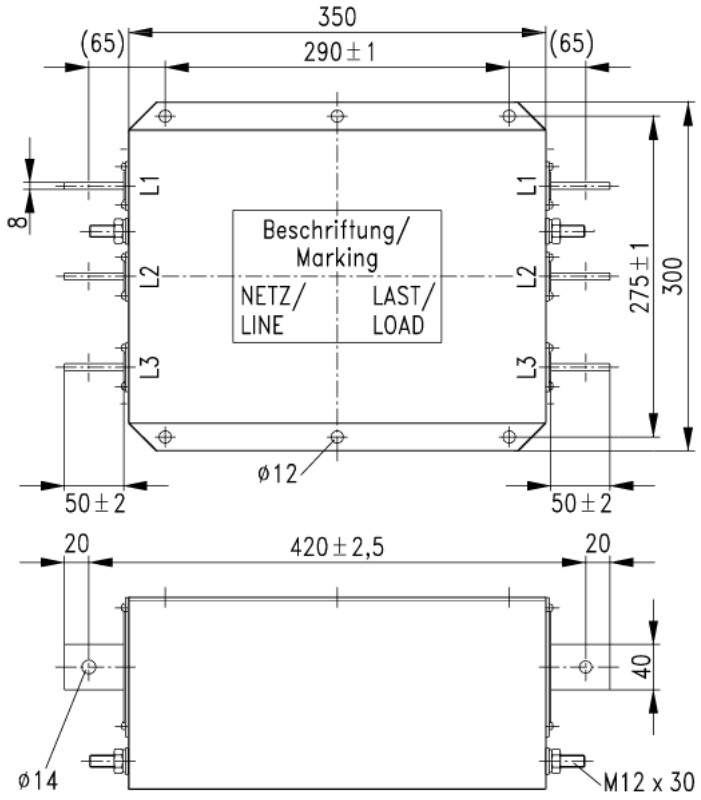
B84143-B600-S21

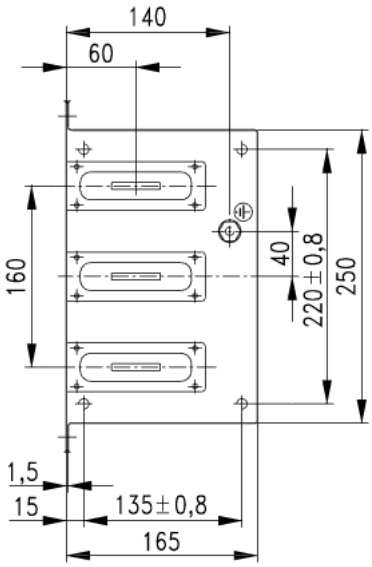




3 × 600 A
Weight: 22 kg

B84143-B1000-S21

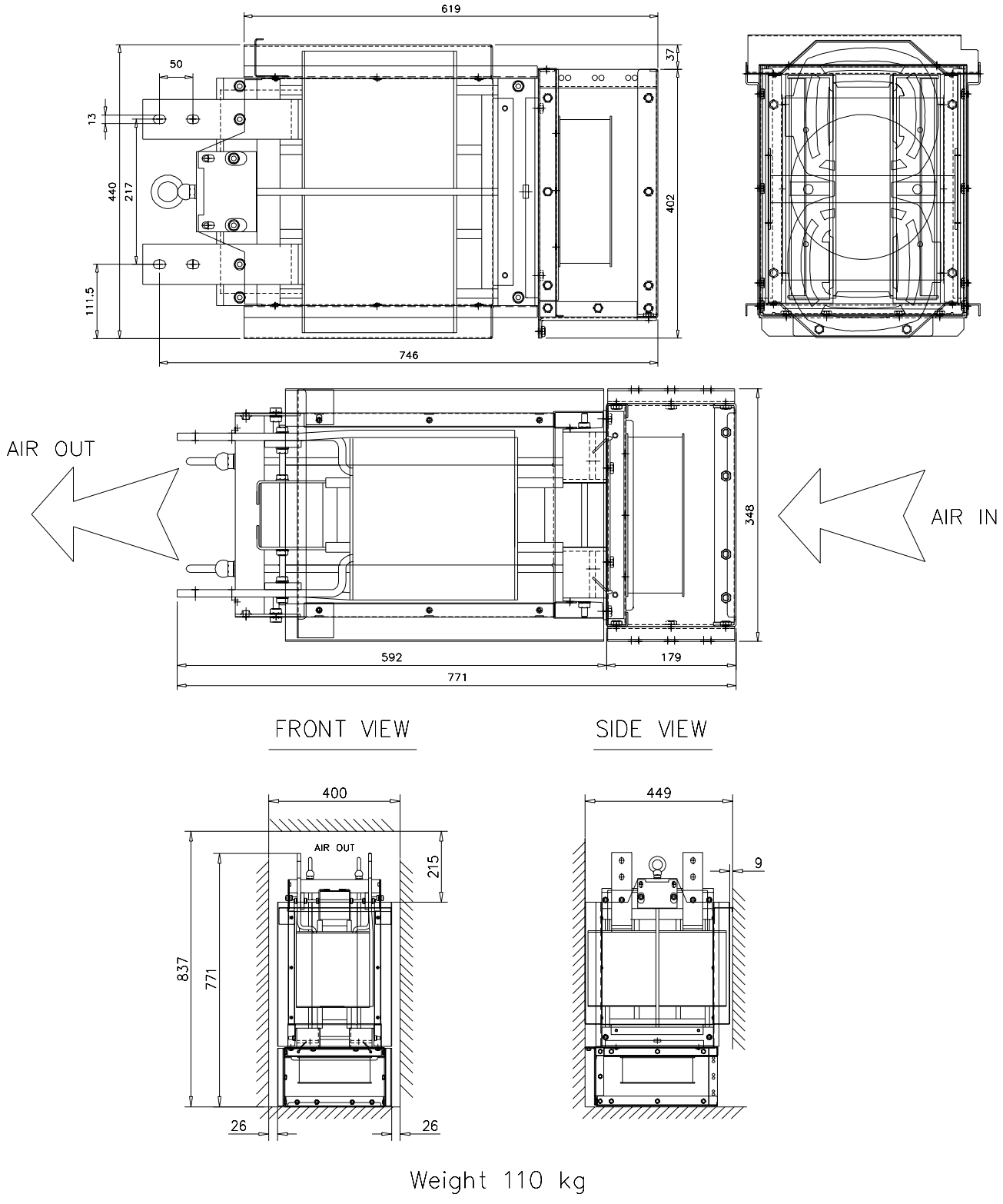




3 × 1000 A
Weight: 28 kg

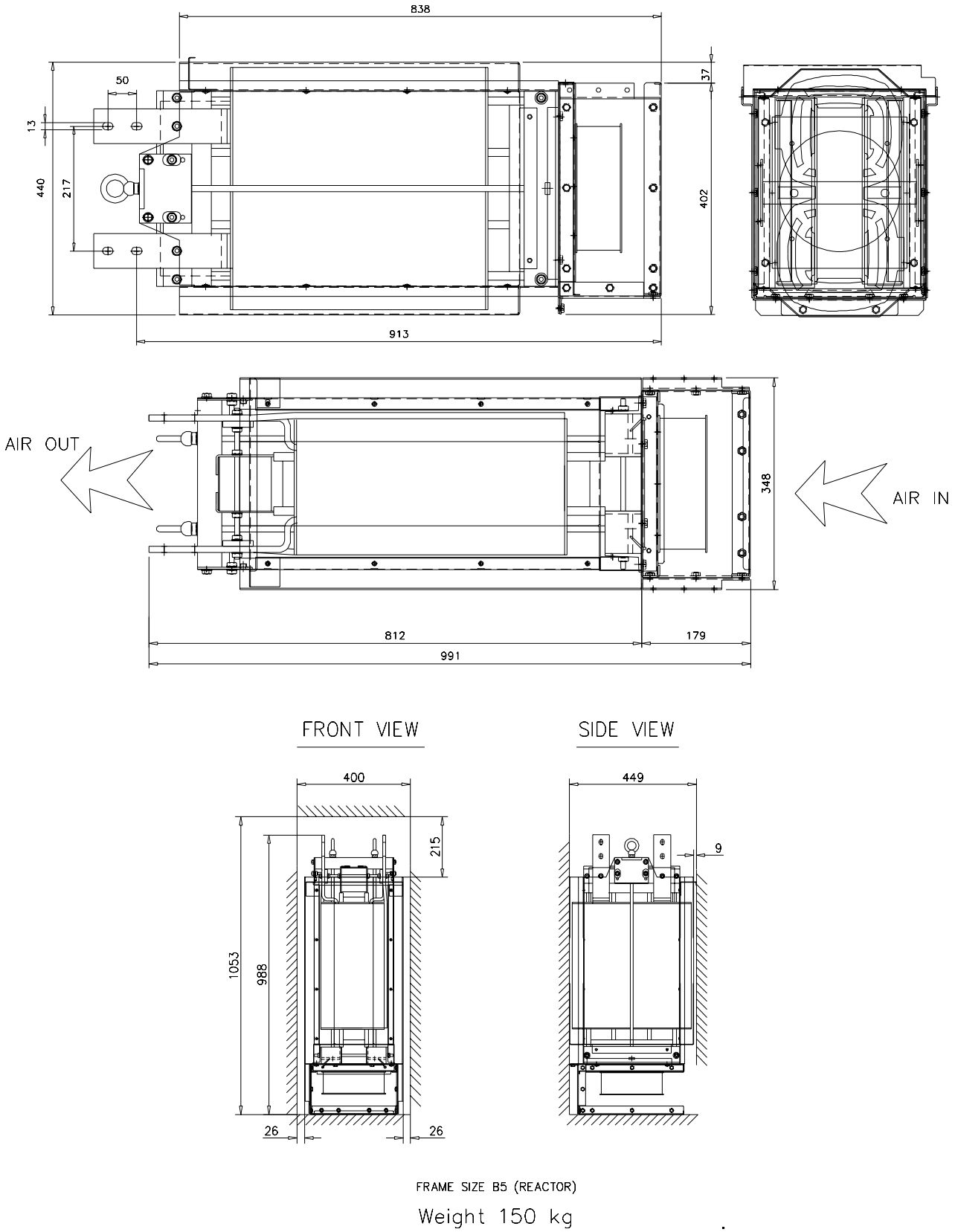
DC Reactors

Frame B4



Weight 110 kg

Frame B5

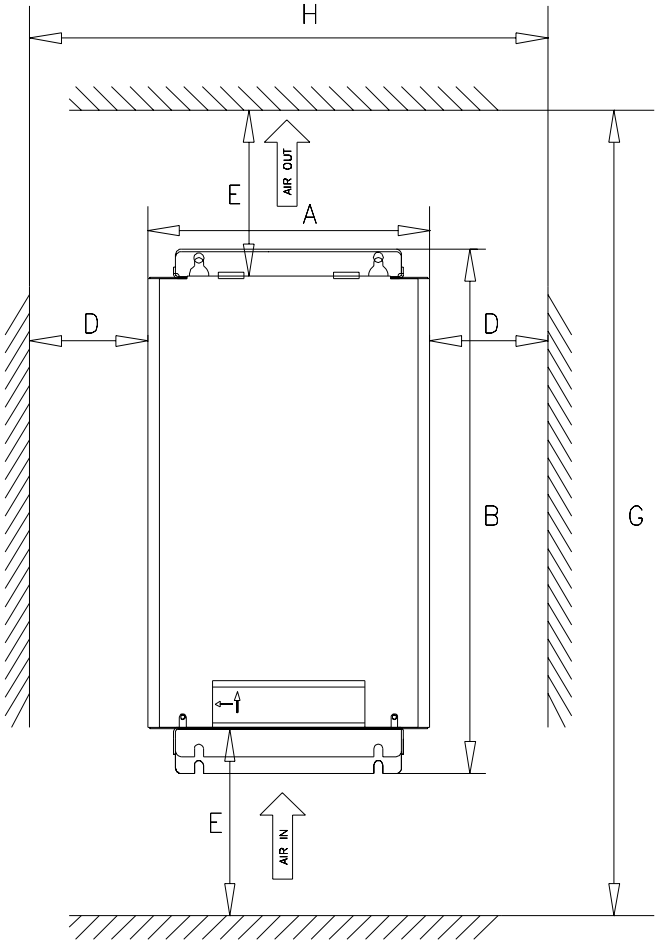


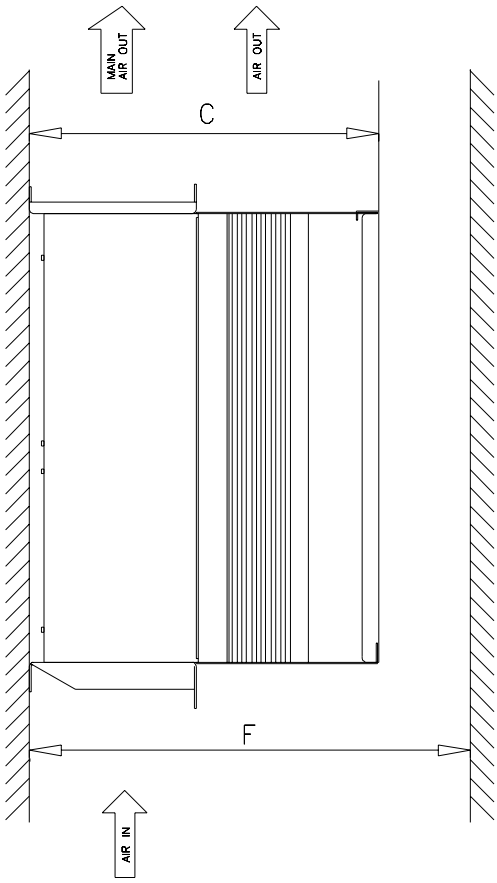
FRAME SIZE B5 (REACTOR)

Weight 150 kg

IGBT Supply Modules, Inverter Modules

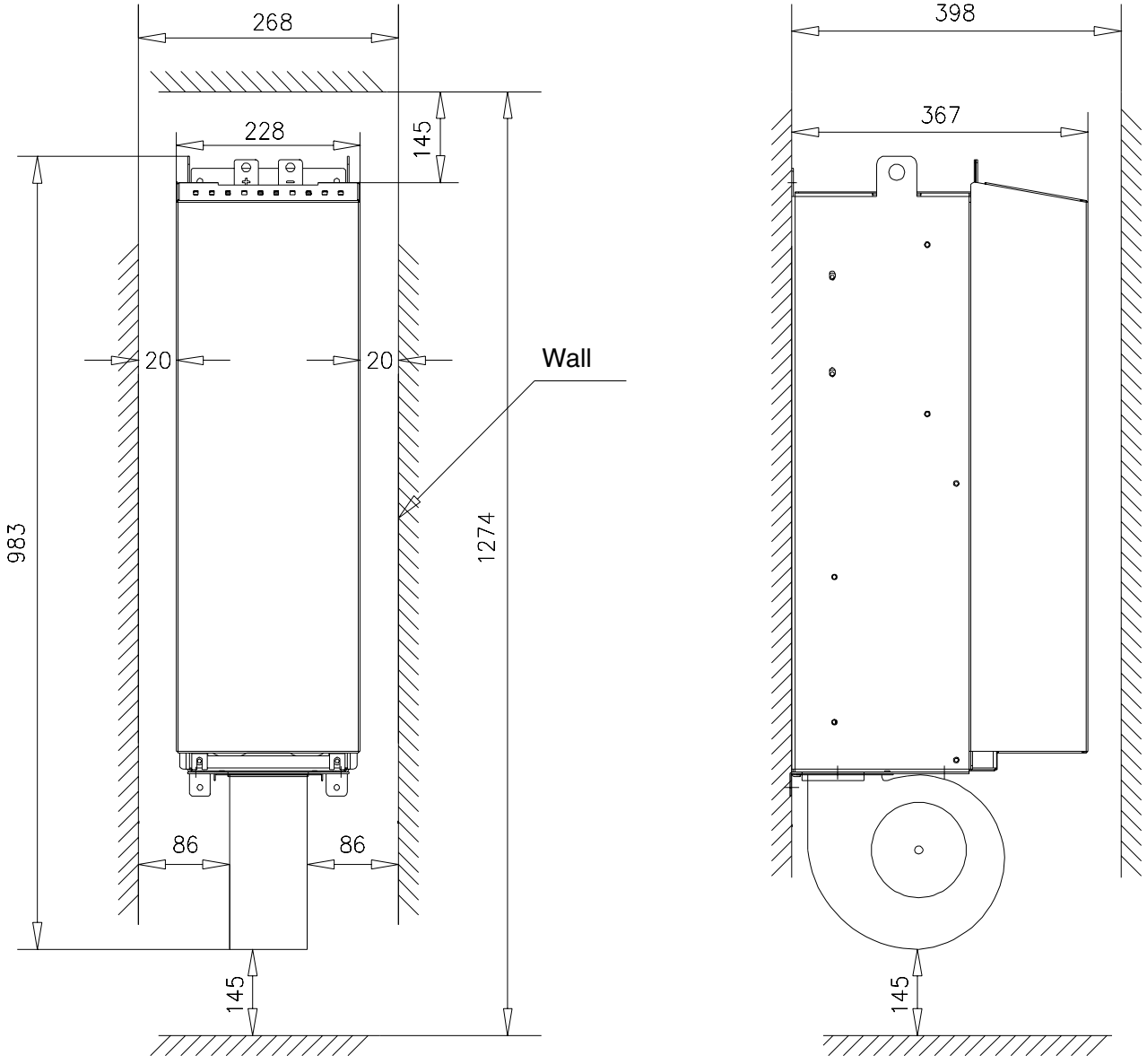
Frames R2i…R5i





FRAME SIZE	A	B	C	D	E	F	G	H	WEIGHT
R2	220	409	273	40	115	293	639	300	10 kg
R3	260	409	278.5	40	116	298.5	641	340	13 kg
R4	305.5	516	286	40	164	306	844	385.5	20 kg
R5	305.5	533	336	40	189.5	356	912	385.5	23 kg

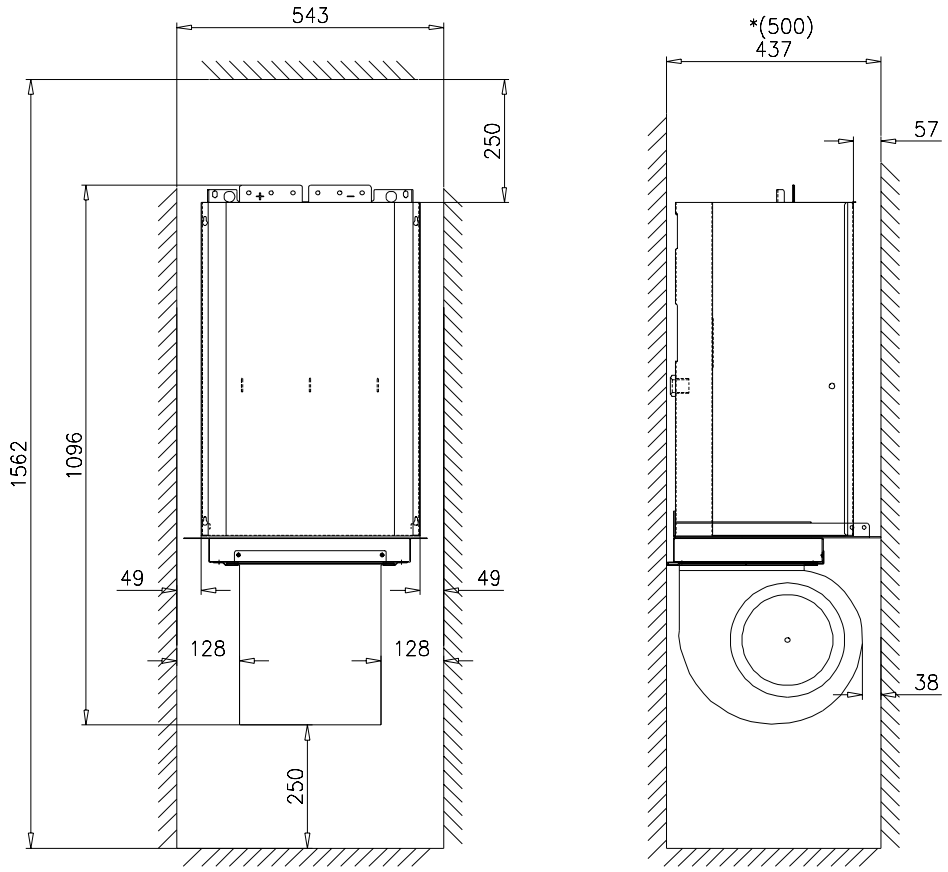
Frames R6i and R7i



FRAME SIZE R6 AND R7

WEIGHT 37kg

Frames R8i and R9i

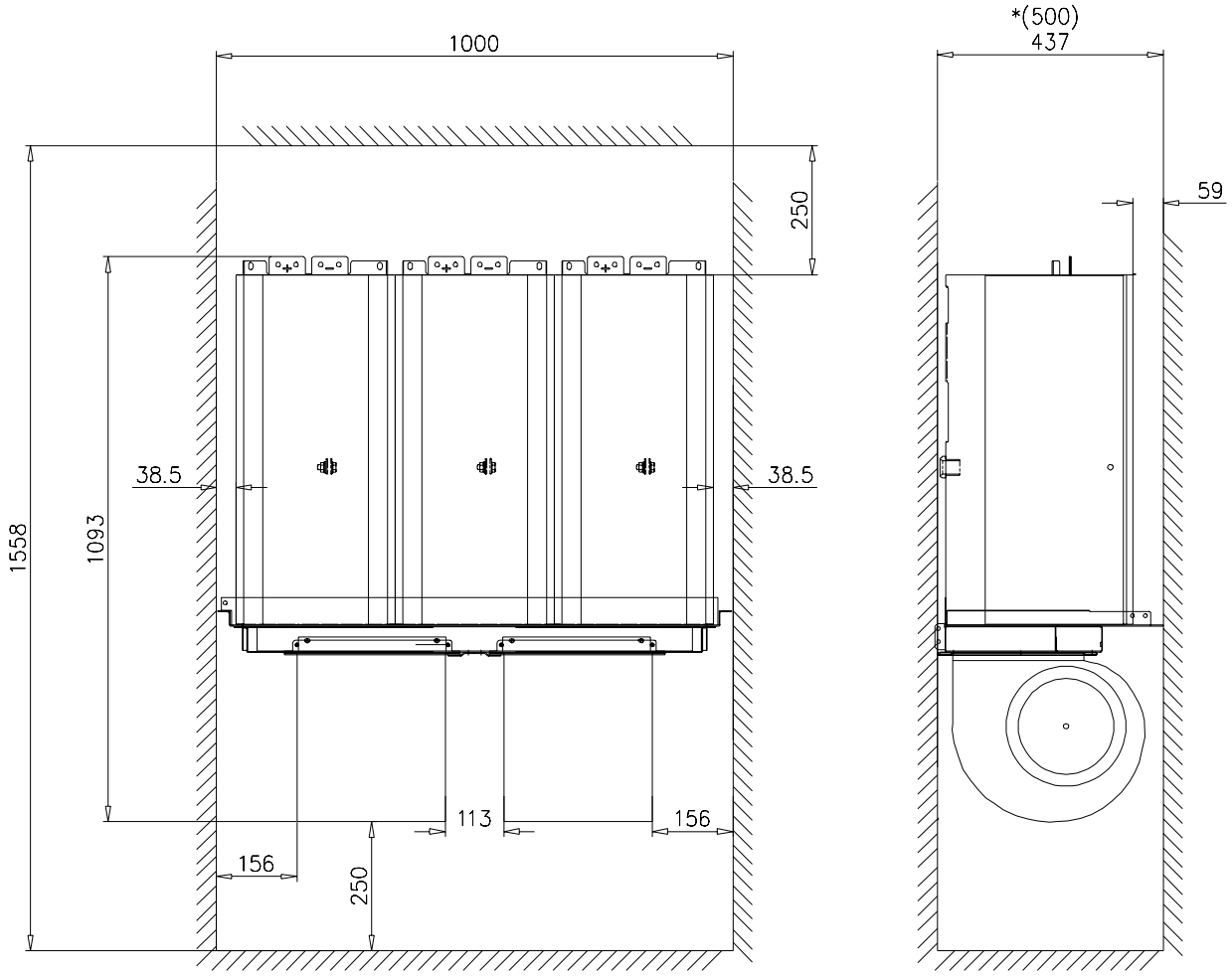


Note: DC and AC busbars are not included in the dimensions.

*Typical depth including AC busbars.
(See Mounting Frame dimensional drawing)

FRAME SIZE	MODULE TYPE	WEIGHT (kg)
R8	ACN 634-0185-3	60
	ACN 634-0225-3	63
	ACN 634-0265-3	65
	ACN 634-0215-5	63
	ACN 634-0255-5	66
	ACN 634-0325-5	66
	ACN 634-0185-6	63
	ACN 634-0205-6	63
	ACN 634-0255-6	66
	ACN 634-0315-6	66
R9	ACN 634-0335-3	65
	ACN 634-0405-3	67
	ACN 634-0395-5	69
	ACN 634-0495-5	72
	ACN 634-0375-6	69
	ACN 634-0485-6	72

Frames R10i and R11i

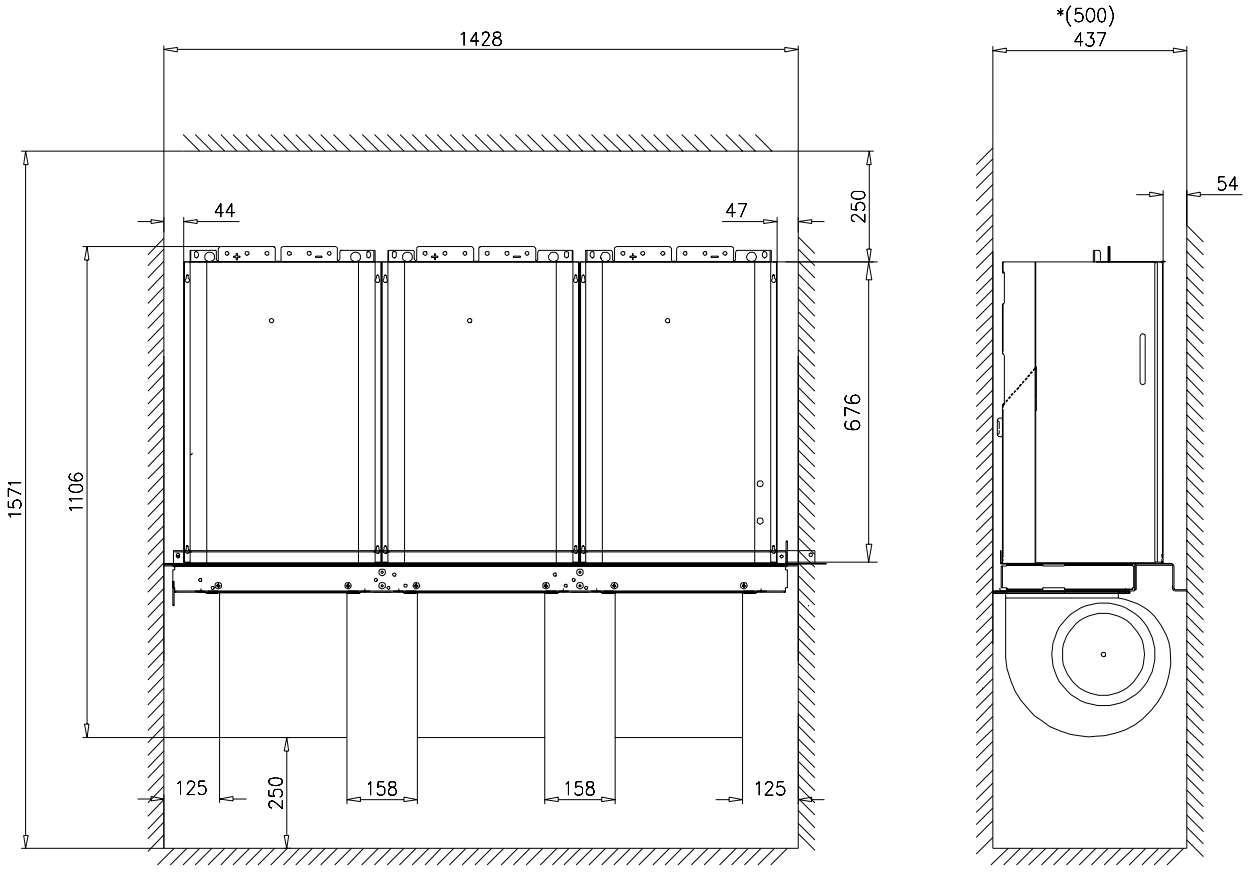


Note: DC and AC busbars are not included in the dimensions.

*Typical depth including AC busbars. (See Mounting Frame dimensional drawing)

FRAME SIZE	MODULE TYPE	WEIGHT (kg)
R10	ACN 634–0505–3	129
	ACN 634–0615–5	136
	ACN 634–0605–6	136
R11	ACN 634–0630–3	135
	ACN 634–0765–3	145
	ACN 634–0770–5	145
	ACN 634–0935–5	145
	ACN 634–0755–6	145
	ACN 634–0905–6	145

Frame R12i



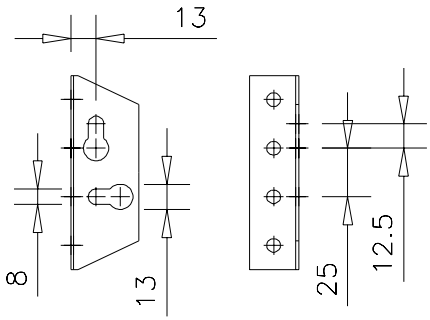
Note: DC and AC busbars are not included in the dimensions.

*Typical depth including AC busbars. (See Mounting Frame dimensional drawing)

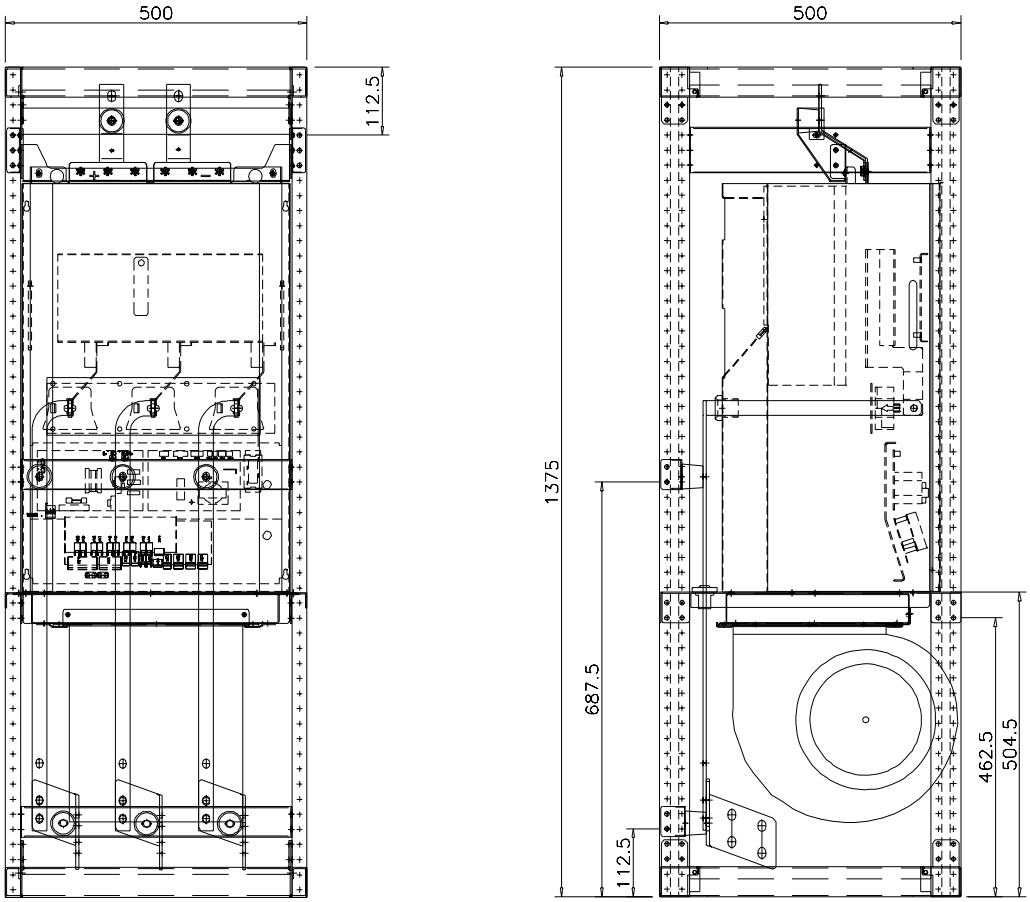
FRAME SIZE	MODULE TYPE	WEIGHT (kg)
R12	ACN 634–0935–3	195
	ACN 634–1125–3	201
	ACN 634–1095–5	207
	ACN 634–1385–5	216
	ACN 634–1045–6	207
	ACN 634–1385–6	216

Mounting Frames for IGBT Supply Modules and Inverter Modules

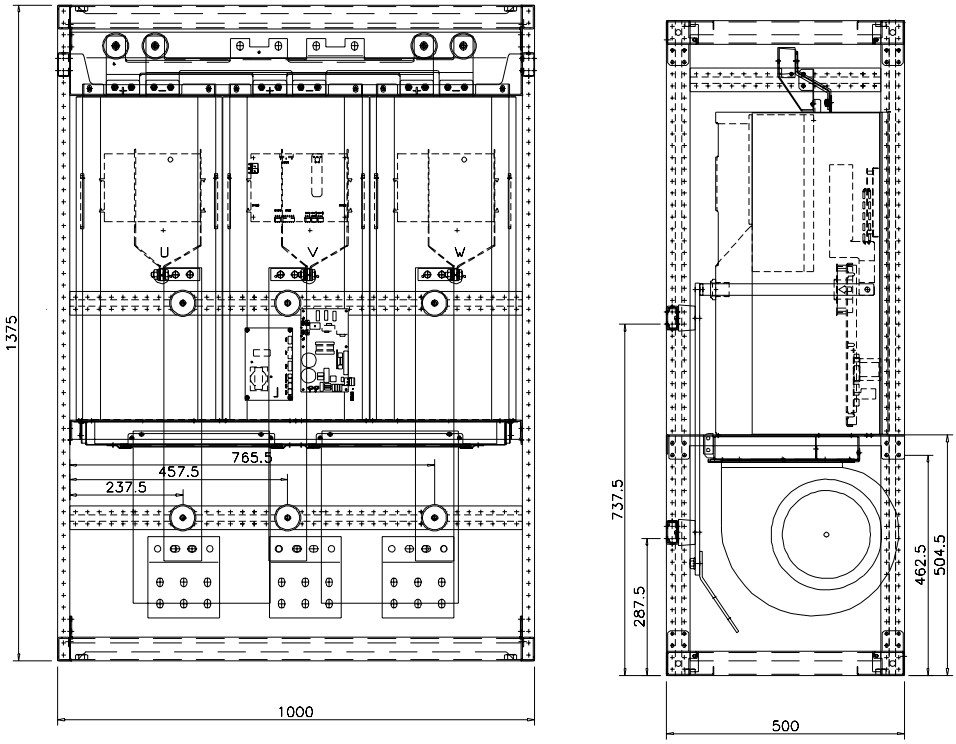
Fixing Bracket Six fixing brackets are included with each mounting frame.



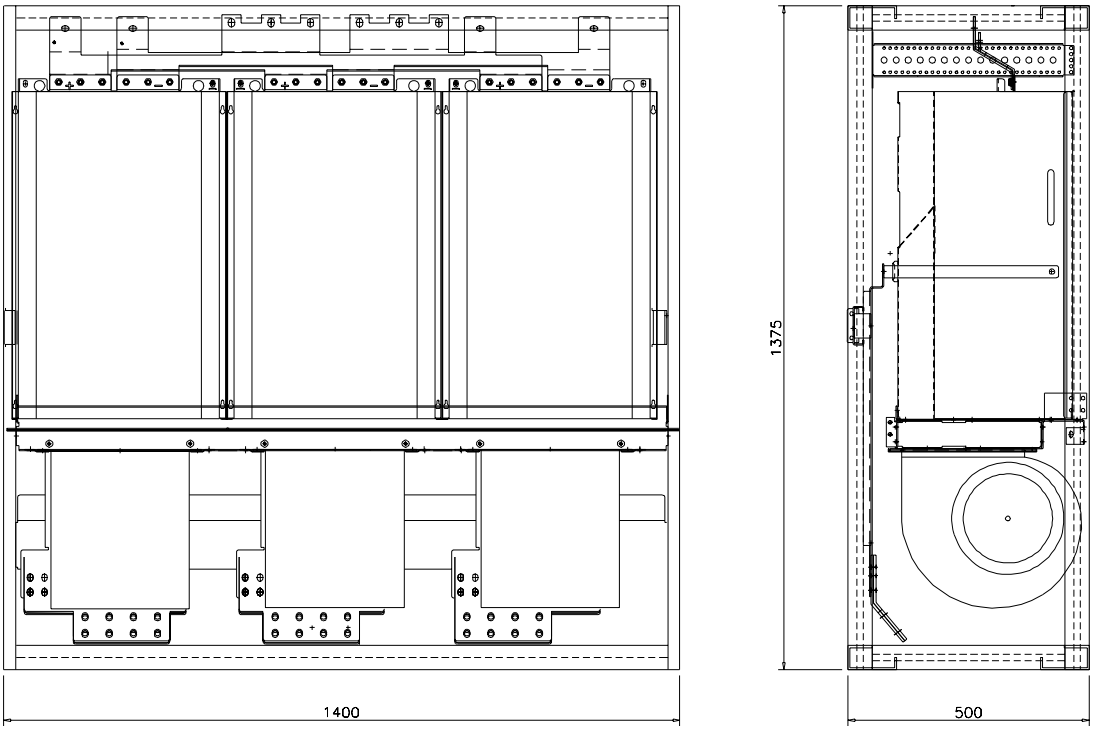
R8i, R9i



R10i, R11i



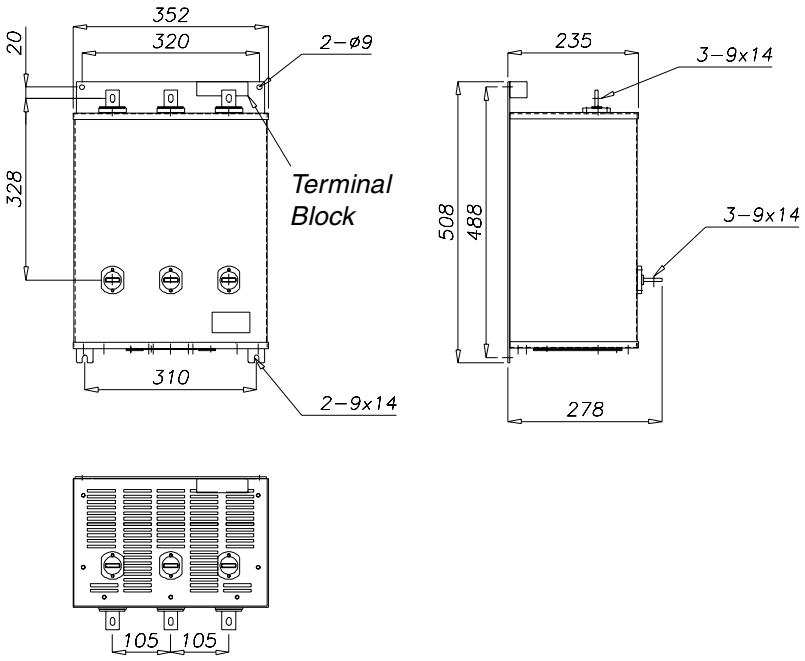
R12i



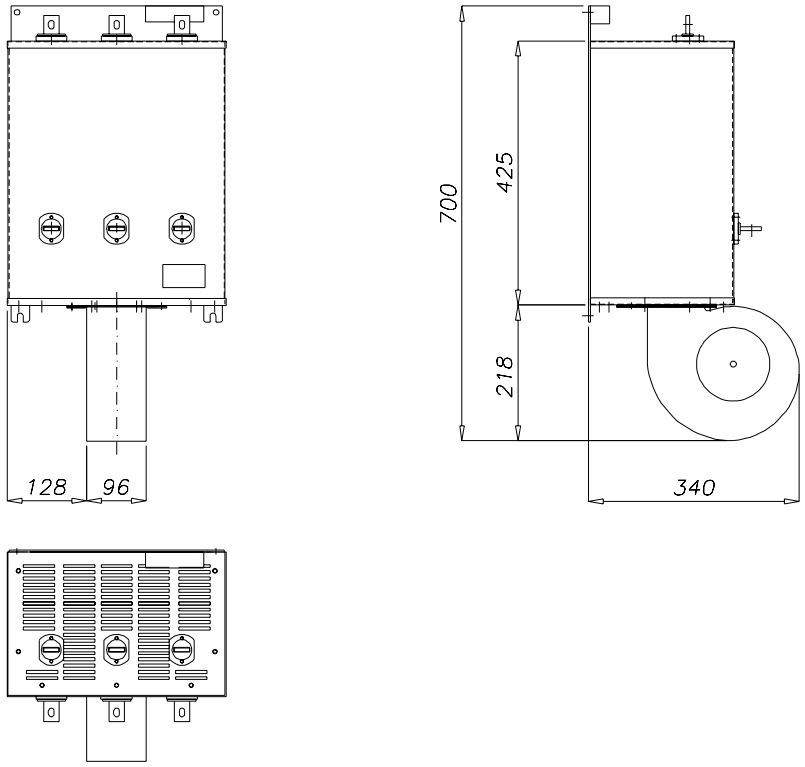
AC Chokes

ISUL_xR7i

Without Fan

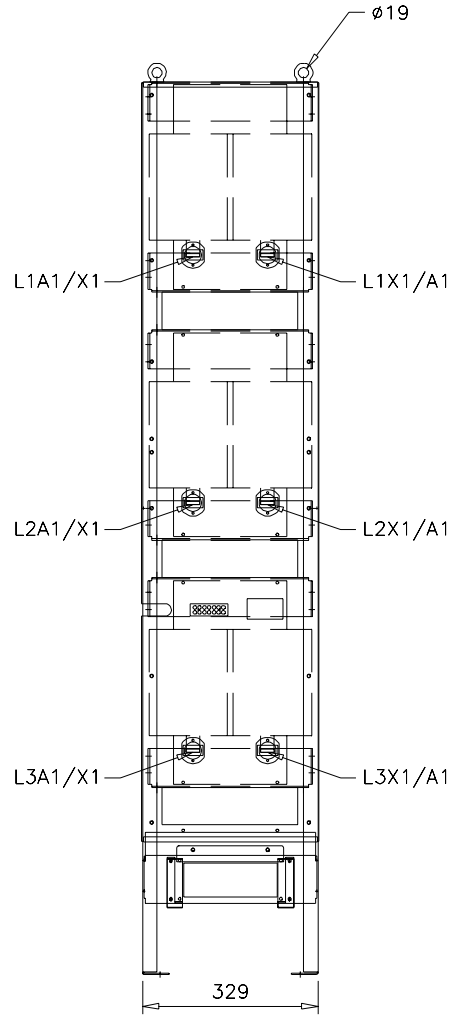


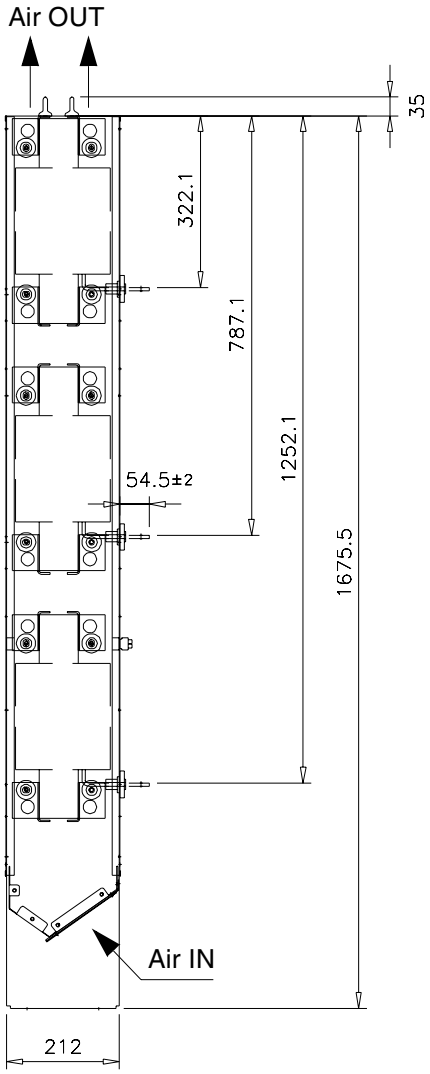
With Fan

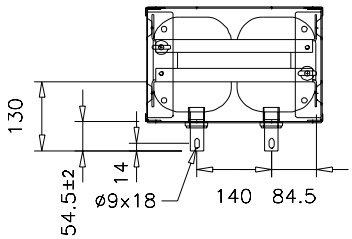


Weights:
ISUL_5R7i: 65 kg
ISUL_6R7i: 60 kg

ISUL_xR8i

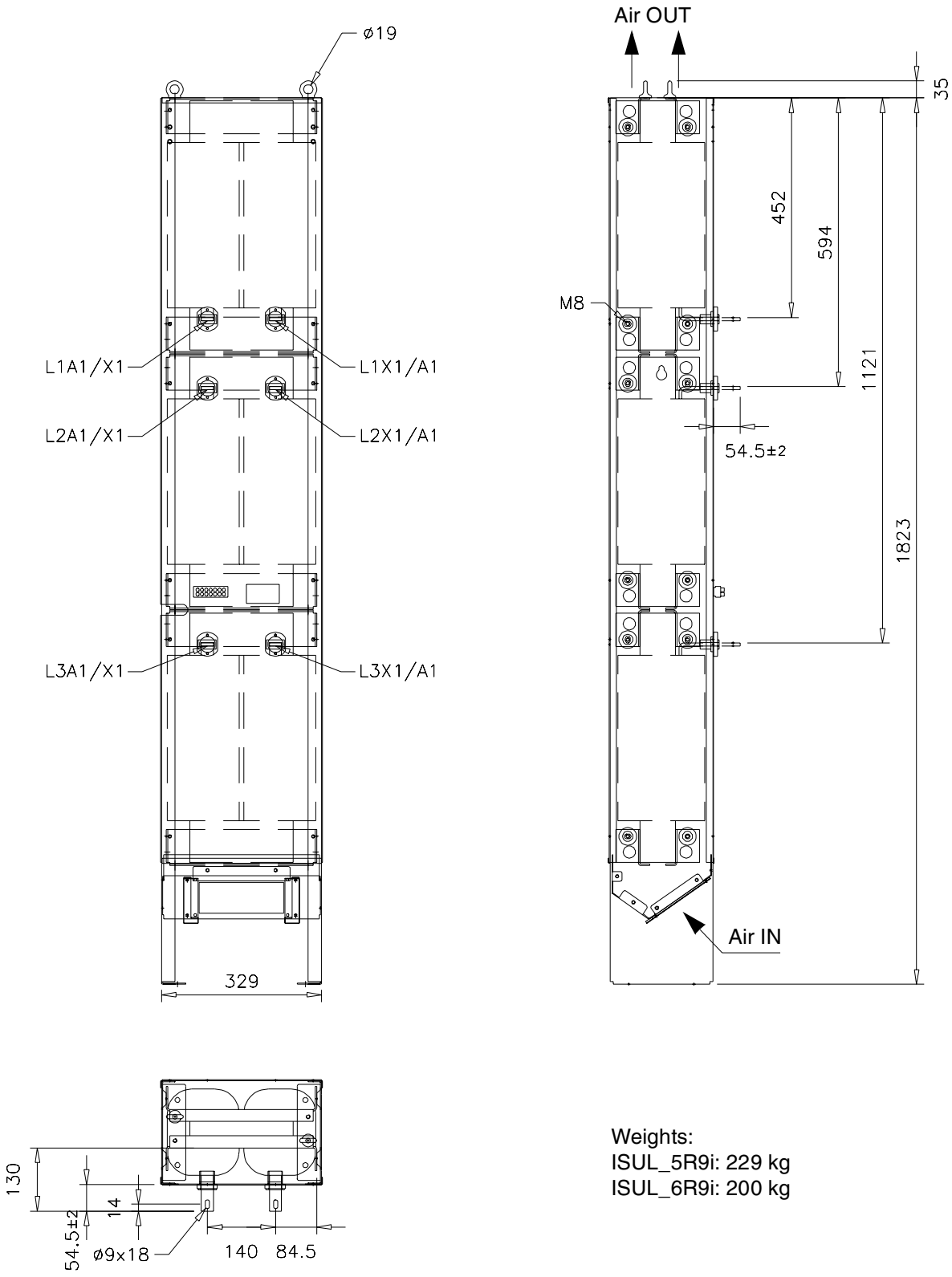






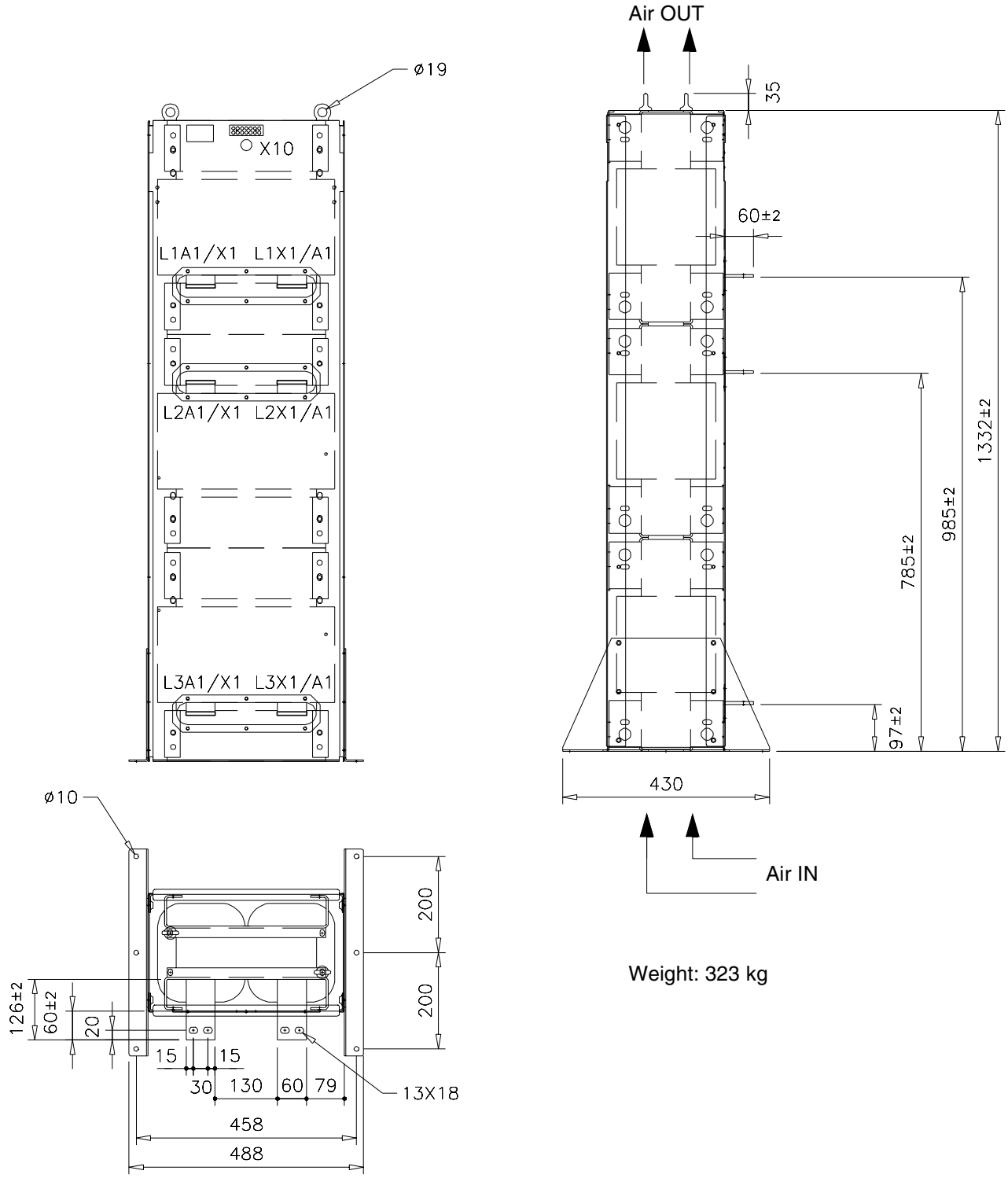
Weights:
ISUL_5R8i: 170 kg
ISUL_6R8i: 160 kg

ISUL_xR9i



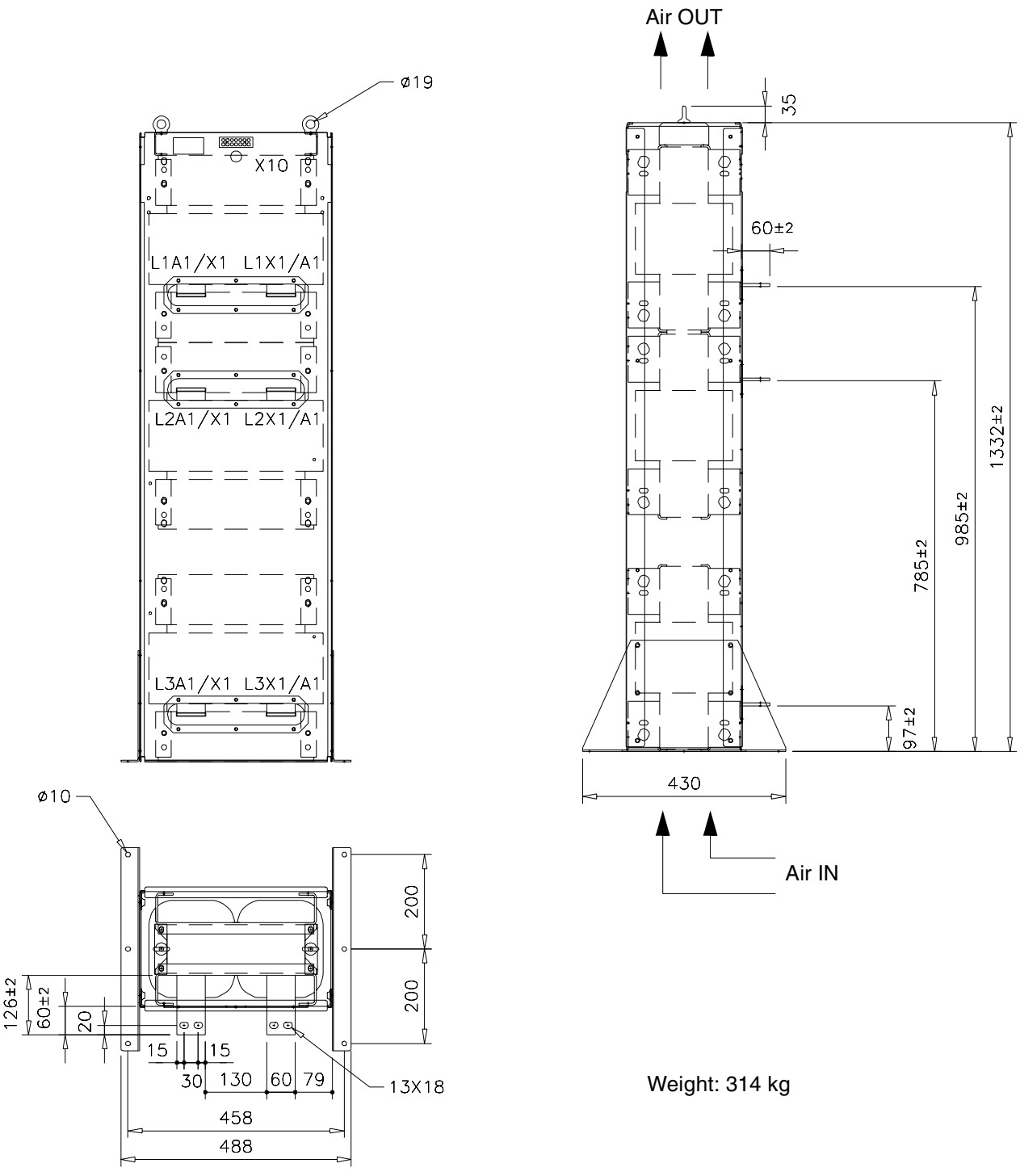
Weights:
ISUL_5R9i: 229 kg
ISUL_6R9i: 200 kg

ISUL_5R10i



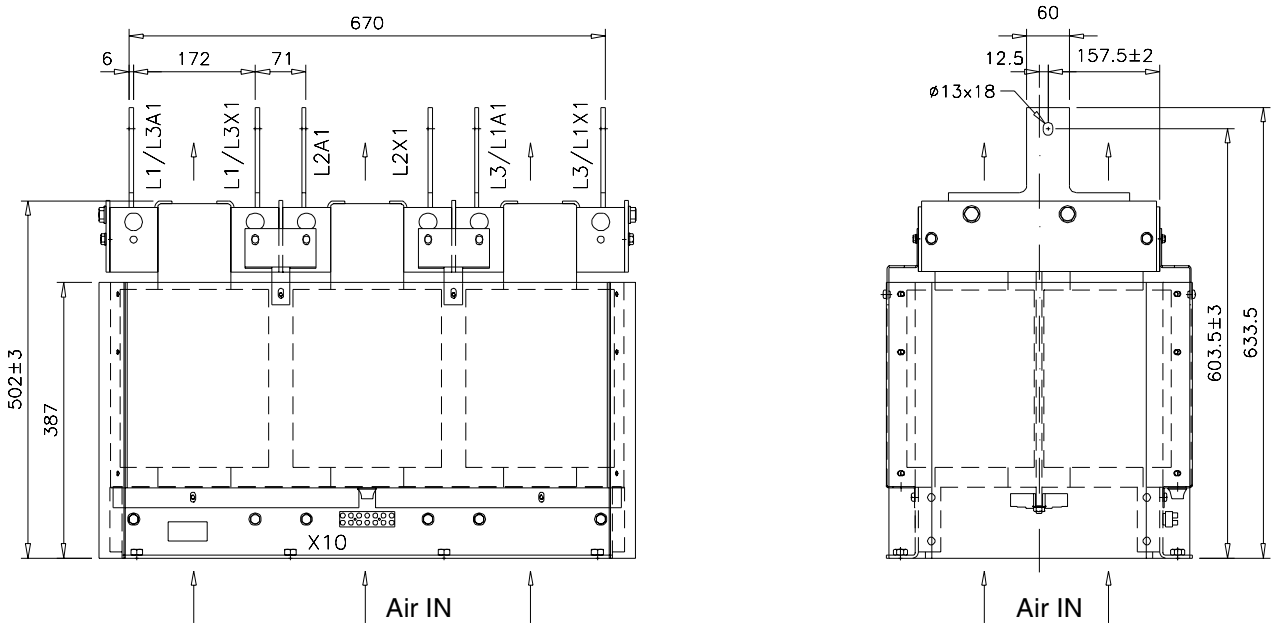
Weight: 323 kg

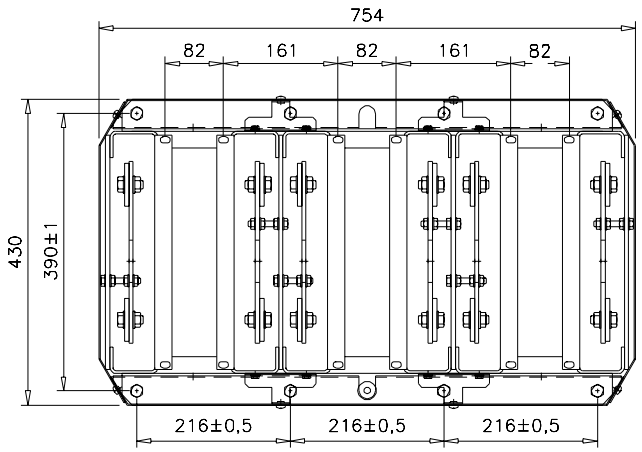
ISUL_6R10i



Weight: 314 kg

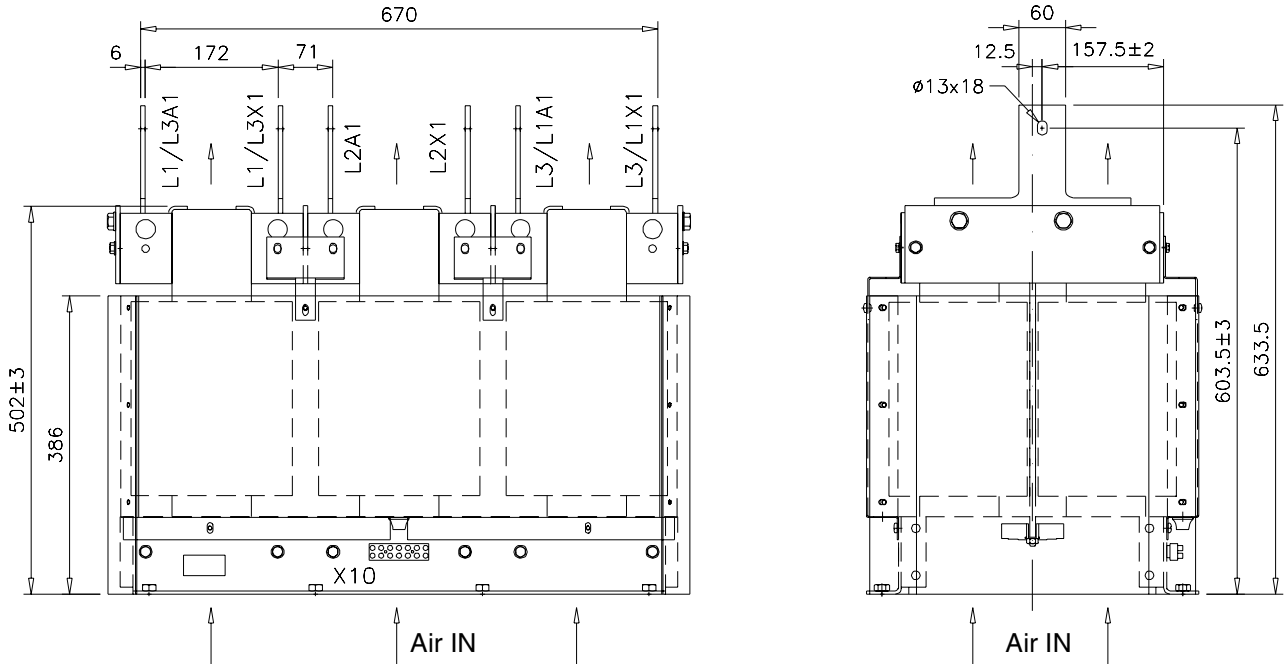
ISUL_5R11i

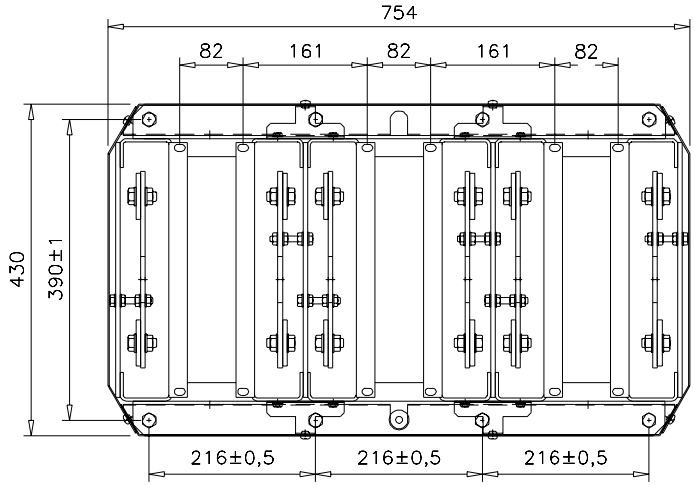




Weight: 373 kg

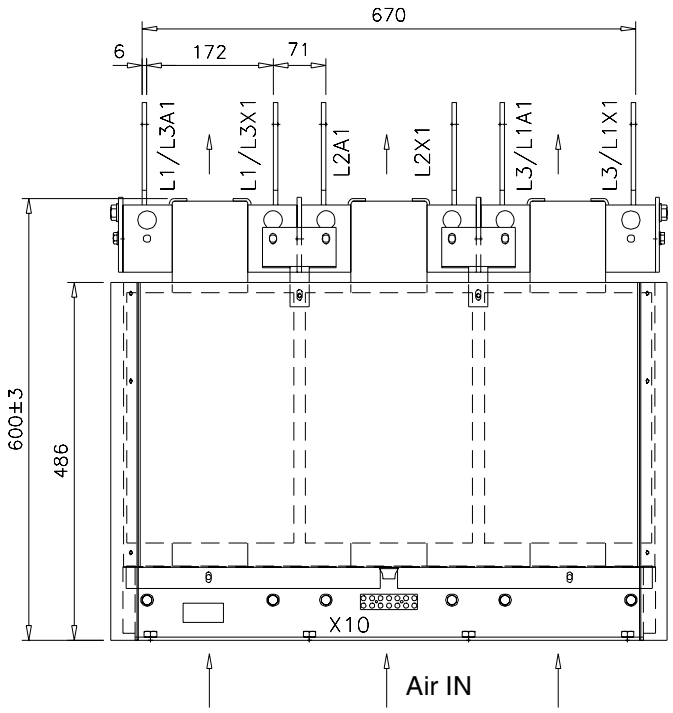
ISUL_6R11i

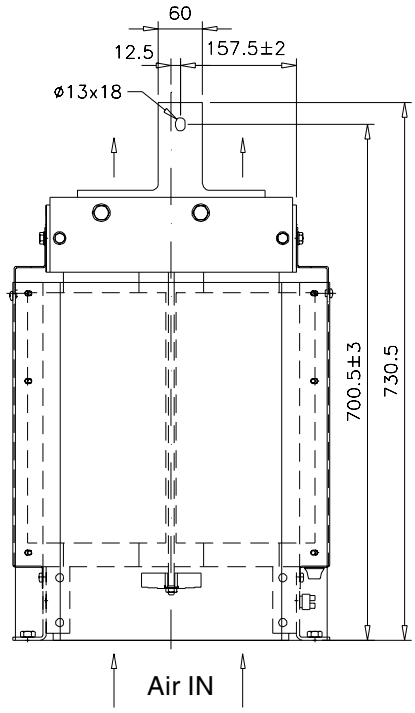


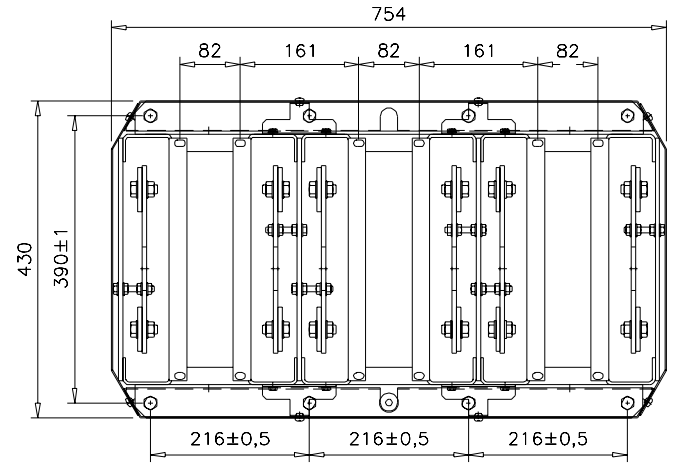


Weight: 355 kg

ISUL_5R12i

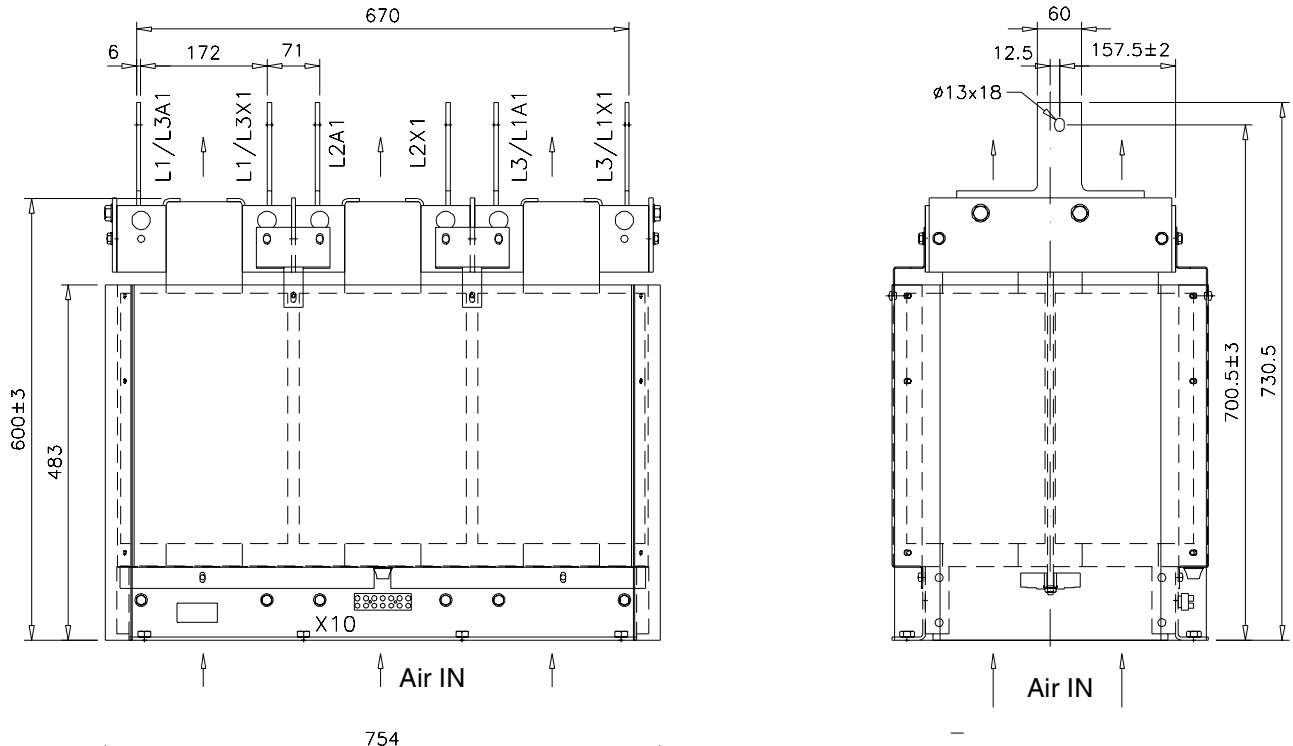






Weight: 430 kg

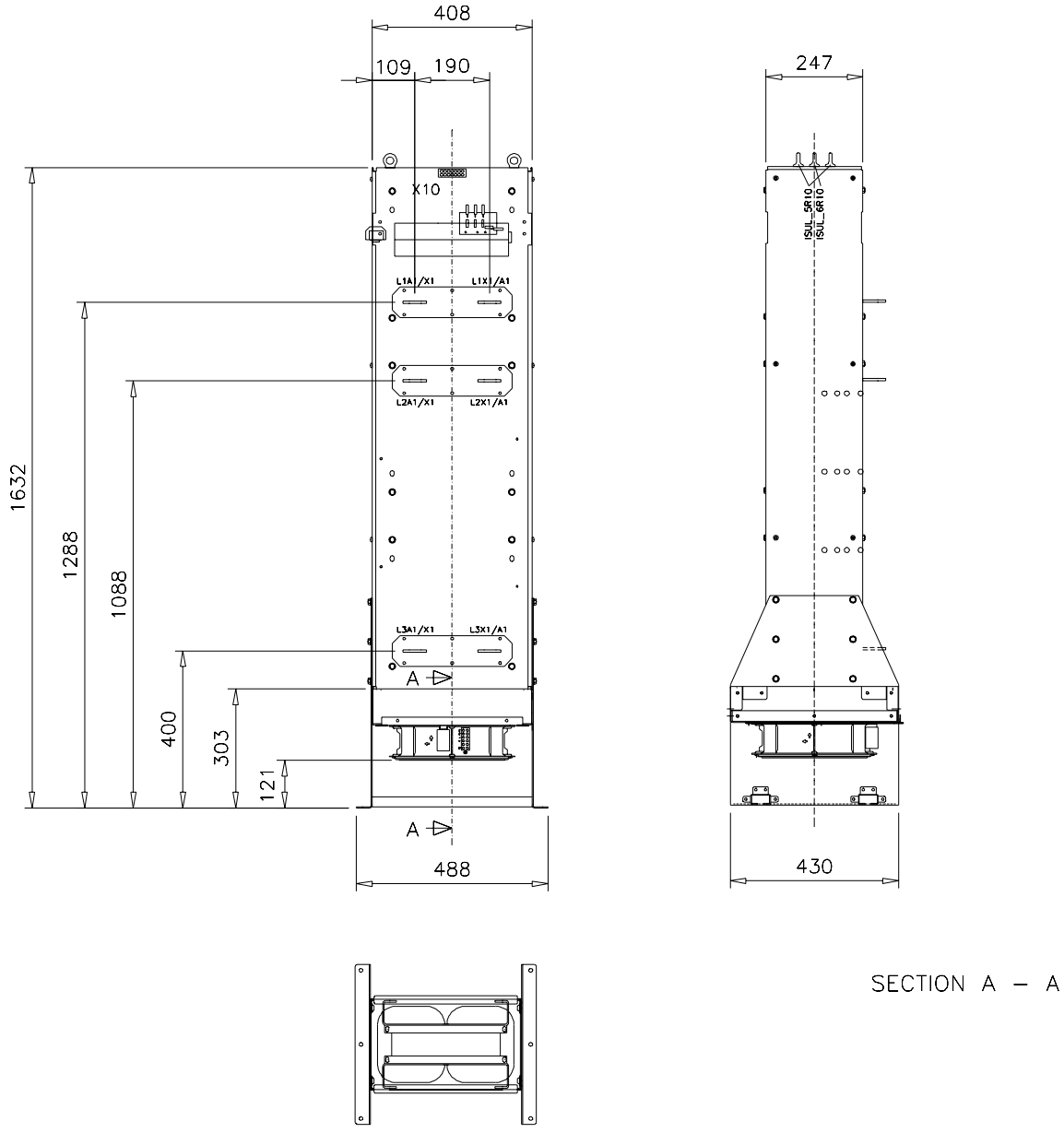
ISUL_6R12i



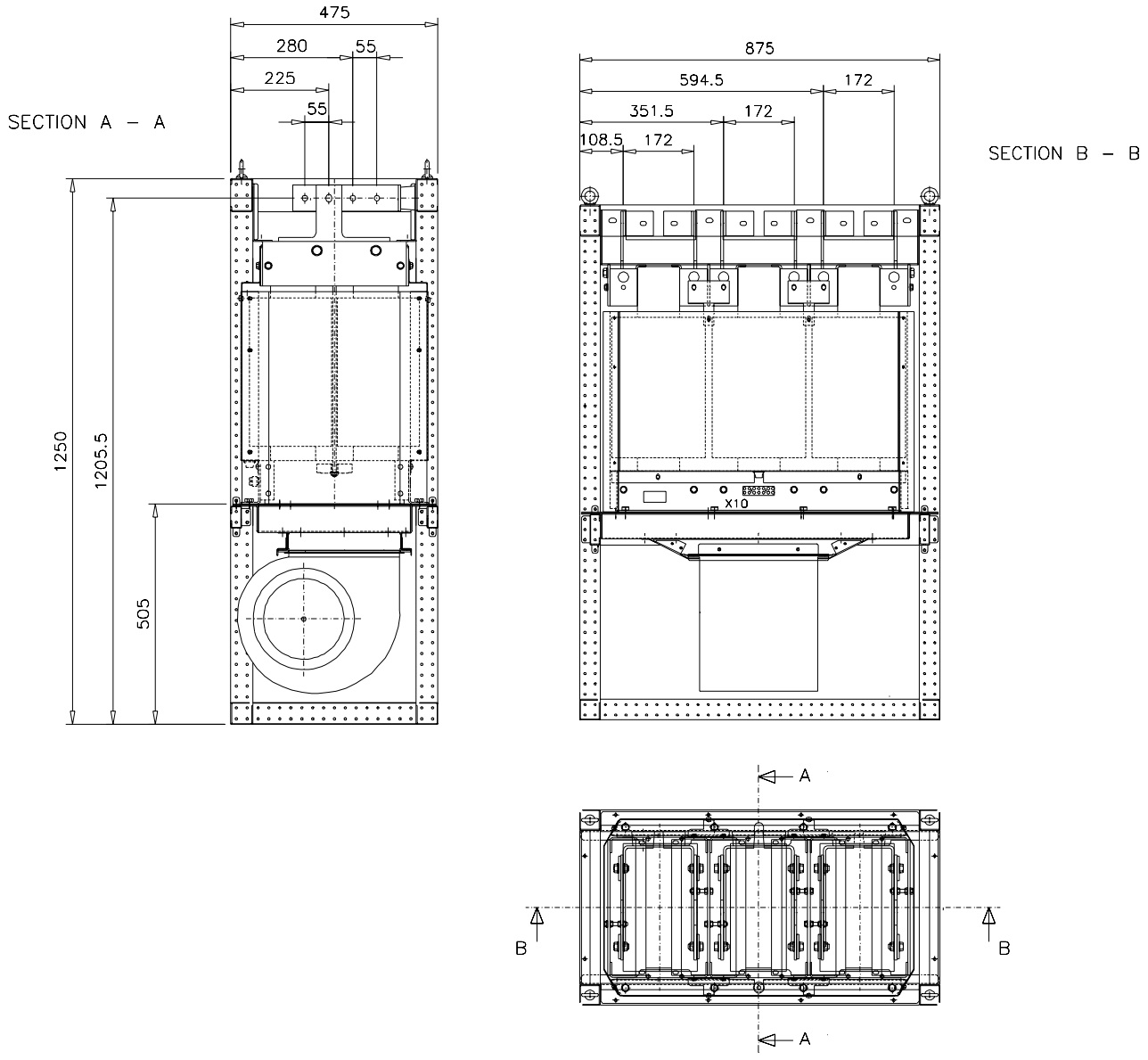
Weight: 415 kg

Mounting Frames for AC Chokes

ISUL_xR10i The diagram shows the choke and the cooling fan installed on the mounting base.



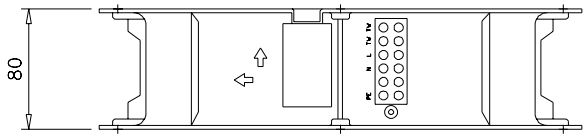
ISUL_xR11i, ISUL_xR12i The diagram shows the choke and the cooling fan installed in the mounting frame.

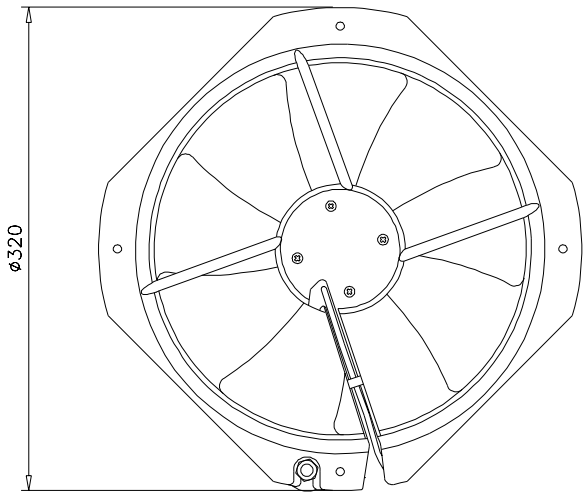


PDM-117407-.2

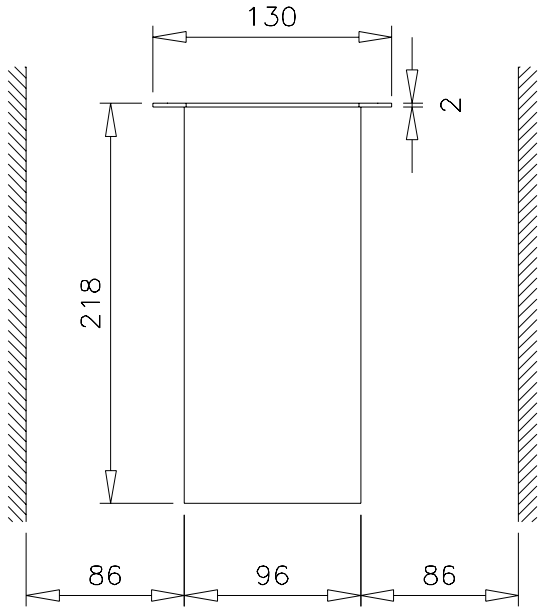
Cooling Fans

10028841/10032318
(W2E 250-HL0x-0x)

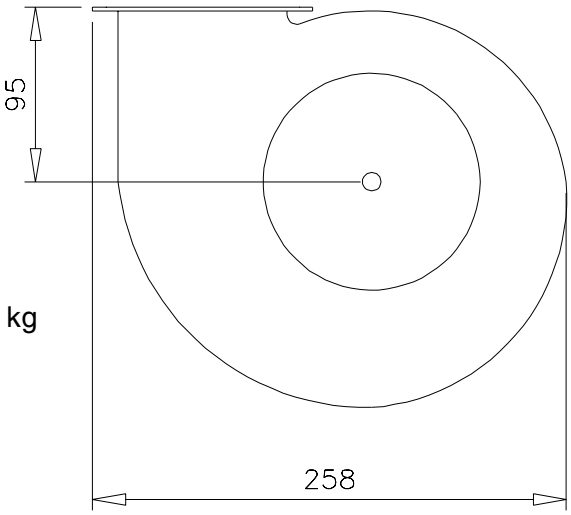




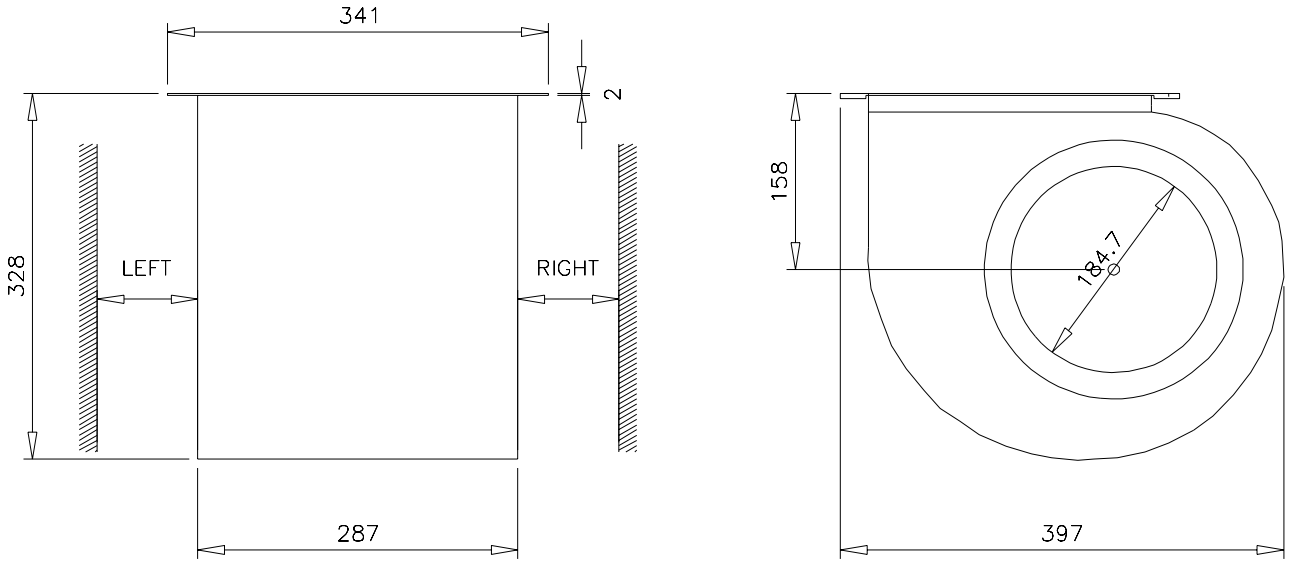
64114158/64114191
(G2E140-AIxx-ABB)



Weight: 3 kg

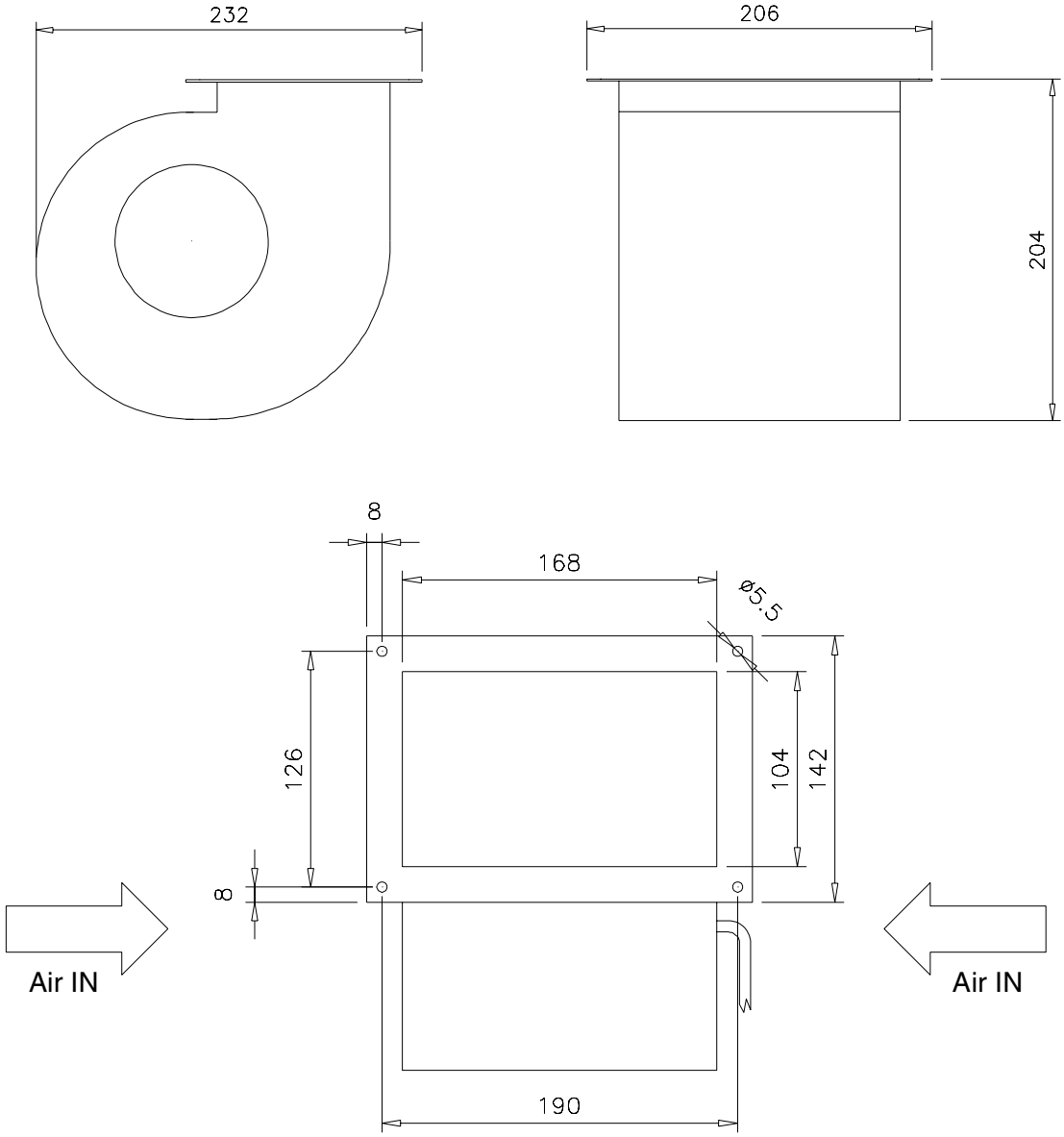


64114336/64114344
(D4E225-CC0x-3x)



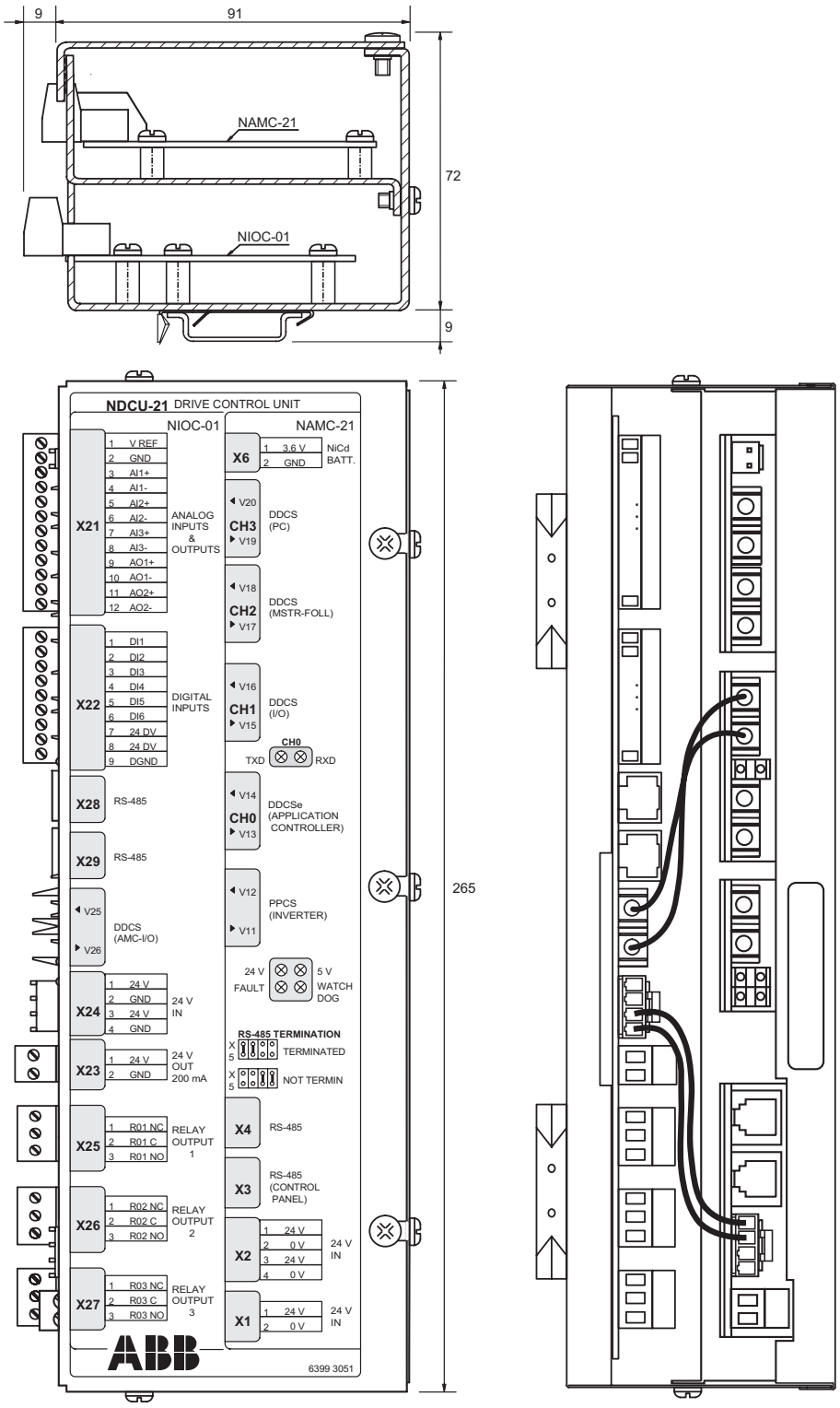
Weight: 14 kg
Note: Left and right clearance depend on type of installation.

64421077/64421093
(D2E133-C0x7-xx)

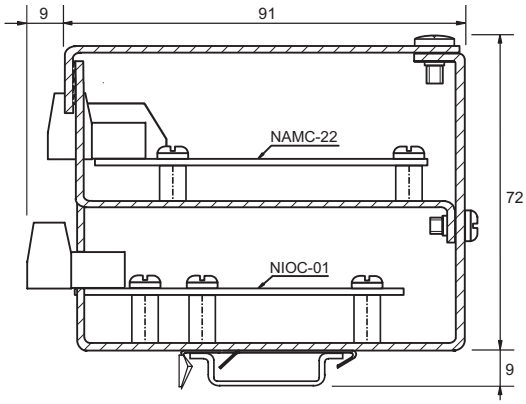


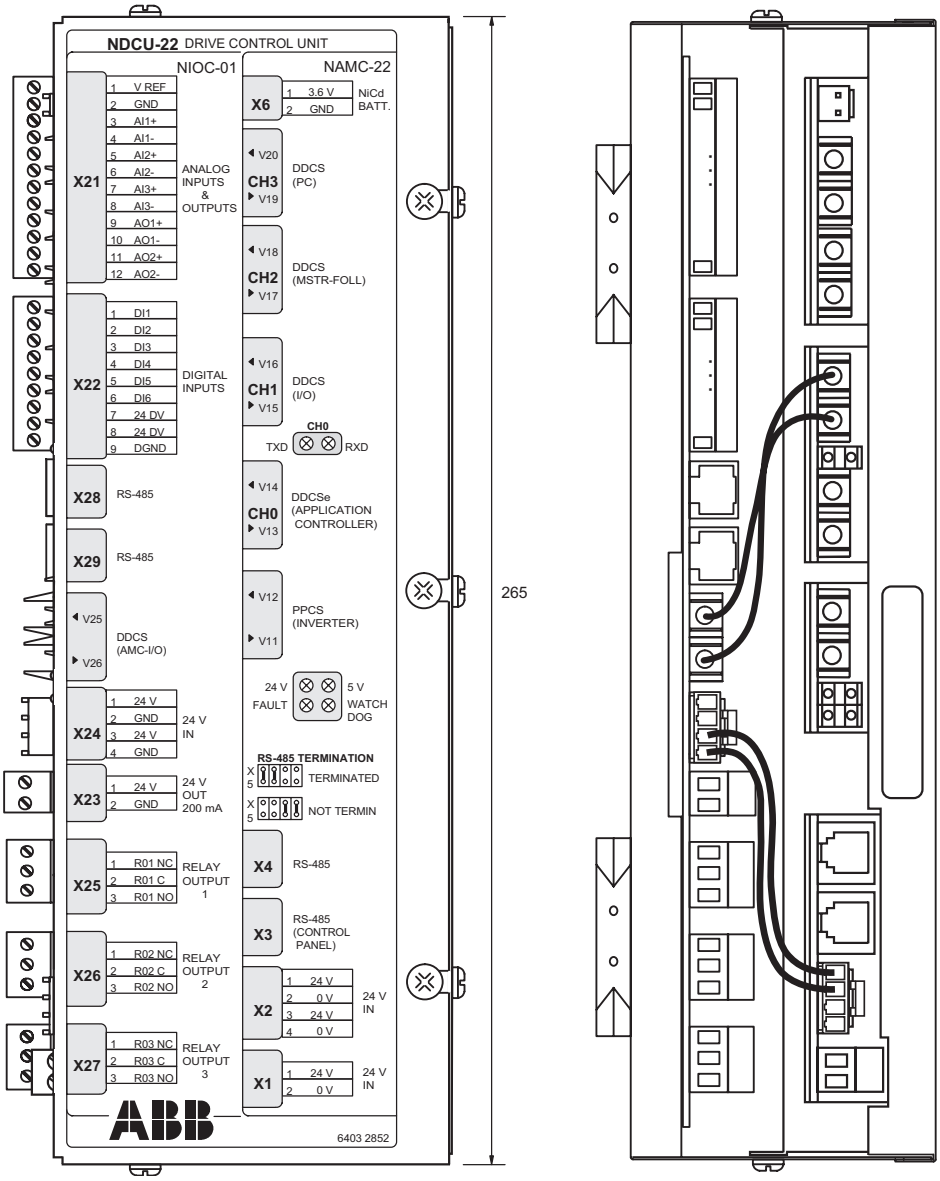
Control Electronics

NDCU-21

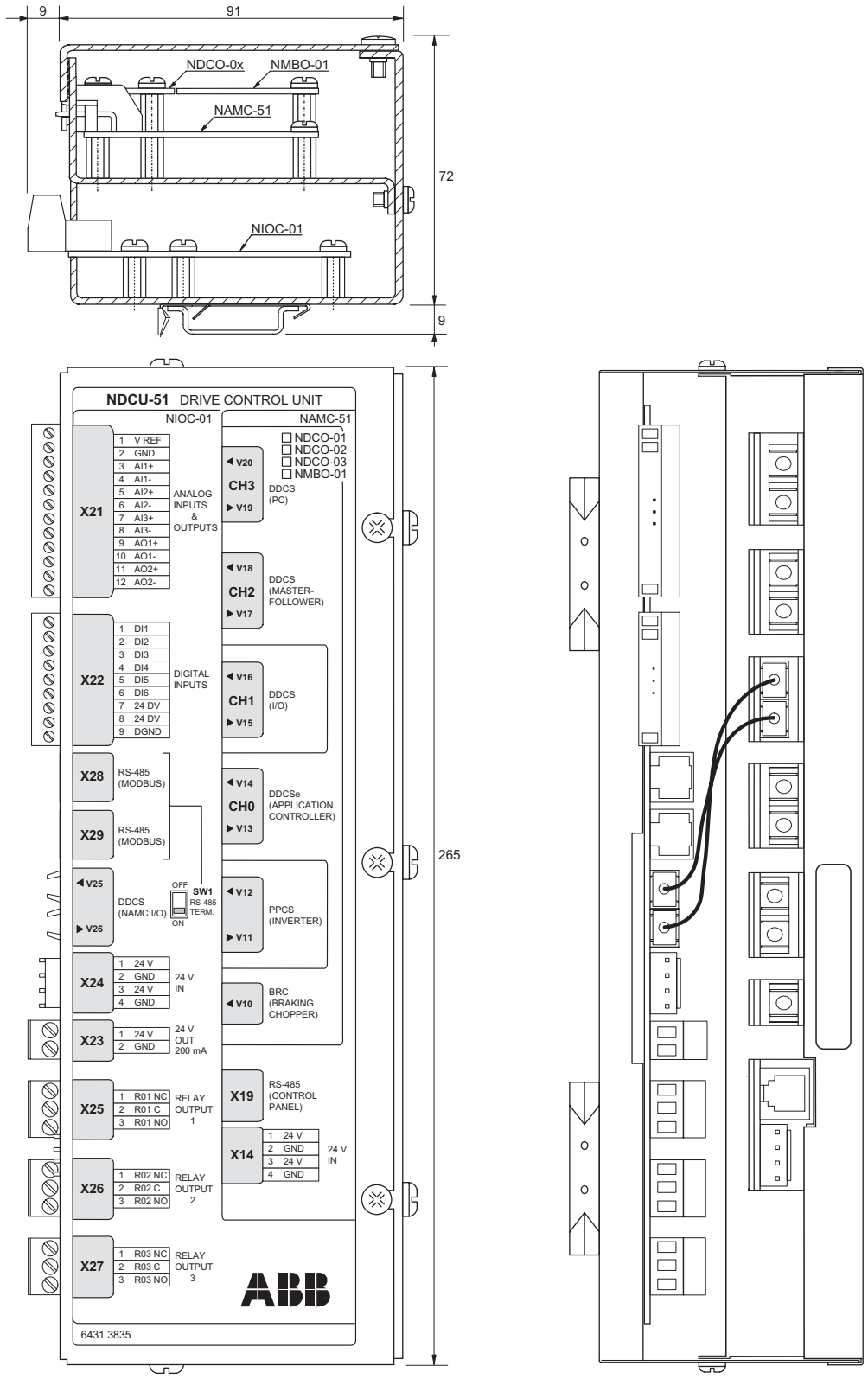


NDCU-22

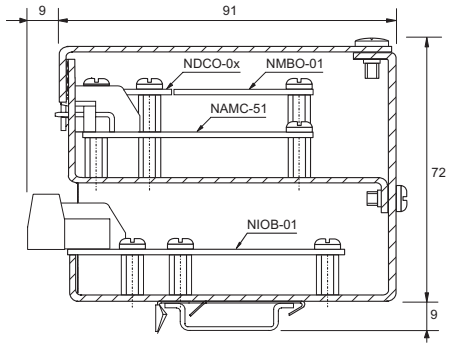

9
91
NAMC-22
72
NIOC-01
9

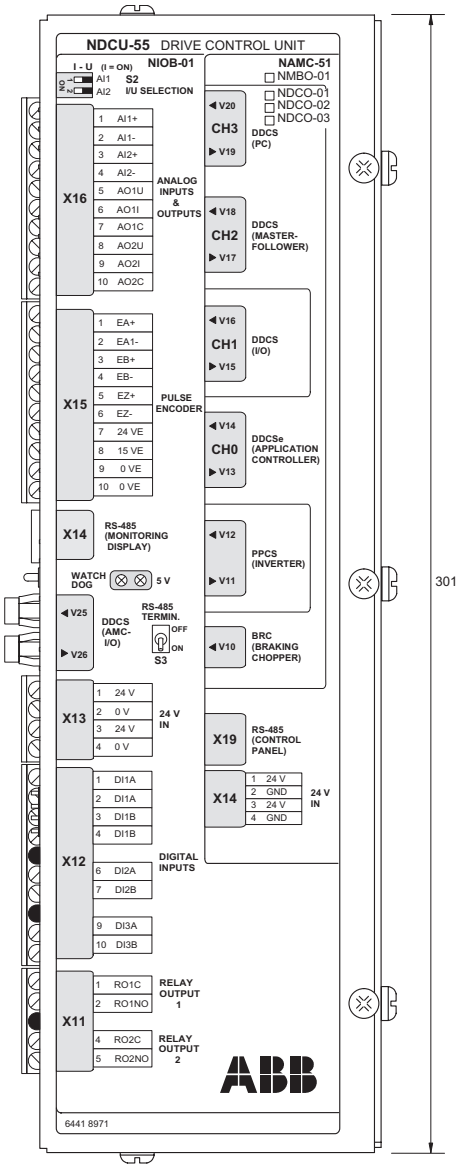

NDCU-22 DRIVE CONTROL UNIT
NIOC-01
NAMC-22
X21
1 V REF
2 GND
3 AI1+
4 AI1-
5 AI2+
6 AI2-
7 AI3+
8 AI3-
9 AO1+
10 AO1-
11 AO2+
12 AO2-
ANALOG INPUTS & OUTPUTS
X22
1 DI1
2 DI2
3 DI3
4 DI4
5 DI5
6 DI6
7 24 DV
8 24 DV
9 DGND
DIGITAL INPUTS
X28
RS-485
X29
RS-485
V25
V26
DDCS (AMC-I/O)
X24
1 24 V
2 GND
3 24 V
4 GND
24 V IN
X23
1 24 V
2 GND
24 V OUT 200 mA
X25
1 R01 NC
2 R01 C
3 R01 NO
RELAY OUTPUT 1
X26
1 R02 NC
2 R02 C
3 R02 NO
RELAY OUTPUT 2
X27
1 R03 NC
2 R03 C
3 R03 NO
RELAY OUTPUT 3
X6
1 3.6 V
2 GND
NiCd BATT.
V20
CH3
V19
DDCS (PC)
V18
CH2
V17
DDCS (MSTR-FOLL)
V16
CH1
V15
DDCS (I/O)
CH0
TXD
RXD
V14
CH0
V13
DDCSe (APPLICATION CONTROLLER)
V12
V11
PPCS (INVERTER)
24 V
FAULT
5 V
WATCH DOG
RS-485 TERMINATION
X5
TERMINATED
X5
NOT TERMIN
X4
RS-485
X3
RS-485 (CONTROL PANEL)
X2
1 24 V
2 0 V
3 24 V
4 0 V
24 V IN
X1
1 24 V
2 0 V
24 V IN
6403 2852
265

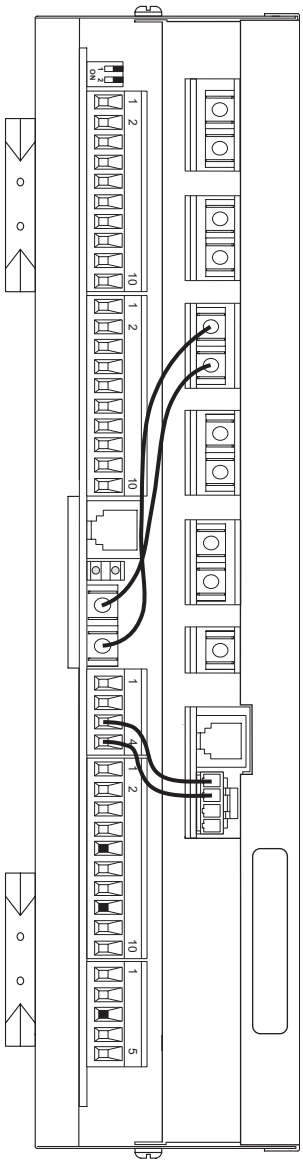
NDCU-51 with
NDCO-0x/NMBO-01



NDCU-55 with
NDCO-0x/NMBO-01

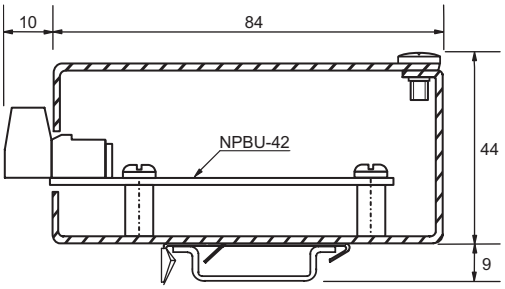


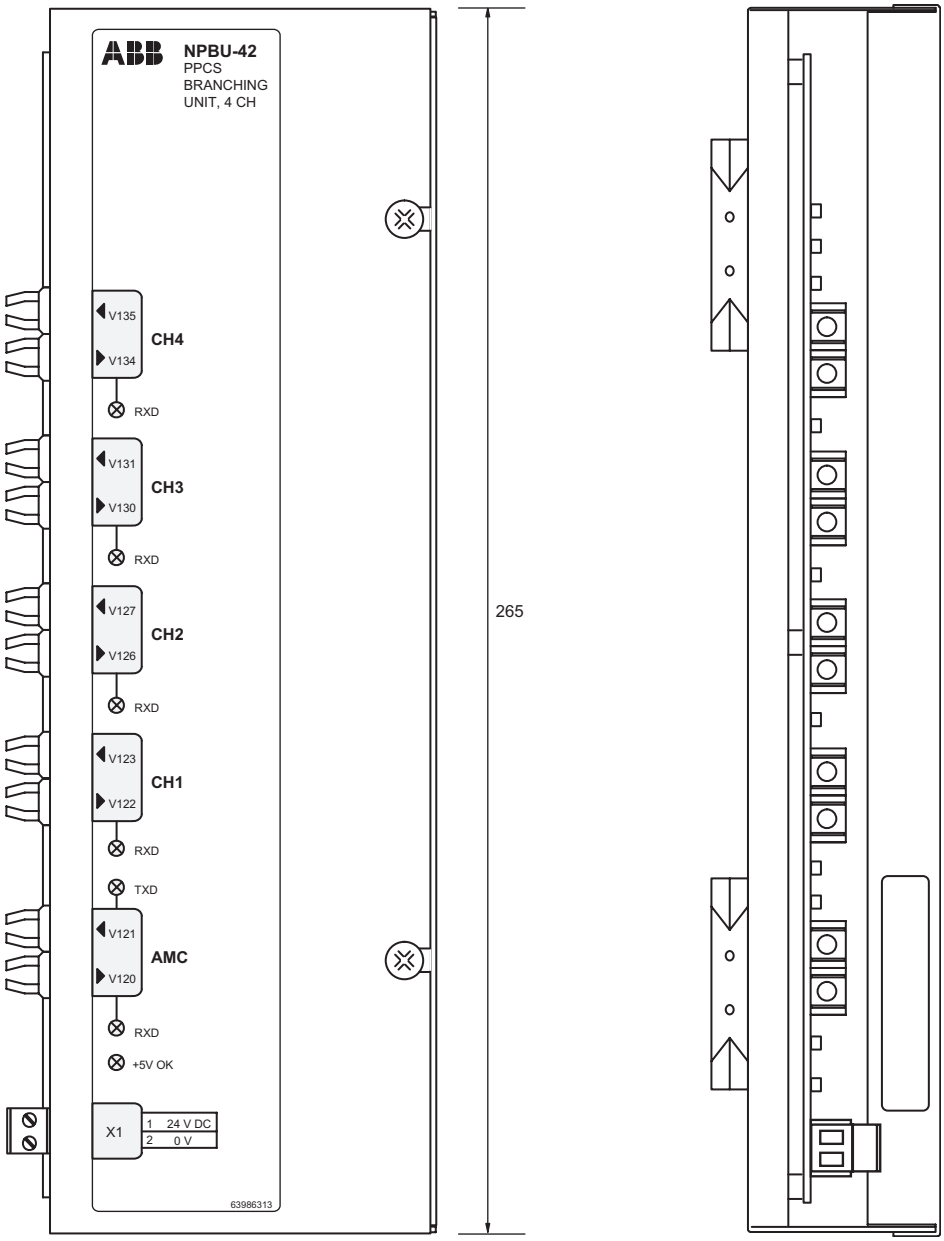




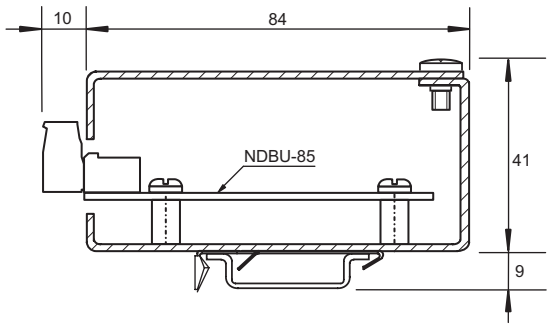
PDM-104973

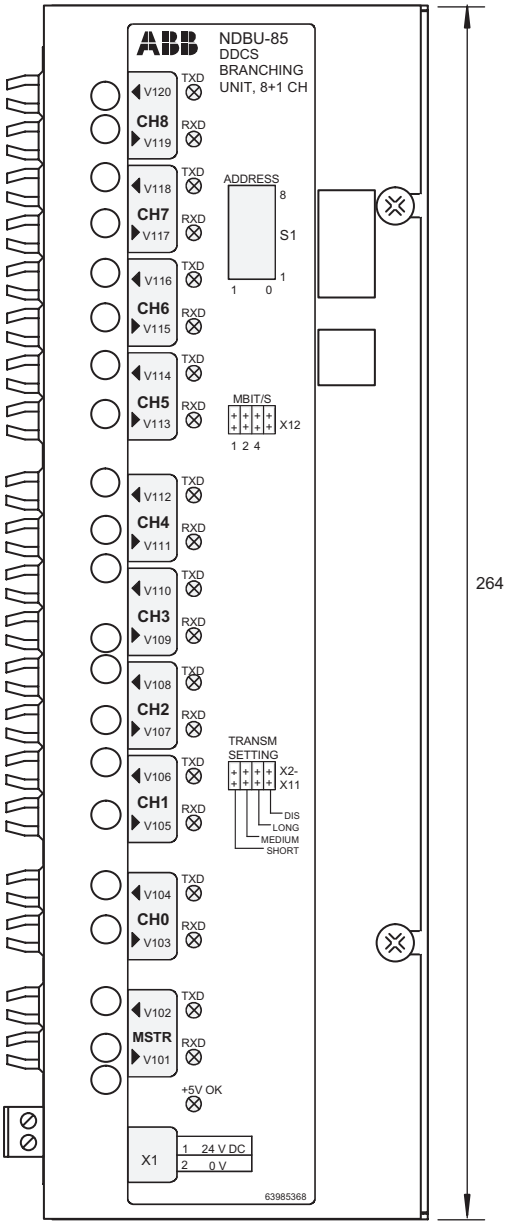
NPBU-42

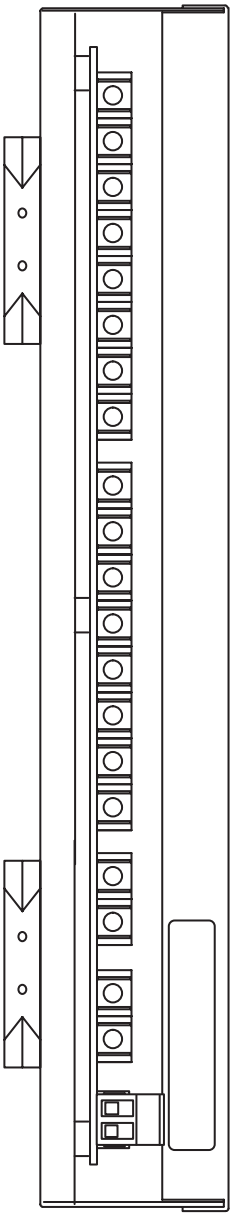

10
84
NPBU-42
44
9


NPBU-42
PPCS
BRANCHING
UNIT, 4 CH
V135
V134
CH4
RXD
V131
V130
CH3
RXD
V127
V126
CH2
RXD
V123
V122
CH1
RXD
TXD
V121
V120
AMC
RXD
+5V OK
X1
1 24 V DC
2 0 V
63986313
265

NDBU-85


10
84
NDBU-85
41
9


NDBU-85
DDCS
BRANCHING
UNIT, 8+1 CH
TXD
RXD
V120
CH8
V119
V118
CH7
V117
V116
CH6
V115
V114
CH5
V113
V112
CH4
V111
V110
CH3
V109
V108
CH2
V107
V106
CH1
V105
V104
CH0
V103
V102
MSTR
V101
ADDRESS
8
S1
1
1 0
MBIT/S
X12
1 2 4
TRANSM
SETTING
X2-
X11
DIS
LONG
MEDIUM
SHORT
+5V OK
X1
1 24 V DC
2 0 V
63985368
264



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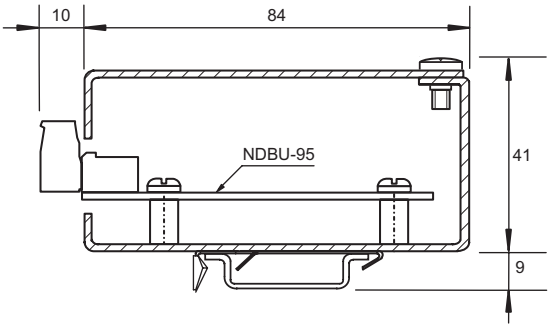
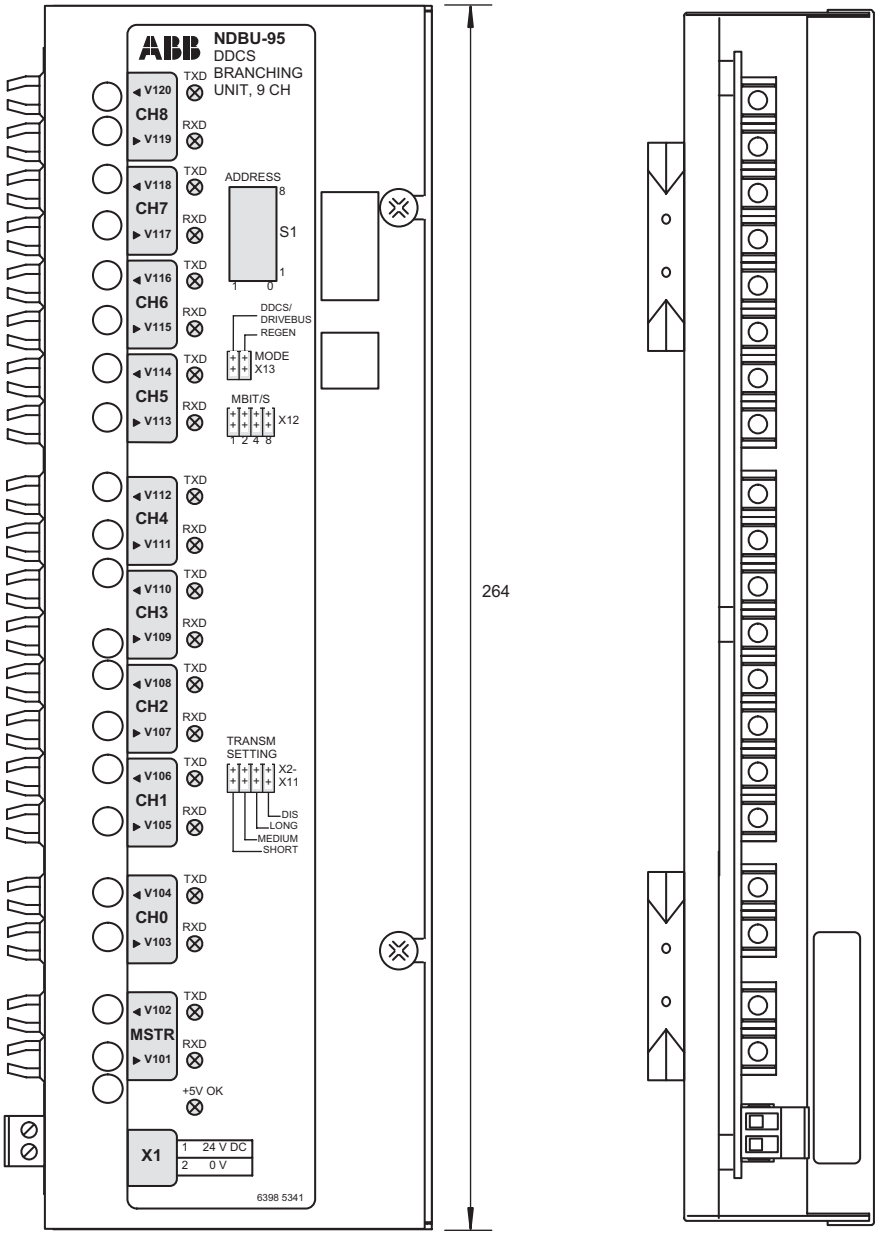
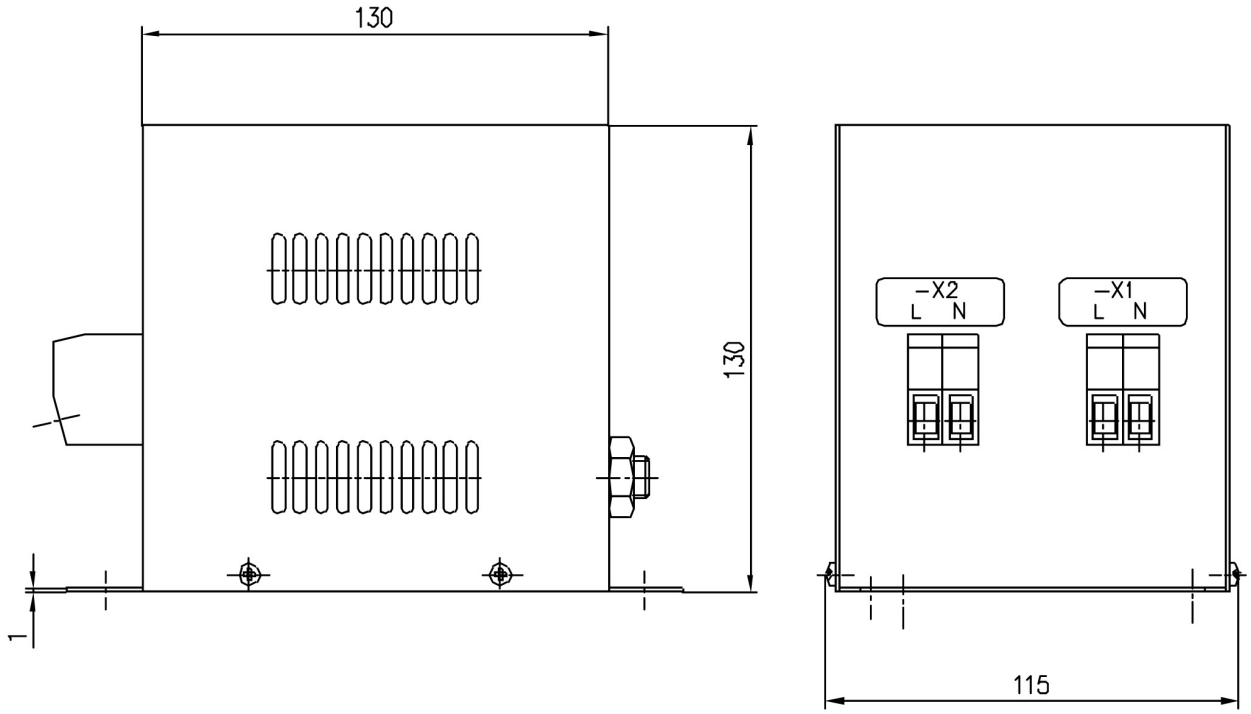
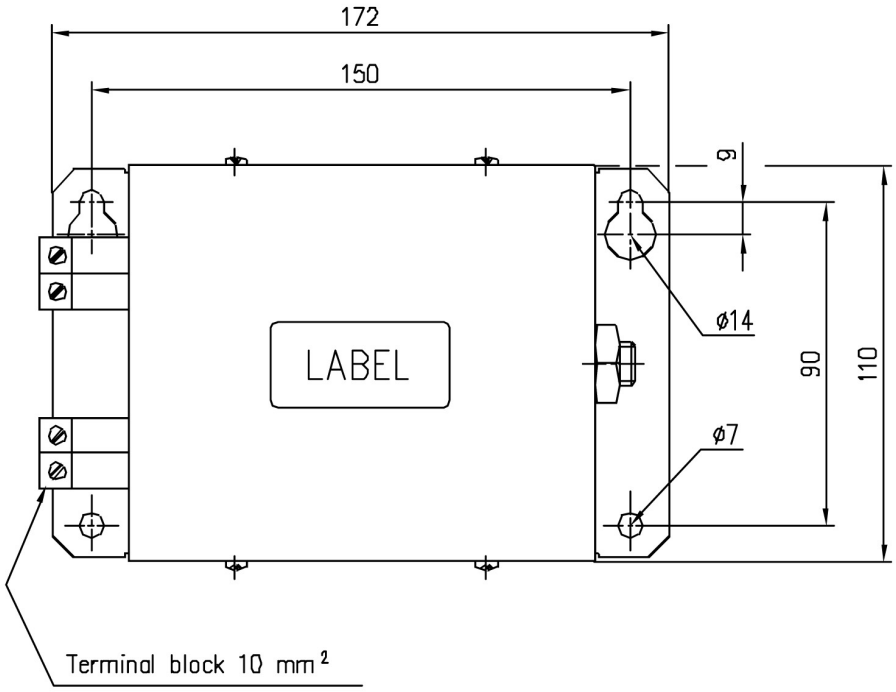

10
84
NDBU-95
41
9


NDBU-95
DDCS
BRANCHING
UNIT, 9 CH
V120
CH8
V119
V118
CH7
V117
V116
CH6
V115
V114
CH5
V113
V112
CH4
V111
V110
CH3
V109
V108
CH2
V107
V106
CH1
V105
V104
CH0
V103
V102
MSTR
V101
TXD
RXD
ADDRESS
S1
DDCS/
DRIVEBUS
REGEN
MODE
X13
MBIT/S
X12
TRANSM
SETTING
X2-
X11
DIS
LONG
MEDIUM
SHORT
+5V OK
X1
24 V DC
0 V
6398 5341
264

Control Voltage Filter

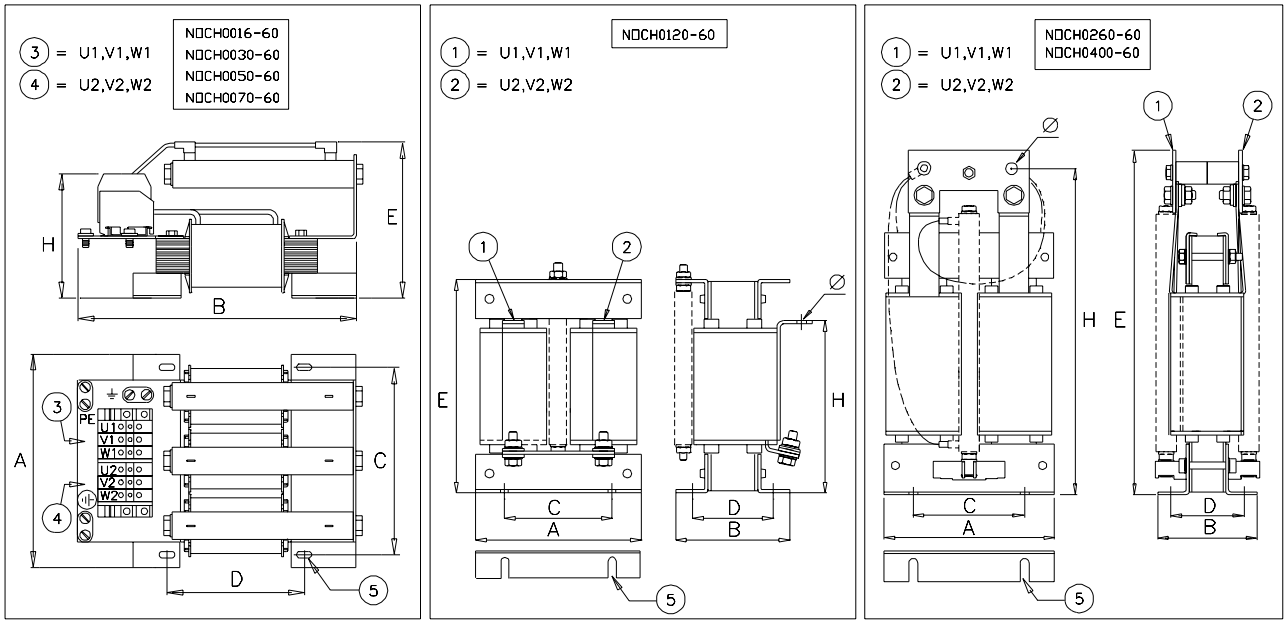




du/dt Filters

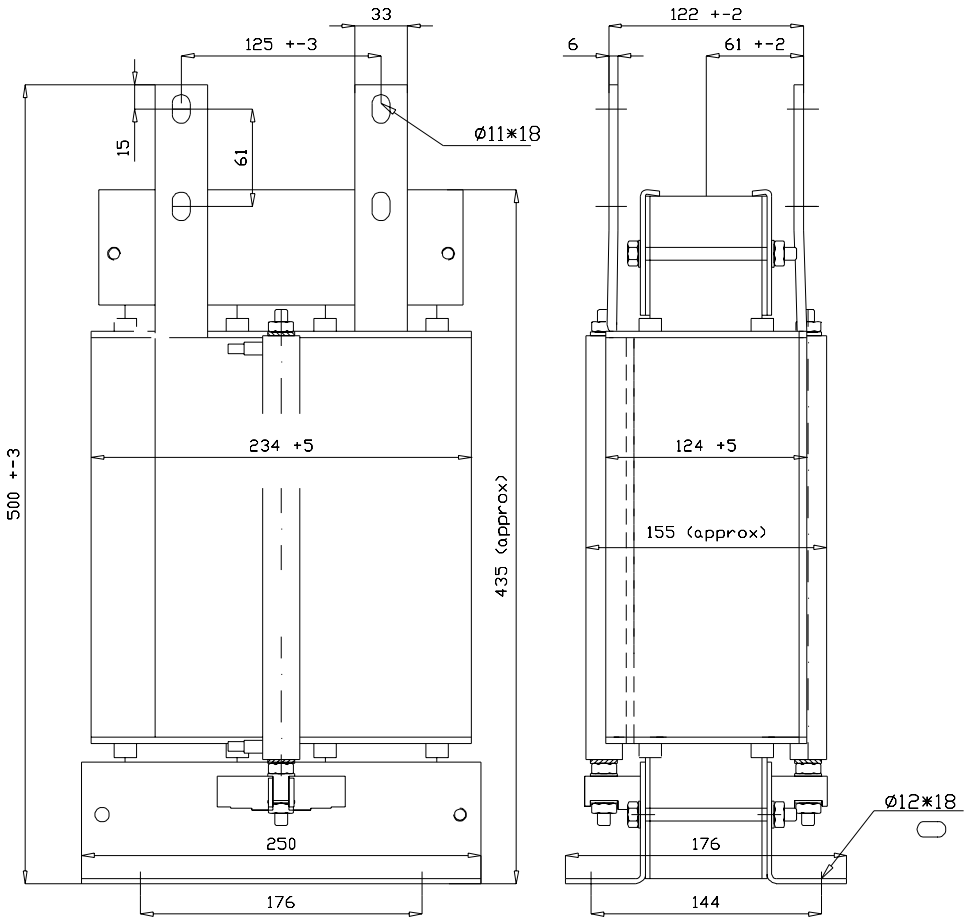
NOCH0016-60 to NOCH0400-60

L2	mm						① ② ∅	kg /1				
~	A	B	C	D	E	H	mm	kg		→ Nm	mm²	→ Nm
NOCH0016-60	140	195	120	85	115	83	–	2.4	M5	4	0.2...10	1.5
NOCH0030-60	165	215	145	108	130	95	–	4.7	M5	4	0.5...16	1.5
NOCH0070-60	180	261	170	125	150	120	–	9.5	M6	6	10...35	2.5
NOCH0120-60	154	106	100	75	200	160	9	7	M8	20	–	–
NOCH0260-60	185	111	124	82	383	368	13	12	M10	30	–	–
NOCH0400-60	185	126	124	97	383	368	13	17	M10	30	–	–

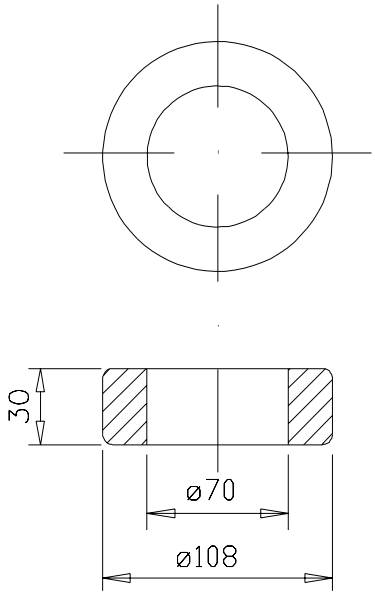


NOCH0760-60

Weight: 43 kg



Common Mode Filters

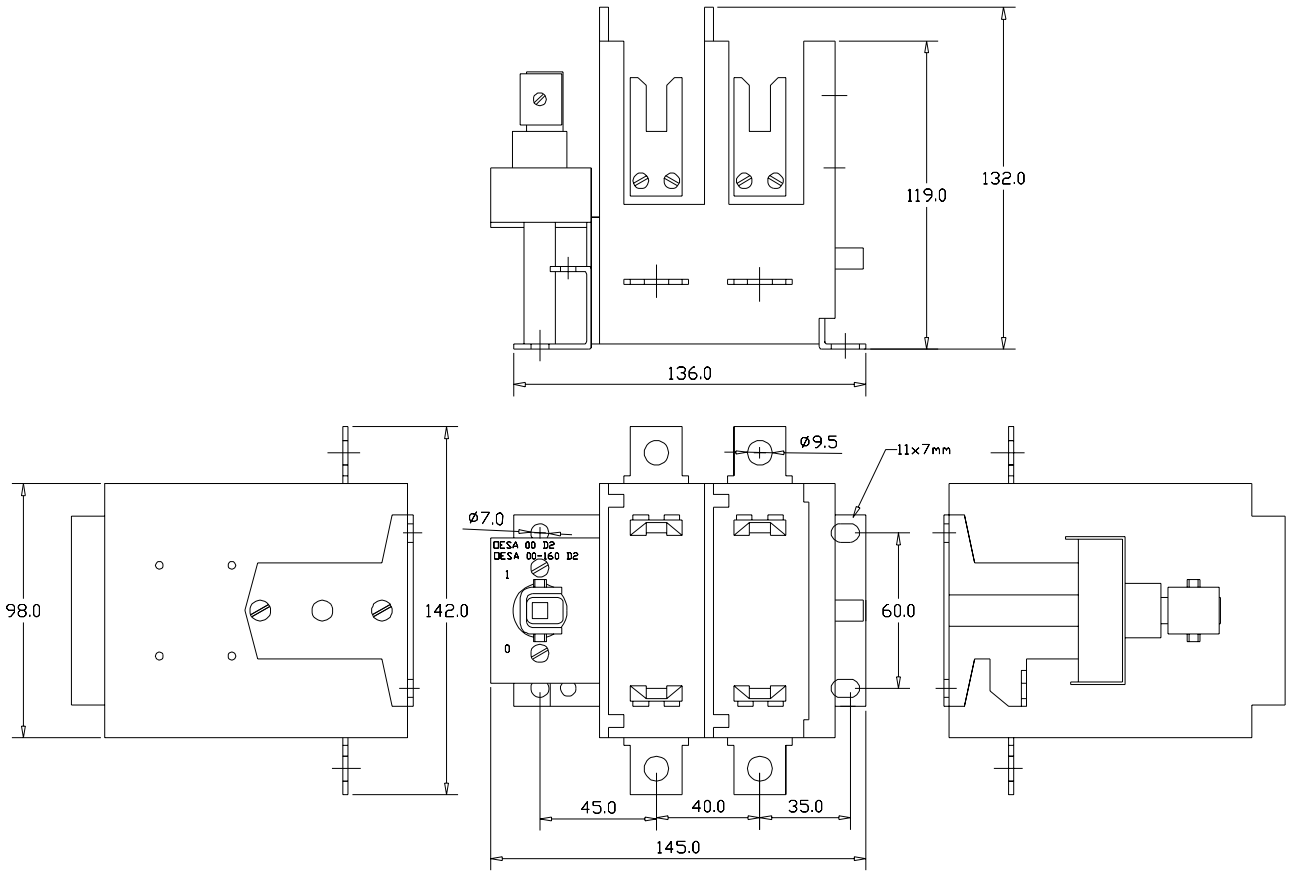


PDM-58368-B

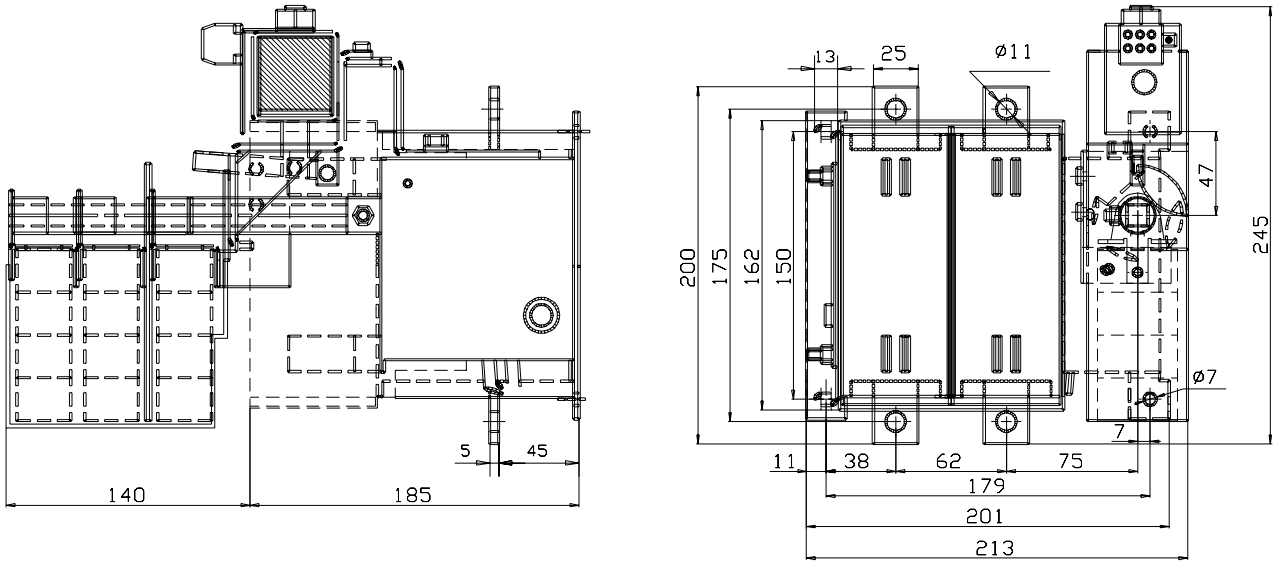
Switch Fuses, Charging Control Components

Switch Fuses and Accessories

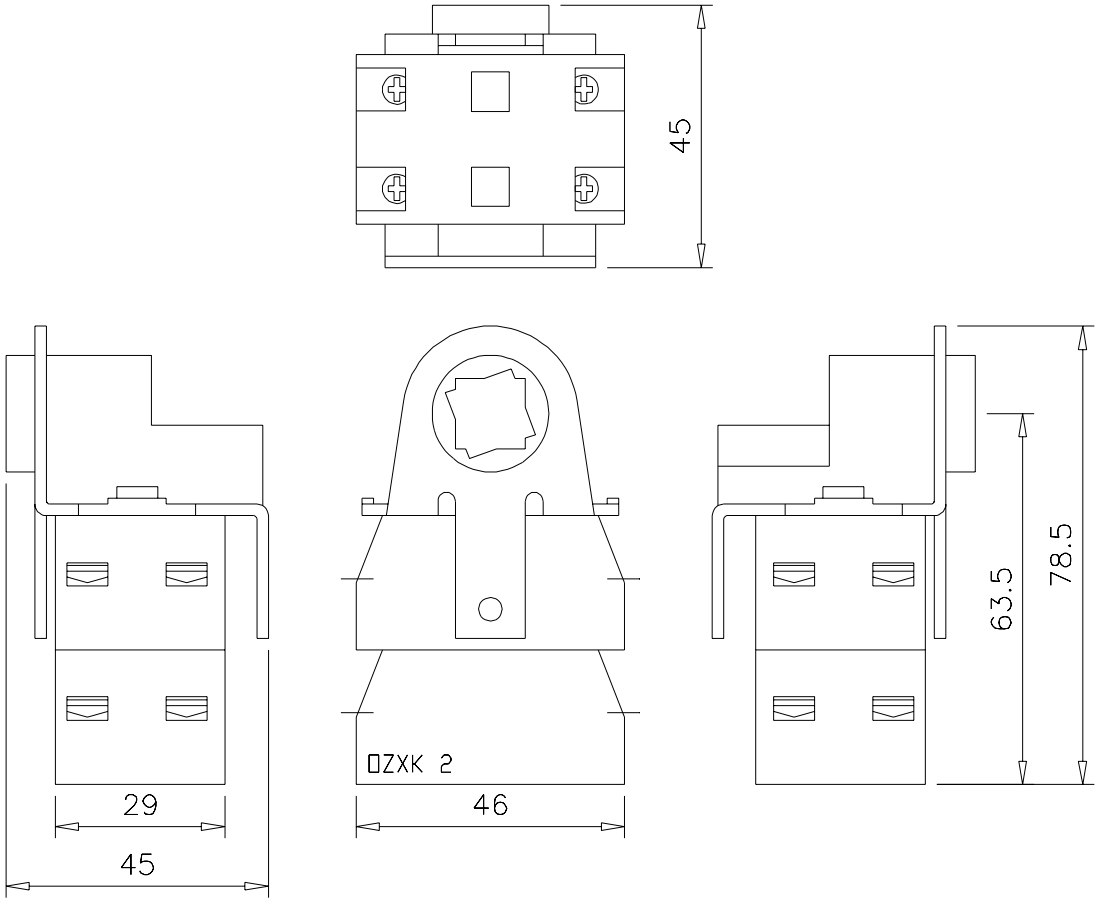
OESA00D2PL



OESA250DR2PL



OZXK2



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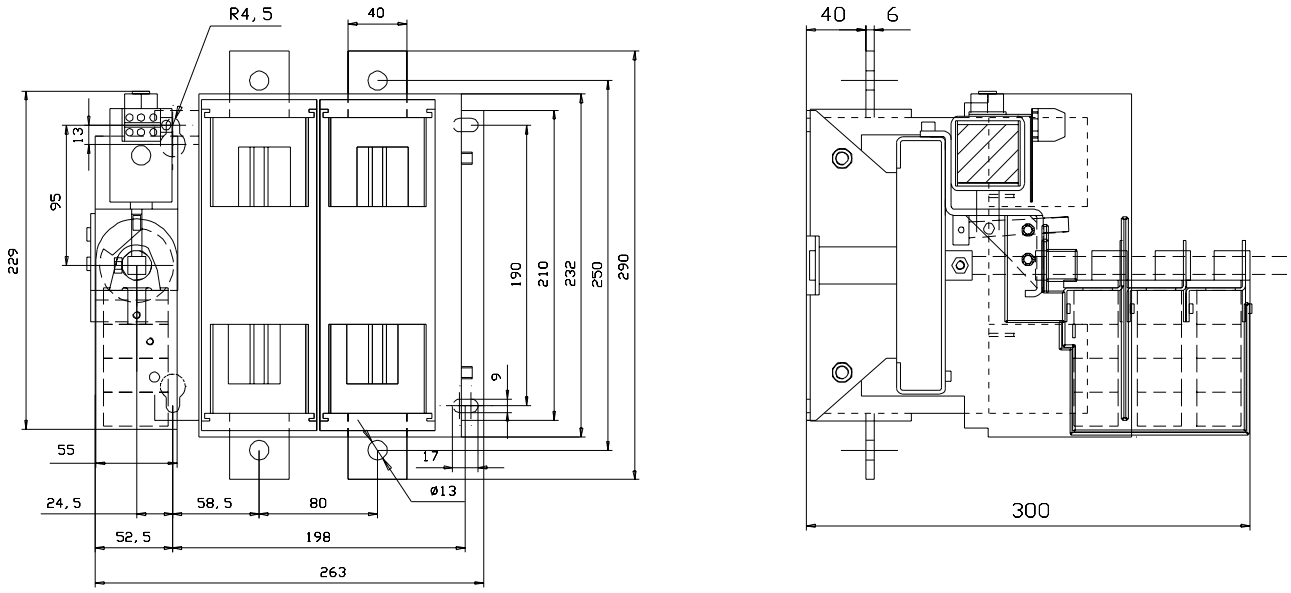

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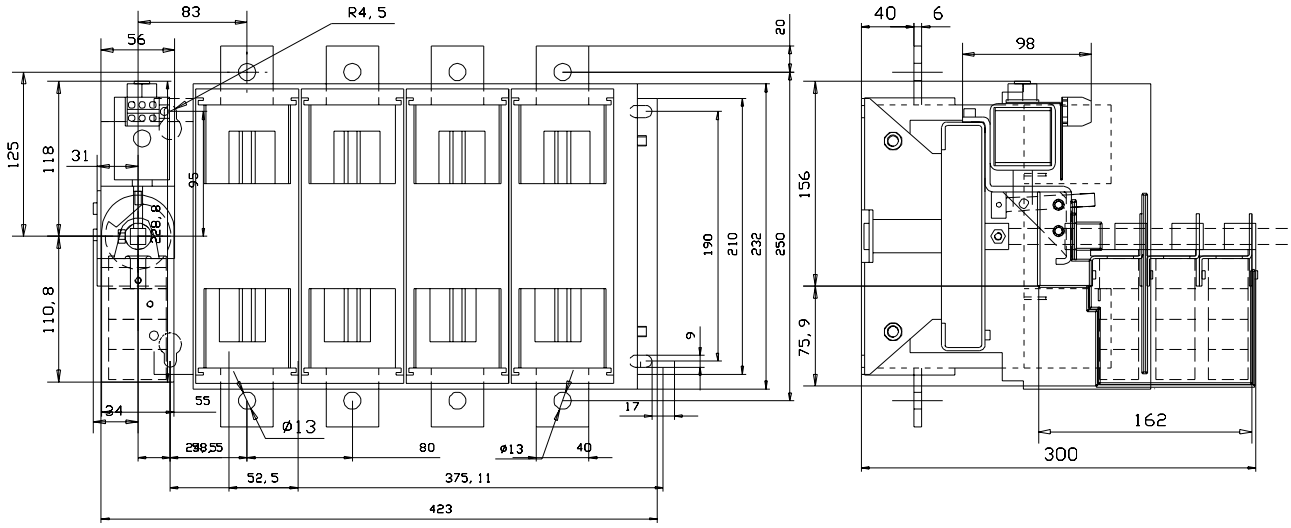

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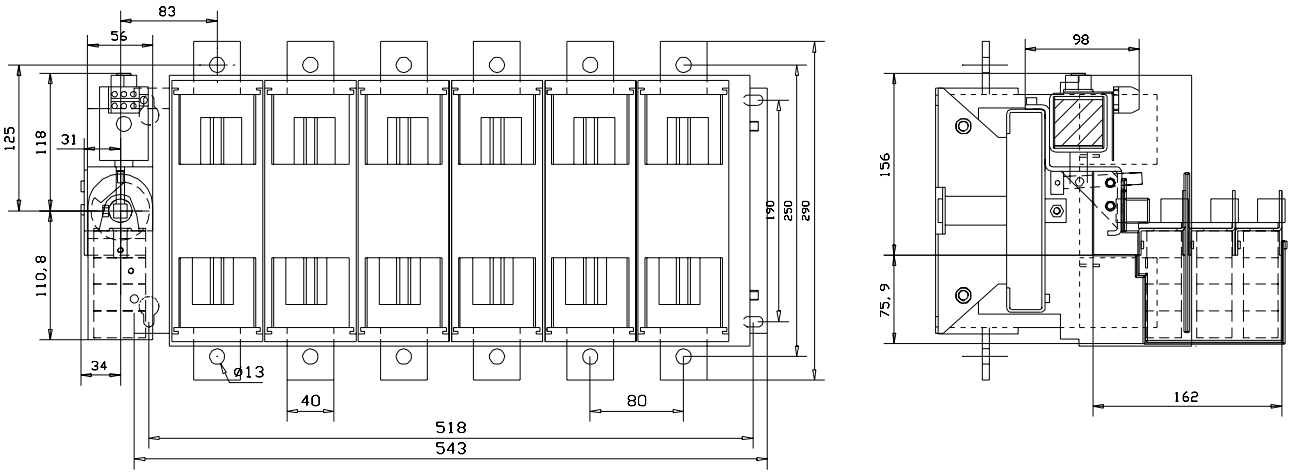
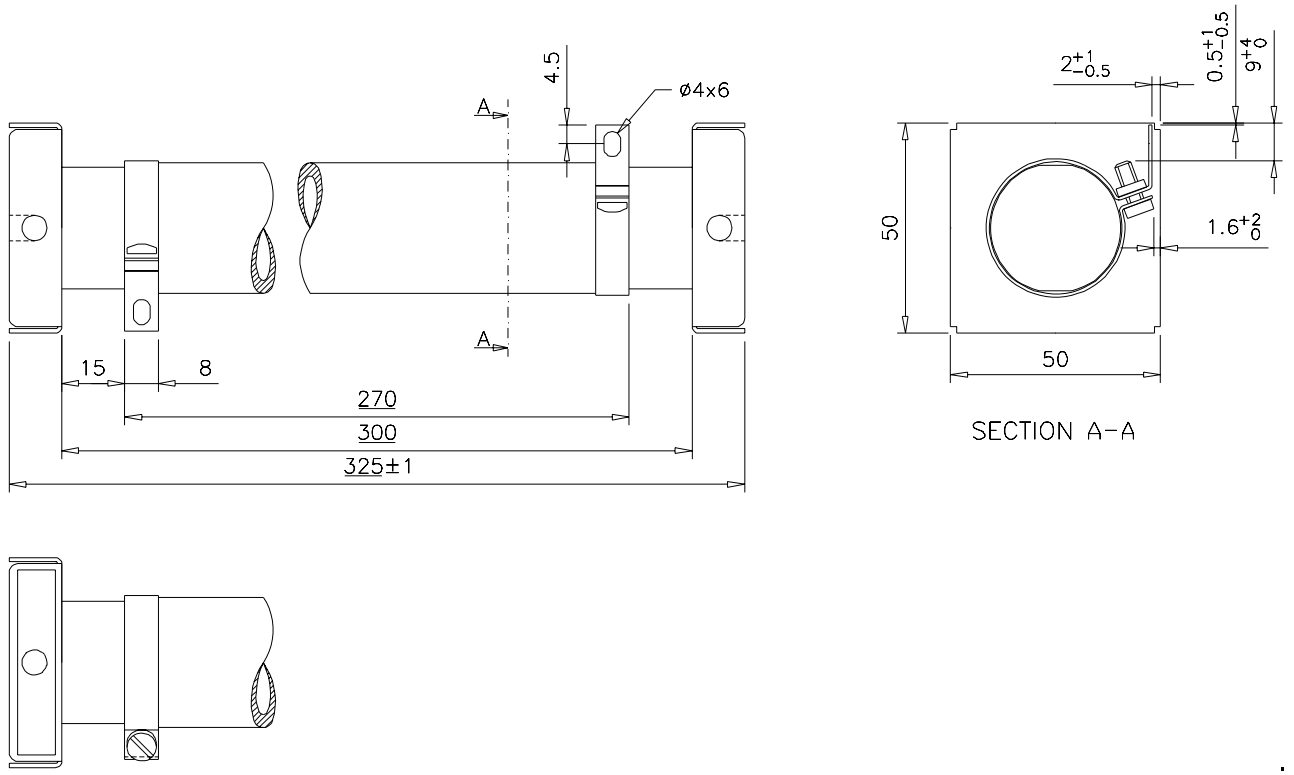


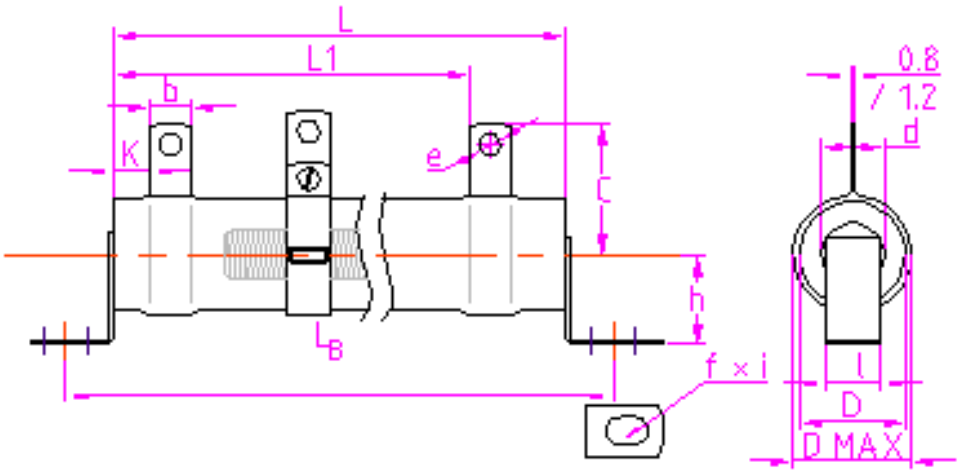
Charging Resistors

RRYB 117/CE



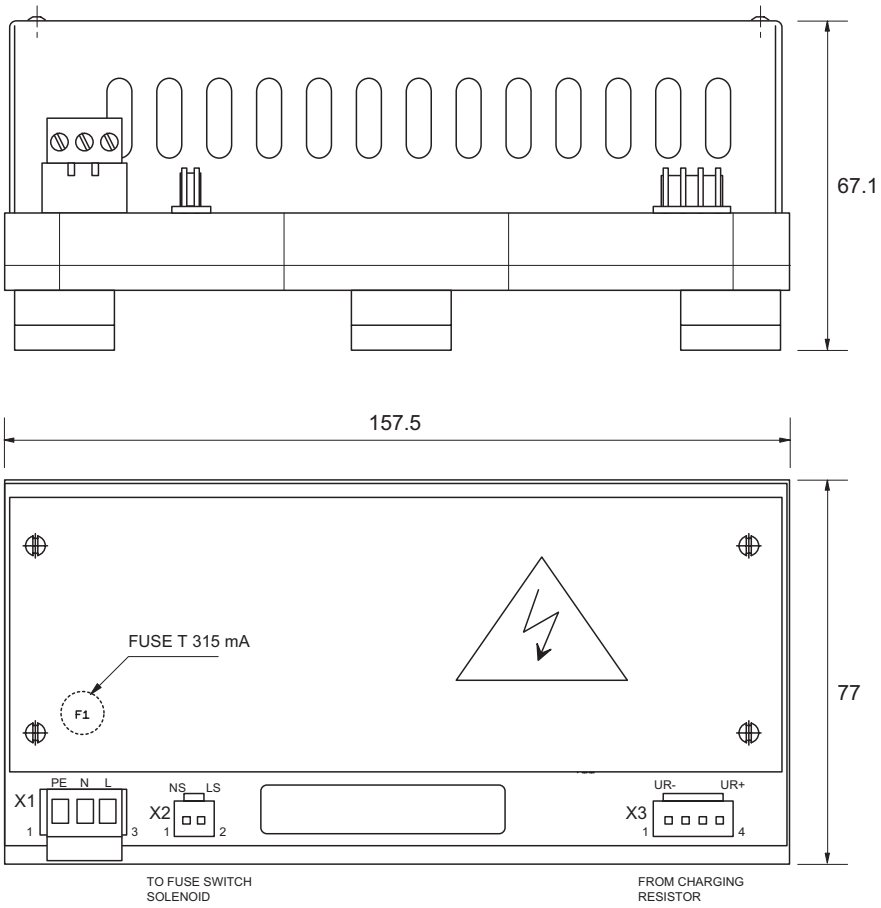
ZRF 30/165, ZRF 30/167,5 These types are used in the switch fuse kits for the inverter modules.

D	30 mm
LB	183 mm
L	165 ±3.3 mm
L1	146.5 ±1 mm
d	20 mm
D MAX	34 mm
b	8 mm
e	4.2 mm
C	30 ±1 mm
K	min. 6 mm
f × i	5.5 × 8 mm

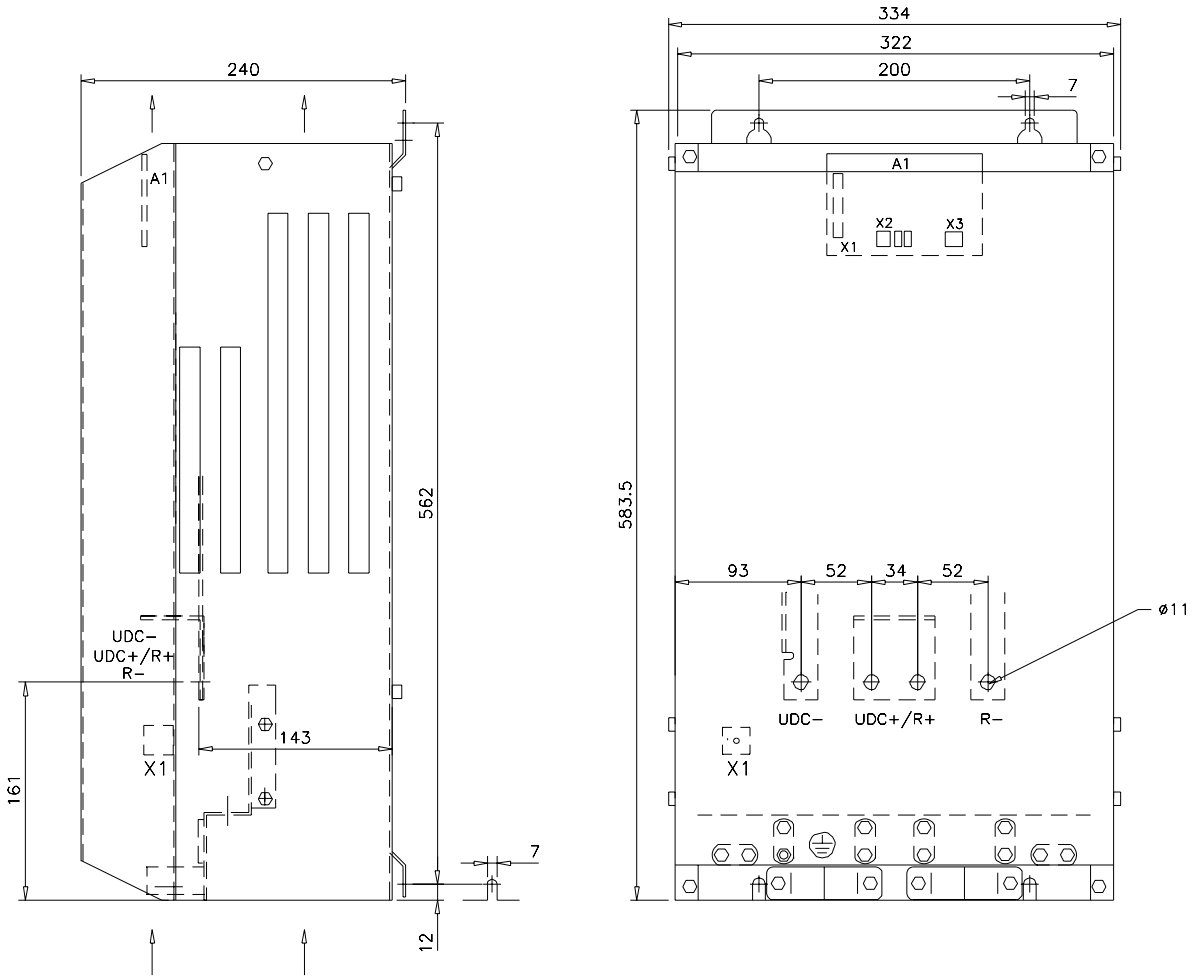


Charging Control Unit

NCHM-11/21

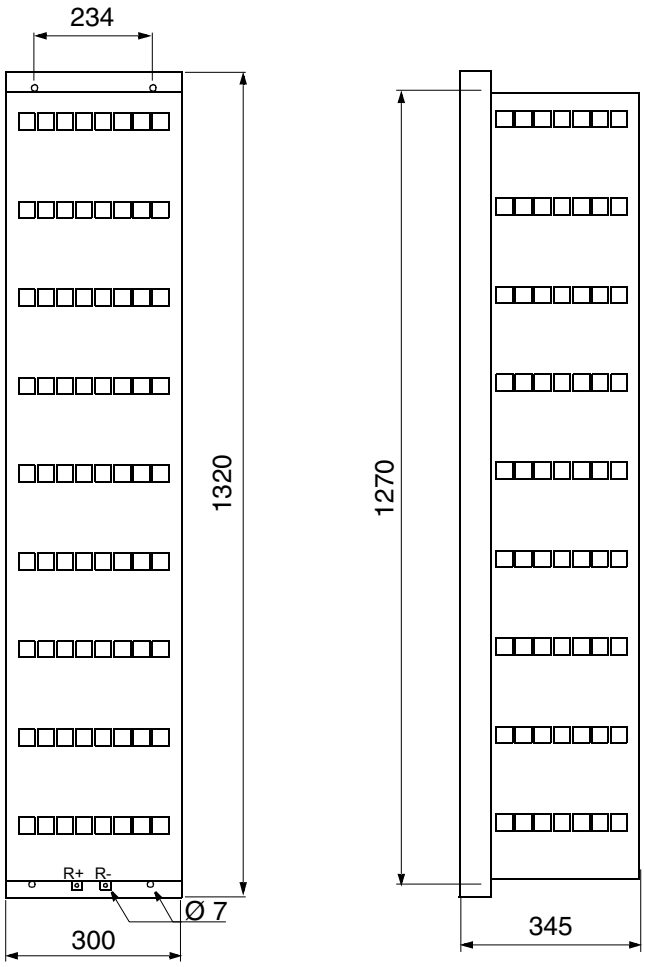


Braking Chopper
NBRA-658/659/669



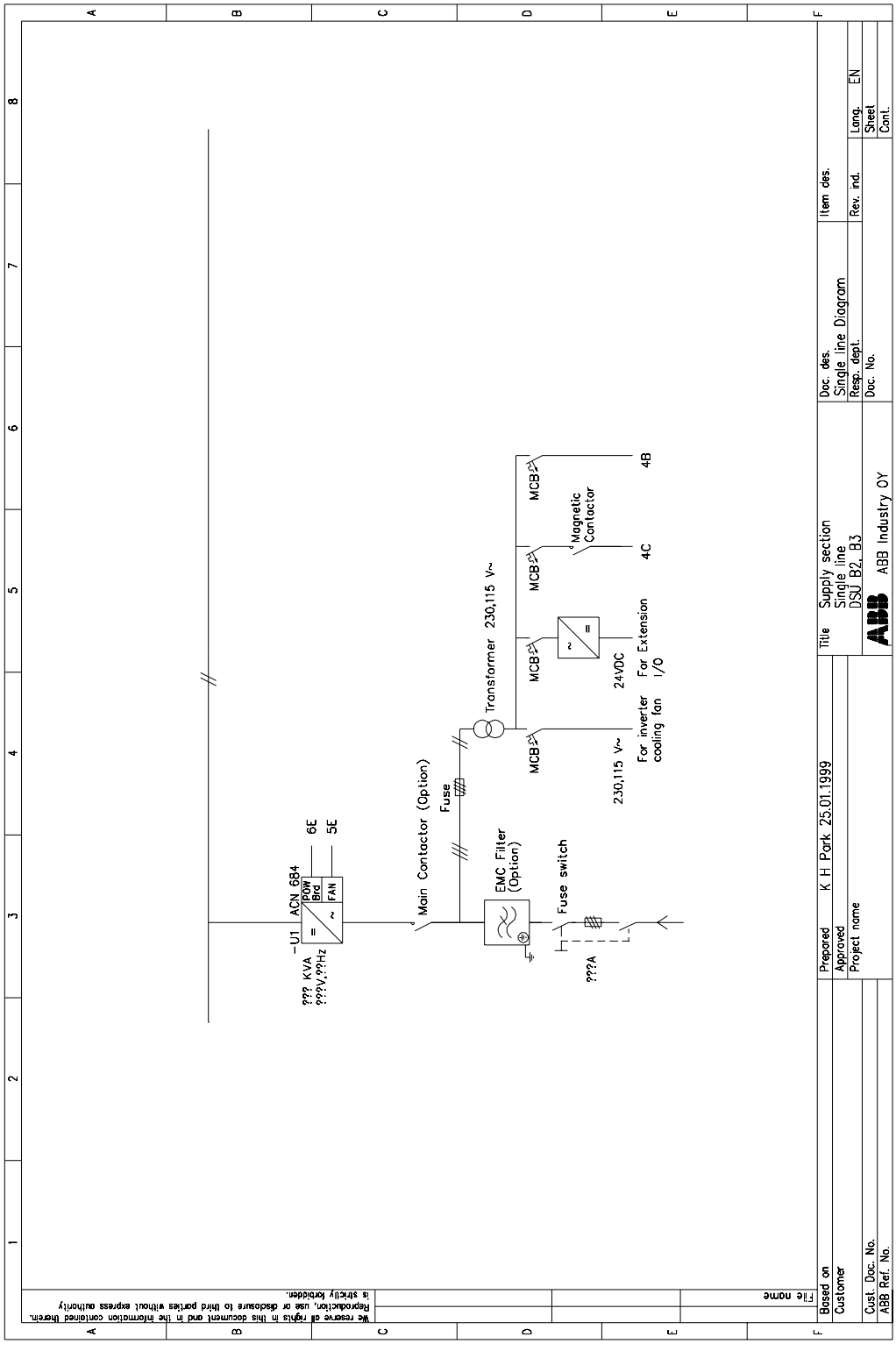
Weight: 26 kg

Braking Resistors
SAFURxxxFxxx



Weight:
SAFUR180F460: 32 kg
SAFUR125F500: 25 kg
SAFUR200F500: 30 kg
SAFUR210F575: 27 kg

Appendix B – Single-line Diagrams



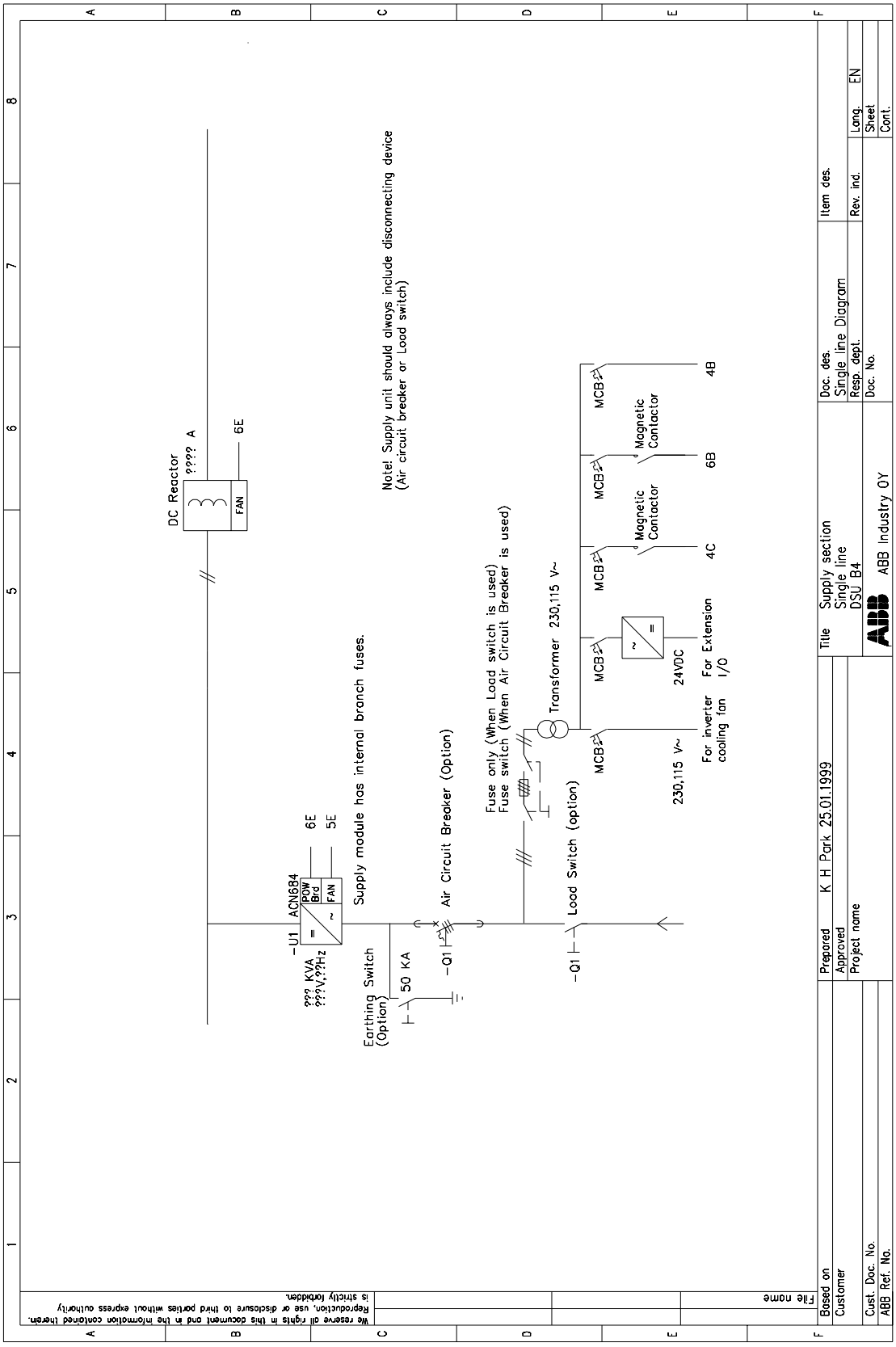

DC Reactor
???? A
FAN
6E
Note! Supply unit should always include disconnecting device
(Air circuit breaker or Load switch)
-U1
ACN684
PDW
Brd
FAN
6E
5E
??? KVA
???V,??Hz
Supply module has internal branch fuses.
Earthing Switch
(Option)
50 KA
-Q1
Air Circuit Breaker (Option)
Fuse only (When Load switch is used)
Fuse switch (When Air Circuit Breaker is used)
Transformer 230,115 V~
Load Switch (option)
-Q1
MCB
230,115 V~
For inverter
cooling fan
24VDC
For Extension
I/O
4C
Magnetic
Contactor
6B
4B
Prepared K. H. Park 25.01.1999
Approved
Project name
Based on
Customer
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ABB Ref. No.
File name
Title Supply section
Single line
DSU B4
ABB Industry OY
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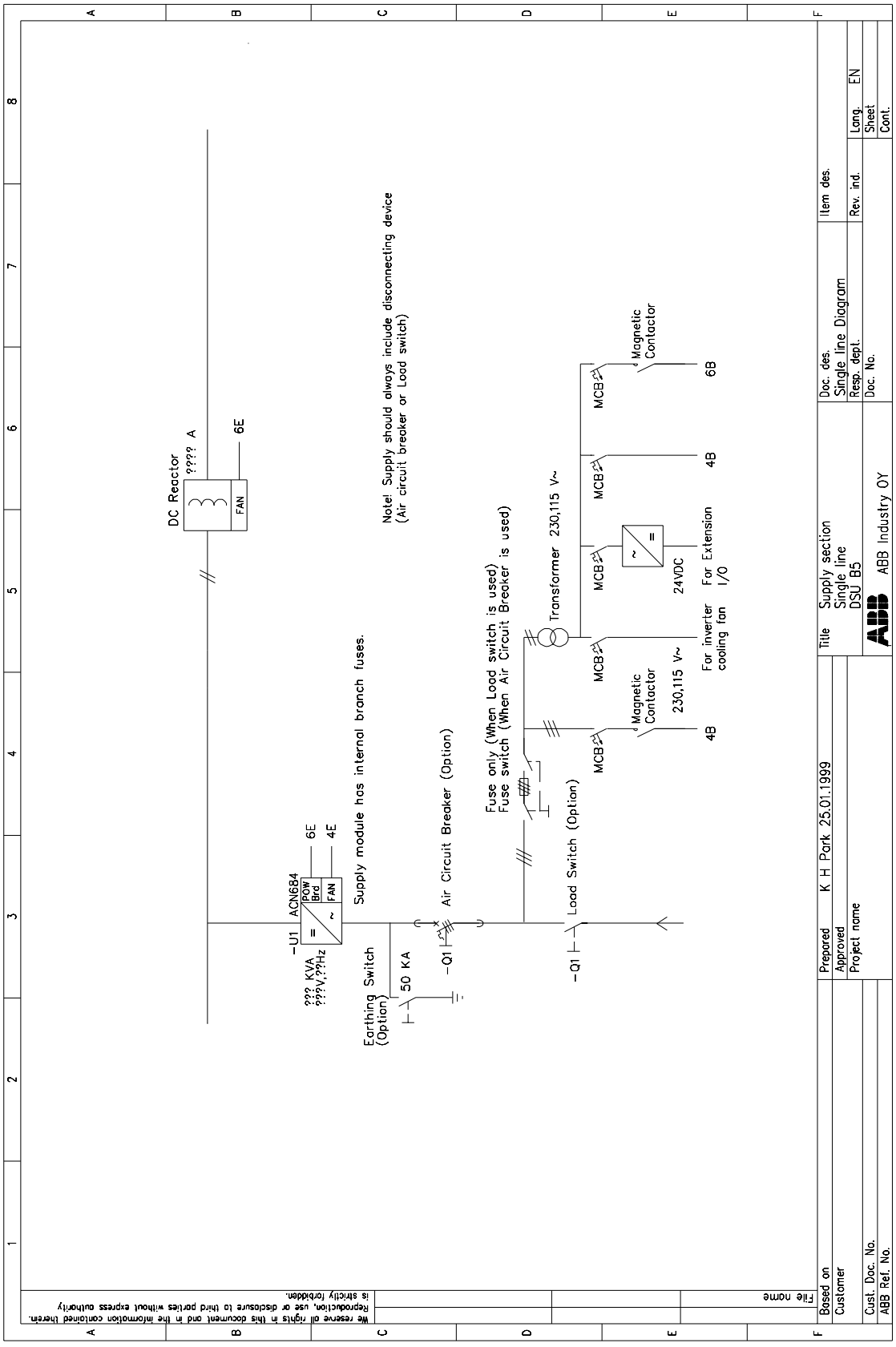
DC Reactor
???? A
6E
FAN
Note! Supply should always include disconnecting device
(Air circuit breaker or Load switch)
-U1 ACN684
POW Brd
FAN
6E
4E
??? KVA
???V,??Hz
Supply module has internal branch fuses.
Earthing Switch
(Option)
50 KA
-Q1
Air Circuit Breaker (Option)
Fuse only (When Load switch is used)
Fuse switch (When Air Circuit Breaker is used)
-Q1
Load Switch (Option)
Transformer 230,115 V~
MCB
Magnetic Contactor
230,115 V~
4B
For inverter cooling fan
24VDC
For Extension I/O
6B
Magnetic Contactor
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Project name
Title Supply section
Single line
DSU B5
ABB Industry OY
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Rev. ind.
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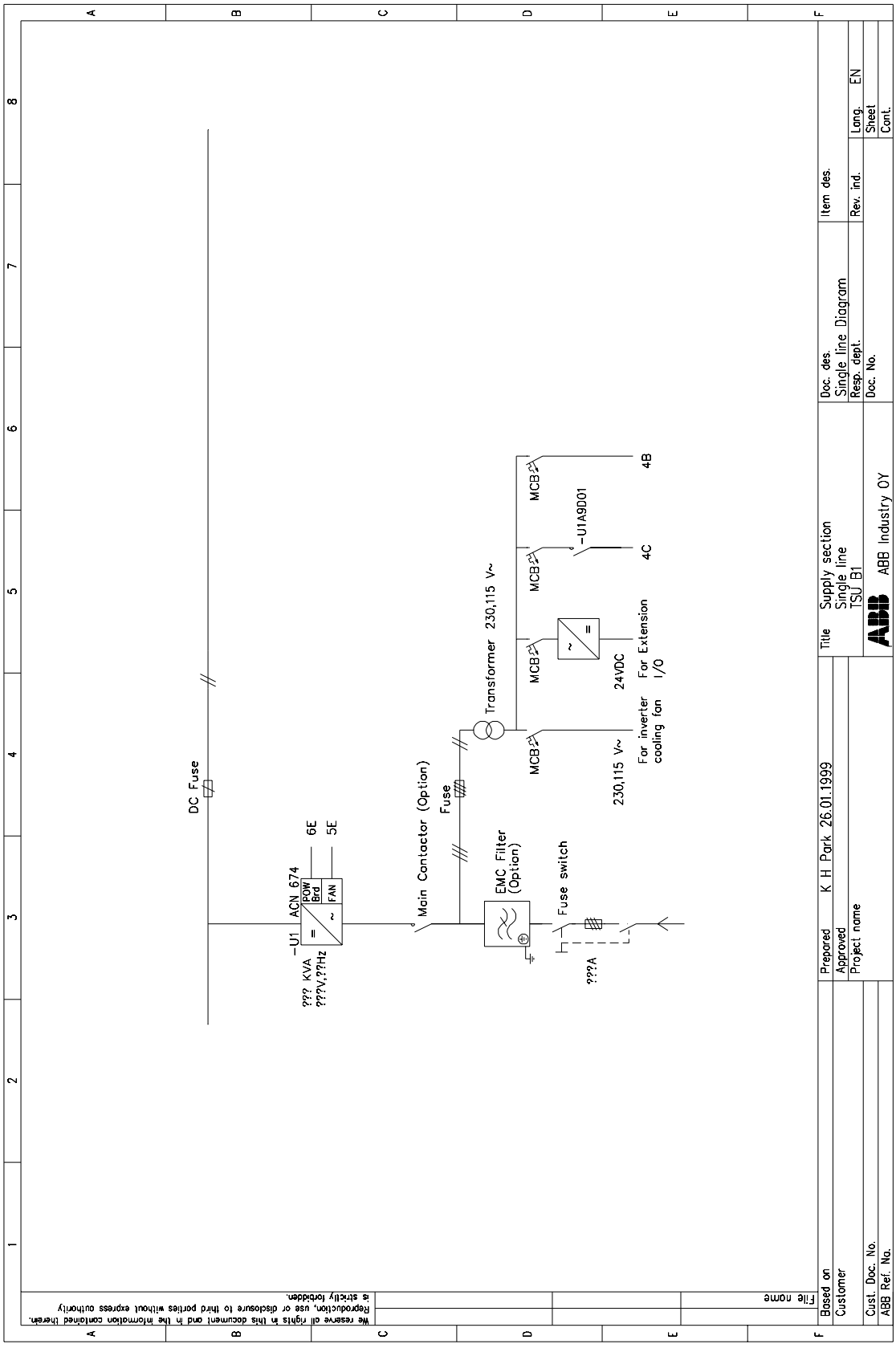
DC Fuse
-U1
ACN 674
POW Brd
FAN
6E
5E
???? KVA
???V,??Hz
Main Contactor (Option)
Fuse
EMC Filter (Option)
Fuse switch
???A
Transformer 230,115 V~
MCB
-U1A9D01
4B
4C
24VDC
For Extension I/O
230,115 V~
For inverter cooling fan
Prepared K H Park 26.01.1999
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ABB Ref. No.
File name
Title Supply section Single line TSU B1
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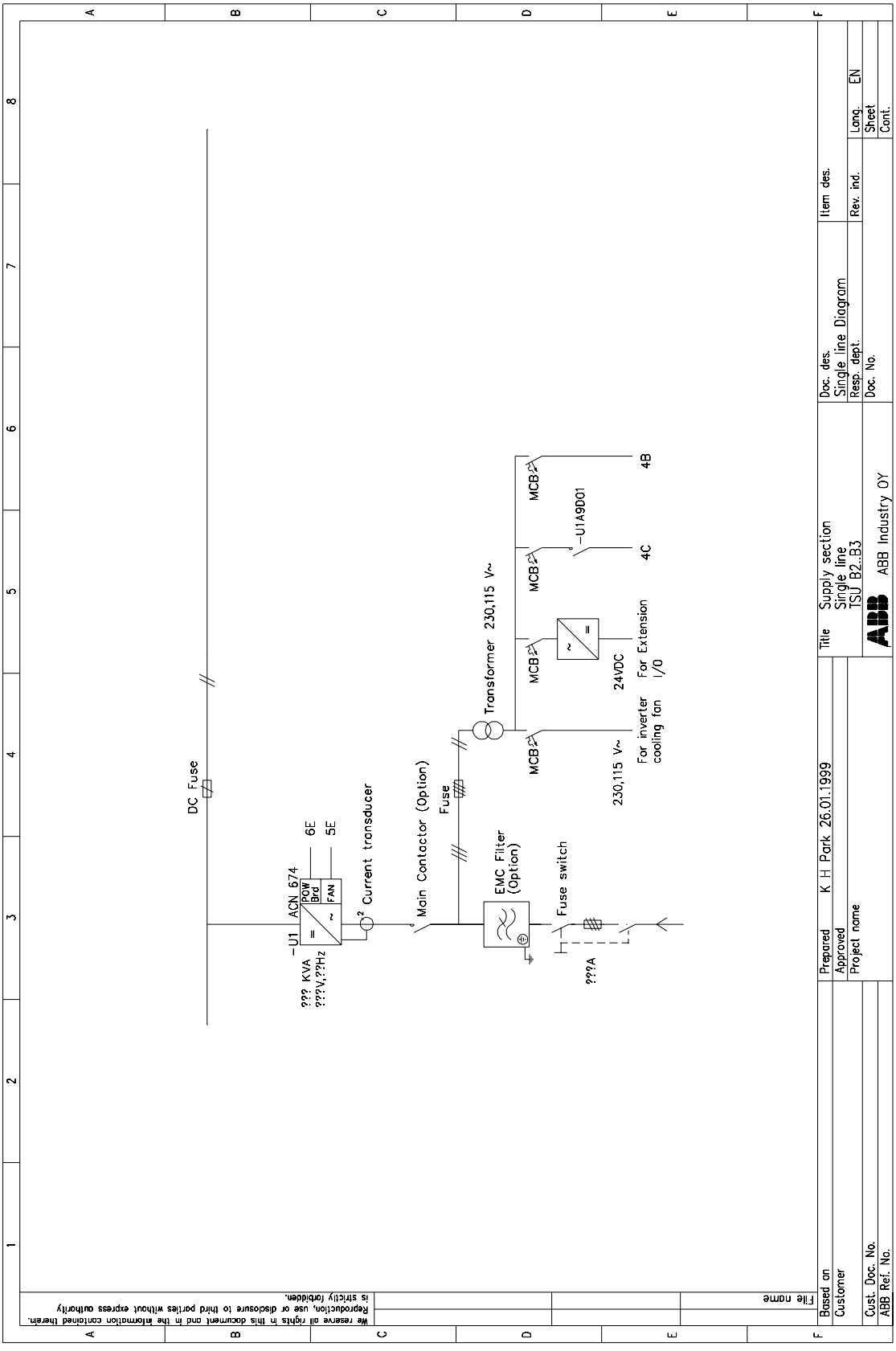
DC Fuse
-U1 ACN 674
POW Brd
FAN
6E
5E
??? KVA
???V,??Hz
Current transducer
Main Contactor (Option)
Fuse
EMC Filter (Option)
Fuse switch
???A
Transformer 230,115 V~
MCB
-U1A9D01
4B
4C
24VDC
For Extension I/O
230,115 V~
For inverter cooling fan
Supply section
Single line
TSU B2..B3
ABB Industry OY
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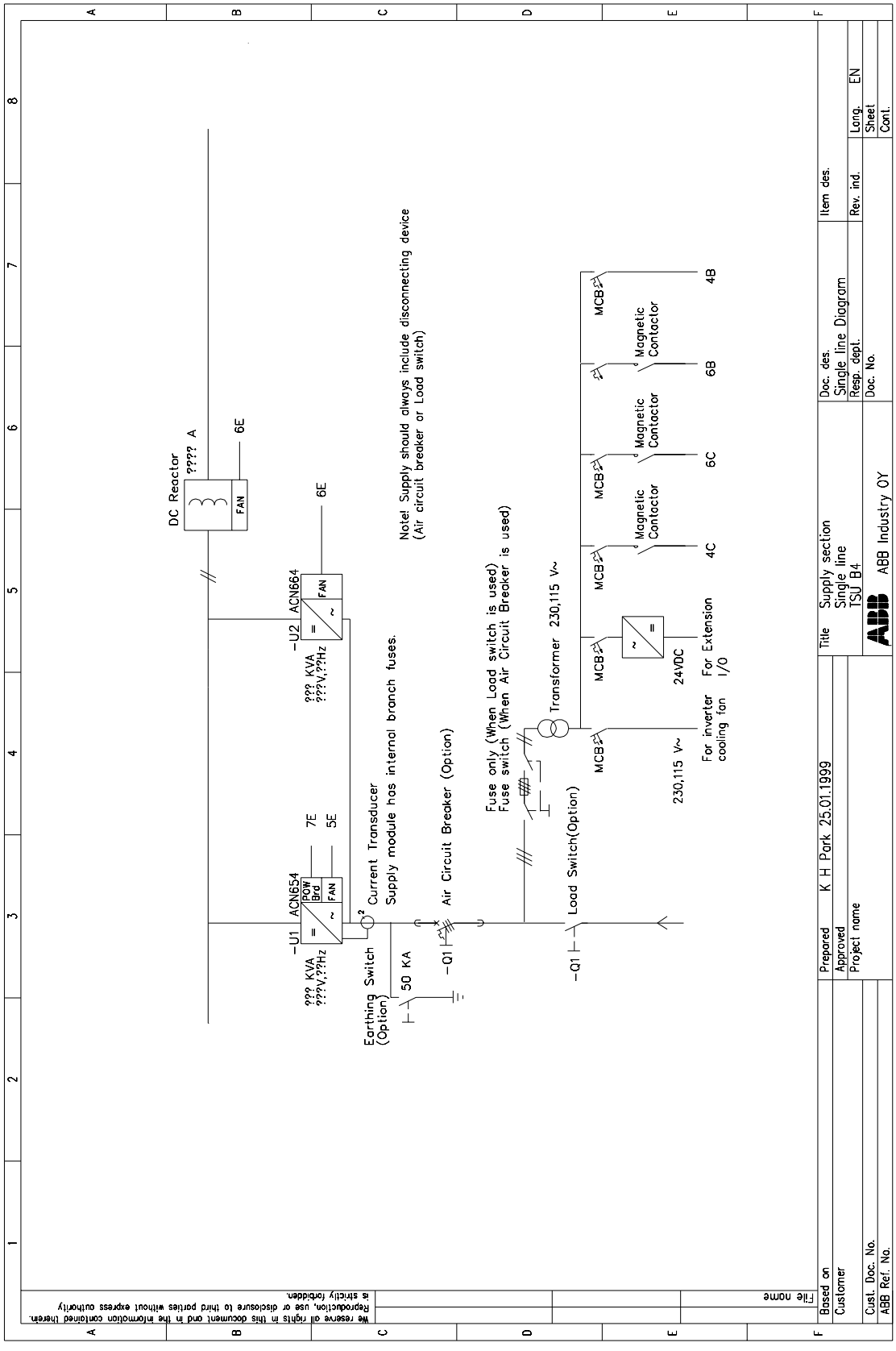
DC Reactor
???? A
FAN
6E
-U2 ACN664
??? KVA
???V,??Hz
-U1 ACN654
??? KVA
???V,??Hz
POW Brd
7E
5E
Current Transducer
Supply module has internal branch fuses.
Earthing Switch (Option)
50 KA
-Q1
Air Circuit Breaker (Option)
Note! Supply should always include disconnecting device (Air circuit breaker or Load switch)
Fuse only (When Load switch is used)
Fuse switch (When Air Circuit Breaker is used)
Load Switch(Option)
Transformer 230,115 V~
MCB
Magnetic Contactor
4C
6C
6B
4B
24VDC
230,115 V~
For inverter cooling fan
For Extension I/O
Prepared K H Park 25.01.1999
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Project name
Based on
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Cust. Doc. No.
ABB Ref. No.
File name
Title Supply section Single line TSU B4
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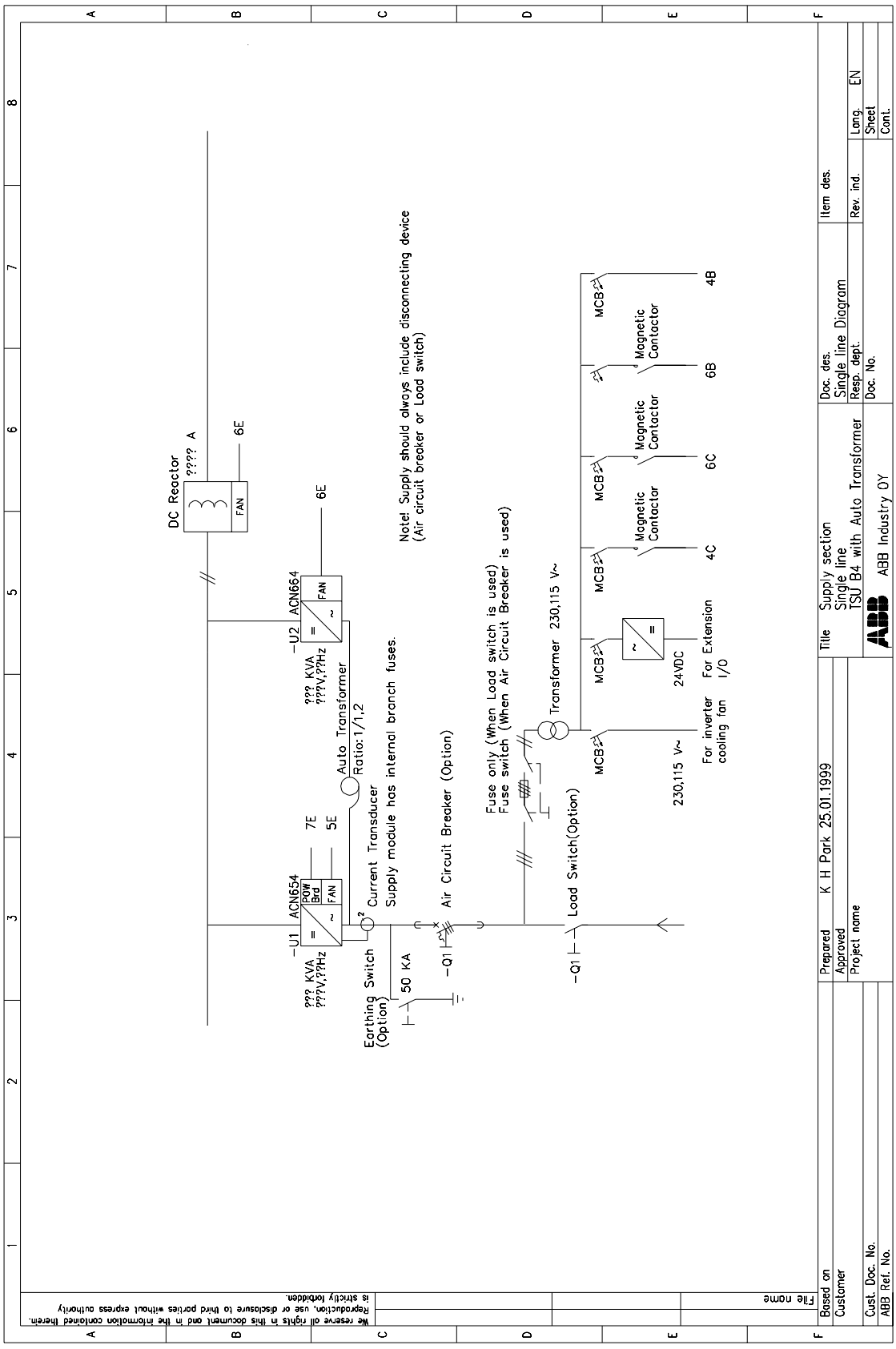
DC Reactor
???? A
6E
FAN
-U2 ACN664
??? KVA
???V,??Hz
Auto Transformer
Ratio:1/1,2
-U1 ACN654
??? KVA
???V,??Hz
POW Brd
FAN
7E
5E
Current Transducer
Supply module has internal branch fuses.
Earthing Switch (Option)
50 KA
-Q1
Air Circuit Breaker (Option)
Note! Supply should always include disconnecting device (Air circuit breaker or Load switch)
Fuse only (When Load switch is used)
Fuse switch (When Air Circuit Breaker is used)
Load Switch(Option)
Transformer 230,115 V~
MCB
Magnetic Contactor
4B
6B
6C
4C
230,115 V~
24VDC
For inverter cooling fan
For Extension I/O
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Project name
Title Supply section
Single line
TSU B4 with Auto Transformer
ABB Industry OY
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Item des.
Rev. ind.
Lang. EN
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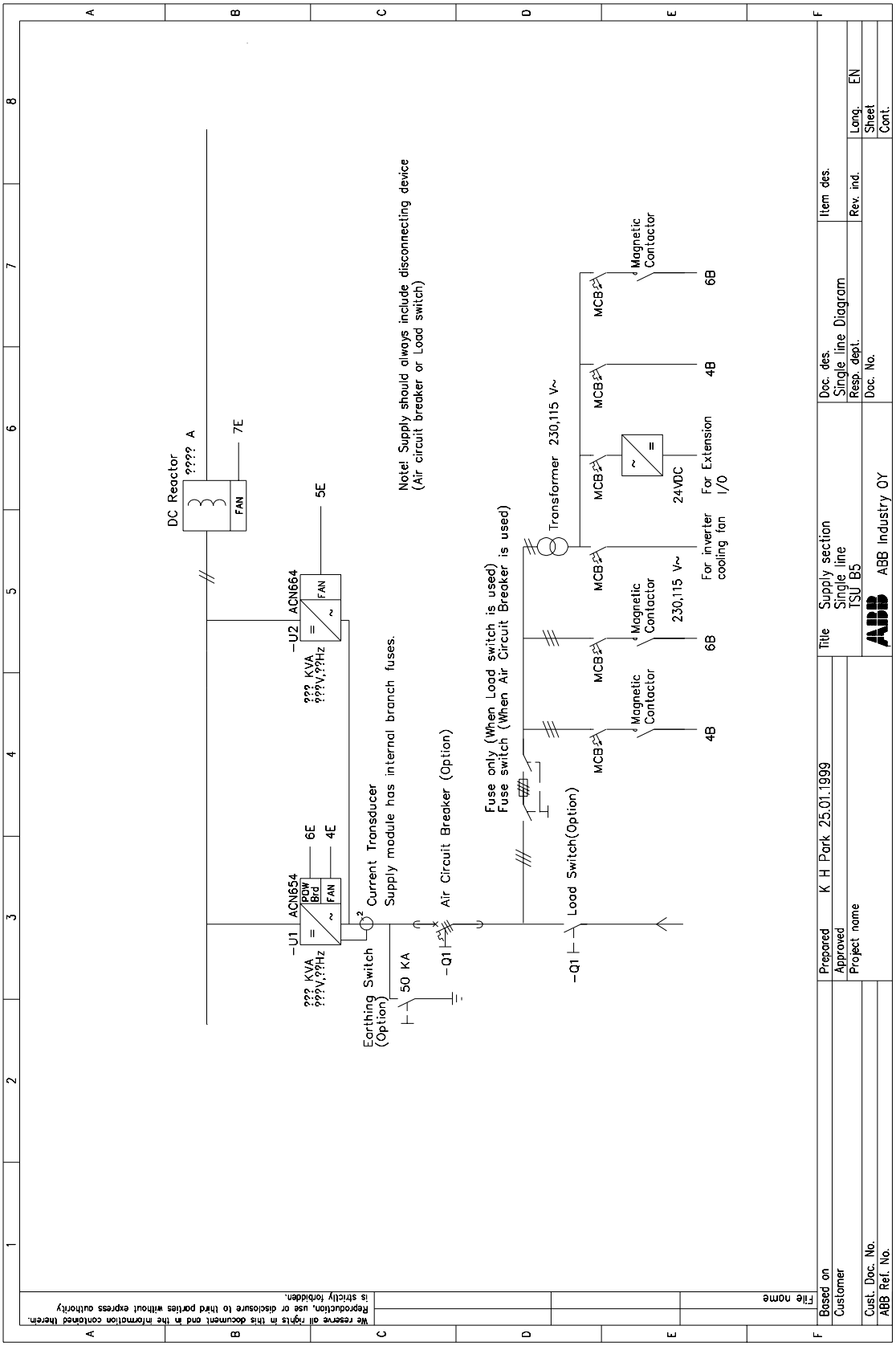
DC Reactor
???? A
FAN
7E
-U2 ACN664
??? KVA
???V,??Hz
5E
Note! Supply should always include disconnecting device
(Air circuit breaker or Load switch)
-U1 ACN654
PDW Brd
6E
4E
Current Transducer
Supply module has internal branch fuses.
Earthing Switch
(Option)
50 KA
-Q1
Air Circuit Breaker (Option)
Fuse only (When Load switch is used)
Fuse switch (When Air Circuit Breaker is used)
Load Switch(Option)
Transformer 230,115 V~
MCB
Magnetic Contactor
230,115 V~
For inverter cooling fan
24VDC
For Extension I/O
4B
6B
ABB Industry OY
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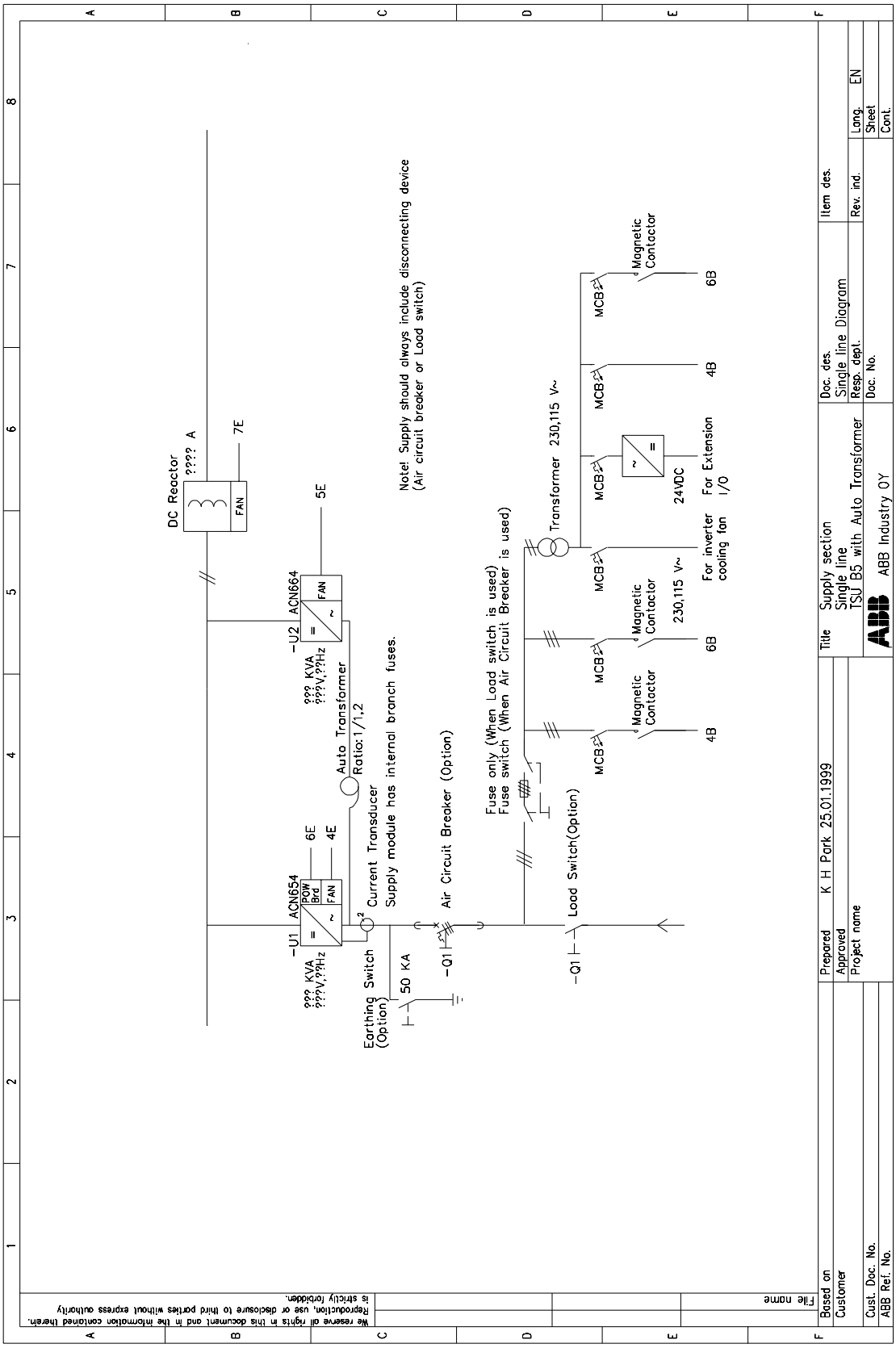
DC Reactor
???? A
7E
FAN
5E
-U2 ACN664
??? KVA
???V,??Hz
FAN
Auto Transformer
Ratio:1/1.2
Note! Supply should always include disconnecting device
(Air circuit breaker or Load switch)
-U1 ACN654
??? KVA
???V,??Hz
ROM Brd
FAN
6E
4E
Current Transducer
Supply module has internal branch fuses.
Earthing Switch
(Option)
50 KA
-Q1
Air Circuit Breaker (Option)
Fuse only (When Load switch is used)
Fuse switch (When Air Circuit Breaker is used)
Load Switch(Option)
-Q1
Transformer 230,115 V~
MCB
Magnetic Contactor
230,115 V~
For inverter cooling fan
24VDC
For Extension I/O
4B
6B
Prepared K H Park 25.01.1999
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Single line
TSU B5 with Auto Transformer
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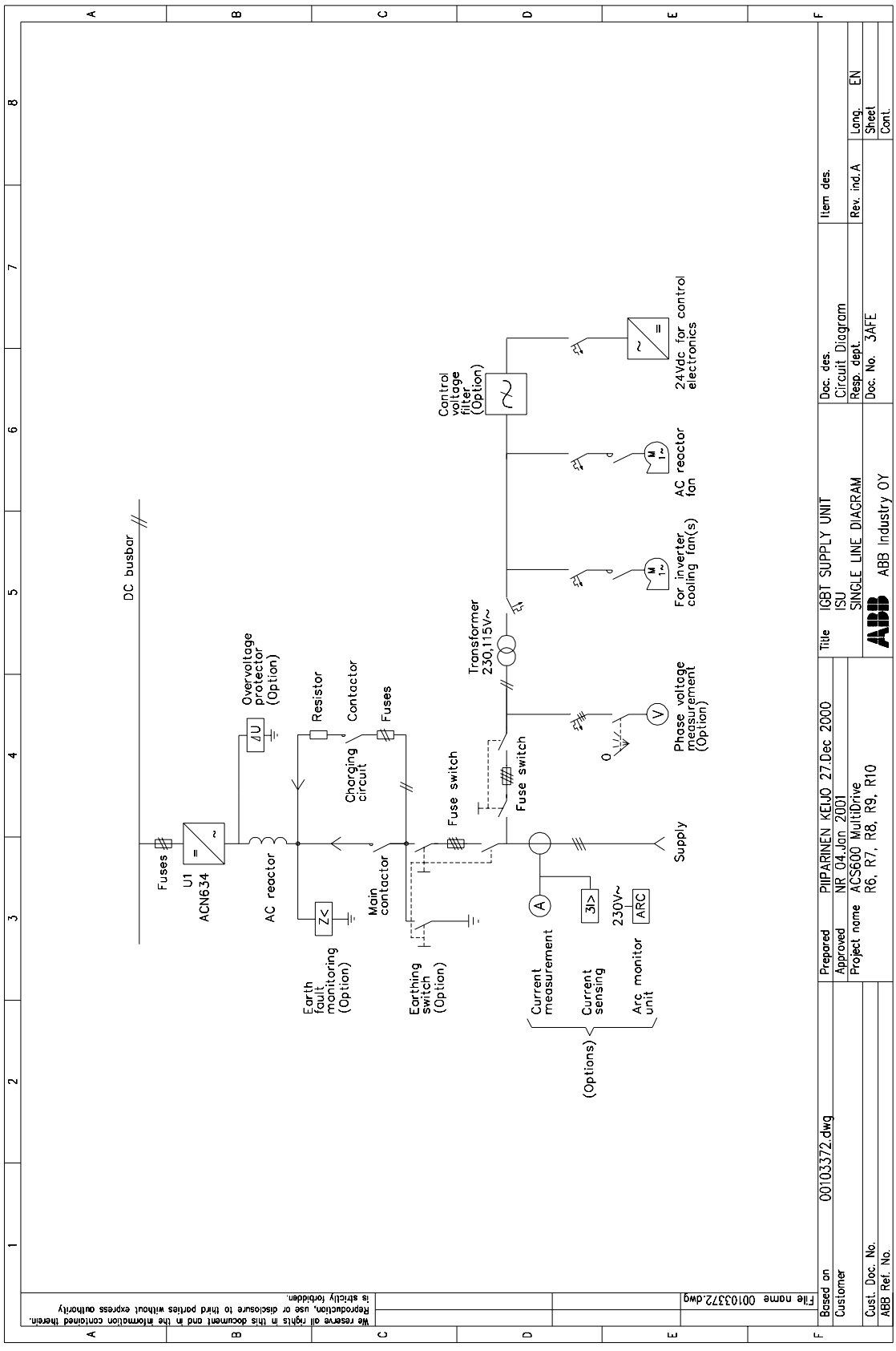
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Fuses
U1
ACN634
AC reactor
Overvoltage protector (Option)
Resistor
Contactor
Fuses
Charging circuit
Main contactor
Fuse switch
Fuse switch
Transformer 230,115V~
Control voltage filter (Option)
24Vdc for control electronics
AC reactor fan
For inverter cooling fan(s)
Phase voltage measurement (Option)
Supply
Earth fault monitoring (Option)
Earthing switch (Option)
Current measurement
Current sensing
Arc monitor unit
230V~
(Options)
Prepared PIIPARINEN KEIJO 27.Dec 2000
Approved NR 04.Jan 2001
Project name ACS600 MultiDrive
R6, R7, R8, R9, R10
Title IGBT SUPPLY UNIT
ISU
SINGLE LINE DIAGRAM
ABB Industry OY
Doc. des. Circuit Diagram
Resp. dept.
Doc. No. 3AFE
Item des.
Rev. ind. A
Lang. EN
Sheet
Cont.
Based on 00103372.dwg
Customer
Cust. Doc. No.
ABB Ref. No.
File name 00103372.dwg
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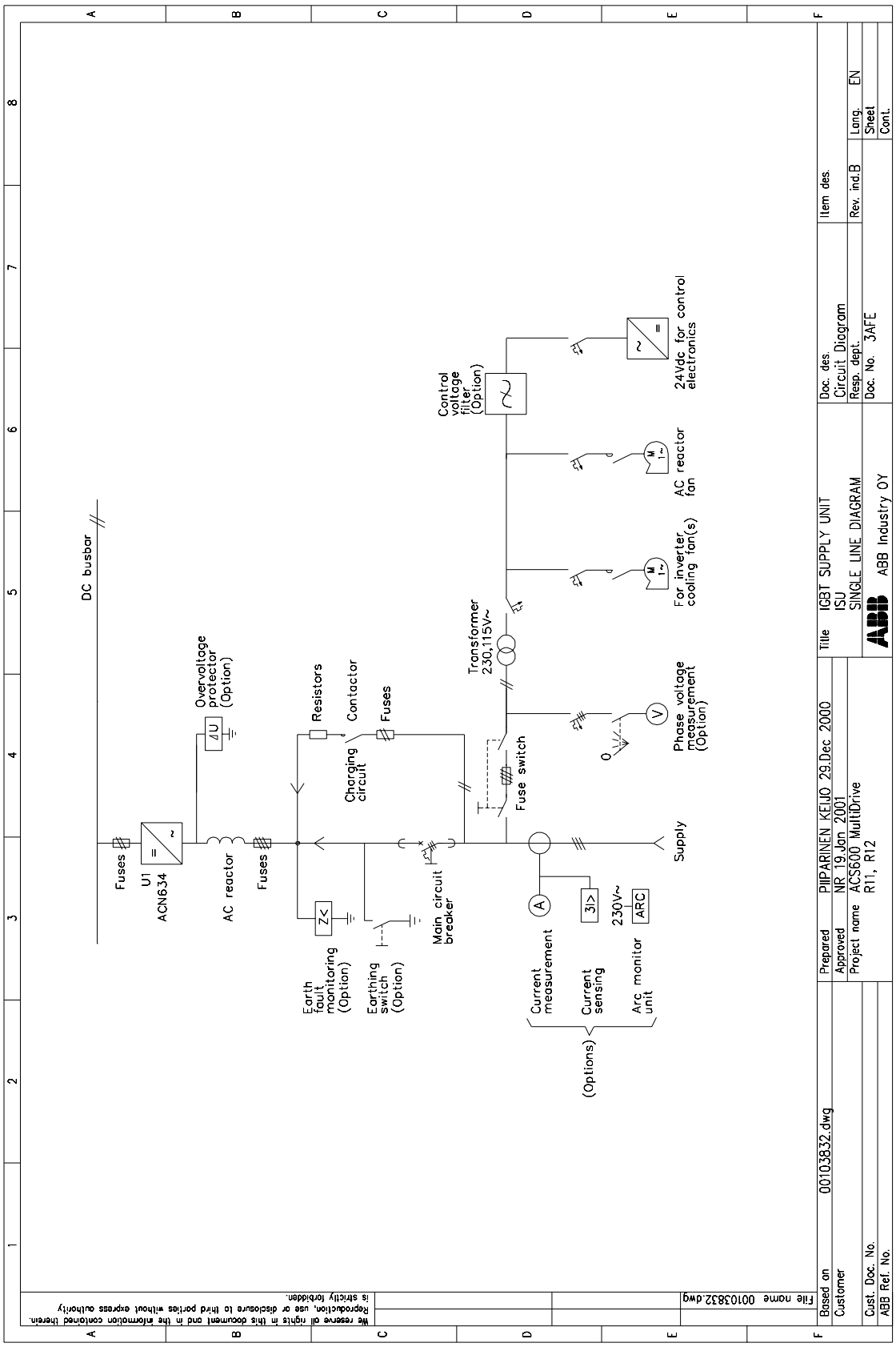
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U1
ACN634
AC reactor
Fuses
Overvoltage protector (Option)
Resistors
Contactor
Fuses
Charging circuit
Transformer 230,115V~
Fuse switch
Control voltage filter (Option)
24Vdc for control electronics
AC reactor fan
For inverter cooling fan(s)
Phase voltage measurement (Option)
Supply
Main circuit breaker
Earthing switch (Option)
Earth fault monitoring (Option)
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Current sensing
Arc monitor unit
230V~
(Options)
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ABB Ref. No.
Prepared PIIPARINEN KEIJO 29.Dec 2000
Approved NR 19.Jan 2001
Project name ACS600 MultiDrive R11, R12
Title IGBT SUPPLY UNIT ISU SINGLE LINE DIAGRAM
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Doc. des. Circuit Diagram
Resp. dept.
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Lang. EN
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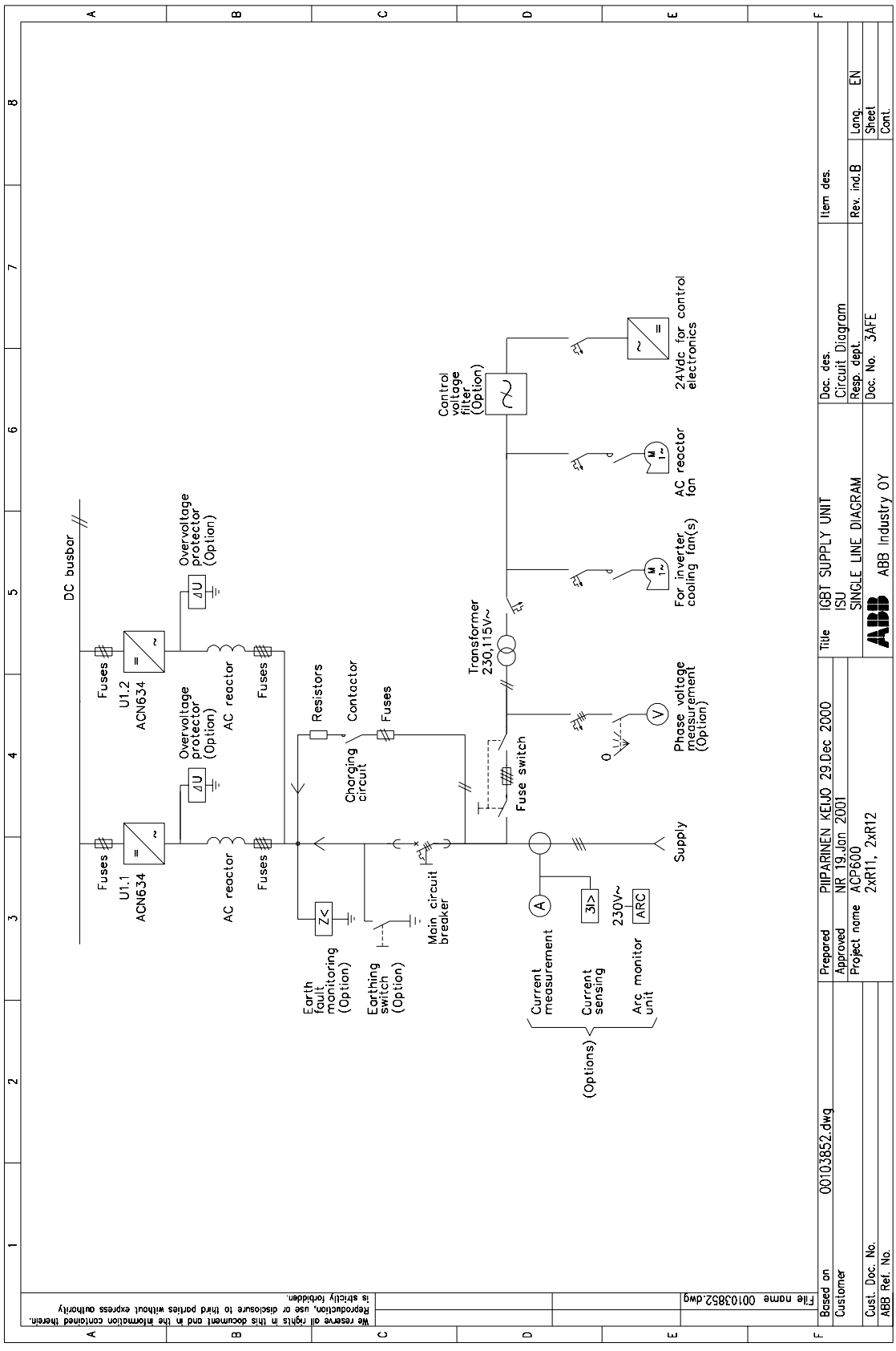
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U1.2
ACN634
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AC reactor
Resistors
Contactor
Charging circuit
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Control voltage filter (Option)
24Vdc for control electronics
AC reactor fan
For inverter cooling fan(s)
Phase voltage measurement (Option)
Fuse switch
Supply
Main circuit breaker
Earthing switch (Option)
Earth fault monitoring (Option)
Current measurement
Current sensing
Arc monitor unit
(Options)
230V~
Prepared PIIPARINEN KEIJO 29.Dec 2000
Approved NR 19.Jan 2001
Project name ACP600 2xR11, 2xR12
Based on 00103852.dwg
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ABB Industry OY
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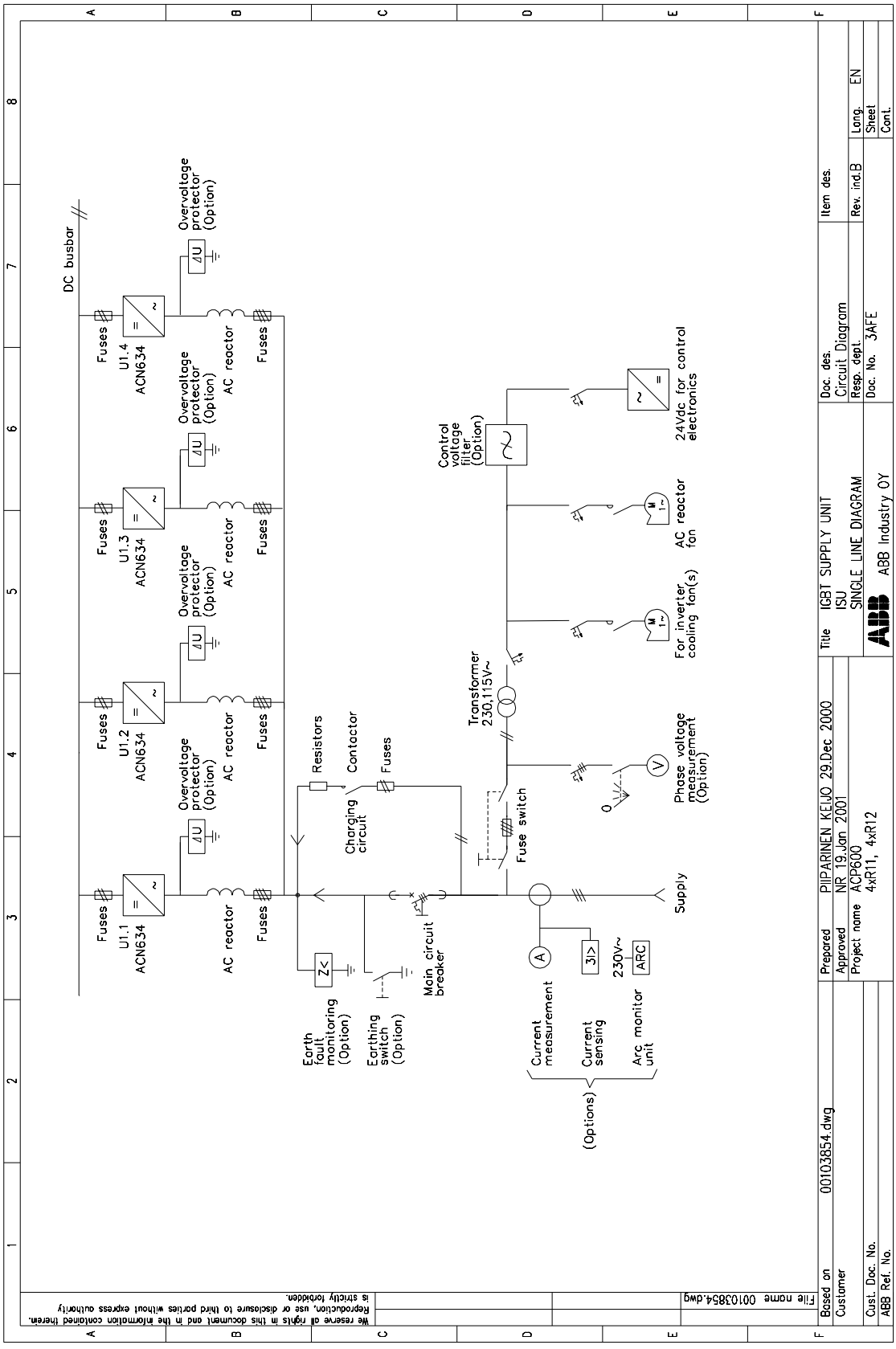
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Fuses
AC reactor
Overvoltage protector (Option)
Resistors
Contactor
Charging circuit
Transformer 230,115V~
Fuse switch
Control voltage filter (Option)
24Vdc for control electronics
AC reactor fan
For inverter cooling fan(s)
Phase voltage measurement (Option)
Supply
Main circuit breaker
Earthing switch (Option)
Earth fault monitoring (Option)
Current measurement
Current sensing
Arc monitor unit
230V~
(Options)
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Prepared PIIPARINEN KEIJO 29.Dec 2000
Approved NR 19.Jan 2001
Project name ACP600 4xR11, 4xR12
Title IGBT SUPPLY UNIT ISU SINGLE LINE DIAGRAM
ABB Industry OY
Doc. des. Circuit Diagram
Resp. dept.
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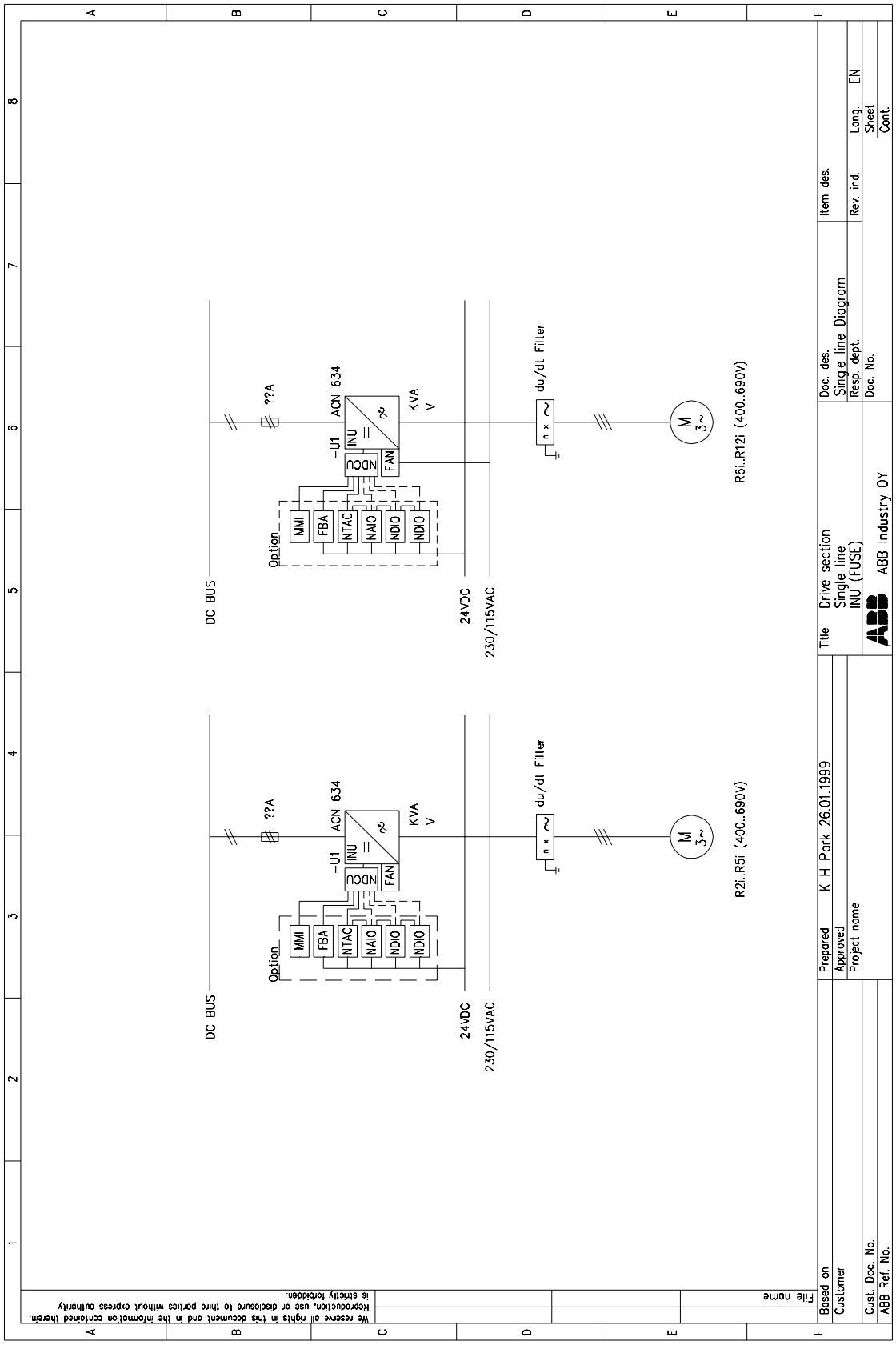
DC BUS
24VDC
230/115VAC
??A
-U1
ACN 634
INU
NDCU
FAN
KVA
V
Option
MMI
FBA
NTAC
NAIO
NDIO
NDIO
du/dt Filter
n x
M
3~
R6i..R12i (400..690V)
R2i..R5i (400..690V)
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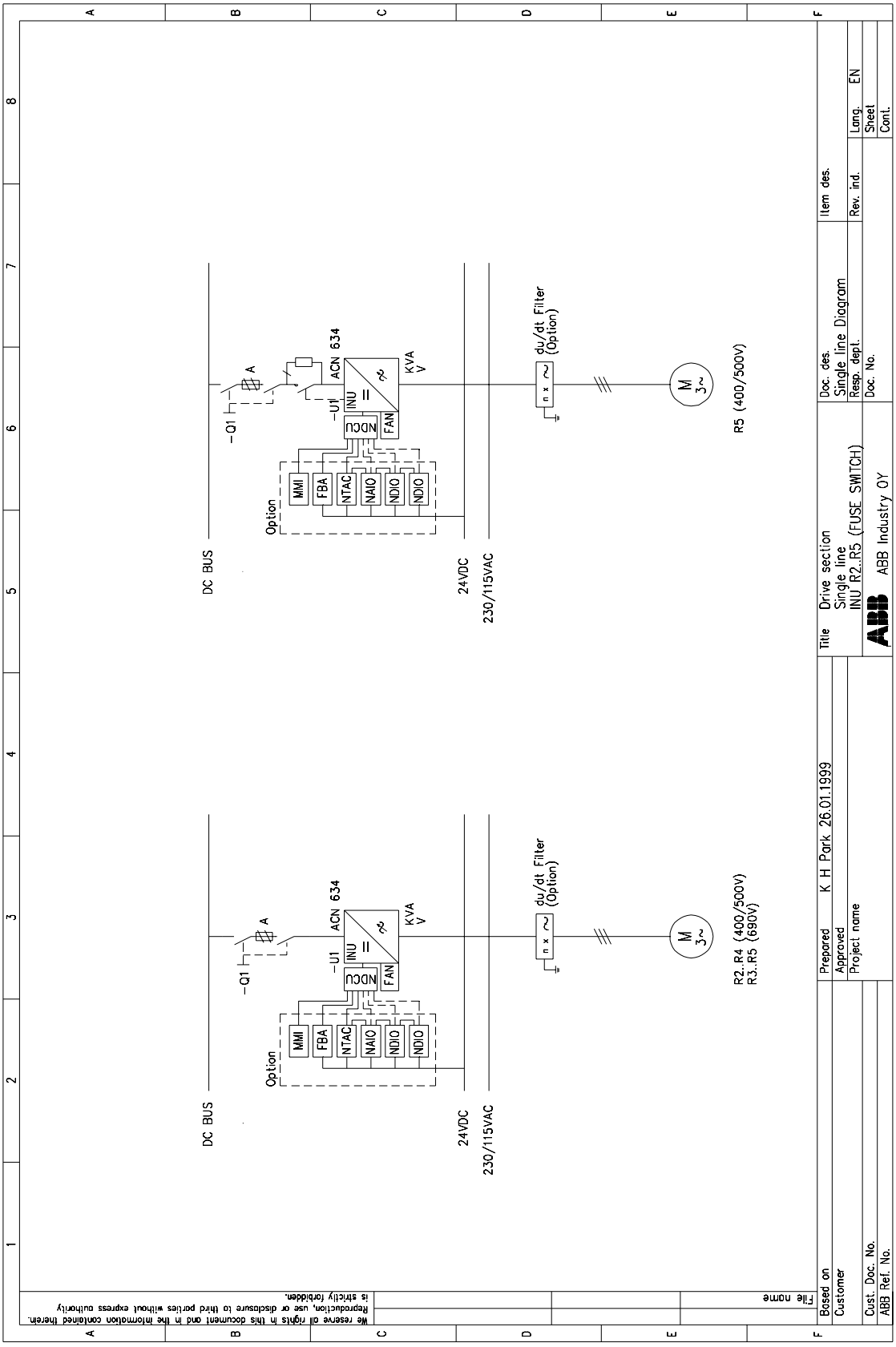
File name
Based on
Customer
Cust. Doc. No.
ABB Ref. No.
Prepared K H Park 26.01.1999
Approved
Project name
Title Drive section
Single line
INU (FUSE)
ABB Industry OY
Doc. des. Single line Diagram
Resp. dept.
Doc. No.
Item des.
Rev. ind.
Lang. EN
Sheet
Cont.


DC BUS
24VDC
230/115VAC
-Q1
A
-U1
ACN 634
INU
NDCU
FAN
KVA
V
Option
MMI
FBA
NTAC
NAIO
NDIO
NDIO
du/dt Filter
(Option)
M
3~
R5 (400/500V)
R2..R4 (400/500V)
R3..R5 (690V)
Prepared K H Park 26.01.1999
Based on
Approved
Customer
Project name
Cust. Doc. No.
ABB Ref. No.
File name
Title Drive section
Single line
INU R2..R5 (FUSE SWITCH)
ABB Industry OY
Doc. des. Single line Diagram
Resp. dept.
Doc. No.
Item des.
Rev. ind.
Lang. EN
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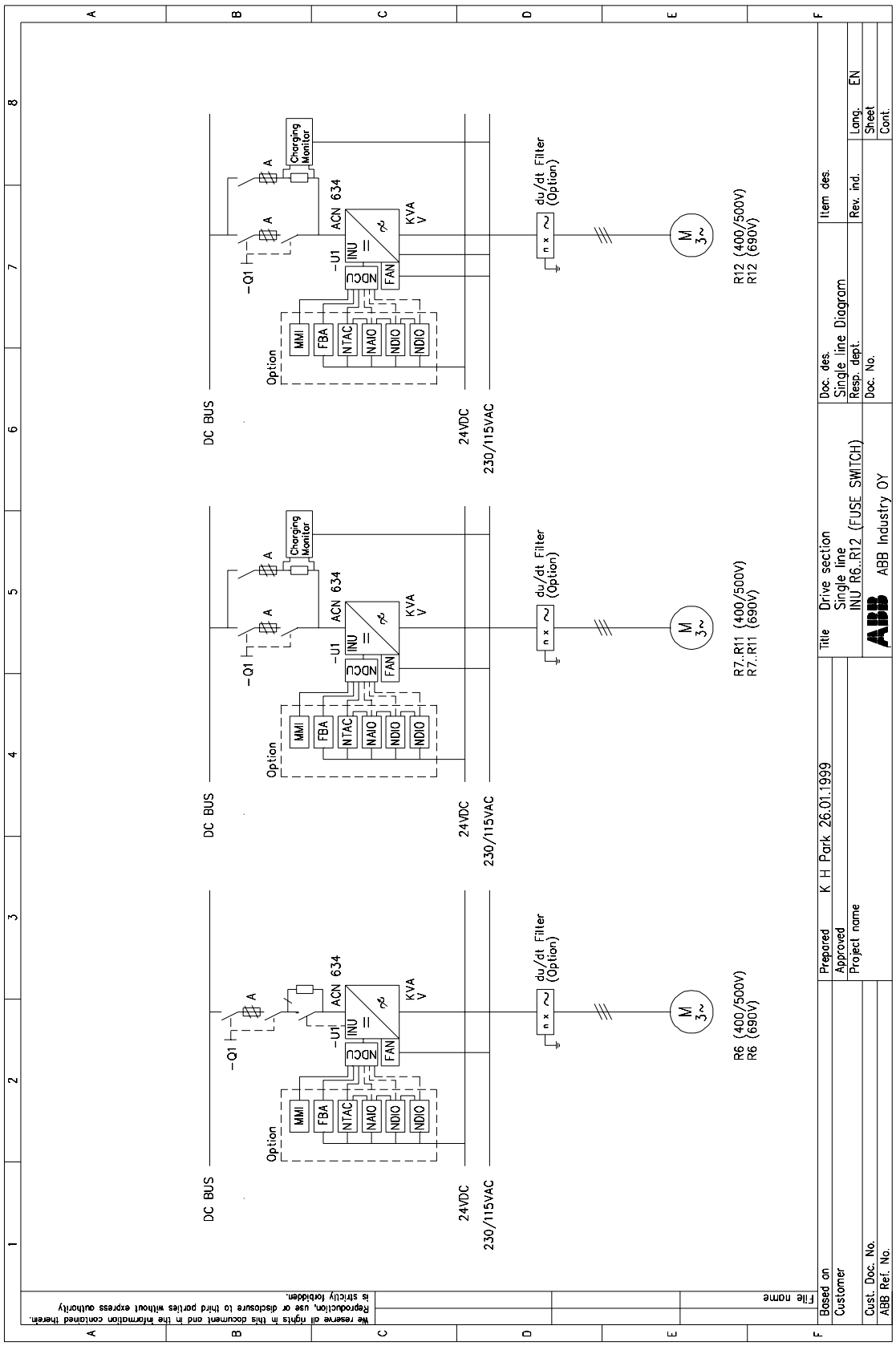
DC BUS
24VDC
230/115VAC
-Q1
-U1
ACN 634
INU
NDCU
FAN
KVA
V
Charging Monitor
Option
MMI
FBA
NTAC
NAIO
NDIO
du/dt Filter (Option)
n x
M 3~
R12 (400/500V)
R12 (690V)
R7..R11 (400/500V)
R7..R11 (690V)
R6 (400/500V)
R6 (690V)
Drive section
Single line
INU R6..R12 (FUSE SWITCH)
ABB Industry OY
Doc. des.
Single line Diagram
Resp. dept.
Doc. No.
Item des.
Rev. ind.
Lang. EN
Sheet
Cont.
Prepared K. H. Park 26.01.1999
Approved
Project name
Based on
Customer
Cust. Doc. No.
ABB Ref. No.
File name
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Appendix C – Auxiliary Power Consumption

This Appendix contains the auxiliary power consumption of ACS 600 MultiDrive Modules components.

Supply Module Cooling Fans

Frame size	Un/Vac	In/A		Istart/A	
		50Hz	60Hz	50Hz	60Hz
B1/20-50kVA	230	0.13	0.13	0.2	0.2
B1/90kVA	230	0.15	0.15	0.3	0.3
B2	230	0.35	0.35	0.7	0.7
	115	0.7	0.7	1.4	1.4
B3	230	1.0	1.0	2.0	2.0
	115	2.0	2.0	4.0	4.0
B4	230	3.0	3.0	5.0	5.0
	115	6.0	6.0	10.0	10.0
B5	380-500	2.0	2.0	8.0	8.0
	525-690	2.0	2.0	8.0	8.0

DC Reactor Cooling Fans

Frame size	Un/Vac	In/A		Istart/A	
		50Hz	60Hz	50Hz	60Hz
B4	230	0.35	0.35	0.7	0.7
	115	0.7	0.7	1.4	1.4
B5	230	1.0	1.0	2.0	2.0
	115	2.0	2.0	4.0	4.0

Supply Module Control Boards

Description	Board type	Un/VAC	In/A	S/kVA
TSU Control	SDCS-POW-1 + SDCS-IOB-23	230	0,52	120
	SDCS-POW-1 + SDCS-IOB-22	115	1,04	120
TSU Analog I/O	SDCS-IOB-3	Supplied by TSU control		
DSU Control	SDCS-POW-1 + NDCS-01	230	0,44	100
	SDCS-POW-1 + NDCS-01	115	0,87	100

Inverter Module Cooling Fans

Frame size	Fan type	Un/Vac	In/A		Istart/A	
			50Hz	60Hz	50Hz	60Hz
R6/R7	G2E140-AI51-ABB	230	0.7	0.9	1.4	1.8
	G2E140-AI32-ABB	115	–	1.8	–	3.6
R8...R12	D4E225-CC01-39	230	2.0	2.8	4.0	5.6
	D4E225-CC07-37	115	–	4.6	–	9.2

Frames R2i to R5i have internal fans supplied from the inverter module power supply, which in turn is supplied from the DC bus.

Inverter Module Fuse Switch Components

Frame size	Type	Un/Vac	In/A		Istart/A	
			50Hz	60Hz	50Hz	60Hz
R7...R12	NCHM-21	230	1.0	-	2.0	-
	NCHM-22	115	-	2.0	-	4.0

The charging circuit contactor for frames R5i and R6i is supplied from the inverter module power supply, which in turn is supplied from the DC bus.

Inverter Module Prevention of Unexpected Start Board (NGPS)

Frame size	Board type	Un/Vac	In/A		Istart/A (1/2 cycle)	
			50 Hz	60 Hz	50 Hz	60 Hz
R2i…R7i	NGPS-01	230	0.16	0.16	6.0	6.0
		115	–	0.32	–	6.0
R8i…R12i	NGPS-12	230	0.55	0.35	6.0	6.0
		115	–	1.0	–	6.0

Frame R12i uses the NGPS board as a power supply, thus it is always included in R12i inverter modules.

Drive Control Unit (NDCU)

The NDCU is normally powered from the inverter power supply board. It can alternatively be powered from an external 24 V DC supply.

The main components of the NDCU are the NAMC and NIOC boards. See also section ***MMIs*** below.

Type	Un/V	Imax/mA
NDCU-01	24	630
NDCU-11	24	670
NDCU-21	24	720
NDCU-22	24	720

Note: Without panel, 24 V d.c. output not loaded

Man/Machine Interfaces

The MMIs are supplied by the NDCU unit. Therefore, the power consumption of the MMI must be added to the power consumption of the NDCU.

Type	In/mA	Imax/mA
CDP312	50	
NDPI-21	8	15
NLMD-01	120	

Drive I/O Options

These options require an external 24 V DC power supply. (The inverter module power supply is designed for powering the NDCU and MMI only.)

	Type	Un/V	In/mA
I/O Extension Modules	NAIO-02	24	160
	NDIO-01	24	50
Fieldbus Adapters	NPBA-02	24	80
	NMBA-01	24	65
	NCSA-01	24	65
	NMFA-01	24	120
	NDNA-01	24	70
	NMBP-01	24	120
	NIBA-01	24	160
Pulse Encoder Interface Module	NTAC-02	24	250

The following figure gives the approximate power consumption of the NTAC-02 Pulse Encoder Interface Module in relation to motor speed and encoder cable length.

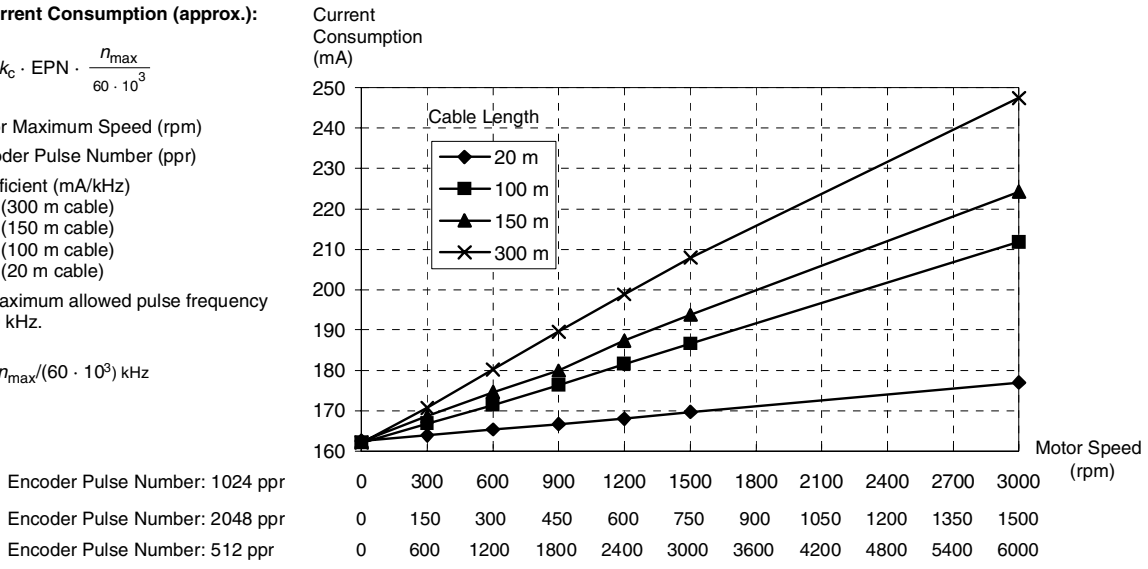
NTAC-02 Current Consumption (approx.):

$$162\ mA + k_c \cdot EPN \cdot \frac{n_{max}}{60 \cdot 10^3}$$

n_{max} = Motor Maximum Speed (rpm)
EPN = Encoder Pulse Number (ppr)
k_c = Coefficient (mA/kHz)
= 1.68 (300 m cable)
= 1.23 (150 m cable)
= 0.98 (100 m cable)
= 0.31 (20 m cable)

Note: The maximum allowed pulse frequency (f_{max}) is 100 kHz.

$f_{max} = EPN \cdot n_{max}/(60 \cdot 10^3)$ kHz



Fibre Link Branching Units

Optical branching units require an external 24 V DC power supply.

Type	Un/V	In/mA	Imax/mA
NPBU-41	24	430	
NPBU-42	24	200	235
NDBU-91	24	120	
NDBU-85	24	150	195
NDBU-95	24	250	320

Appendix D – Master Component Tables

The following pages include master tables which give the components of a supply or drive unit configuration based on actual ACS 600 MultiDrive section types.

ACS600 MultiDrive	Modtool		Module1				Module2				Coated Module1		
Section type	Name	Pcs	Type Code	Info	Order Code	Pcs	Type Code	Info	Order Code	Pcs	Type Code	Info	Order Code
400 V			***6-pulse Diode Supply Unit***								***6-pulse Diode Supply Unit***		
ACA 631-0140-3	ACN684-0175-5	1	ACN68401755000000000904	175kVA 500V 202A(AC)	10031231					1	ACN6840175500000300905	175kVA 500V 202A(AC)	64234251
ACA 631-0200-3	ACN684-0250-5	1	ACN68402505000000000904	250kVA 500V 289A(AC)	10031257					1	ACN6840250500000300905	250kVA 500V 289A(AC)	64234293
ACA 631-0300-3	ACN684-0375-5	1	ACN68403755000000000904	375kVA 500V 433A(AC)	10031273					1	ACN6840375500000300905	375kVA 500V 433A(AC)	64234013
ACA 631-0420-3	ACN684-0525-5	1	ACN68405255000000000904	525kVA 500V 606A(AC)	10031290					1	ACN6840525500000300905	525kVA 500V 606A(AC)	64234056
ACA 631-0680-3	ACN684-0855-5	1	ACN68408555000000000904	850kVA 500V 981A(AC)	10036984					1	ACN6840855500000300905	850kVA 500V 981A(AC)	64234099
ACA 631-1120-3	ACN684-1405-5	1	ACN68414055000000000904	1400kVA 500V 1617A(AC)	10037034					1	ACN6841405500000300905	1400kVA 500V 1617A(AC)	64195565
ACA 631-1700-3	ACN684-2120-5	1	ACN68421205000000000904	2120kVA 500V 2449A(AC)	10031338					1	ACN6842120500000300905	2120kVA 500V 2449A(AC)	64234188
ACA 631-2100-3	ACN684-2600-5	1	ACN68426005000000000904	2475kVA 500V 2858A(AC)	10030056					1	ACN6842600500000300905	2475kVA 500V 2858A(AC)	64234196
			12-pulse Diode Supply Unit								***12-pulse Diode Supply Unit***		
ACA 633-0280-3	2 x ACN684-0175-5 = 280 kVA	2	ACN68401755000000000904	175kVA 500V 202A(AC)	10031231					2	ACN6840175500000300905	175kVA 500V 202A(AC)	64234251
ACA 633-0400-3	2 x ACN684-0250-5 = 400 kVA	2	ACN68402505000000000904	250kVA 500V 289A(AC)	10031257					2	ACN6840250500000300905	250kVA 500V 289A(AC)	64234293
ACA 633-0600-3	2 x ACN684-0375-5 = 600 kVA	2	ACN68403755000000000904	375kVA 500V 433A(AC)	10031273					2	ACN6840375500000300905	375kVA 500V 433A(AC)	64234013
ACA 633-0840-3	2 x ACN684-0525-5 = 840 kVA	2	ACN68405255000000000904	525kVA 500V 606A(AC)	10031290					2	ACN6840525500000300905	525kVA 500V 606A(AC)	64234056
ACA 633-1360-3	2 x ACN684-0855-5 = 1360 kVA	2	ACN68408555000000000904	850kVA 500V 981A(AC)	10036984					2	ACN6840855500000300905	850kVA 500V 981A(AC)	64234099
ACA 633-2240-3	2 x ACN684-1405-5 = 2240 kVA	2	ACN68414055000000000904	1400kVA 500V 1617A(AC)	10037034					2	ACN6841405500000300905	1400kVA 500V 1617A(AC)	64195565
ACA 633-3400-3	2 x ACN684-2120-5 = 3400 kVA	2	ACN68421205000000000904	2120kVA 500V 2449A(AC)	10031338					2	ACN6842120500000300905	2120kVA 500V 2449A(AC)	64234188
			4Q Supply Unit								***4Q Supply Unit***		
ACA 632-0015-3	ACN674-0016-5	1	ACN67400165000000000906	16kVA 500V 18A(AC)	64147013					1	ACN6740016500000300906	16kVA 500V 18A(AC)	64186086
ACA 632-0030-3	ACN674-0032-5	1	ACN67400325000000000906	32kVA 500V 37A(AC)	64147021					1	ACN6740032500000300906	32kVA 500V 37A(AC)	64186094
ACA 632-0040-3	ACN674-0047-5	1	ACN67400475000000000906	47kVA 500V 55A(AC)	64147030					1	ACN6740047500000300906	47kVA 500V 55A(AC)	64186116
ACA 632-0070-3	ACN674-0088-5	1	ACN67400885000000000906	88kVA 500V 102A(AC)	64147048					1	ACN6740088500000300906	88kVA 500V 102A(AC)	64186124
ACA 632-0140-3	ACN674-0175-5	1	ACN67401755000000000906	175kVA 500V 202A(AC)	64147099					1	ACN6740175500000300907	175kVA 500V 202A(AC)	64233769
ACA 632-0200-3	ACN674-0250-5	1	ACN67402505000000000906	250kVA 500V 289A(AC)	64147161					1	ACN6740250500000300907	250kVA 500V 289A(AC)	64233815
ACA 632-0300-3	ACN674-0375-5	1	ACN67403755000000000906	375kVA 500V 433A(AC)	64147200					1	ACN6740375500000300907	375kVA 500V 433A(AC)	64233874
ACA 632-0420-3	ACN674-0525-5	1	ACN67405255000000000906	525kVA 500V 606A(AC)	64147242					1	ACN6740525500000300907	525kVA 500V 606A(AC)	64233912
ACA 632-0680-3	ACN654/ACN664-0855-5	1	ACN65408555000000000906	850kVA 500V 981A(AC)	64146327	1	ACN66408555000000000900	850kVA 500V 981A(AC)	10036330	1	ACN6540855500000300907	850kVA 500V 981A(AC)	64233572
ACA 632-1120-3	ACN654/ACN664-1405-5	1	ACN65414055000000000906	1400kVA 500V 1617A(AC)	64146360	1	ACN66414055000000000900	1400kVA 500V 1617A(AC)	10036356	1	ACN6541405500000300907	1400kVA 500V 1617A(AC)	**64233629**
ACA 632-1700-3	ACN654/ACN664-2120-5	1	ACN65421205000000000906	2120kVA 500V 2449A(AC)	64146432	1	ACN66421205000000000900	2120kVA 500V 2449A(AC)	10031664	1	ACN6542120500000300907	2120kVA 500V 2449A(AC)	64233670
ACA 632-2100-3	ACN654/ACN664-2600-5	1	ACN65426005000000000906	2475kVA 500V 2858A(AC)	64146441	1	ACN66426005000000000900	2475kVA 500V 2858A(AC)	10030102	1	ACN6542600500000300907	2475kVA 500V 2858A(AC)	64233696
			4Q with Autotransformer								***4Q with Autotransformer***		
ACA 634-0680-3	ACN654/ACN664-0855-5+NDAT-09	1	ACN65408555000000000906	850kVA 500V 981A(AC)	64146327	1	ACN66408555000000000900	850kVA 500V 981A(AC)	10036330	1	ACN6540855500000300907	850kVA 500V 981A(AC)	64233572
ACA 634-1120-3	ACN654/ACN664-1405-5+NDAT-10	1	ACN65414055000000000906	1400kVA 500V 1617A(AC)	64146360	1	ACN66414055000000000900	1400kVA 500V 1617A(AC)	10036356	1	ACN6541405500000300907	1400kVA 500V 1617A(AC)	**64233629**
ACA 634-1700-3	ACN654/ACN664-2120-5+NDAT-11	1	ACN65421205000000000906	2120kVA 500V 2449A(AC)	64146432	1	ACN66421205000000000900	2120kVA 500V 2449A(AC)	10031664	1	ACN6542120500000300907	2120kVA 500V 2449A(AC)	64233670
ACA 634-2100-3	ACN654/ACN664-2600-5+NDAT-11	1	ACN65426005000000000906	2475kVA 500V 2858A(AC)	64146441	1	ACN66426005000000000900	2475kVA 500V 2858A(AC)	10030102	1	ACN6542600500000300907	2475kVA 500V 2858A(AC)	64233696
380...500 V			***6-pulse Diode Supply Unit***								***6-pulse Diode Supply Unit***		
ACA 631-0140-5	ACN684-0175-5	1	ACN68401755000000000904	175kVA 500V 202A(AC)	10031231					1	ACN6840175500000300905	175kVA 500V 202A(AC)	64234251
ACA 631-0250-5	ACN684-0250-5	1	ACN68402505000000000904	250kVA 500V 289A(AC)	10031257					1	ACN6840250500000300905	250kVA 500V 289A(AC)	64234293
ACA 631-0375-5	ACN684-0375-5	1	ACN68403755000000000904	375kVA 500V 433A(AC)	10031273					1	ACN6840375500000300905	375kVA 500V 433A(AC)	64234013
ACA 631-0525-5	ACN684-0525-5	1	ACN68405255000000000904	525kVA 500V 606A(AC)	10031290					1	ACN6840525500000300905	525kVA 500V 606A(AC)	64234056
ACA 631-0850-5	ACN684-0855-5	1	ACN68408555000000000904	850kVA 500V 981A(AC)	10036984					1	ACN6840855500000300905	850kVA 500V 981A(AC)	64234099
ACA 631-1400-5	ACN684-1405-5	1	ACN68414055000000000904	1400kVA 500V 1617A(AC)	10037034					1	ACN6841405500000300905	1400kVA 500V 1617A(AC)	64195565
ACA 631-2120-5	ACN684-2120-5	1	ACN68421205000000000904	2120kVA 500V 2449A(AC)	10031338					1	ACN6842120500000300905	2120kVA 500V 2449A(AC)	64234188
ACA 631-2600-5	ACN684-2600-5	1	ACN68426005000000000904	2475kVA 500V 2858A(AC)	10030056					1	ACN6842600500000300905	2475kVA 500V 2858A(AC)	64234196
			12-pulse Diode Supply Unit								***12-pulse Diode Supply Unit***		
ACA 633-0350-5	2 x ACN684-0175-5 = 0350 kVA	2	ACN68401755000000000904	175kVA 500V 202A(AC)	10031231					2	ACN6840175500000300905	175kVA 500V 202A(AC)	64234251
ACA 633-0500-5	2 x ACN684-0250-5 = 0500 kVA	2	ACN68402505000000000904	250kVA 500V 289A(AC)	10031257					2	ACN6840250500000300905	250kVA 500V 289A(AC)	64234293
ACA 633-0750-5	2 x ACN684-0375-5 = 0750 kVA	2	ACN68403755000000000904	375kVA 500V 433A(AC)	10031273					2	ACN6840375500000300905	375kVA 500V 433A(AC)	64234013
ACA 633-1050-5	2 x ACN684-0525-5 = 1050 kVA	2	ACN68405255000000000904	525kVA 500V 606A(AC)	10031290					2	ACN6840525500000300905	525kVA 500V 606A(AC)	64234056
ACA 633-1700-5	2 x ACN684-0855-5 = 1700 kVA	2	ACN68408555000000000904	850kVA 500V 981A(AC)	10036984					2	ACN6840855500000300905	850kVA 500V 981A(AC)	64234099
ACA 633-2810-5	2 x ACN684-1405-5 = 2810 kVA	2	ACN68414055000000000904	1400kVA 500V 1617A(AC)	10037034					2	ACN6841405500000300905	1400kVA 500V 1617A(AC)	64195565
ACA 633-4240-5	2 x ACN684-2120-5 = 4240 kVA	2	ACN68421205000000000904	2120kVA 500V 2449A(AC)	10031338					2	ACN6842120500000300905	2120kVA 500V 2449A(AC)	64234188
			4Q Supply Unit								***4Q Supply Unit***		
ACA 632-0020-5	ACN674-0016-5	1	ACN67400165000000000906	16kVA 500V 18A(AC)	64147013					1	ACN6740016500000300906	16kVA 500V 18A(AC)	64186086
ACA 632-0035-5	ACN674-0032-5	1	ACN67400325000000000906	32kVA 500V 37A(AC)	64147021					1	ACN6740032500000300906	32kVA 500V 37A(AC)	64186094
ACA 632-0050-5	ACN674-0047-5	1	ACN67400475000000000906	47kVA 500V 55A(AC)	64147030					1	ACN6740047500000300906	47kVA 500V 55A(AC)	64186116
ACA 632-0090-5	ACN674-0088-5	1	ACN67400885000000000906	88kVA 500V 102A(AC)	64147048					1	ACN6740088500000300906	88kVA 500V 102A(AC)	64186124
ACA 632-0175-5	ACN674-0175-5	1	ACN67401755000000000906	175kVA 500V 202A(AC)	64147099					1	ACN6740175500000300907	175kVA 500V 202A(AC)	64233769
ACA 632-0250-5	ACN674-0250-5	1	ACN67402505000000000906	250kVA 500V 289A(AC)	64147161					1	ACN6740250500000300907	250kVA 500V 289A(AC)	64233815
ACA 632-0375-5	ACN674-0375-5	1	ACN67403755000000000906	375kVA 500V 433A(AC)	64147200					1	ACN6740375500000300907	375kVA 500V 433A(AC)	64233874
ACA 632-0525-5	ACN674-0525-5	1	ACN67405255000000000906	525kVA 500V 606A(AC)	64147242					1	ACN6740525500000300907	525kVA 500V 606A(AC)	64233912
ACA 632-0850-5	ACN654/ACN664-0855-5	1	ACN65408555000000000906	850kVA 500V 981A(AC)	64146327	1	ACN66408555000000000900	850kVA 500V 981A(AC)	10036330	1	ACN6540855500000300907	850kVA 500V 981A(AC)	64233572
ACA 632-1400-5	ACN654/ACN664-1405-5	1	ACN65414055000000000906	1400kVA 500V 1617A(AC)	64146360	1	ACN66414055000000000900	1400kVA 500V 1617A(AC)	10036356	1	ACN6541405500000300907	1400kVA 500V 1617A(AC)	**64233629**
ACA 632-2120-5	ACN654/ACN664-2120-5	1	ACN65421205000000000906	2120kVA 500V 2449A(AC)	64146432	1	ACN66421205000000000900	2120kVA 500V 2449A(AC)	10031664	1	ACN6542120500000300907	2120kVA 500V 2449A(AC)	64233670
ACA 632-2600-5	ACN654/ACN664-2600-5	1	ACN65426005000000000906	2475kVA 500V 2858A(AC)	64146441	1	ACN66426005000000000900	2475kVA 500V 2858A(AC)	10030102	1	ACN6542600500000300907	2475kVA 500V 2858A(AC)	64233696
			4Q with Autotransformer								***4Q with Autotransformer***		
ACA 634-0850-5	ACN654/ACN664-0855-5+NDAT-04	1	ACN65408555000000000906	850kVA 500V 981A(AC)	64146327	1	ACN66408556000000000900	850kVA 500V 981A(AC)	10036348	1	ACN6540855500000300907	850kVA 500V 981A(AC)	64233572
ACA 634-1400-5	ACN654/ACN664-1405-5+NDAT-05	1	ACN65414055000000000906	1400kVA 500V 1617A(AC)	64146360	1	ACN66414056000000000900	1400kVA 500V 1617A(AC)	10036364	1	ACN6541405500000300907	1400kVA 500V 1617A(AC)	**64233629**
ACA 634-2120-5	ACN654/ACN664-2120-5+NDAT-06	1	ACN65421205000000000906	2120kVA 500V 2449A(AC)	64146432	1	ACN66426006000000000900	2120kVA 500V 2449A(AC)	10031826	1	ACN6542120500000300907	2120kVA 500V 2449A(AC)	64233670
ACA 634-2600-5	ACN654/ACN664-2600-5+NDAT-06	1	ACN65426005000000000906	2475kVA 500V 2858A(AC)	64146441	1	ACN66436006000000000900	2475kVA 500V 2858A(AC)	10030030	1	ACN6542600500000300907	2475kVA 500V 2858A(AC)	64233696

ACS600 MultiDrive		Coated Module2				DC - reactor				AC - fuse				DC - fuse			
Section type	Pcs	Type Code	Info	Order Code	Pcs	Type	Info	Order Code	Pcs	Type	Info	Order Code	Pcs	Type	Info	Order Code
400 V																	
ACA 631-0140-3									3	170M 5806	315A 660V ULTRARAPID	10029481				
ACA 631-0200-3									3	170M 5810	500A 660V ULTRAR.	10012708				
ACA 631-0300-3									3	170M 6812 ZILOX	800A 660V	10003580				
ACA 631-0420-3									3	170M 6814	1000A 690V ULTRARAPID	10030625				
ACA 631-0680-3					1		1980A(IE) 690V(UE) 55UH	61332341								
ACA 631-1120-3					1		1980A(IE) 690V(UE) 55UH	61332341								
ACA 631-1700-3					1		3690A(IE) 690V(UE) 30UH	61332448								
ACA 631-2100-3					1		3690A(IE) 690V(UE) 30UH	61332448								
ACA 633-0280-3					0	0	0	0	6	170M 5806	315A 660V ULTRARAPID	10029481				
ACA 633-0400-3					0	0	0	0	6	170M 5810	500A 660V ULTRAR.	10012708				
ACA 633-0600-3					0	0	0	0	6	170M 6812 ZILOX	800A 660V	10003580				
ACA 633-0840-3					0	0	0	0	6	170M 6814	1000A 690V ULTRARAPID	10030625				
ACA 633-1360-3					2	0	1980A(IE) 690V(UE) 55UH	61332341	0	0	0	0				
ACA 633-2240-3					2	0	1980A(IE) 690V(UE) 55UH	61332341	0	0	0	0				
ACA 633-3400-3					2	0	3690A(IE) 690V(UE) 30UH	61332448	0	0	0	0				
ACA 632-0015-3									3	170M 1564	50A 660V ULTRAR.	9838767	1	170M 4722	63A 1250V UR	10035457
ACA 632-0030-3									3	170M 1566	80A 660V ULTRAR.	9838791	1	170M 4722	63A 1250V UR	10035457
ACA 632-0040-3									3	170M 1568	125A 660V ULTRAR.	10012686	1	170M 4724	100A 1250V UR	10035465
ACA 632-0070-3									3	170M 1569 ZILOX	160A 660V	10003521	1	170M 4699	160A 1250V UR	10012554
ACA 632-0140-3									3	170M 5806	315A 660V ULTRARAPID	10029481	1	170M 5140	315A 1250V UR	10032849
ACA 632-0200-3									3	170M 5371	450A 660V ULTRARAPID	10029520	1	170M 5142	400A 1000-1250V UR	10028183
ACA 632-0300-3									3	170M 6206	700A 660V ULTRARAPID	10029538	1	170M 5146	630A 1000-1250V UR	10028191
ACA 632-0420-3									3	170M 6207	900A 660V ULTRARAPID	10029490	1	170M 5148	800A 1250V UR	10032857
ACA 632-0680-3	1	**ACN66408555000000300900**	**850kVA 500V 981A(AC)**	**64187406**	1		1980A(IE) 690V(UE) 55UH	61332341								
ACA 632-1120-3	1	**ACN66414055000000300900**	**1400kVA 500V 1617A(AC)**	**64159402**	1		1980A(IE) 690V(UE) 55UH	61332341								
ACA 632-1700-3	1	**ACN66421205000000300900**	**2120kVA 500V 2449A(AC)**	**64159381**	1		3690A(IE) 690V(UE) 30UH	61332448								
ACA 632-2100-3	1	**ACN66426005000000300900**	**2475kVA 500V 2858A(AC)**	**64187422**	1		3690A(IE) 690V(UE) 30UH	61332448								
ACA 634-0680-3	1	ACN66408555000000300900	850kVA 500V 981A(AC)	64187406	1		1980A(IE) 690V(UE) 55UH	61332341								
ACA 634-1120-3	1	ACN66414055000000300900	1400kVA 500V 1617A(AC)	64159402	1		1980A(IE) 690V(UE) 55UH	61332341								
ACA 634-1700-3	1	ACN66421205000000300900	2120kVA 500V 2449A(AC)	64159381	1		3690A(IE) 690V(UE) 30UH	61332448								
ACA 634-2100-3	1	ACN66426005000000300900	2475kVA 500V 2858A(AC)	64187422	1		3690A(IE) 690V(UE) 30UH	61332448								
380...500 V																
ACA 631-0140-5									3	170M 5806	315A 660V ULTRARAPID	10029481				
ACA 631-0250-5									3	170M 5810	500A 660V ULTRAR.	10012708				
ACA 631-0375-5									3	170M 6812 ZILOX	800A 660V	10003580				
ACA 631-0525-5									3	170M 6814	1000A 690V ULTRARAPID	10030625				
ACA 631-0850-5					1		1980A(IE) 690V(UE) 55UH	61332341								
ACA 631-1400-5					1		1980A(IE) 690V(UE) 55UH	61332341								
ACA 631-2120-5					1		3690A(IE) 690V(UE) 30UH	61332448								
ACA 631-2600-5					1		3690A(IE) 690V(UE) 30UH	61332448								
ACA 633-0350-5					0	0	0	0	6	170M 5806	315A 660V ULTRARAPID	10029481				
ACA 633-0500-5					0	0	0	0	6	170M 5810	500A 660V ULTRAR.	10012708				
ACA 633-0750-5					0	0	0	0	6	170M 6812 ZILOX	800A 660V	10003580				
ACA 633-1050-5					0	0	0	0	6	170M 6814	1000A 690V ULTRARAPID	10030625				
ACA 633-1700-5					2	0	1980A(IE) 690V(UE) 55UH	61332341	0	0	0	0				
ACA 633-2810-5					2	0	1980A(IE) 690V(UE) 55UH	61332341	0	0	0	0				
ACA 633-4240-5					2	0	3690A(IE) 690V(UE) 30UH	61332448	0	0	0	0				
ACA 632-0020-5									3	170M 1564	50A 660V ULTRAR.	09838767	1	170M 4722	63A 1250V UR	10035457
ACA 632-0035-5									3	170M 1566	80A 660V ULTRAR.	09838791	1	170M 4722	63A 1250V UR	10035457
ACA 632-0050-5									3	170M 1568	125A 660V ULTRAR.	10012686	1	170M 4724	100A 1250V UR	10035465
ACA 632-0090-5									3	170M 1569 ZILOX	160A 660V	10003521	1	170M 4699	160A 1250V UR	10012554
ACA 632-0175-5									3	170M 5806	315A 660V ULTRARAPID	10029481	1	170M 5140	315A 1250V UR	10032849
ACA 632-0250-5									3	170M 5371	450A 660V ULTRARAPID	10029520	1	170M 5142	400A 1000-1250V UR	10028183
ACA 632-0375-5									3	170M 6206	700A 660V ULTRARAPID	10029538	1	170M 5146	630A 1000-1250V UR	10028191
ACA 632-0525-5									3	170M 6207	900A 660V ULTRARAPID	10029490	1	170M 5148	800A 1250V UR	10032857
ACA 632-0850-5	1	**ACN66408555000000300900**	**850kVA 500V 981A(AC)**	**64187406**	1		1980A(IE) 690V(UE) 55UH	61332341								
ACA 632-1400-5	1	**ACN66414055000000300900**	**1400kVA 500V 1617A(AC)**	**64159402**	1		1980A(IE) 690V(UE) 55UH	61332341								
ACA 632-2120-5	1	**ACN66421205000000300900**	**2120kVA 500V 2449A(AC)**	**64159381**	1		3690A(IE) 690V(UE) 30UH	61332448								
ACA 632-2600-5	1	**ACN66426005000000300900**	**2475kVA 500V 2858A(AC)**	**64187422**	1		3690A(IE) 690V(UE) 30UH	61332448								
ACA 634-0850-5	1	ACN66408555000000300900	850kVA 500V 981A(AC)	64187406	1		1980A(IE) 690V(UE) 55UH	61332341								
ACA 634-1400-5	1	ACN66414055000000300900	1400kVA 500V 1617A(AC)	64159402	1		1980A(IE) 690V(UE) 55UH	61332341								
ACA 634-2120-5	1	ACN66421205000000300900	2120kVA 500V 2449A(AC)	64159381	1		3690A(IE) 690V(UE) 30UH	61332448								
ACA 634-2600-5	1	ACN66426005000000300900	2475kVA 500V 2858A(AC)	64187422	1		3690A(IE) 690V(UE) 30UH	61332448								

ACS600 MultiDrive		Current transformer				RFI - filter				Digital I/O (TSU)				Coated Digital I/O (TSU)		
Section type	Pcs	Type	Info	Order Code	Pcs	Type	Info	Order Code	Pcs	Type	Info	Order Code	Pcs	Type	Info	Order Code
400 V																
ACA 631-0140-3					1	B84143-B320-R27	320A(IE) 690V(UE)	10031915								
ACA 631-0200-3					1	B84143-B320-R27	320A(IE) 690V(UE)	10031915								
ACA 631-0300-3					1	B84143-B600-S21	600A(IE) 690V(UE)	10031923								
ACA 631-0420-3					1	B84143-B600-S21	600A(IE) 690V(UE)	10031923								
ACA 631-0680-3					1	B84143-B1000-S21	1000A(IE) 690V(UE)	10031931								
ACA 631-1120-3																
ACA 631-1700-3																
ACA 631-2100-3																
ACA 633-0280-3					2	B84143-B320-R27	320A(IE) 690V(UE)	10031915								
ACA 633-0400-3					2	B84143-B320-R27	320A(IE) 690V(UE)	10031915								
ACA 633-0600-3					2	B84143-B600-S21	600A(IE) 690V(UE)	10031923								
ACA 633-0840-3					2	B84143-B600-S21	600A(IE) 690V(UE)	10031923								
ACA 633-1360-3					2	B84143-B1000-S21	1000A(IE) 690V(UE)	10031931								
ACA 633-2240-3					0	0	0	0								
ACA 633-3400-3					0	0	0	0								
ACA 632-0015-3					1	B84143-A50-R37	50A(IE) 690V(UE)	10033764	1	SDCS-IOB-23 KIT	230 V 50/60 Hz	64124340	1	SDCS-IOB-23C KIT	230 V 50/60 Hz	64349708
ACA 632-0030-3					1	B84143-A50-R37	50A(IE) 690V(UE)	10033764	1	SDCS-IOB-23 KIT	230 V 50/60 Hz	64124340	1	SDCS-IOB-23C KIT	230 V 50/60 Hz	64349708
ACA 632-0040-3					1	B84143-A80-R37	80A(IE) 690V(UE)	10031893	1	SDCS-IOB-23 KIT	230 V 50/60 Hz	64124340	1	SDCS-IOB-23C KIT	230 V 50/60 Hz	64349708
ACA 632-0070-3					1	B84143-B150-R37	150A(IE) 690V(UE)	10031907	1	SDCS-IOB-23 KIT	230 V 50/60 Hz	64124340	1	SDCS-IOB-23C KIT	230 V 50/60 Hz	64349708
ACA 632-0140-3	2	HF3B 300/1A, 741B0037		10028418					1	SDCS-IOB-23 KIT	230 V 50/60 Hz	64124340	1	SDCS-IOB-23C KIT	230 V 50/60 Hz	64349708
ACA 632-0200-3	2	HF3B 300/1A, 741B0037		10028418					1	SDCS-IOB-23 KIT	230 V 50/60 Hz	64124340	1	SDCS-IOB-23C KIT	230 V 50/60 Hz	64349708
ACA 632-0300-3	2	HF3B 600/1A: 741B0040		10012155					1	SDCS-IOB-23 KIT	230 V 50/60 Hz	64124340	1	SDCS-IOB-23C KIT	230 V 50/60 Hz	64349708
ACA 632-0420-3	2	HF3B 600/1A: 741B0040		10012155					1	SDCS-IOB-23 KIT	230 V 50/60 Hz	64124340	1	SDCS-IOB-23C KIT	230 V 50/60 Hz	64349708
ACA 632-0680-3	2	HF6 2000/1A, 741F0037		10028434					1	SDCS-IOB-23 KIT	230 V 50/60 Hz	64124340	1	SDCS-IOB-23C KIT	230 V 50/60 Hz	64349708
ACA 632-1120-3	2	HF6 2000/1A, 741F0037		10028434					1	SDCS-IOB-23 KIT	230 V 50/60 Hz	64124340	1	SDCS-IOB-23C KIT	230 V 50/60 Hz	64349708
ACA 632-1700-3	2	HF6 3000/1A 741F0039		35079025					1	SDCS-IOB-23 KIT	230 V 50/60 Hz	64124340	1	SDCS-IOB-23C KIT	230 V 50/60 Hz	64349708
ACA 632-2100-3	2	HF6 3000/1A 741F0039		35079025					1	SDCS-IOB-23 KIT	230 V 50/60 Hz	64124340	1	SDCS-IOB-23C KIT	230 V 50/60 Hz	64349708
ACA 634-0680-3	2	HF6 2000/1A, 741F0037		10028434					1	SDCS-IOB-23 KIT	230 V 50/60 Hz	64124340	1	SDCS-IOB-23C KIT	230 V 50/60 Hz	64349708
ACA 634-1120-3	2	HF6 2000/1A, 741F0037		10028434					1	SDCS-IOB-23 KIT	230 V 50/60 Hz	64124340	1	SDCS-IOB-23C KIT	230 V 50/60 Hz	64349708
ACA 634-1700-3	2	HF6 3000/1A 741F0039		35079025					1	SDCS-IOB-23 KIT	230 V 50/60 Hz	64124340	1	SDCS-IOB-23C KIT	230 V 50/60 Hz	64349708
ACA 634-2100-3	2	HF6 3000/1A 741F0039		35079025					1	SDCS-IOB-23 KIT	230 V 50/60 Hz	64124340	1	SDCS-IOB-23C KIT	230 V 50/60 Hz	64349708
380...500 V																
ACA 631-0140-5					1	B84143-B320-R27	320A(IE) 690V(UE)	10031915								
ACA 631-0250-5					1	B84143-B320-R27	320A(IE) 690V(UE)	10031915								
ACA 631-0375-5					1	B84143-B600-S21	600A(IE) 690V(UE)	10031923								
ACA 631-0525-5					1	B84143-B600-S21	600A(IE) 690V(UE)	10031923								
ACA 631-0850-5					1	B84143-B1000-S21	1000A(IE) 690V(UE)	10031931								
ACA 631-1400-5																
ACA 631-2120-5																
ACA 631-2600-5																
ACA 633-0350-5					2	B84143-B320-R27	320A(IE) 690V(UE)	10031915								
ACA 633-0500-5					2	B84143-B320-R27	320A(IE) 690V(UE)	10031915								
ACA 633-0750-5					2	B84143-B600-S21	600A(IE) 690V(UE)	10031923								
ACA 633-1050-5					2	B84143-B600-S21	600A(IE) 690V(UE)	10031923								
ACA 633-1700-5					2	B84143-B1000-S21	1000A(IE) 690V(UE)	10031931								
ACA 633-2810-5					0	0	0	0								
ACA 633-4240-5					0	0	0	0								
ACA 632-0020-5					1	B84143-A50-R37	50A(IE) 690V(UE)	10033764	1	SDCS-IOB-23 KIT	230 V 50/60 Hz	64124340	1	SDCS-IOB-23C KIT	230 V 50/60 Hz	64349708
ACA 632-0035-5					1	B84143-A50-R37	50A(IE) 690V(UE)	10033764	1	SDCS-IOB-23 KIT	230 V 50/60 Hz	64124340	1	SDCS-IOB-23C KIT	230 V 50/60 Hz	64349708
ACA 632-0050-5					1	B84143-A80-R37	80A(IE) 690V(UE)	10031893	1	SDCS-IOB-23 KIT	230 V 50/60 Hz	64124340	1	SDCS-IOB-23C KIT	230 V 50/60 Hz	64349708
ACA 632-0090-5					1	B84143-B150-R37	150A(IE) 690V(UE)	10031907	1	SDCS-IOB-23 KIT	230 V 50/60 Hz	64124340	1	SDCS-IOB-23C KIT	230 V 50/60 Hz	64349708
ACA 632-0175-5	2	HF3B 300/1A, 741B0037		10028418					1	SDCS-IOB-23 KIT	230 V 50/60 Hz	64124340	1	SDCS-IOB-23C KIT	230 V 50/60 Hz	64349708
ACA 632-0250-5	2	HF3B 300/1A, 741B0037		10028418					1	SDCS-IOB-23 KIT	230 V 50/60 Hz	64124340	1	SDCS-IOB-23C KIT	230 V 50/60 Hz	64349708
ACA 632-0375-5	2	HF3B 600/1A: 741B0040		10012155					1	SDCS-IOB-23 KIT	230 V 50/60 Hz	64124340	1	SDCS-IOB-23C KIT	230 V 50/60 Hz	64349708
ACA 632-0525-5	2	HF3B 600/1A: 741B0040		10012155					1	SDCS-IOB-23 KIT	230 V 50/60 Hz	64124340	1	SDCS-IOB-23C KIT	230 V 50/60 Hz	64349708
ACA 632-0850-5	2	HF6 2000/1A, 741F0037		10028434					1	SDCS-IOB-23 KIT	230 V 50/60 Hz	64124340	1	SDCS-IOB-23C KIT	230 V 50/60 Hz	64349708
ACA 632-1400-5	2	HF6 2000/1A, 741F0037		10028434					1	SDCS-IOB-23 KIT	230 V 50/60 Hz	64124340	1	SDCS-IOB-23C KIT	230 V 50/60 Hz	64349708
ACA 632-2120-5	2	HF6 3000/1A 741F0039		35079025					1	SDCS-IOB-23 KIT	230 V 50/60 Hz	64124340	1	SDCS-IOB-23C KIT	230 V 50/60 Hz	64349708
ACA 632-2600-5	2	HF6 3000/1A 741F0039		35079025					1	SDCS-IOB-23 KIT	230 V 50/60 Hz	64124340	1	SDCS-IOB-23C KIT	230 V 50/60 Hz	64349708
ACA 634-0850-5	2	HF6 2000/1A, 741F0037		10028434					1	SDCS-IOB-23 KIT	230 V 50/60 Hz	64124340	1	SDCS-IOB-23C KIT	230 V 50/60 Hz	64349708
ACA 634-1400-5	2	HF6 2000/1A, 741F0037		10028434					1	SDCS-IOB-23 KIT	230 V 50/60 Hz	64124340	1	SDCS-IOB-23C KIT	230 V 50/60 Hz	64349708
ACA 634-2120-5	2	HF6 3000/1A 741F0039		35079025					1	SDCS-IOB-23 KIT	230 V 50/60 Hz	64124340	1	SDCS-IOB-23C KIT	230 V 50/60 Hz	64349708
ACA 634-2600-5	2	HF6 3000/1A 741F0039		35079025					1	SDCS-IOB-23 KIT	230 V 50/60 Hz	64124340	1	SDCS-IOB-23C KIT	230 V 50/60 Hz	64349708

ACS600 MultiDrive		Main switch				Main contactor/Main circuit breaker				Installation Accessories (TSU)				Autotransformer(TSU)		
Section type	Pcs	Type	Info	Order Code	Pcs	Type	Info	Order Code	Pcs	Type	Info	Order Code	Pcs	Type	Info	Order Code
400 V																
ACA 631-0140-3	1	OESA 400 D3PL	400A, 690V	61485538	1	EH 175-30-21 EM		10029341								
ACA 631-0200-3	1	OESA 400 D3PL	400A, 690V	61485538	1	EH 210-30-21 EM		10029350								
ACA 631-0300-3	1	OESA 630 D3PL	630A, 690V	61485546	1	EH 370-30-22 EM		10029368								
ACA 631-0420-3	1	OESA 800 D3PL	800A, 690V	61485554	1	EH 550-30-22 EM		10027527								
ACA 631-0680-3					1	SACE E3S12	1250A(ITH) 690V(UE)	10037352								
ACA 631-1120-3					1	SACE E3S20	2000A(ITH) 690V(UE)	10037379								
ACA 631-1700-3					1	SACE E3S32	3200A(ITH) 690V(UE)	10037395								
ACA 631-2100-3					1	SACE E3S32	3200A(ITH) 690V(UE)	10037395								
ACA 633-0280-3	2	OESA 400 D3PL	400A, 690V	61485538	2	EH 175-30-21 EM	0	10029341								
ACA 633-0400-3	2	OESA 400 D3PL	400A, 690V	61485538	2	EH 210-30-21 EM	0	10029350								
ACA 633-0600-3	2	OESA 630 D3PL	630A, 690V	61485546	2	EH 370-30-22 EM	0	10029368								
ACA 633-0840-3	2	OESA 800 D3PL	800A, 690V	61485554	2	EH 550-30-22 EM	0	10027527								
ACA 633-1360-3	0	0	0	0	2	SACE E3S12	1250A(ITH) 690V(UE)	10037352								
ACA 633-2240-3	0	0	0	0	2	SACE E3S20	2000A(ITH) 690V(UE)	10037379								
ACA 633-3400-3	0	0	0	0	2	SACE E3S32	3200A(ITH) 690V(UE)	10037395								
ACA 632-0015-3	1	OESA 00	125A, 690V	61485376	1	B30-30-22/230		10021413								
ACA 632-0030-3	1	OESA 00	125A, 690V	61485376	1	B40-30-2280		10029317								
ACA 632-0040-3	1	OESA 00	125A, 690V	61485376	1	B40-30-2280		10029317								
ACA 632-0070-3	1	OESA 00	125A, 690V	61485376	1	A95-30-2280		10029333								
ACA 632-0140-3	1	OESA 400 D3PL	400A, 690V	61485538	1	EH 175-30-21 EM		10029341								
ACA 632-0200-3	1	OESA 400 D3PL	400A, 690V	61485538	1	EH 210-30-21 EM		10029350								
ACA 632-0300-3	1	OESA 630 D3PL	630A, 690V	61485546	1	EH 370-30-22 EM		10029368								
ACA 632-0420-3	1	OESA 800 D3PL	800A, 690V	61485554	1	EH 550-30-22 EM		10027527								
ACA 632-0680-3					1	SACE E3S12	1250A(ITH) 690V(UE)	10037352	1	TSU INSTALLATION ACCESSORIES	SDSC-REB-1 - PIN-41	64329669				
ACA 632-1120-3					1	SACE E3S20	2000A(ITH) 690V(UE)	10037379	1	TSU INSTALLATION ACCESSORIES	SDSC-REB-1 - PIN-41	64329669				
ACA 632-1700-3					1	SACE E3S32	3200A(ITH) 690V(UE)	10037395	1	TSU INSTALLATION ACCESSORIES	SDSC-REB-1 - PIN-41	64329669				
ACA 632-2100-3					1	SACE E3S32	3200A(ITH) 690V(UE)	10037395	1	TSU INSTALLATION ACCESSORIES	SDSC-REB-1 - PIN-41	64329669				
ACA 634-0680-3					1	SACE E3S12	1250A(ITH) 690V(UE)	10037352	1	TSU INSTALLATION ACCESSORIES	SDSC-REB-1 - PIN-41	64329669	1	NDAT-09	677 kVA, 942A/415V	10037191
ACA 634-1120-3					1	SACE E3S20	2000A(ITH) 690V(UE)	10037379	1	TSU INSTALLATION ACCESSORIES	SDSC-REB-1 - PIN-41	64329669	1	NDAT-10	1115 kVA, 1552A/415V	10037204
ACA 634-1700-3					1	SACE E3S32	3200A(ITH) 690V(UE)	10037395	1	TSU INSTALLATION ACCESSORIES	SDSC-REB-1 - PIN-41	64329669	1	NDAT-11	1859 kVA, 2587A/415V	10037212
ACA 634-2100-3					1	SACE E3S32	3200A(ITH) 690V(UE)	10037395	1	TSU INSTALLATION ACCESSORIES	SDSC-REB-1 - PIN-41	64329669	1	NDAT-11	1859 kVA, 2587A/415V	10037212
380...500 V																
ACA 631-0140-5	1	OESA 400 D3PL	400A, 690V	61485538	1	EH 175-30-21 EM		10029341								
ACA 631-0250-5	1	OESA 400 D3PL	400A, 690V	61485538	1	EH 210-30-21 EM		10029350								
ACA 631-0375-5	1	OESA 630 D3PL	630A, 690V	61485546	1	EH 370-30-22 EM		10029368								
ACA 631-0525-5	1	OESA 800 D3PL	800A, 690V	61485554	1	EH 550-30-22 EM		10027527								
ACA 631-0850-5					1	SACE E3S12	1250A(ITH) 690V(UE)	10037352								
ACA 631-1400-5					1	SACE E3S20	2000A(ITH) 690V(UE)	10037379								
ACA 631-2120-5					1	SACE E3S32	3200A(ITH) 690V(UE)	10037395								
ACA 631-2600-5					1	SACE E3S32	3200A(ITH) 690V(UE)	10037395								
ACA 633-0350-5	2	OESA 400 D3PL	400A, 690V	61485538	2	EH 175-30-21 EM	0	10029341								
ACA 633-0500-5	2	OESA 400 D3PL	400A, 690V	61485538	2	EH 210-30-21 EM	0	10029350								
ACA 633-0750-5	2	OESA 630 D3PL	630A, 690V	61485546	2	EH 370-30-22 EM	0	10029368								
ACA 633-1050-5	2	OESA 800 D3PL	800A, 690V	61485554	2	EH 550-30-22 EM	0	10027527								
ACA 633-1700-5	0	0	0	0	2	SACE E3S12	1250A(ITH) 690V(UE)	10037352								
ACA 633-2810-5	0	0	0	0	2	SACE E3S20	2000A(ITH) 690V(UE)	10037379								
ACA 633-4240-5	0	0	0	0	2	SACE E3S32	3200A(ITH) 690V(UE)	10037395								
ACA 632-0020-5	1	OESA 00	125A, 690V	61485376	1	B30-30-22/230		10021413								
ACA 632-0035-5	1	OESA 00	125A, 690V	61485376	1	B40-30-2280		10029317								
ACA 632-0050-5	1	OESA 00	125A, 690V	61485376	1	B40-30-2280		10029317								
ACA 632-0090-5	1	OESA 00	125A, 690V	61485376	1	A95-30-2280		10029333								
ACA 632-0175-5	1	OESA 400 D3PL	400A, 690V	61485538	1	EH 175-30-21 EM		10029341								
ACA 632-0250-5	1	OESA 400 D3PL	400A, 690V	61485538	1	EH 210-30-21 EM		10029350								
ACA 632-0375-5	1	OESA 630 D3PL	630A, 690V	61485546	1	EH 370-30-22 EM		10029368								
ACA 632-0525-5	1	OESA 800 D3PL	800A, 690V	61485554	1	EH 550-30-22 EM		10027527								
ACA 632-0850-5					1	SACE E3S12	1250A(ITH) 690V(UE)	10037352	1	TSU INSTALLATION ACCESSORIES	SDSC-REB-1 - PIN-41	64329669				
ACA 632-1400-5					1	SACE E3S20	2000A(ITH) 690V(UE)	10037379	1	TSU INSTALLATION ACCESSORIES	SDSC-REB-1 - PIN-41	64329669				
ACA 632-2120-5					1	SACE E3S32	3200A(ITH) 690V(UE)	10037395	1	TSU INSTALLATION ACCESSORIES	SDSC-REB-1 - PIN-41	64329669				
ACA 632-2600-5					1	SACE E3S32	3200A(ITH) 690V(UE)	10037395	1	TSU INSTALLATION ACCESSORIES	SDSC-REB-1 - PIN-41	64329669				
ACA 634-0850-5					1	SACE E3S12	1250A(ITH) 690V(UE)	10037352	1	TSU INSTALLATION ACCESSORIES	SDSC-REB-1 - PIN-41	64329669	1	NDAT-04	1126 kVA, 942A/690V	10034329
ACA 634-1400-5					1	SACE E3S20	2000A(ITH) 690V(UE)	10037379	1	TSU INSTALLATION ACCESSORIES	SDSC-REB-1 - PIN-41	64329669	1	NDAT-05	1855 kVA, 1552A/690V	10034337
ACA 634-2120-5					1	SACE E3S32	3200A(ITH) 690V(UE)	10037395	1	TSU INSTALLATION ACCESSORIES	SDSC-REB-1 - PIN-41	64329669	1	NDAT-06	3272 kVA, 2738A/690V	10034345
ACA 634-2600-5					1	SACE E3S32	3200A(ITH) 690V(UE)	10037395	1	TSU INSTALLATION ACCESSORIES	SDSC-REB-1 - PIN-41	64329669	1	NDAT-06	3272 kVA, 2738A/690V	10034345

ACS600 MultiDrive	Modtool		Module1				Module2				Coated Module1		
Section type	Name	Pcs	Type Code	Info	Order Code	Pcs	Type Code	Info	Order Code	Pcs	Type Code	Info	Order Code
525...690 V			***6-pulse Diode Supply Unit***								***6-pulse Diode Supply Unit***		
ACA 631-0090-6	ACN684-0090-6	1	ACN6840090600000000904	90kVA 690V 75A(AC)	10031371					1	ACN684009060000300905	90kVA 690V 75A(AC)	64234234
ACA 631-0175-6	ACN684-0175-6	1	ACN6840175600000000904	175kVA 690V 146A(AC)	10031397					1	ACN684017560000300905	175kVA 690V 146A(AC)	64234277
ACA 631-0250-6	ACN684-0250-6	1	ACN6840250600000000904	250kVA 690V 209A(AC)	10031419					1	ACN684025060000300905	250kVA 690V 209A(AC)	64234315
ACA 631-0375-6	ACN684-0375-6	1	ACN6840375600000000904	375kVA 690V 314A(AC)	10031435					1	ACN684037560000300905	375kVA 690V 314A(AC)	64234021
ACA 631-0525-6	ACN684-0525-6	1	ACN6840525600000000904	525kVA 690V 439A(AC)	10031451					1	ACN684052560000300905	525kVA 690V 439A(AC)	64234072
ACA 631-0850-6	ACN684-0855-6	1	ACN6840855600000000904	850kVA 690V 711A(AC)	10037018					1	ACN684085560000300905	850kVA 690V 711A(AC)	64234111
ACA 631-1400-6	ACN684-1405-6	1	ACN6841405600000000904	1400kVA 690V 1171A(AC)	10037051					1	ACN684140560000300905	1400kVA 690V 1171A(AC)	64234161
ACA 631-2600-6	ACN684-2600-6	1	ACN6842600600000000904	2600kVA 690V 2176A(AC)	10030285					1	ACN684260060000300905	2600kVA 690V 2176A(AC)	64234200
ACA 631-3600-6	ACN684-3600-6	1	ACN6843600600000000904	3415kVA 690V 2858A(AC)	10030234					1	ACN684360060000300905	3415kVA 690V 2858A(AC)	64234218
			12-pulse Diode Supply Unit								***12-pulse Diode Supply Unit***		
ACA 633-0180-6	2 x ACN684-0090-6 = 0180kVA	2	ACN6840090600000000904	90kVA 690V 75A(AC)	10031371					2	ACN684009060000300905	90kVA 690V 75A(AC)	64234234
ACA 633-0350-6	2 x ACN684-0175-6 = 0350 kVA	2	ACN6840175600000000904	175kVA 690V 146A(AC)	10031397					2	ACN684017560000300905	175kVA 690V 146A(AC)	64234277
ACA 633-0500-6	2 x ACN684-0250-6 = 0500 kVA	2	ACN6840250600000000904	250kVA 690V 209A(AC)	10031419					2	ACN684025060000300905	250kVA 690V 209A(AC)	64234315
ACA 633-0750-6	2 x ACN684-0375-6 = 0750 kVA	2	ACN6840375600000000904	375kVA 690V 314A(AC)	10031435					2	ACN684037560000300905	375kVA 690V 314A(AC)	64234021
ACA 633-1050-6	2 x ACN684-0525-6 = 1050 kVA	2	ACN6840525600000000904	525kVA 690V 439A(AC)	10031451					2	ACN684052560000300905	525kVA 690V 439A(AC)	64234072
ACA 633-1710-6	2 x ACN684-0855-6 = 1710 kVA	2	ACN6840855600000000904	850kVA 690V 711A(AC)	10037018					2	ACN684085560000300905	850kVA 690V 711A(AC)	64234111
ACA 633-2810-6	2 x ACN684-1405-6 = 2810 kVA	2	ACN6841405600000000904	1400kVA 690V 1171A(AC)	10037051					2	ACN684140560000300905	1400kVA 690V 1171A(AC)	64234161
ACA 633-5200-6	2 x ACN684-2600-6 = 5200 kVA	2	ACN6842600600000000904	2600kVA 690V 2176A(AC)	10030285					2	ACN684260060000300905	2600kVA 690V 2176A(AC)	64234200
			4Q Supply Unit								***4Q Supply Unit***		
ACA 632-0090-6	ACN674-0090-6	1	ACN6740090600000000906	90kVA 690V 75A(AC)	64147137					1	ACN 674 0090 6 00000300907	90kVA 690V 75A(AC)	64233734
ACA 632-0175-6	ACN674-0175-6	1	ACN6740175600000000906	175kVA 690V 146A(AC)	64147111					1	ACN 674 0175 6 00000300907	175kVA 690V 146A(AC)	64233793
ACA 632-0250-6	ACN674-0250-6	1	ACN6740250600010000906	250kVA 690V 209A(AC)	64147188					1	ACN 674 0250 6 00000300907	250kVA 690V 209A(AC)	64233840
ACA 632-0375-6	ACN674-0375-6	1	ACN6740375600000000906	375kVA 690V 314A(AC)	64147226					1	ACN 674 0375 6 00000300907	375kVA 690V 314A(AC)	64233891
ACA 632-0525-6	ACN674-0525-6	1	ACN6740525600000000906	525kVA 690V 439A(AC)	64147269					1	ACN 674 0525 6 00000300907	525kVA 690V 439A(AC)	64233939
ACA 632-0850-6	ACN654/ACN664-0855-6	1	ACN6540855600000000906	850kVA 690V 711A(AC)	64146343	1	ACN6640855600000000900	850kVA 690V 711A(AC)	10036348	1	ACN654085560000300907	850kVA 690V 711A(AC)	64233599
ACA 632-1400-6	ACN654/ACN664-1405-6	1	ACN6541405600000000906	1400kVA 690V 1171A(AC)	64146386	1	ACN6641405600000000900	1400kVA 690V 1171A(AC)	10036364	1	ACN654140560000300907	1400kVA 690V 1171A(AC)	64233653
ACA 632-2600-6	ACN654/ACN664-2600-6	1	ACN6542600600000000906	2600kVA 690V 2176A(AC)	64146459	1	ACN6642600600000000900	2600kVA 690V 2176A(AC)	10031826	1	ACN654260060000300907	2600kVA 690V 2176A(AC)	64233700
ACA 632-3600-6	ACN654/ACN664-3600-6	1	ACN6543600600010000906	3415kVA 690V 2858A(AC)	64146483	1	ACN6643600600000000900	3415kVA 690V 2858A(AC)	10030030	1	ACN654360060000300907	3415kVA 690V 2858A(AC)	64233726
			4Q with Autotransformer								***4Q with Autotransformer***		
ACA 634-0850-6	ACN654/ACN664-0855-6+NDAT-04	1	ACN6540855600000000906	850kVA 690V 711A(AC)	64146343	1	ACN6641685800000000900	1680kVA 830V 1169A(AC)	10036372	1	ACN654085560000300907	850kVA 690V 711A(AC)	64233599
ACA 634-1400-6	ACN654/ACN664-1405-6+NDAT-04	1	ACN6541405600000000906	1400kVA 690V 1171A(AC)	64146386	1	ACN6641685800000000900	1680kVA 830V 1169A(AC)	10036372	1	ACN654140560000300907	1400kVA 690V 1171A(AC)	64233653
ACA 634-2600-6	ACN654/ACN664-2600-6+NDAT-06	1	ACN6542600600000000906	2600kVA 690V 2176A(AC)	64146459	1	ACN6643100800000000900	3100kVA 830V 2156A(AC)	10033136	1	ACN654260060000300907	2600kVA 690V 2176A(AC)	64233700
ACA 634-3600-6	ACN654/ACN664-3600-6+NDAT-06	1	ACN6543600600010000906	3415kVA 690V 2858A(AC)	64146483	1	ACN6643520800000000900	3520kVA 830V 2449A(AC)	10033161	1	ACN654360060000300907	3415kVA 690V 2858A(AC)	64233726
830 V			***4Q Supply Unit***								***4Q Supply Unit***		
ACA 632-1680-8	ACN654/ACN664-1685-8	1	ACN6541685800000000906	1680kVA 830V 1169A(AC)	64146408	1	ACN6641685800000000900	1680kVA 830V 1169A(AC)	10036372	1	ACN654168580000300906	1680kVA 830V 1169A(AC)	64186809
ACA 632-3100-8	ACN654/ACN664-3100-8	1	ACN6543100800000000906	3100kVA 830V 2156A(AC)	64146467	1	ACN6643100800000000900	3100kVA 830V 2156A(AC)	10033136	1	ACN654310080000300906	3100kVA 830V 2156A(AC)	64186833
ACA 632-3520-8	ACN654/ACN664-3520-8	1	ACN6543520800000000906	3520kVA 830V 2449A(AC)	64146475	1	ACN6643520800000000900	3520kVA 830V 2449A(AC)	10033161	1	ACN654352080000300906	3520kVA 830V 2449A(AC)	64186850
ACA 632-4210-8	ACN654/ACN664-4310-8	1	ACN6544310800000000906	4110kVA 830V 2858A(AC)	64146491	1	ACN6644310800000000900	4110kVA 830V 2858A(AC)	10033195	1	ACN654431080000300906	4110kVA 830V 2858A(AC)	64186868

ACS600 MultiDrive		Coated Module2				DC - reactor				AC - fuse				DC - fuse		
Section type	Pcs	Type Code	Info	Order Code	Pcs	Type	Info	Order Code	Pcs	Type	Info	Order Code	Pcs	Type	Info	Order Code
525...690 V																
ACA 631-0090-6									3	170M 5804	200A 690V ULTRARAPID	10029511				
ACA 631-0175-6									3	170M 5804	200A 690V ULTRARAPID	10029511				
ACA 631-0250-6									3	170M 3818	350A 660V DIN1*	10028582				
ACA 631-0375-6									3	170M 5812 ZILOX	630A 660V	10003555				
ACA 631-0525-6									3	170M 6812 ZILOX	800A 660V	10003580				
ACA 631-0850-6					1		1980A(IE) 690V(UE) 55UH	61332341								
ACA 631-1400-6					1		1980A(IE) 690V(UE) 55UH	61332341								
ACA 631-2600-6					1		3690A(IE) 690V(UE) 30UH	61332448								
ACA 631-3600-6					1		3690A(IE) 690V(UE) 30UH	61332448								
ACA 633-0180-6					0	0	0	0	6	170M 5804	200A 690V ULTRARAPID	10029511				
ACA 633-0350-6					0	0	0	0	6	170M 5804	200A 690V ULTRARAPID	10029511				
ACA 633-0500-6					0	0	0	0	6	170M 3818	350A 660V DIN1*	10028582				
ACA 633-0750-6					0	0	0	0	6	170M 5812 ZILOX	630A 660V	10003555				
ACA 633-1050-6					0	0	0	0	6	170M 6812 ZILOX	800A 660V	10003580				
ACA 633-1710-6					2	0	1980A(IE) 690V(UE) 55UH	61332341	0	0	0	0				
ACA 633-2810-6					2	0	1980A(IE) 690V(UE) 55UH	61332341	0	0	0	0				
ACA 633-5200-6					2	0	3690A(IE) 690V(UE) 30UH	61332448	0	0	0	0				
ACA 632-0090-6									3	170M 4700	200A 1000-1250V UR	10001731	1	170M 4139	200A 1250V UR	10032865
ACA 632-0175-6									3	170M 4700	200A 1000-1250V UR	10001731	1	170M 4139	200A 1250V UR	10032865
ACA 632-0250-6									3	170M 5403	315A 1000-1250V UR	10001749	1	170M 5140	315A 1250V UR	10032849
ACA 632-0375-6									3	170M 5404	400A 1000-1250V UR	10001757	1	170M 5142	400A 1000-1250V UR	10028183
ACA 632-0525-6									3	170M 6205	630A 1000-1250V UR	10001773	1	170M 5146	630A 1000-1250V UR	10028191
ACA 632-0850-6	1	ACN6640855600000300900	850kVA 690V 711A(AC)	64187546	1		1980A(IE) 690V(UE) 55UH	61332341								
ACA 632-1400-6	1	ACN6641405600000300900	1400kVA 690V 1171A(AC)	64187554	1		1980A(IE) 690V(UE) 55UH	61332341								
ACA 632-2600-6	1	ACN6642600600000300900	2600kVA 690V 2176A(AC)	64187571	1		3690A(IE) 690V(UE) 30UH	61332448								
ACA 632-3600-6	1	ACN6643600600000300900	3415kVA 690V 2858A(AC)	64187589	1		3690A(IE) 690V(UE) 30UH	61332448								
ACA 634-0850-6	1	ACN6641685800000300900	1680kVA 830V 1169A(AC)	64187597	1		1980A(IE) 690V(UE) 55UH	61332341								
ACA 634-1400-6	1	ACN6641685800000300900	1680kVA 830V 1169A(AC)	64187597	1		1980A(IE) 690V(UE) 55UH	61332341								
ACA 634-2600-6	1	ACN6643100800000300900	3100kVA 830V 2156A(AC)	64187619	1		3690A(IE) 690V(UE) 30UH	61332448								
ACA 634-3600-6	1	ACN6643520800000300900	3520kVA 830V 2449A(AC)	64187627	1		3690A(IE) 690V(UE) 30UH	61332448								
830 V																
ACA 632-1680-8	1	ACN6641685800000300900	1680kVA 830V 1169A(AC)	64187597	1		1980A(IE) 690V(UE) 55UH	61332341								
ACA 632-3100-8	1	ACN6643100800000300900	3100kVA 830V 2156A(AC)	64187619	1		3690A(IE) 690V(UE) 30UH	61332448								
ACA 632-3520-8	1	ACN6643520800000300900	3520kVA 830V 2449A(AC)	64187627	1		3690A(IE) 690V(UE) 30UH	61332448								
ACA 632-4210-8	1	ACN6644310800000300900	4110kVA 830V 2858A(AC)	64187635	1		3690A(IE) 690V(UE) 30UH	61332448								

ACS600 MultiDrive		Current transformer				RFI - filter				Digital I/O (TSU)				Coated Digital I/O (TSU)				Main switch		
Section type	Pcs	Type	Info	Order Code	Pcs	Type	Info	Order Code	Pcs	Type	Info	Order Code	Pcs	Type	Info	Order Code	Pcs	Type	Info	Order Code
525...690 V																				
ACA 631-0090-6					1	B84143-B320-R27	320A(IE) 690V(UE)	10031915									1	OESA 250D3PL	250A, 690V	61485384
ACA 631-0175-6					1	B84143-B320-R27	320A(IE) 690V(UE)	10031915									1	OESA 250D3PL	250A, 690V	61485384
ACA 631-0250-6					1	B84143-B320-R27	320A(IE) 690V(UE)	10031915									1	OESA 400 D3PL	400A, 690V	61485538
ACA 631-0375-6					1	B84143-B600-S21	600A(IE) 690V(UE)	10031923									1	OESA 400 D3PL	400A, 690V	61485538
ACA 631-0525-6					1	B84143-B600-S21	600A(IE) 690V(UE)	10031923									1	OESA 630 D3PL	630A, 690V	61485546
ACA 631-0850-6					1	B84143-B1000-S21	1000A(IE) 690V(UE)	10031931									1	OESA 800 D3PL	800A, 690V	61485554
ACA 631-1400-6																				
ACA 631-2600-6																				
ACA 631-3600-6																				
ACA 633-0180-6					2	B84143-B320-R27	320A(IE) 690V(UE)	10031915									2	OESA 250D3PL	250A, 690V	61485384
ACA 633-0350-6					2	B84143-B320-R27	320A(IE) 690V(UE)	10031915									2	OESA 250D3PL	250A, 690V	61485384
ACA 633-0500-6					2	B84143-B320-R27	320A(IE) 690V(UE)	10031915									2	OESA 400 D3PL	400A, 690V	61485538
ACA 633-0750-6					2	B84143-B600-S21	600A(IE) 690V(UE)	10031923									2	OESA 400 D3PL	400A, 690V	61485538
ACA 633-1050-6					2	B84143-B600-S21	600A(IE) 690V(UE)	10031923									2	OESA 630 D3PL	630A, 690V	61485546
ACA 633-1710-6					2	B84143-B1000-S21	1000A(IE) 690V(UE)	10031931									2	OESA 800 D3PL	800A, 690V	61485554
ACA 633-2810-6					0	0	0	0									0	0	0	0
ACA 633-5200-6					0	0	0	0									0	0	0	0
ACA 632-0090-6	2	HF3B 300/1A, 741B0037		10028418					1	SDCS-IOB-23 KIT	230 V 50/60 Hz	64124340	1	SDCS-IOB-23C KIT	230 V 50/60 Hz	64349708	1	OESA 250D3PL	250A, 690V	61485384
ACA 632-0175-6	2	HF3B 300/1A, 741B0037		10028418					1	SDCS-IOB-23 KIT	230 V 50/60 Hz	64124340	1	SDCS-IOB-23C KIT	230 V 50/60 Hz	64349708	1	OESA 250D3PL	250A, 690V	61485384
ACA 632-0250-6	2	HF3B 300/1A, 741B0037		10028418					1	SDCS-IOB-23 KIT	230 V 50/60 Hz	64124340	1	SDCS-IOB-23C KIT	230 V 50/60 Hz	64349708	1	OESA 400 D3PL	400A, 690V	61485538
ACA 632-0375-6	2	HF3B 600/1A: 741B0040		10012155					1	SDCS-IOB-23 KIT	230 V 50/60 Hz	64124340	1	SDCS-IOB-23C KIT	230 V 50/60 Hz	64349708	1	OESA 400 D3PL	400A, 690V	61485538
ACA 632-0525-6	2	HF3B 600/1A: 741B0040		10012155					1	SDCS-IOB-23 KIT	230 V 50/60 Hz	64124340	1	SDCS-IOB-23C KIT	230 V 50/60 Hz	64349708	1	OESA 630 D3PL	630A, 690V	61485546
ACA 632-0850-6	2	HF6 2000/1A, 741F0037		10028434					1	SDCS-IOB-23 KIT	230 V 50/60 Hz	64124340	1	SDCS-IOB-23C KIT	230 V 50/60 Hz	64349708	1	OESA 800 D3PL	800A, 690V	61485554
ACA 632-1400-6	2	HF6 2000/1A, 741F0037		10028434					1	SDCS-IOB-23 KIT	230 V 50/60 Hz	64124340	1	SDCS-IOB-23C KIT	230 V 50/60 Hz	64349708				
ACA 632-2600-6	2	HF6 3000/1A 741F0039		35079025					1	SDCS-IOB-23 KIT	230 V 50/60 Hz	64124340	1	SDCS-IOB-23C KIT	230 V 50/60 Hz	64349708				
ACA 632-3600-6	2	HF6 3000/1A 741F0039		35079025					1	SDCS-IOB-23 KIT	230 V 50/60 Hz	64124340	1	SDCS-IOB-23C KIT	230 V 50/60 Hz	64349708				
ACA 634-0850-6	2	HF6 2000/1A, 741F0037		10028434					1	SDCS-IOB-23 KIT	230 V 50/60 Hz	64124340	1	SDCS-IOB-23C KIT	230 V 50/60 Hz	64349708				
ACA 634-1400-6	2	HF6 2000/1A, 741F0037		10028434					1	SDCS-IOB-23 KIT	230 V 50/60 Hz	64124340	1	SDCS-IOB-23C KIT	230 V 50/60 Hz	64349708				
ACA 634-2600-6	2	HF6 3000/1A 741F0039		35079025					1	SDCS-IOB-23 KIT	230 V 50/60 Hz	64124340	1	SDCS-IOB-23C KIT	230 V 50/60 Hz	64349708				
ACA 634-3600-6	2	HF6 3000/1A 741F0039		35079025					1	SDCS-IOB-23 KIT	230 V 50/60 Hz	64124340	1	SDCS-IOB-23C KIT	230 V 50/60 Hz	64349708				
830 V																				
ACA 632-1680-8	2	HF6 2000/1A, 741F0037		10028434					1	SDCS-IOB-23 KIT	230 V 50/60 Hz	64124340	1	SDCS-IOB-23C KIT	230 V 50/60 Hz	64349708				
ACA 632-3100-8	2	HF6 3000/1A 741F0039		35079025					1	SDCS-IOB-23 KIT	230 V 50/60 Hz	64124340	1	SDCS-IOB-23C KIT	230 V 50/60 Hz	64349708				
ACA 632-3520-8	2	HF6 3000/1A 741F0039		35079025					1	SDCS-IOB-23 KIT	230 V 50/60 Hz	64124340	1	SDCS-IOB-23C KIT	230 V 50/60 Hz	64349708				
ACA 632-4210-8	2	HF6 3000/1A 741F0039		35079025					1	SDCS-IOB-23 KIT	230 V 50/60 Hz	64124340	1	SDCS-IOB-23C KIT	230 V 50/60 Hz	64349708				

ACS600 MultiDrive		Main contactor/Main circuit breaker				Installation Accessories (TSU)				Autotransformer(TSU)		
Section type	Pcs	Type	Info	Order Code	Pcs	Type	Info	Order Code	Pcs	Type	Info	Order Code
525...690 V												
ACA 631-0090-6	1	EH 175-30-21 EM		10029341								
ACA 631-0175-6	1	EH 175-30-21 EM		10029341								
ACA 631-0250-6	1	EH 175-30-21 EM		10029341								
ACA 631-0375-6	1	EH 370-30-22 EM		10029368								
ACA 631-0525-6	1	EH 370-30-22 EM		10029368								
ACA 631-0850-6	1	EH 550-30-22 EM		10027527								
ACA 631-1400-6	1	SACE E3S20	2000A(ITH) 690V(UE)	10037379								
ACA 631-2600-6	1	SACE E3S32	3200A(ITH) 690V(UE)	10037395								
ACA 631-3600-6	1	SACE E3S32	3200A(ITH) 690V(UE)	10037395								
ACA 633-0180-6	2	EH 175-30-21 EM	0	10029341								
ACA 633-0350-6	2	EH 175-30-21 EM	0	10029341								
ACA 633-0500-6	2	EH 175-30-21 EM	0	10029341								
ACA 633-0750-6	2	EH 370-30-22 EM	0	10029368								
ACA 633-1050-6	2	EH 370-30-22 EM	0	10029368								
ACA 633-1710-6	2	EH 550-30-22 EM	0	10027527								
ACA 633-2810-6	2	SACE E3S20	2000A(ITH) 690V(UE)	10037379								
ACA 633-5200-6	2	SACE E3S32	3200A(ITH) 690V(UE)	10037395								
ACA 632-0090-6	1	EH 175-30-21 EM		10029341								
ACA 632-0175-6	1	EH 175-30-21 EM		10029341								
ACA 632-0250-6	1	EH 175-30-21 EM		10029341								
ACA 632-0375-6	1	EH 370-30-22 EM		10029368								
ACA 632-0525-6	1	EH 370-30-22 EM		10029368								
ACA 632-0850-6	1	EH 550-30-22 EM		10027527	1	TSU INSTALLATION ACCESSORIES	SDSC-REB-1 - PIN-41	64329669				
ACA 632-1400-6	1	SACE E3S20	2000A(ITH) 690V(UE)	10037379	1	TSU INSTALLATION ACCESSORIES	SDSC-REB-1 - PIN-41	64329669				
ACA 632-2600-6	1	SACE E3S32	3200A(ITH) 690V(UE)	10037395	1	TSU INSTALLATION ACCESSORIES	SDSC-REB-1 - PIN-41	64329669				
ACA 632-3600-6	1	SACE E3S32	3200A(ITH) 690V(UE)	10037395	1	TSU INSTALLATION ACCESSORIES	SDSC-REB-1 - PIN-41	64329669				
ACA 634-0850-6	1	SACE E3S12	1250A(ITH) 690V(UE)	10037352	1	TSU INSTALLATION ACCESSORIES	SDSC-REB-1 - PIN-41	64329669	1	NDAT-04	1126 kVA, 942A/690V	10034329
ACA 634-1400-6	1	SACE E3S20	2000A(ITH) 690V(UE)	10037379	1	TSU INSTALLATION ACCESSORIES	SDSC-REB-1 - PIN-41	64329669	1	NDAT-04	1126 kVA, 942A/690V	10034329
ACA 634-2600-6	1	SACE E3S32	3200A(ITH) 690V(UE)	10037395	1	TSU INSTALLATION ACCESSORIES	SDSC-REB-1 - PIN-41	64329669	1	NDAT-06	3272 kVA, 2738A/690V	10034345
ACA 634-3600-6	1	SACE E3S32	3200A(ITH) 690V(UE)	10037395	1	TSU INSTALLATION ACCESSORIES	SDSC-REB-1 - PIN-41	64329669	1	NDAT-06	3272 kVA, 2738A/690V	10034345
830 V												
ACA 632-1680-8	1	MG M16H13DPPS	1600A(ITH), 1000V(UE)	10033225	1	TSU INSTALLATION ACCESSORIES	SDSC-REB-1 - PIN-41	64329669				
ACA 632-3100-8	1	MG M25H13DPPS	2500A(ITH) 1000V(UE)	10033233	1	TSU INSTALLATION ACCESSORIES	SDSC-REB-1 - PIN-41	64329669				
ACA 632-3520-8	1	MG M32H13DPPS	3200A(ITH), 1000V(UE)	10033241	1	TSU INSTALLATION ACCESSORIES	SDSC-REB-1 - PIN-41	64329669				
ACA 632-4210-8	1	MG M32H13DPPS	3200A(ITH), 1000V(UE)	10033241	1	TSU INSTALLATION ACCESSORIES	SDSC-REB-1 - PIN-41	64329669				

ACS600 MultiDrive	Modtool		Module1				Module2				Coated Module1		
Section type	Name	Pcs	Type Code	Info	Order Code	Pcs	Type Code	Info	Order Code	Pcs	Type Code	Info	Order Code
400 V			***Diode Supply Unit***								***Diode Supply Unit***		
ACA 631-0140-3	ACN684-0175-5	1	ACN684017550000000A904		10036828					1	ACN684017550000030A905	175kVA 500V 202A(AC)	64234269
ACA 631-0200-3	ACN684-0250-5	1	ACN684025050000000A904		10036861					1	ACN684025050000030A905	250kVA 500V 289A(AC)	64234307
ACA 631-0300-3	ACN684-0375-5	1	ACN684037550000000A904		10036909					1	ACN684037550000030A905	375kVA 500V 433A(AC)	64234005
ACA 631-0420-3	ACN684-0525-5	1	ACN684052550000000A904		10036941					1	ACN684052550000030A905	525kVA 500V 606A(AC)	64234064
ACA 631-0680-3	ACN684-0855-5	1	ACN684085550000000A904		10037077					1	ACN684085550000030A905	850kVA 500V 981A(AC)	64234102
ACA 631-1120-3	ACN684-1405-5	1	ACN684140550000000A904		10037115					1	ACN684140550000030A905	1400kVA 500V 1617A(AC)	64234145
ACA 631-1700-3	ACN684-2120-5	1	ACN684212050000000A904		10031338					1	ACN684212050000300905	2120kVA 500V 2449A(AC)	64234188
ACA 631-2100-3	ACN684-2600-5	1	ACN684260050000000A904		10030056					1	ACN684260050000300905	2475kVA 500V 2858A(AC)	64234196
			4Q Supply Unit								***4Q Supply Unit***		
ACA 632-0140-3	ACN674-0175-5	1	ACN674017550000000A906		64147102					1	ACN674017550000030A907		64233777
ACA 632-0200-3	ACN674-0250-5	1	ACN674025050000000A906		64147170					1	ACN674025050000030A907		64233831
ACA 632-0300-3	ACN674-0375-5	1	ACN674037550000000A906		64147218					1	ACN674037550000030A907		64233882
ACA 632-0420-3	ACN674-0525-5	1	ACN674052550000000A906		64147251					1	ACN674052550000030A907		64233921
ACA 632-0680-3	ACN654/ACN664-0855-5	1	ACN654085550000000A906	850kVA 500V 981A(AC)	64146335	1	ACN664085550000000A900	850kVA 500V 981A(AC)	10036437	1	ACN654085550000030A907	850kVA 500V 981A(AC)	64233581
ACA 632-1120-3	ACN654/ACN664-1405-5	1	ACN654140550000000A906	1400kVA 500V 1617A(AC)	64146378	1	ACN664140550000000A900	1400kVA 500V 1617A(AC)	10036453	1	ACN654140550000030A907	1400kVA 500V 1617A(AC)	64233645
ACA 632-1700-3	ACN654/ACN664-2120-5	1	ACN654212050000000A906	2120kVA 500V 2449A(AC)	64146432	1	ACN664212050000000900	2120kVA 500V 2449A(AC)	10031664	1	ACN654212050000300907	2120kVA 500V 2449A(AC)	64233670
ACA 632-2100-3	ACN654/ACN664-2600-5	1	ACN654260050000000A906	2475kVA 500V 2858A(AC)	64146441	1	ACN664260050000000900	2475kVA 500V 2858A(AC)	10030102	1	ACN654260050000300907	2475kVA 500V 2858A(AC)	64233696
			4Q with Autotransformer								***4Q with Autotransformer***		
ACA 634-0680-3	ACN654/ACN664-0855-5+NDAT-09	1	ACN654085550000000A906	850kVA 500V 981A(AC)	64146335	1	ACN664085550000000A900	850kVA 500V 981A(AC)	10036437	1	ACN654085550000030A907	850kVA 500V 981A(AC)	64233581
ACA 634-1120-3	ACN654/ACN664-1405-5+NDAT-10	1	ACN654140550000000A906	1400kVA 500V 1617A(AC)	64146378	1	ACN664140550000000A900	1400kVA 500V 1617A(AC)	10036453	1	ACN654140550000030A907	1400kVA 500V 1617A(AC)	64233645
ACA 634-1700-3	ACN654/ACN664-2120-5+NDAT-11	1	ACN654212050000000906	2120kVA 500V 2449A(AC)	64146432	1	ACN664212050000000900	2120kVA 500V 2449A(AC)	10031664	1	ACN654212050000300907	2120kVA 500V 2449A(AC)	64233670
ACA 634-2100-3	ACN654/ACN664-2600-5+NDAT-11	1	ACN654260050000000906	2475kVA 500V 2858A(AC)	64146441	1	ACN664260050000000900	2475kVA 500V 2858A(AC)	10030102	1	ACN654260050000300907	2475kVA 500V 2858A(AC)	64233696
380...500 V			***Diode Supply Unit***								***Diode Supply Unit***		
ACA 631-0175-5	ACN684-0175-5	1	ACN684017550000000A904		10036828					1	ACN684017550000030A905	175kVA 500V 202A(AC)	64234269
ACA 631-0250-5	ACN684-0250-5	1	ACN684025050000000A904	250kVA 500V 289A(AC)	10036861					1	ACN684025050000030A905	250kVA 500V 289A(AC)	64234307
ACA 631-0375-5	ACN684-0375-5	1	ACN684037550000000A904	375kVA 500V 433A(AC)	10036909					1	ACN684037550000030A905	375kVA 500V 433A(AC)	64234005
ACA 631-0525-5	ACN684-0525-5	1	ACN684052550000000A904	525kVA 500V 606A(AC)	10036941					1	ACN684052550000030A905	525kVA 500V 606A(AC)	64234064
ACA 631-0850-5	ACN684-0855-5	1	ACN684085550000000A904	850kVA 500V 981A(AC)	10037077					1	ACN684085550000030A905	850kVA 500V 981A(AC)	64234102
ACA 631-1400-5	ACN684-1405-5	1	ACN684140550000000A904	1400kVA 500V 1617A(AC)	10037115					1	ACN684140550000030A905	1400kVA 500V 1617A(AC)	64234145
ACA 631-2120-5	ACN684-2120-5	1	ACN684212050000000A904	2120kVA 500V 2449A(AC)	10031338					1	ACN684212050000300905	2120kVA 500V 2449A(AC)	64234188
ACA 631-2600-5	ACN684-2600-5	1	ACN684260050000000A904	2475kVA 500V 2858A(AC)	10030056					1	ACN684260050000300905	2475kVA 500V 2858A(AC)	64234196
			4Q Supply Unit								***4Q Supply Unit***		
ACA 632-0175-5	ACN674-0175-5	1	ACN674017550000000A906	175kVA 500V 202A(AC)	64147102					1	ACN674017550000030A907		64233777
ACA 632-0250-5	ACN674-0250-5	1	ACN674025050000000A906	250kVA 500V 289A(AC)	64147170					1	ACN674025050000030A907		64233831
ACA 632-0375-5	ACN674-0375-5	1	ACN674037550000000A906	375kVA 500V 433A(AC)	64147218					1	ACN674037550000030A907		64233882
ACA 632-0525-5	ACN674-0525-5	1	ACN674052550000000A906	525kVA 500V 606A(AC)	64147251					1	ACN674052550000030A907		64233921
ACA 632-0850-5	ACN654/ACN664-0855-5	1	ACN654085550000000A906	850kVA 500V 981A(AC)	64146335	1	ACN664085550000000A900	850kVA 500V 981A(AC)	10036437	1	ACN654085550000030A907	850kVA 500V 981A(AC)	64233581
ACA 632-1400-5	ACN654/ACN664-1405-5	1	ACN654140550000000A906	1400kVA 500V 1617A(AC)	64146378	1	ACN664140550000000A900	1400kVA 500V 1617A(AC)	10036453	1	ACN654140550000030A907	1400kVA 500V 1617A(AC)	64233645
ACA 632-2120-5	ACN654/ACN664-2120-5	1	ACN654212050000000A906	2120kVA 500V 2449A(AC)	64146432	1	ACN664212050000000900	2120kVA 500V 2449A(AC)	10031664	1	ACN654212050000300907	2120kVA 500V 2449A(AC)	64233670
ACA 632-2600-5	ACN654/ACN664-2600-5	1	ACN654260050000000A906	2475kVA 500V 2858A(AC)	64146441	1	ACN664260050000000900	2475kVA 500V 2858A(AC)	10030102	1	ACN654260050000300907	2475kVA 500V 2858A(AC)	64233696
			4Q with Autotransformer								***4Q with Autotransformer***		
ACA 634-0850-5	ACN654/ACN664-0855-5+NDAT-04	1	ACN654085550000000A906	850kVA 500V 981A(AC)	64146335	1	ACN664085560000000A900	850kVA 500V 981A(AC)	10036445	1	ACN654085550000030A907	850kVA 500V 981A(AC)	64233581
ACA 634-1400-5	ACN654/ACN664-1405-5+NDAT-05	1	ACN654140550000000A906	1400kVA 500V 1617A(AC)	64146378	1	ACN664140560000000A900	1400kVA 500V 1617A(AC)	10036461	1	ACN654140550000030A907	1400kVA 500V 1617A(AC)	64233645
ACA 634-2120-5	ACN654/ACN664-2120-5+NDAT-06	1	ACN654212050000000906	2120kVA 500V 2449A(AC)	64146432	1	ACN664260060000000900	2120kVA 500V 2449A(AC)	10031826	1	ACN654212050000300907	2120kVA 500V 2449A(AC)	64233670
ACA 634-2600-5	ACN654/ACN664-2600-5+NDAT-06	1	ACN654260050000000906	2475kVA 500V 2858A(AC)	64146441	1	ACN664360060000000900	2475kVA 500V 2858A(AC)	10030030	1	ACN654260050000300907	2475kVA 500V 2858A(AC)	64233696

ACS600 MultiDrive		Coated Module2				DC - reactor				AC - fuse				DC - fuse		
Section type	Pcs	Type Code	Info	Order Code	Pcs	Type	Info	Order Code	Pcs	Type	Info	Order Code	Pcs	Type	Info	Order Code
400 V																
ACA 631-0140-3									3	170M 5806	315A 660V ULTRARAPID	10029481				
ACA 631-0200-3									3	170M 5810	500A 660V ULTRAR.	10012708				
ACA 631-0300-3									3	170M 6812 ZILOX	800A 660V	10003580				
ACA 631-0420-3									3	170M 6814	1000A 690V ULTRARAPID	10030625				
ACA 631-0680-3					1		1980A(IE) 690V(UE) 55UH	61444769								
ACA 631-1120-3					1		1980A(IE) 690V(UE) 55UH	61444769								
ACA 631-1700-3					1		3690A(IE) 690V(UE) 30UH	61444777								
ACA 631-2100-3					1		3690A(IE) 690V(UE) 30UH	61444777								
ACA 632-0140-3									3	170M 5806	315A 660V ULTRARAPID	10029481	1	170M 5140	315A 1250V UR	10032849
ACA 632-0200-3									3	170M 5371	450A 660V ULTRARAPID	10029520	1	170M 5142	400A 1000-1250V UR	10028183
ACA 632-0300-3									3	170M 6206	700A 660V ULTRARAPID	10029538	1	170M 5146	630A 1000-1250V UR	10028191
ACA 632-0420-3									3	170M 6207	900A 660V ULTRARAPID	10029490	1	170M 5148	800A 1250V UR	10032857
ACA 632-0680-3	1	ACN664085550000030A900	850kVA 500V 981A(AC)	64187414	1		1980A(IE) 690V(UE) 55UH	61444769								
ACA 632-1120-3	1	ACN664140550000030A900	1400kVA 500V 1617A(AC)	64159861	1		1980A(IE) 690V(UE) 55UH	61444769								
ACA 632-1700-3	1	ACN664212050000300900	2120kVA 500V 2449A(AC)	64159381	1		3690A(IE) 690V(UE) 30UH	61444777								
ACA 632-2100-3	1	ACN664260050000300900	2475kVA 500V 2858A(AC)	64187422	1		3690A(IE) 690V(UE) 30UH	61444777								
ACA 634-0680-3	1	ACN664085550000030A900	850kVA 500V 981A(AC)	64187414	1		1980A(IE) 690V(UE) 55UH	61444769								
ACA 634-1120-3	1	ACN664140550000030A900	1400kVA 500V 1617A(AC)	64159861	1		1980A(IE) 690V(UE) 55UH	61444769								
ACA 634-1700-3	1	ACN664212050000300900	2120kVA 500V 2449A(AC)	64159381	1		3690A(IE) 690V(UE) 30UH	61444777								
ACA 634-2100-3	1	ACN664260050000300900	2475kVA 500V 2858A(AC)	64187422	1		3690A(IE) 690V(UE) 30UH	61444777								
380...500 V																
ACA 631-0175-5									3	170M 5806	315A 660V ULTRARAPID	10029481				
ACA 631-0250-5									3	170M 5810	500A 660V ULTRAR.	10012708				
ACA 631-0375-5									3	170M 6812 ZILOX	800A 660V	10003580				
ACA 631-0525-5									3	170M 6814	1000A 690V ULTRARAPID	10030625				
ACA 631-0850-5					1		1980A(IE) 690V(UE) 55UH	61444769								
ACA 631-1400-5					1		1980A(IE) 690V(UE) 55UH	61444769								
ACA 631-2120-5					1		3690A(IE) 690V(UE) 30UH	61444777								
ACA 631-2600-5					1		3690A(IE) 690V(UE) 30UH	61444777								
ACA 632-0175-5									3	170M 5806	315A 660V ULTRARAPID	10029481	1	170M 5140	315A 1250V UR	10032849
ACA 632-0250-5									3	170M 5371	450A 660V ULTRARAPID	10029520	1	170M 5142	400A 1000-1250V UR	10028183
ACA 632-0375-5									3	170M 6206	700A 660V ULTRARAPID	10029538	1	170M 5146	630A 1000-1250V UR	10028191
ACA 632-0525-5									3	170M 6207	900A 660V ULTRARAPID	10029490	1	170M 5148	800A 1250V UR	10032857
ACA 632-0850-5	1	ACN664085550000030A900	850kVA 500V 981A(AC)	64187414	1		1980A(IE) 690V(UE) 55UH	61444769								
ACA 632-1400-5	1	ACN664140550000030A900	1400kVA 500V 1617A(AC)	64159861	1		1980A(IE) 690V(UE) 55UH	61444769								
ACA 632-2120-5	1	ACN664212050000300900	2120kVA 500V 2449A(AC)	64159381	1		3690A(IE) 690V(UE) 30UH	61444777								
ACA 632-2600-5	1	ACN664260050000300900	2475kVA 500V 2858A(AC)	64187422	1		3690A(IE) 690V(UE) 30UH	61444777								
ACA 634-0850-5	1	ACN664085550000030A900	850kVA 500V 981A(AC)	64187414	1		1980A(IE) 690V(UE) 55UH	61444769								
ACA 634-1400-5	1	ACN664140550000030A900	1400kVA 500V 1617A(AC)	64159861	1		1980A(IE) 690V(UE) 55UH	61444769								
ACA 634-2120-5	1	ACN664212050000300900	2120kVA 500V 2449A(AC)	64159381	1		3690A(IE) 690V(UE) 30UH	61444777								
ACA 634-2600-5	1	ACN664260050000300900	2475kVA 500V 2858A(AC)	64187422	1		3690A(IE) 690V(UE) 30UH	61444777								

ACS600 MultiDrive		Current transformer				RFI - filter				Digital I/O (TSU)				Coated Digital I/O (TSU)				Main switch		
Section type	Pcs	Type	Info	Order Code	Pcs	Type	Info	Order Code	Pcs	Type	Info	Order Code	Pcs	Type	Info	Order Code	Pcs	Type	Info	Order Code
400 V																				
ACA 631-0140-3					1	B84143-B320-R27	320A(IE) 690V(UE)	10031915									1	OESA 400 D3PL	400A, 690V	61485538
ACA 631-0200-3					1	B84143-B320-R27	320A(IE) 690V(UE)	10031915									1	OESA 400 D3PL	400A, 690V	61485538
ACA 631-0300-3					1	B84143-B600-S21	600A(IE) 690V(UE)	10031923									1	OESA 630 D3PL	630A, 690V	61485546
ACA 631-0420-3					1	B84143-B600-S21	600A(IE) 690V(UE)	10031923									1	OESA 800 D3PL	800A, 690V	61485554
ACA 631-0680-3					1	B84143-B1000-S21	1000A(IE) 690V(UE)	10031931												
ACA 631-1120-3																				
ACA 631-1700-3																				
ACA 631-2100-3																				
ACA 632-0140-3	2	HF3B 300/1A, 741B0037		10028418					1	SDCS-IOB-22 KIT	115V 60 Hz	64124358	1	SDCS-IOB-22C KIT	115V 60 Hz	64349716	1	OESA 400 D3PL	400A, 690V	61485538
ACA 632-0200-3	2	HF3B 300/1A, 741B0037		10028418					1	SDCS-IOB-22 KIT	115V 60 Hz	64124358	1	SDCS-IOB-22C KIT	115V 60 Hz	64349716	1	OESA 400 D3PL	400A, 690V	61485538
ACA 632-0300-3	2	HF3B 600/1A: 741B0040		10012155					1	SDCS-IOB-22 KIT	115V 60 Hz	64124358	1	SDCS-IOB-22C KIT	115V 60 Hz	64349716	1	OESA 630 D3PL	630A, 690V	61485546
ACA 632-0420-3	2	HF3B 600/1A: 741B0040		10012155					1	SDCS-IOB-22 KIT	115V 60 Hz	64124358	1	SDCS-IOB-22C KIT	115V 60 Hz	64349716	1	OESA 800 D3PL	800A, 690V	61485554
ACA 632-0680-3	2	HF6 2000/1A, 741F0037		10028434					1	SDCS-IOB-22 KIT	115V 60 Hz	64124358	1	SDCS-IOB-22C KIT	115V 60 Hz	64349716				
ACA 632-1120-3	2	HF6 2000/1A, 741F0037		10028434					1	SDCS-IOB-22 KIT	115V 60 Hz	64124358	1	SDCS-IOB-22C KIT	115V 60 Hz	64349716				
ACA 632-1700-3	2	HF6 3000/1A 741F0039		35079025					1	SDCS-IOB-22 KIT	115V 60 Hz	64124358	1	SDCS-IOB-22C KIT	115V 60 Hz	64349716				
ACA 632-2100-3	2	HF6 3000/1A 741F0039		35079025					1	SDCS-IOB-22 KIT	115V 60 Hz	64124358	1	SDCS-IOB-22C KIT	115V 60 Hz	64349716				
ACA 634-0680-3	2	HF6 2000/1A, 741F0037		10028434					1	SDCS-IOB-22 KIT	115V 60 Hz	64124358	1	SDCS-IOB-22C KIT	115V 60 Hz	64349716				
ACA 634-1120-3	2	HF6 2000/1A, 741F0037		10028434					1	SDCS-IOB-22 KIT	115V 60 Hz	64124358	1	SDCS-IOB-22C KIT	115V 60 Hz	64349716				
ACA 634-1700-3	2	HF6 3000/1A 741F0039		35079025					1	SDCS-IOB-22 KIT	115V 60 Hz	64124358	1	SDCS-IOB-22C KIT	115V 60 Hz	64349716				
ACA 634-2100-3	2	HF6 3000/1A 741F0039		35079025					1	SDCS-IOB-22 KIT	115V 60 Hz	64124358	1	SDCS-IOB-22C KIT	115V 60 Hz	64349716				
380...500 V																				
ACA 631-0175-5					1	B84143-B320-R27	320A(IE) 690V(UE)	10031915									1	OESA 400 D3PL	400A, 690V	61485538
ACA 631-0250-5					1	B84143-B320-R27	320A(IE) 690V(UE)	10031915									1	OESA 400 D3PL	400A, 690V	61485538
ACA 631-0375-5					1	B84143-B600-S21	600A(IE) 690V(UE)	10031923									1	OESA 630 D3PL	630A, 690V	61485546
ACA 631-0525-5					1	B84143-B600-S21	600A(IE) 690V(UE)	10031923									1	OESA 800 D3PL	800A, 690V	61485554
ACA 631-0850-5					1	B84143-B1000-S21	1000A(IE) 690V(UE)	10031931												
ACA 631-1400-5																				
ACA 631-2120-5																				
ACA 631-2600-5																				
ACA 632-0175-5	2	HF3B 300/1A, 741B0037		10028418					1	SDCS-IOB-22 KIT	115V 60 Hz	64124358	1	SDCS-IOB-22C KIT	115V 60 Hz	64349716	1	OESA 400 D3PL	400A, 690V	61485538
ACA 632-0250-5	2	HF3B 300/1A, 741B0037		10028418					1	SDCS-IOB-22 KIT	115V 60 Hz	64124358	1	SDCS-IOB-22C KIT	115V 60 Hz	64349716	1	OESA 400 D3PL	400A, 690V	61485538
ACA 632-0375-5	2	HF3B 600/1A: 741B0040		10012155					1	SDCS-IOB-22 KIT	115V 60 Hz	64124358	1	SDCS-IOB-22C KIT	115V 60 Hz	64349716	1	OESA 630 D3PL	630A, 690V	61485546
ACA 632-0525-5	2	HF3B 600/1A: 741B0040		10012155					1	SDCS-IOB-22 KIT	115V 60 Hz	64124358	1	SDCS-IOB-22C KIT	115V 60 Hz	64349716	1	OESA 800 D3PL	800A, 690V	61485554
ACA 632-0850-5	2	HF6 2000/1A, 741F0037		10028434					1	SDCS-IOB-22 KIT	115V 60 Hz	64124358	1	SDCS-IOB-22C KIT	115V 60 Hz	64349716				
ACA 632-1400-5	2	HF6 2000/1A, 741F0037		10028434					1	SDCS-IOB-22 KIT	115V 60 Hz	64124358	1	SDCS-IOB-22C KIT	115V 60 Hz	64349716				
ACA 632-2120-5	2	HF6 3000/1A 741F0039		35079025					1	SDCS-IOB-22 KIT	115V 60 Hz	64124358	1	SDCS-IOB-22C KIT	115V 60 Hz	64349716				
ACA 632-2600-5	2	HF6 3000/1A 741F0039		35079025					1	SDCS-IOB-22 KIT	115V 60 Hz	64124358	1	SDCS-IOB-22C KIT	115V 60 Hz	64349716				
ACA 634-0850-5	2	HF6 2000/1A, 741F0037		10028434					1	SDCS-IOB-22 KIT	115V 60 Hz	64124358	1	SDCS-IOB-22C KIT	115V 60 Hz	64349716				
ACA 634-1400-5	2	HF6 2000/1A, 741F0037		10028434					1	SDCS-IOB-22 KIT	115V 60 Hz	64124358	1	SDCS-IOB-22C KIT	115V 60 Hz	64349716				
ACA 634-2120-5	2	HF6 3000/1A 741F0039		35079025					1	SDCS-IOB-22 KIT	115V 60 Hz	64124358	1	SDCS-IOB-22C KIT	115V 60 Hz	64349716				
ACA 634-2600-5	2	HF6 3000/1A 741F0039		35079025					1	SDCS-IOB-22 KIT	115V 60 Hz	64124358	1	SDCS-IOB-22C KIT	115V 60 Hz	64349716				

ACS600 MultiDrive		Main contactor/Main circuit breaker				Installation Accessories (TSU)				Autotransformer(TSU)		
Section type	Pcs	Type	Info	Order Code	Pcs	Type	Info	Order Code	Pcs	Type	Info	Order Code
400 V												
ACA 631-0140-3	1	EH 175-30-21 EG		64081128								
ACA 631-0200-3	1	EH 210-30-21 EG		64081144								
ACA 631-0300-3	1	EH 370-30-22 EG		64081152								
ACA 631-0420-3	1	EH 550-30-22 EG		64081357								
ACA 631-0680-3	1	SACE E3S12	1250A(ITH) 690V(UE)	64039652								
ACA 631-1120-3	1	SACE E3S20	2000A(ITH) 690V(UE)	64039636								
ACA 631-1700-3	1	SACE E3S32	3200A(ITH) 690V(UE)	64086511								
ACA 631-2100-3	1	SACE E3S32	3200A(ITH) 690V(UE)	64086511								
ACA 632-0140-3	1	EH 175-30-21 EG		64081128								
ACA 632-0200-3	1	EH 210-30-21 EG		64081144								
ACA 632-0300-3	1	EH 370-30-22 EG		64081152								
ACA 632-0420-3	1	EH 550-30-22 EG		64081357								
ACA 632-0680-3	1	SACE E3S12	1250A(ITH) 690V(UE)	64039652	1	TSU INSTALLATION ACCESSORIES	SDSC-REB-1 - PIN-41	64329669				
ACA 632-1120-3	1	SACE E3S20	2000A(ITH) 690V(UE)	64039636	1	TSU INSTALLATION ACCESSORIES	SDSC-REB-1 - PIN-41	64329669				
ACA 632-1700-3	1	SACE E3S32	3200A(ITH) 690V(UE)	64086511	1	TSU INSTALLATION ACCESSORIES	SDSC-REB-1 - PIN-41	64329669				
ACA 632-2100-3	1	SACE E3S32	3200A(ITH) 690V(UE)	64086511	1	TSU INSTALLATION ACCESSORIES	SDSC-REB-1 - PIN-41	64329669				
ACA 634-0680-3	1	SACE E3S12	1250A(ITH) 690V(UE)	64039652	1	TSU INSTALLATION ACCESSORIES	SDSC-REB-1 - PIN-41	64329669	1	NDAT-09	677 kVA, 942A/415V	10037191
ACA 634-1120-3	1	SACE E3S20	2000A(ITH) 690V(UE)	64039636	1	TSU INSTALLATION ACCESSORIES	SDSC-REB-1 - PIN-41	64329669	1	NDAT-10	1115 kVA, 1552A/415V	10037204
ACA 634-1700-3	1	SACE E3S32	3200A(ITH) 690V(UE)	64086511	1	TSU INSTALLATION ACCESSORIES	SDSC-REB-1 - PIN-41	64329669	1	NDAT-11	1859 kVA, 2587A/415V	10037212
ACA 634-2100-3	1	SACE E3S32	3200A(ITH) 690V(UE)	64086511	1	TSU INSTALLATION ACCESSORIES	SDSC-REB-1 - PIN-41	64329669	1	NDAT-11	1859 kVA, 2587A/415V	10037212
380...500 V												
ACA 631-0175-5	1	EH 175-30-21 EG		64081128								
ACA 631-0250-5	1	EH 210-30-21 EG		64081144								
ACA 631-0375-5	1	EH 370-30-22 EG		64081152								
ACA 631-0525-5	1	EH 550-30-22 EG		64081357								
ACA 631-0850-5	1	SACE E3S12	1250A(ITH) 690V(UE)	64039652								
ACA 631-1400-5	1	SACE E3S20	2000A(ITH) 690V(UE)	64039636								
ACA 631-2120-5	1	SACE E3S32	3200A(ITH) 690V(UE)	64086511								
ACA 631-2600-5	1	SACE E3S32	3200A(ITH) 690V(UE)	64086511								
ACA 632-0175-5	1	EH 175-30-21 EG		64081128								
ACA 632-0250-5	1	EH 210-30-21 EG		64081144								
ACA 632-0375-5	1	EH 370-30-22 EG		64081152								
ACA 632-0525-5	1	EH 550-30-22 EG		64081357								
ACA 632-0850-5	1	SACE E3S12	1250A(ITH) 690V(UE)	64039652	1	TSU INSTALLATION ACCESSORIES	SDSC-REB-1 - PIN-41	64329669				
ACA 632-1400-5	1	SACE E3S20	2000A(ITH) 690V(UE)	64039636	1	TSU INSTALLATION ACCESSORIES	SDSC-REB-1 - PIN-41	64329669				
ACA 632-2120-5	1	SACE E3S32	3200A(ITH) 690V(UE)	64086511	1	TSU INSTALLATION ACCESSORIES	SDSC-REB-1 - PIN-41	64329669				
ACA 632-2600-5	1	SACE E3S32	3200A(ITH) 690V(UE)	64086511	1	TSU INSTALLATION ACCESSORIES	SDSC-REB-1 - PIN-41	64329669				
ACA 634-0850-5	1	SACE E3S12	1250A(ITH) 690V(UE)	64039652	1	TSU INSTALLATION ACCESSORIES	SDSC-REB-1 - PIN-41	64329669	1	NDAT-04	1126 kVA, 942A/690V	10034329
ACA 634-1400-5	1	SACE E3S20	2000A(ITH) 690V(UE)	64039636	1	TSU INSTALLATION ACCESSORIES	SDSC-REB-1 - PIN-41	64329669	1	NDAT-05	1855 kVA, 1552A/690V	10034337
ACA 634-2120-5	1	SACE E3S32	3200A(ITH) 690V(UE)	64086511	1	TSU INSTALLATION ACCESSORIES	SDSC-REB-1 - PIN-41	64329669	1	NDAT-06	3272 kVA, 2738A/690V	10034345
ACA 634-2600-5	1	SACE E3S32	3200A(ITH) 690V(UE)	64086511	1	TSU INSTALLATION ACCESSORIES	SDSC-REB-1 - PIN-41	64329669	1	NDAT-06	3272 kVA, 2738A/690V	10034345

ACS600 MultiDrive	Modtool		Module1				Module2				Coated Module1		
Section type	Name	Pcs	Type Code	Info	Order Code	Pcs	Type Code	Info	Order Code	Pcs	Type Code	Info	Order Code
525...690 V			***Diode Supply Unit***								***Diode Supply Unit***		
ACA 631-0090-6	ACN684-0090-6	1	ACN6840090600000000A904	90kVA 690V 75A(AC)	10036801					1	ACN684009060000030A905	90kVA 690V 75A(AC)	64234242
ACA 631-0175-6	ACN684-0175-6	1	ACN6840175600000000A904	175kVA 690V 146A(AC)	10036844					1	ACN684017560000030A905	175kVA 690V 146A(AC)	64234285
ACA 631-0250-6	ACN684-0250-6	1	ACN6840250600000000A904	250kVA 690V 209A(AC)	10036887					1	ACN684025060000030A905	250kVA 690V 209A(AC)	64234323
ACA 631-0375-6	ACN684-0375-6	1	ACN6840375600000000A904	375kVA 690V 314A(AC)	10036925					1	ACN684037560000030A905	375kVA 690V 314A(AC)	64234048
ACA 631-0525-6	ACN684-0525-6	1	ACN6840525600000000A904	525kVA 690V 439A(AC)	10035066					1	ACN684052560000030A905	525kVA 690V 439A(AC)	64234081
ACA 631-0850-6	ACN684-0855-6	1	ACN6840855600000000A904	850kVA 690V 711A(AC)	10037093					1	ACN684085560000030A905	850kVA 690V 711A(AC)	64234129
ACA 631-1400-6	ACN684-1405-6	1	ACN6841405600000000A904	1400kVA 690V 1171A(AC)	10037131					1	ACN684140560000030A905	1400kVA 690V 1171A(AC)	64234170
ACA 631-2600-6	ACN684-2600-6	1	ACN6842600600000000A904	2600kVA 690V 2176A(AC)	10030285					1	ACN684260060000300905	2600kVA 690V 2176A(AC)	64234200
ACA 631-3600-6	ACN684-3600-6	1	ACN6843600600000000A904	3415kVA 690V 2858A(AC)	10030234					1	ACN684360060000300905	3415kVA 690V 2858A(AC)	64234218
			4Q Supply Unit								***4Q Supply Unit***		
ACA 632-0090-6	ACN674-0090-6	1	ACN6740090600000000A906	90kVA 690V 75A(AC)	64145746						ACN674009060000030A907	90kVA 690V 75A(AC)	64233751
ACA 632-0175-6	ACN674-0175-6	1	ACN6740175600000000A906	175kVA 690V 146A(AC)	64146173					1	ACN674017560000030A907	175kVA 690V 146A(AC)	64233807
ACA 632-0250-6	ACN674-0250-6	1	ACN6740250600001000A906	250kVA 690V 209A(AC)	64146211					1	ACN674025060000030A907	250kVA 690V 209A(AC)	64233858
ACA 632-0375-6	ACN674-0375-6	1	ACN6740375600000000A906	375kVA 690V 314A(AC)	64146262					1	ACN674037560000030A907	375kVA 690V 314A(AC)	64233904
ACA 632-0525-6	ACN674-0525-6	1	ACN6740525600000000A906	525kVA 690V 439A(AC)	64146319					1	ACN674052560000030A907	525kVA 690V 439A(AC)	64233947
ACA 632-0850-6	ACN654/ACN664-0855-6	1	ACN6540855600000000A906	850kVA 690V 711A(AC)	64146351	1	ACN6640855600000000A900	850kVA 690V 711A(AC)	10036445	1	ACN654085560000030A907	850kVA 690V 711A(AC)	64233611
ACA 632-1400-6	ACN654/ACN664-1405-6	1	ACN6541405600000000A906	1400kVA 690V 1171A(AC)	64146394	1	ACN6641405600000000A900	1400kVA 690V 1171A(AC)	10036461	1	ACN654140560000030A907	1400kVA 690V 1171A(AC)	64233661
ACA 632-2600-6	ACN654/ACN664-2600-6	1	ACN6542600600000000906	2600kVA 690V 2176A(AC)	64146459	1	ACN6642600600000000900	2600kVA 690V 2176A(AC)	10031826	1	ACN654260060000300907	2600kVA 690V 2176A(AC)	64233700
ACA 632-3600-6	ACN654/ACN664-3600-6	1	ACN6543600600010000906	3415kVA 690V 2858A(AC)	64146483	1	ACN6643600600000000900	3415kVA 690V 2858A(AC)	10030030	1	ACN654360060000300907	3415kVA 690V 2858A(AC)	64233726
			4Q with Autotransformer								***4Q with Autotransformer***		
ACA 634-0850-6	ACN654/ACN664-0855-6+NDAT-04	1	ACN6540855600000000A906	850kVA 690V 711A(AC)	64146351	1	ACN6641685800000000A900	850kVA 690V 711A(AC)	10036470	1	ACN654085560000030A907	850kVA 690V 711A(AC)	64233611
ACA 634-1400-6	ACN654/ACN664-1405-6+NDAT-04	1	ACN6541405600000000A906	1400kVA 690V 1171A(AC)	64146394	1	ACN6641685800000000A900	1400kVA 690V 1171A(AC)	10036470	1	ACN654140560000030A907	1400kVA 690V 1171A(AC)	64233661
ACA 634-2600-6	ACN654/ACN664-2600-6+NDAT-06	1	ACN6542600600000000906	2600kVA 690V 2176A(AC)	64146459	1	ACN6643100800000000900	2600kVA 690V 2176A(AC)	10033136	1	ACN654260060000300907	2600kVA 690V 2176A(AC)	64233700
ACA 634-3600-6	ACN654/ACN664-3600-6+NDAT-06	1	ACN6543600600010000906	3415kVA 690V 2858A(AC)	64146483	1	ACN6643520800000000900	3415kVA 690V 2858A(AC)	10033161	1	ACN654360060000300907	3415kVA 690V 2858A(AC)	64233726
830 V			***4Q Supply Unit***								***4Q Supply Unit***		
ACA 632-1680-8	ACN654/ACN664-1685-8	1	ACN6541685800000000A906	1680kVA 830V 1169A(AC)	64146424	1	ACN6641685800000000A900	1680kVA 830V 1169A(AC)	10036470	1	ACN654168580000030A906	1680kVA 830V 1169A(AC)	64186825
ACA 632-3100-8	ACN654/ACN664-3100-8	1	ACN6543100800000000906	3100kVA 830V 2156A(AC)	64146467	1	ACN6643100800000000900	3100kVA 830V 2156A(AC)	10033136	1	ACN654310080000300906	3100kVA 830V 2156A(AC)	64186833
ACA 632-3520-8	ACN654/ACN664-3520-8	1	ACN6543520800000000906	3520kVA 830V 2449A(AC)	64146475	1	ACN6643520800000000900	3520kVA 830V 2449A(AC)	10033161	1	ACN654352080000300906	3520kVA 830V 2449A(AC)	64186850
ACA 632-4210-8	ACN654/ACN664-4310-8	1	ACN6544310800000000906	4110kVA 830V 2858A(AC)	64146491	1	ACN6644310800000000900	4110kVA 830V 2858A(AC)	10033195	1	ACN654431080000300906	4110kVA 830V 2858A(AC)	64186868

ACS600 MultiDrive		Coated Module2				DC - reactor				AC - fuse				DC - fuse		
Section type	Pcs	Type Code	Info	Order Code	Pcs	Type	Info	Order Code	Pcs	Type	Info	Order Code	Pcs	Type	Info	Order Code
525...690 V																
ACA 631-0090-6									3	170M 5804	200A 690V ULTRARAPID	10029511				
ACA 631-0175-6									3	170M 5804	200A 690V ULTRARAPID	10029511				
ACA 631-0250-6									3	170M 3818	350A 660V DIN1*	10028582				
ACA 631-0375-6									3	170M 5812 ZILOX	630A 660V	10003555				
ACA 631-0525-6									3	170M 6812 ZILOX	800A 660V	10003580				
ACA 631-0850-6					1		1980A(IE) 690V(UE) 55UH	61444769								
ACA 631-1400-6					1		1980A(IE) 690V(UE) 55UH	61444769								
ACA 631-2600-6					1		3690A(IE) 690V(UE) 30UH	61444777								
ACA 631-3600-6					1		3690A(IE) 690V(UE) 30UH	61444777								
ACA 632-0090-6									3	170M 4700	200A 1000-1250V UR	10001731	1	170M 4139	200A 1250V UR	10032865
ACA 632-0175-6									3	170M 4700	200A 1000-1250V UR	10001731	1	170M 4139	200A 1250V UR	10032865
ACA 632-0250-6									3	170M 5403	315A 1000-1250V UR	10001749	1	170M 5140	315A 1250V UR	10032849
ACA 632-0375-6									3	170M 5404	400A 1000-1250V UR	10001757	1	170M 5142	400A 1000-1250V UR	10028183
ACA 632-0525-6									3	170M 6205	630A 1000-1250V UR	10001773	1	170M 5146	630A 1000-1250V UR	10028191
ACA 632-0850-6	1	ACN664085560000030A900	850kVA 690V 711A(AC)	64187538	1		1980A(IE) 690V(UE) 55UH	61444769								
ACA 632-1400-6	1	ACN664140560000030A900	1400kVA 690V 1171A(AC)	64187562	1		1980A(IE) 690V(UE) 55UH	61444769								
ACA 632-2600-6	1	ACN664260060000300900	2600kVA 690V 2176A(AC)	64187571	1		3690A(IE) 690V(UE) 30UH	61444777								
ACA 632-3600-6	1	ACN664360060000300900	3415kVA 690V 2858A(AC)	64187589	1		3690A(IE) 690V(UE) 30UH	61444777								
ACA 634-0850-6	1	ACN664168580000030A900	850kVA 690V 711A(AC)	64187601	1		1980A(IE) 690V(UE) 55UH	61444769								
ACA 634-1400-6	1	ACN664168580000030A900	1400kVA 690V 1171A(AC)	64187601	1		1980A(IE) 690V(UE) 55UH	61444769								
ACA 634-2600-6	1	ACN664310080000300900	2600kVA 690V 2176A(AC)	64187619	1		3690A(IE) 690V(UE) 30UH	61444777								
ACA 634-3600-6	1	ACN664352080000300900	3415kVA 690V 2858A(AC)	64187627	1		3690A(IE) 690V(UE) 30UH	61444777								
830 V																
ACA 632-1680-8	1	ACN664168580000030A900	1680kVA 830V 1169A(AC)	64187601	1		1980A(IE) 690V(UE) 55UH	61444769								
ACA 632-3100-8	1	ACN664310080000300900	3100kVA 830V 2156A(AC)	64187619	1		3690A(IE) 690V(UE) 30UH	61444777								
ACA 632-3520-8	1	ACN664352080000300900	3520kVA 830V 2449A(AC)	64187627	1		3690A(IE) 690V(UE) 30UH	61444777								
ACA 632-4210-8	1	ACN664431080000300900	4110kVA 830V 2858A(AC)	64187635	1		3690A(IE) 690V(UE) 30UH	61444777								

ACS600 MultiDrive		Current transformer				RFI - filter				Digital I/O (TSU)				Coated Digital I/O (TSU)				Main switch		
Section type	Pcs	Type	Info	Order Code	Pcs	Type	Info	Order Code	Pcs	Type	Info	Order Code	Pcs	Type	Info	Order Code	Pcs	Type	Info	Order Code
525...690 V																				
ACA 631-0090-6					1	B84143-B320-R27	320A(IE) 690V(UE)	10031915									1	OESA 250D3PL	250A, 690V	61485384
ACA 631-0175-6					1	B84143-B320-R27	320A(IE) 690V(UE)	10031915									1	OESA 250D3PL	250A, 690V	61485384
ACA 631-0250-6					1	B84143-B320-R27	320A(IE) 690V(UE)	10031915									1	OESA 400 D3PL	400A, 690V	61485538
ACA 631-0375-6					1	B84143-B600-S21	600A(IE) 690V(UE)	10031923									1	OESA 400 D3PL	400A, 690V	61485538
ACA 631-0525-6					1	B84143-B600-S21	600A(IE) 690V(UE)	10031923									1	OESA 630 D3PL	630A, 690V	61485546
ACA 631-0850-6					1	B84143-B1000-S21	1000A(IE) 690V(UE)	10031931									1	OESA 800 D3PL	800A, 690V	61485554
ACA 631-1400-6																				
ACA 631-2600-6																				
ACA 631-3600-6																				
ACA 632-0090-6	2	HF3B 300/1A, 741B0037		10028418					1	SDCS-IOB-22 KIT	115V 60 Hz	64124358	1	SDCS-IOB-22C KIT	115V 60 Hz	64349716	1	OESA 250D3PL	250A, 690V	61485384
ACA 632-0175-6	2	HF3B 300/1A, 741B0037		10028418					1	SDCS-IOB-22 KIT	115V 60 Hz	64124358	1	SDCS-IOB-22C KIT	115V 60 Hz	64349716	1	OESA 250D3PL	250A, 690V	61485384
ACA 632-0250-6	2	HF3B 300/1A, 741B0037		10028418					1	SDCS-IOB-22 KIT	115V 60 Hz	64124358	1	SDCS-IOB-22C KIT	115V 60 Hz	64349716	1	OESA 400 D3PL	400A, 690V	61485538
ACA 632-0375-6	2	HF3B 600/1A: 741B0040		10012155					1	SDCS-IOB-22 KIT	115V 60 Hz	64124358	1	SDCS-IOB-22C KIT	115V 60 Hz	64349716	1	OESA 400 D3PL	400A, 690V	61485538
ACA 632-0525-6	2	HF3B 600/1A: 741B0040		10012155					1	SDCS-IOB-22 KIT	115V 60 Hz	64124358	1	SDCS-IOB-22C KIT	115V 60 Hz	64349716	1	OESA 630 D3PL	630A, 690V	61485546
ACA 632-0850-6	2	HF6 2000/1A, 741F0037		10028434					1	SDCS-IOB-22 KIT	115V 60 Hz	64124358	1	SDCS-IOB-22C KIT	115V 60 Hz	64349716	1	OESA 800 D3PL	800A, 690V	61485554
ACA 632-1400-6	2	HF6 2000/1A, 741F0037		10028434					1	SDCS-IOB-22 KIT	115V 60 Hz	64124358	1	SDCS-IOB-22C KIT	115V 60 Hz	64349716				
ACA 632-2600-6	2	HF6 3000/1A 741F0039		35079025					1	SDCS-IOB-22 KIT	115V 60 Hz	64124358	1	SDCS-IOB-22C KIT	115V 60 Hz	64349716				
ACA 632-3600-6	2	HF6 3000/1A 741F0039		35079025					1	SDCS-IOB-22 KIT	115V 60 Hz	64124358	1	SDCS-IOB-22C KIT	115V 60 Hz	64349716				
ACA 634-0850-6	2	HF6 2000/1A, 741F0037		10028434					1	SDCS-IOB-22 KIT	115V 60 Hz	64124358	1	SDCS-IOB-22C KIT	115V 60 Hz	64349716				
ACA 634-1400-6	2	HF6 2000/1A, 741F0037		10028434					1	SDCS-IOB-22 KIT	115V 60 Hz	64124358	1	SDCS-IOB-22C KIT	115V 60 Hz	64349716				
ACA 634-2600-6	2	HF6 3000/1A 741F0039		35079025					1	SDCS-IOB-22 KIT	115V 60 Hz	64124358	1	SDCS-IOB-22C KIT	115V 60 Hz	64349716				
ACA 634-3600-6	2	HF6 3000/1A 741F0039		35079025					1	SDCS-IOB-22 KIT	115V 60 Hz	64124358	1	SDCS-IOB-22C KIT	115V 60 Hz	64349716				
830 V																				
ACA 632-1680-8	2	HF6 2000/1A, 741F0037		10028434					1	SDCS-IOB-22 KIT	115V 60 Hz	64124358	1	SDCS-IOB-22C KIT	115V 60 Hz	64349716				
ACA 632-3100-8	2	HF6 3000/1A 741F0039		35079025					1	SDCS-IOB-22 KIT	115V 60 Hz	64124358	1	SDCS-IOB-22C KIT	115V 60 Hz	64349716				
ACA 632-3520-8	2	HF6 3000/1A 741F0039		35079025					1	SDCS-IOB-22 KIT	115V 60 Hz	64124358	1	SDCS-IOB-22C KIT	115V 60 Hz	64349716				
ACA 632-4210-8	2	HF6 3000/1A 741F0039		35079025					1	SDCS-IOB-22 KIT	115V 60 Hz	64124358	1	SDCS-IOB-22C KIT	115V 60 Hz	64349716				

ACS600 MultiDrive		Main contactor/Main circuit breaker				Installation Accessories (TSU)				Autotransformer(TSU)		
Section type	Pcs	Type	Info	Order Code	Pcs	Type	Info	Order Code	Pcs	Type	Info	Order Code
525...690 V												
ACA 631-0090-6	1	EH 175-30-21 EG		64081128								
ACA 631-0175-6	1	EH 175-30-21 EG		64081128								
ACA 631-0250-6	1	EH 175-30-21 EG		64081128								
ACA 631-0375-6	1	EH 370-30-22 EG		64081152								
ACA 631-0525-6	1	EH 370-30-22 EG		64081152								
ACA 631-0850-6	1	EH 550-30-22 EG		64081357								
ACA 631-1400-6	1	SACE E3S20	2000A(ITH) 690V(UE)	64039636								
ACA 631-2600-6	1	SACE E3S32	3200A(ITH) 690V(UE)	64086511								
ACA 631-3600-6	1	SACE E3S32	3200A(ITH) 690V(UE)	64086511								
ACA 632-0090-6	1	EH 175-30-21 EG		64081128								
ACA 632-0175-6	1	EH 175-30-21 EG		64081128								
ACA 632-0250-6	1	EH 175-30-21 EG		64081128								
ACA 632-0375-6	1	EH 370-30-22 EG		64081152								
ACA 632-0525-6	1	EH 370-30-22 EG		64081152								
ACA 632-0850-6	1	EH 550-30-22 EG		64081357	1	TSU INSTALLATION ACCESSORIES	SDSC-REB-1 - PIN-41	64329669				
ACA 632-1400-6	1	SACE E3S20	2000A(ITH) 690V(UE)	64039636	1	TSU INSTALLATION ACCESSORIES	SDSC-REB-1 - PIN-41	64329669				
ACA 632-2600-6	1	SACE E3S32	3200A(ITH) 690V(UE)	64086511	1	TSU INSTALLATION ACCESSORIES	SDSC-REB-1 - PIN-41	64329669				
ACA 632-3600-6	1	SACE E3S32	3200A(ITH) 690V(UE)	64086511	1	TSU INSTALLATION ACCESSORIES	SDSC-REB-1 - PIN-41	64329669				
ACA 634-0850-6	1	SACE E3S12	1250A(ITH) 690V(UE)	64039652	1	TSU INSTALLATION ACCESSORIES	SDSC-REB-1 - PIN-41	64329669	1	NDAT-04	1126 kVA, 942A/690V	10034329
ACA 634-1400-6	1	SACE E3S20	2000A(ITH) 690V(UE)	64039636	1	TSU INSTALLATION ACCESSORIES	SDSC-REB-1 - PIN-41	64329669	1	NDAT-04	1126 kVA, 942A/690V	10034329
ACA 634-2600-6	1	SACE E3S32	3200A(ITH) 690V(UE)	64086511	1	TSU INSTALLATION ACCESSORIES	SDSC-REB-1 - PIN-41	64329669	1	NDAT-06	3272 kVA, 2738A/690V	10034345
ACA 634-3600-6	1	SACE E3S32	3200A(ITH) 690V(UE)	64086511	1	TSU INSTALLATION ACCESSORIES	SDSC-REB-1 - PIN-41	64329669	1	NDAT-06	3272 kVA, 2738A/690V	10034345
830 V												
ACA 632-1680-8	1	MG M16H13DPPS	1600A(ITH), 1000V(UE)	64106431	1	TSU INSTALLATION ACCESSORIES	SDSC-REB-1 - PIN-41	64329669				
ACA 632-3100-8	1	MG M25H13DPPS	2500A(ITH) 1000V(UE)	64106449	1	TSU INSTALLATION ACCESSORIES	SDSC-REB-1 - PIN-41	64329669				
ACA 632-3520-8	1	MG M32H13DPPS	3200A(ITH), 1000V(UE)	64106422	1	TSU INSTALLATION ACCESSORIES	SDSC-REB-1 - PIN-41	64329669				
ACA 632-4210-8	1	MG M32H13DPPS	3200A(ITH), 1000V(UE)	64106422	1	TSU INSTALLATION ACCESSORIES	SDSC-REB-1 - PIN-41	64329669				

ACS600 MultiDrive	Modtool		Module				Module (coated cards)				AC - Filter		
Section type	Name	Pcs	Type Code	Info	Order Code	Pcs	Type Code	Info	Order Code	Pcs	Type	Info	Order Code
400 V			*IGBT Supply Unit*				*IGBT Supply Unit*						
ACA 635-0060-3	ISU-0060-3	1	ACN6340060300000000900	60kVA 400V 89A(AC)	64118561	1	ACN6340060300000300900	60kVA 400V 89A(AC)	64188267	1	ISUL_5R7I	400/500V:840UH/243A 179ARMS	64408119
ACA 635-0070-3	ISU-0070-3	1	ACN6340070300000000900	70kVA 400V 112A(AC)	64118641	1	ACN6340070300000300900	70kVA 400V 112A(AC)	64188283	1	ISUL_5R7I	400/500V:840UH/243A 179ARMS	64408119
ACA 635-0100-3	ISU-0100-3	1	ACN6340100300000000900	100kVA 400V 147A(AC)	64118722	1	ACN6340100300000300900	100kVA 400V 147A(AC)	64188381	1	ISUL_5R7I	400/500V:840UH/243A 179ARMS	64408119
ACA 635-0120-3	ISU-0120-3	1	ACN6340120300000000900	120kVA 400V 178A(AC)	64118765	1	ACN6340120300000300900	120kVA 400V 178A(AC)	64188402	1	ISUL_5R7I	400/500V:840UH/243A 179ARMS	64408119
ACA 635-0185-3	ISU-0185-3	1	ACN6340185300000000900	180kVA 400V 259A(AC)	64120786	1	ACN6340185300000300900	180kVA 400V 259A(AC)	64188500	1	ISUL_5R8I	400/500V:494UH/492A 370ARMS	64041398
ACA 635-0225-3	ISU-0225-3	1	ACN6340225300000000900	220kVA 400V 312A(AC)	64120859	1	ACN6340225300000300900	220kVA 400V 312A(AC)	64188526	1	ISUL_5R8I	400/500V:494UH/492A 370ARMS	64041398
ACA 635-0265-3	ISU-0265-3	1	ACN6340265300000000900	260kVA 400V 379A(AC)	64120905	1	ACN6340265300000300900	260kVA 400V 379A(AC)	64188542	1	ISUL_5R8I	400/500V:494UH/492A 370ARMS	64041398
ACA 635-0335-3	ISU-0335-3	1	ACN6340335300000000900	330kVA 400V 474A(AC)	64120999	1	ACN6340335300000300900	330kVA 400V 474A(AC)	64188704	1	ISUL_5R9I	400/500V:320UH/756A 568ARMS	64041428
ACA 635-0405-3	ISU-0405-3	1	ACN6340405300000000900	400kVA 400V 576A(AC)	64121073	1	ACN6340405300000300900	400kVA 400V 576A(AC)	64188721	1	ISUL_5R9I	400/500V:320UH/756A 568ARMS	64041428
ACA 635-0505-3	ISU-0505-3	1	ACN6340505300000000900	500kVA 400V 720A(AC)	64123564	1	ACN6340505300000300900	500kVA 400V 720A(AC)	64188828	1	ISUL_5R10I	400/500V:260UH/936A 703ARMS	64152971
ACA 635-0635-3	ISU-0635-3	1	ACN6340635300000000900	630kVA 400V 907A(AC)	64124030	1	ACN6340635300000300900	630kVA 400V 907A(AC)	64189441	1	ISUL_5R11I	400/500V:186UH/1319A 992ARMS	64037498
ACA 635-0755-3	ISU-0755-3	1	ACN6340755300000000900	760kVA 400V 1094A(AC)	64124374	1	ACN6340755300000300900	760kVA 400V 1094A(AC)	64189476	1	ISUL_5R11I	400/500V:186UH/1319A 992ARMS	64037498
ACA 635-0935-3	ISU-0935-3	1	ACN6340935300000000902	930kVA 400V 1336A(AC)	61454942	1	ACN6340935300000300902	930kVA 400V 1336A(AC)	64185373	1	ISUL_5R12I	400/500V:124UH/1961A 1473ARMS	64037501
ACA 635-1125-3	ISU-1125-3	1	ACN6341125300000000902	1120kVA 400V 1624A(AC)	61434151	1	ACN6341125300000300902	1120kVA 400V 1624A(AC)	64185420	1	ISUL_5R12I	400/500V:124UH/1961A 1473ARMS	64037501
ACA 635-1445-3	ISU-1445-3	1	ACN6341445300000000900	1440kVA 400V 2079A(AC)	64124501	1	ACN6341445300000300900	1440kVA 400V 2079A(AC)	64189573	2	ISUL_5R11I	400/500V:186UH/1319A 992ARMS	64037498
ACA 635-1775-3	ISU-1775-3	1	ACN6341775300000000902	1770kVA 400V 2558A(AC)	61454951	1	ACN6341775300000300902	1770kVA 400V 2558A(AC)	64185527	2	ISUL_5R12I	400/500V:124UH/1961A 1473ARMS	64037501
ACA 635-2145-3	ISU-2145-3	1	ACN6342145300000000902	2140kVA 400V 3085A(AC)	61454969	1	ACN6342145300000300902	2140kVA 400V 3085A(AC)	64185535	2	ISUL_5R12I	400/500V:124UH/1961A 1473ARMS	64037501
ACA 635-2820-3	ISU-2820-3	1	ACN6342825300000000900	2820kVA 400V 4070A(AC)	64124561	1	ACN6342825300000300900	2820kVA 400V 4070A(AC)	64189638	4	ISUL_5R11I	400/500V:186UH/1319A 992ARMS	64037498
500 V													
ACA 635-0070-5	ISU-0070-5	1	ACN6340070500000000900	70kVA 500V 84A(AC)	64119508	1	ACN6340070500000300900	70kVA 500V 84A(AC)	64188305	1	ISUL_5R7I	400/500V:840UH/243A 179ARMS	64408119
ACA 635-0100-5	ISU-0100-5	1	ACN6340100500000000900	100kVA 500V 112A(AC)	64119541	1	ACN6340100500000300900	100kVA 500V 112A(AC)	64188321	1	ISUL_5R7I	400/500V:840UH/243A 179ARMS	64408119
ACA 635-0120-5	ISU-0120-5	1	ACN6340120500000000900	120kVA 500V 135A(AC)	64119591	1	ACN6340120500000300900	120kVA 500V 135A(AC)	64188429	1	ISUL_5R7I	400/500V:840UH/243A 179ARMS	64408119
ACA 635-0140-5	ISU-0140-5	1	ACN6340140500000000900	140kVA 500V 164A(AC)	64119630	1	ACN6340140500000300900	140kVA 500V 164A(AC)	64188445	1	ISUL_5R7I	400/500V:840UH/243A 179ARMS	64408119
ACA 635-0215-5	ISU-0215-5	1	ACN6340215500000000900	210kVA 500V 246A(AC)	64121791	1	ACN6340215500000300900	210kVA 500V 246A(AC)	64188569	1	ISUL_5R8I	400/500V:494UH/492A 370ARMS	64041398
ACA 635-0255-5	ISU-0255-5	1	ACN6340255500000000900	250kVA 500V 295A(AC)	64121847	1	ACN6340255500000300900	250kVA 500V 295A(AC)	64188585	1	ISUL_5R8I	400/500V:494UH/492A 370ARMS	64041398
ACA 635-0325-5	ISU-0325-5	1	ACN6340325500000000900	320kVA 500V 368A(AC)	64121880	1	ACN6340325500000300900	320kVA 500V 368A(AC)	64188607	1	ISUL_5R8I	400/500V:494UH/492A 370ARMS	64041398
ACA 635-0395-5	ISU-0395-5	1	ACN6340395500000000900	390kVA 500V 448A(AC)	64121928	1	ACN6340395500000300900	390kVA 500V 448A(AC)	64188747	1	ISUL_5R9I	400/500V:320UH/756A 568ARMS	64041428
ACA 635-0495-5	ISU-0495-5	1	ACN6340495500000000900	490kVA 500V 565A(AC)	64121961	1	ACN6340495500000300900	490kVA 500V 565A(AC)	64188763	1	ISUL_5R9I	400/500V:320UH/756A 568ARMS	64041428
ACA 635-0615-5	ISU-0615-5	1	ACN6340615500000000900	610kVA 500V 700A(AC)	64124790	1	ACN6340615500000300900	610kVA 500V 700A(AC)	64189387	1	ISUL_5R10I	400/500V:260UH/936A 703ARMS	64152971
ACA 635-0775-5	ISU-0775-5	1	ACN6340775500000000900	770kVA 500V 887A(AC)	64125001	1	ACN6340775500000300900	770kVA 500V 887A(AC)	64189514	1	ISUL_5R11I	400/500V:186UH/1319A 992ARMS	64037498
ACA 635-0925-5	ISU-0925-5	1	ACN6340925500000000900	930kVA 500V 1073A(AC)	64125281	1	ACN6340925500000300900	930kVA 500V 1073A(AC)	64189549	1	ISUL_5R11I	400/500V:186UH/1319A 992ARMS	64037498
ACA 635-1095-5	ISU-1095-5	1	ACN6341095500000000902	1090kVA 500V 1263A(AC)	61455019	1	ACN6341095500000300902	1090kVA 500V 1263A(AC)	64185471	1	ISUL_5R12I	400/500V:124UH/1961A 1473ARMS	64037501
ACA 635-1385-5	ISU-1385-5	1	ACN6341385500000000902	1380kVA 500V 1593A(AC)	61434160	1	ACN6341385500000300902	1380kVA 500V 1593A(AC)	64160273	1	ISUL_5R12I	400/500V:124UH/1961A 1473ARMS	64037501
ACA 635-1765-5	ISU-1765-5	1	ACN6341765500000000900	1760kVA 500V 2039A(AC)	64125681	1	ACN6341765500000300900	1760kVA 500V 2039A(AC)	64189603	2	ISUL_5R11I	400/500V:186UH/1319A 992ARMS	64037498
ACA 635-2165-5	ISU-2165-5	1	ACN6342165500000000902	2160kVA 500V 2501A(AC)	61455027	1	ACN6342165500000300902	2160kVA 500V 2501A(AC)	64185543	2	ISUL_5R12I	400/500V:124UH/1961A 1473ARMS	64037501
ACA 635-2625-5	ISU-2625-5	1	ACN6342625500000000902	2620kVA 500V 3026A(AC)	61455035	1	ACN6342625500000300902	2620kVA 500V 3026A(AC)	64185551	2	ISUL_5R12I	400/500V:124UH/1961A 1473ARMS	64037501
ACA 635-3450-5	ISU-3450-5	1	ACN6343455500000000900	3450kVA 500V 3992A(AC)	64125842	1	ACN6343455500000300900	3450kVA 500V 3992A(AC)	64189662	4	ISUL_5R11I	400/500V:186UH/1319A 992ARMS	64037498
690 V													
ACA 635-0060-6	ISU-0060-6	1	ACN6340060600000000900	60kVA 690V 52A(AC)	64120344	1	ACN6340060600000300900	60kVA 690V 52A(AC)	64188348	1	ISUL_6R7I	690V:1812UH/145A 106ARMS	64409425
ACA 635-0070-6	ISU-0070-6	1	ACN6340070600000000900	70kVA 690V 65A(AC)	64120395	1	ACN6340070600000300900	70kVA 690V 65A(AC)	64188364	1	ISUL_6R7I	690V:1812UH/145A 106ARMS	64409425
ACA 635-0100-6	ISU-0100-6	1	ACN6340100600000000900	100kVA 690V 88A(AC)	64120433	1	ACN6340100600000300900	100kVA 690V 88A(AC)	64188461	1	ISUL_6R7I	690V:1812UH/145A 106ARMS	64409425
ACA 635-0120-6	ISU-0120-6	1	ACN6340120600000000900	120kVA 690V 105A(AC)	64120484	1	ACN6340120600000300900	120kVA 690V 105A(AC)	64188488	1	ISUL_6R7I	690V:1812UH/145A 106ARMS	64409425
ACA 635-0185-6	ISU-0185-6	1	ACN6340185600000000900	180kVA 690V 149A(AC)	64122011	1	ACN6340185600000300900	180kVA 690V 149A(AC)	64188623	1	ISUL_6R8I	690V:966UH/353A 265ARMS	64041525
ACA 635-0205-6	ISU-0205-6	1	ACN6340205600000000900	210kVA 690V 176A(AC)	64125851	1	ACN6340205600000300900	210kVA 690V 176A(AC)	64188640	1	ISUL_6R8I	690V:966UH/353A 265ARMS	64041525
ACA 635-0255-6	ISU-0255-6	1	ACN6340255600000000900	250kVA 690V 210A(AC)	64125893	1	ACN6340255600000300900	250kVA 690V 210A(AC)	64188666	1	ISUL_6R8I	690V:966UH/353A 265ARMS	64041525
ACA 635-0315-6	ISU-0315-6	1	ACN6340315600000000900	310kVA 690V 260A(AC)	64125931	1	ACN6340315600000300900	310kVA 690V 260A(AC)	64188682	1	ISUL_6R8I	690V:966UH/353A 265ARMS	64041525
ACA 635-0375-6	ISU-0375-6	1	ACN6340375600000000900	370kVA 690V 310A(AC)	64125974	1	ACN6340375600000300900	370kVA 690V 310A(AC)	64188780	1	ISUL_6R9I	690V:616UH/548A,412ARMS	64041541
ACA 635-0485-6	ISU-0485-6	1	ACN6340485600000000900	490kVA 690V 410A(AC)	64126016	1	ACN6340485600000300900	490kVA 690V 410A(AC)	64188801	1	ISUL_6R9I	690V:616UH/548A,412ARMS	64041541
ACA 635-0605-6	ISU-0605-6	1	ACN6340605600000000900	600kVA 690V 502A(AC)	64126491	1	ACN6340605600000300900	600kVA 690V 502A(AC)	64189417	1	ISUL_6R10I	690V:500UH/672A 504ARMS	64152963
ACA 635-0755-6	ISU-0755-6	1	ACN6340755600000000900	750kVA 690V 630A(AC)	64126679	1	ACN6340755600000300900	750kVA 690V 630A(AC)	64189671	1	ISUL_6R11I	690V:361UH/930A 698ARMS	10037590
ACA 635-0905-6	ISU-0905-6	1	ACN6340905600000000900	900kVA 690V 755A(AC)	64126776	1	ACN6340905600000300900	900kVA 690V 755A(AC)	64189743	1	ISUL_6R11I	690V:361UH/930A 698ARMS	10037590
ACA 635-1045-6	ISU-1045-6	1	ACN6341045600000000902	1040kVA 690V 874A(AC)	61455086	1	ACN6341045600000300902	1040kVA 690V 874A(AC)	64185560	1	ISUL_6R12I	690V:241UH/1421A 1069ARMS	10037603
ACA 635-1385-6	ISU-1385-6	1	ACN6341385600000000902	1380kVA 690V 1156A(AC)	61434178	1	ACN6341385600000300902	1380kVA 690V 1156A(AC)	64172590	1	ISUL_6R12I	690V:241UH/1421A 1069ARMS	10037603
ACA 635-1715-6	ISU-1715-6	1	ACN6341715600000000900	1710kVA 690V 1435A(AC)	64127152	1	ACN6341715600000300900	1710kVA 690V 1435A(AC)	64189751	2	ISUL_6R11I	690V:361UH/930A 698ARMS	10037590
ACA 635-2125-6	ISU-2125-6	1	ACN6342125600000000902	2120kVA 690V 1777A(AC)	61455094	1	ACN6342125600000300902	2120kVA 690V 1777A(AC)	64185616	2	ISUL_6R12I	690V:241UH/1421A 1069ARMS	10037603
ACA 635-2545-6	ISU-2545-6	1	ACN6342545600000000902	2540kVA 690V 2129A(AC)	61455108	1	ACN6342545600000300902	2540kVA 690V 2129A(AC)	64182285	2	ISUL_6R12I	690V:241UH/1421A 1069ARMS	10037603
ACA 635-3350-6	ISU-3350-6	1	ACN6343355600000000900	3350kVA 690V 2809A(AC)	64127217	1	ACN6343355600000300900	3350kVA 690V 2809A(AC)	64189778	4	ISUL_6R11I	690V:361UH/930A 698ARMS	10037590
ACA 635-5140-6	ISU-5140-6	1	ACN6345140600000000902	5140kVA 690V 4300A(AC)	61455124	1	ACN6345140600000300902	5140kVA 690V 4300A(AC)	64185632	4	ISUL_6R12I	690V:241UH/1421A 1069ARMS	10037603

ACS600 MultiDrive		AC - fuse				DC - fuse				DC - Fuse Base kit				Drive Control Unit(ISU)		
Section type	Pcs	Type	Info	Order Code	Pcs	Type	Info	Order Code	Pcs	Type	Info	Order Code	Pcs	Type	Info	Order Code
400 V																
ACA 635-0060-3	3	170M3815	200A 660V DIN1	10012694	2	170M1570 ZILOX	200A 660V	10003539	1	OFAX00S2L	2x125A 690V	58065749	1	NDCU-21	NAMC-21 & NIOC-01	63985317
ACA 635-0070-3	3	170M3815	200A 660V DIN1	10012694	2	170M1570 ZILOX	200A 660V	10003539	1	OFAX00S2L	2x125A 690V	58065749	1	NDCU-21	NAMC-21 & NIOC-01	63985317
ACA 635-0100-3	3	170M3818	350A 660V DIN1	10028582	2	170M3818	350A 660V DIN1	10028582	1	OFAX1S2	2x250A 690V	10029082	1	NDCU-21	NAMC-21 & NIOC-01	63985317
ACA 635-0120-3	3	170M3818	350A 660V DIN1	10028582	2	170M3818	350A 660V DIN1	10028582	1	OFAX1S2	2x250A 690V	10029082	1	NDCU-21	NAMC-21 & NIOC-01	63985317
ACA 635-0185-3	3	170M6810	630A 660V	10030617	2	170M6810	630A 690V DIN 3	10030617	2	OFASA 3	630A 690V	35009841	1	NDCU-21	NAMC-21 & NIOC-01	63985317
ACA 635-0225-3	3	170M6810	630A 660V	10030617	2	170M6810	630A 690V DIN 3	10030617	2	OFASA 3	630A 690V	35009841	1	NDCU-21	NAMC-21 & NIOC-01	63985317
ACA 635-0265-3	3	170M6810	630A 660V	10030617	2	170M6810	630A 690V DIN 3	10030617	2	OFASA 3	630A 690V	35009841	1	NDCU-21	NAMC-21 & NIOC-01	63985317
ACA 635-0335-3	3	170M6814	1000A 660V	10030625	2	170M6814	1000A 690V DIN 3	10030625	2	OFASA 3	630A 690V	35009841	1	NDCU-21	NAMC-21 & NIOC-01	63985317
ACA 635-0405-3	3	170M6814	1000A 660V	10030625	2	170M6814	1000A 690V DIN 3	10030625	2	OFASA 3	630A 690V	35009841	1	NDCU-21	NAMC-21 & NIOC-01	63985317
ACA 635-0505-3	3	170M6299	1250A 1250V	64356577	4	170M6810	630A 690V DIN 3	10030617	4	OFASA 3	630A 690V	35009841	1	NDCU-21	NAMC-21 & NIOC-01	63985317
ACA 635-0635-3	6	170M5874 UR	700A 690V	10037557	4	170M6814	1000A 690V DIN 3	10030625	4	OFASA 3	630A 690V	35009841	1	NDCU-21	NAMC-21 & NIOC-01	63985317
ACA 635-0755-3	6	170M5874 UR	700A 690V	10037557	4	170M6814	1000A 690V DIN 3	10030625	4	OFASA 3	630A 690V	35009841	1	NDCU-21	NAMC-21 & NIOC-01	63985317
ACA 635-0935-3	6	170M5876 UR	900A 690V	10006031	6	170M6814	1000A 690V DIN 3	10030625	6	OFASA 3	630A 690V	35009841	1	NDCU-21	NAMC-21 & NIOC-01	63985317
ACA 635-1125-3	6	170M5876 UR	900A 690V	10006031	6	170M6814	1000A 690V DIN 3	10030625	6	OFASA 3	630A 690V	35009841	1	NDCU-21	NAMC-21 & NIOC-01	63985317
ACA 635-1445-3	12	170M5874 UR	700A 690V	10037557	8	170M6814	1000A 690V DIN 3	10030625	8	OFASA 3	630A 690V	35009841	1	NDCU-21	NAMC-21 & NIOC-01	63985317
ACA 635-1775-3	12	170M5876 UR	900A 690V	10006031	12	170M6814	1000A 690V DIN 3	10030625	12	OFASA 3	630A 690V	35009841	1	NDCU-21	NAMC-21 & NIOC-01	63985317
ACA 635-2145-3	12	170M5876 UR	900A 690V	10006031	12	170M6814	1000A 690V DIN 3	10030625	12	OFASA 3	630A 690V	35009841	1	NDCU-21	NAMC-21 & NIOC-01	63985317
ACA 635-2820-3	24	170M5874 UR	700A 690V	10037557	16	170M6814	1000A 690V DIN 3	10030625	16	OFASA 3	630A 690V	35009841	1	NDCU-21	NAMC-21 & NIOC-01	63985317
500 V																
ACA 635-0070-5	3	170M3815	200A 660V DIN1	10012694	2	170M1570 ZILOX	200A 660V	10003539	1	OFAX00S2L	2x125A 690V	58065749	1	NDCU-21	NAMC-21 & NIOC-01	63985317
ACA 635-0100-5	3	170M3815	200A 660V DIN1	10012694	2	170M1570 ZILOX	200A 660V	10003539	1	OFAX00S2L	2x125A 690V	58065749	1	NDCU-21	NAMC-21 & NIOC-01	63985317
ACA 635-0120-5	3	170M3818	350A 660V DIN1	10028582	2	170M3818	350A 660V DIN1	10028582	1	OFAX1S2	2x250A 690V	10029082	1	NDCU-21	NAMC-21 & NIOC-01	63985317
ACA 635-0140-5	3	170M3818	350A 660V DIN1	10028582	2	170M3818	350A 660V DIN1	10028582	1	OFAX1S2	2x250A 690V	10029082	1	NDCU-21	NAMC-21 & NIOC-01	63985317
ACA 635-0215-5	3	170M6810	630A 660V	10030617	2	170M6810	630A 690V DIN 3	10030617	2	OFASA 3	630A 690V	35009841	1	NDCU-21	NAMC-21 & NIOC-01	63985317
ACA 635-0255-5	3	170M6810	630A 660V	10030617	2	170M6810	630A 690V DIN 3	10030617	2	OFASA 3	630A 690V	35009841	1	NDCU-21	NAMC-21 & NIOC-01	63985317
ACA 635-0325-5	3	170M6810	630A 660V	10030617	2	170M6810	630A 690V DIN 3	10030617	2	OFASA 3	630A 690V	35009841	1	NDCU-21	NAMC-21 & NIOC-01	63985317
ACA 635-0395-5	3	170M6814	1000A 660V	10030625	2	170M6814	1000A 690V DIN 3	10030625	2	OFASA 3	630A 690V	35009841	1	NDCU-21	NAMC-21 & NIOC-01	63985317
ACA 635-0495-5	3	170M6814	1000A 660V	10030625	2	170M6814	1000A 690V DIN 3	10030625	2	OFASA 3	630A 690V	35009841	1	NDCU-21	NAMC-21 & NIOC-01	63985317
ACA 635-0615-5	3	170M6299	1250A 1250V	64356577	4	170M6810	630A 690V DIN 3	10030617	4	OFASA 3	630A 690V	35009841	1	NDCU-21	NAMC-21 & NIOC-01	63985317
ACA 635-0775-5	6	170M5874 UR	700A 690V	10037557	4	170M6814	1000A 690V DIN 3	10030625	4	OFASA 3	630A 690V	35009841	1	NDCU-21	NAMC-21 & NIOC-01	63985317
ACA 635-0925-5	6	170M5874 UR	700A 690V	10037557	4	170M6814	1000A 690V DIN 3	10030625	4	OFASA 3	630A 690V	35009841	1	NDCU-21	NAMC-21 & NIOC-01	63985317
ACA 635-1095-5	6	170M5876 UR	900A 690V	10006031	6	170M6814	1000A 690V DIN 3	10030625	6	OFASA 3	630A 690V	35009841	1	NDCU-21	NAMC-21 & NIOC-01	63985317
ACA 635-1385-5	6	170M5876 UR	900A 690V	10006031	6	170M6814	1000A 690V DIN 3	10030625	6	OFASA 3	630A 690V	35009841	1	NDCU-21	NAMC-21 & NIOC-01	63985317
ACA 635-1765-5	12	170M5874 UR	700A 690V	10037557	8	170M6814	1000A 690V DIN 3	10030625	8	OFASA 3	630A 690V	35009841	1	NDCU-21	NAMC-21 & NIOC-01	63985317
ACA 635-2165-5	12	170M5876 UR	900A 690V	10006031	12	170M6814	1000A 690V DIN 3	10030625	12	OFASA 3	630A 690V	35009841	1	NDCU-21	NAMC-21 & NIOC-01	63985317
ACA 635-2625-5	12	170M5876 UR	900A 690V	10006031	12	170M6814	1000A 690V DIN 3	10030625	12	OFASA 3	630A 690V	35009841	1	NDCU-21	NAMC-21 & NIOC-01	63985317
ACA 635-3450-5	24	170M5874 UR	700A 690V	10037557	16	170M6814	1000A 690V DIN 3	10030625	16	OFASA 3	630A 690V	35009841	1	NDCU-21	NAMC-21 & NIOC-01	63985317
690 V																
ACA 635-0060-6	3	170M3815	200A 660V DIN1	10012694	2	170M2682	125A 1000V DIN00	10029813	1	OFAX00S2L	2x125A 690V	58065749	1	NDCU-21	NAMC-21 & NIOC-01	63985317
ACA 635-0070-6	3	170M3815	200A 660V DIN1	10012694	2	170M2682	125A 1000V DIN00	10029813	1	OFAX00S2L	2x125A 690V	58065749	1	NDCU-21	NAMC-21 & NIOC-01	63985317
ACA 635-0100-6	3	170M3815	200A 660V DIN1	10012694	2	170M4700	200A 1000-1250V UR	10001731	1	OFAX1S2	2x250A 690V	10029082	1	NDCU-21	NAMC-21 & NIOC-01	63985317
ACA 635-0120-6	3	170M3815	200A 660V DIN1	10012694	2	170M4700	200A 1000-1250V UR	10001731	1	OFAX1S2	2x250A 690V	10029082	1	NDCU-21	NAMC-21 & NIOC-01	63985317
ACA 635-0185-6	3	170M6303	400A 1250V	10037166	2	170M6303	400A 1250V 3SHT	10037166	2	OFASA 3	630A 690V	35009841	1	NDCU-21	NAMC-21 & NIOC-01	63985317
ACA 635-0205-6	3	170M6303	400A 1250V	10037166	2	170M6303	400A 1250V 3SHT	10037166	2	OFASA 3	630A 690V	35009841	1	NDCU-21	NAMC-21 & NIOC-01	63985317
ACA 635-0255-6	3	170M6303	400A 1250V	10037166	2	170M6303	400A 1250V 3SHT	10037166	2	OFASA 3	630A 690V	35009841	1	NDCU-21	NAMC-21 & NIOC-01	63985317
ACA 635-0315-6	3	170M6303	400A 1250V	10037166	2	170M6303	400A 1250V 3SHT	10037166	2	OFASA 3	630A 690V	35009841	1	NDCU-21	NAMC-21 & NIOC-01	63985317
ACA 635-0375-6	3	170M6205	630A 1250V	10001773	2	170M6205	630A 1000-1250V UR	10001773	2	OFASA 3	630A 690V	35009841	1	NDCU-21	NAMC-21 & NIOC-01	63985317
ACA 635-0485-6	3	170M6205	630A 1250V	10001773	2	170M6205	630A 1000-1250V UR	10001773	2	OFASA 3	630A 690V	35009841	1	NDCU-21	NAMC-21 & NIOC-01	63985317
ACA 635-0605-6	3	170M6203	800A 1250V	10029881	2	170M6303	400A 1250V 3SHT	10037166	2	OFASA 3	630A 690V	35009841	1	NDCU-21	NAMC-21 & NIOC-01	63985317
ACA 635-0755-6	3	170M5876 UR	900A 690V	10006031	4	170M6205	630A 1000-1250V UR	10001773	4	OFASA 3	630A 690V	35009841	1	NDCU-21	NAMC-21 & NIOC-01	63985317
ACA 635-0905-6	3	170M5876 UR	900A 690V	10006031	4	170M6205	630A 1000-1250V UR	10001773	4	OFASA 3	630A 690V	35009841	1	NDCU-21	NAMC-21 & NIOC-01	63985317
ACA 635-1045-6	6	170M5874 UR	700A 690V	10037557	6	170M6205	630A 1000-1250V UR	10001773	6	OFASA 3	630A 690V	35009841	1	NDCU-21	NAMC-21 & NIOC-01	63985317
ACA 635-1385-6	6	170M5874 UR	700A 690V	10037557	6	170M6205	630A 1000-1250V UR	10001773	6	OFASA 3	630A 690V	35009841	1	NDCU-21	NAMC-21 & NIOC-01	63985317
ACA 635-1715-6	6	170M5876 UR	900A 690V	10006031	8	170M6205	630A 1000-1250V UR	10001773	8	OFASA 3	630A 690V	35009841	1	NDCU-21	NAMC-21 & NIOC-01	63985317
ACA 635-2125-6	12	170M5874 UR	700A 690V	10037557	12	170M6205	630A 1000-1250V UR	10001773	12	OFASA 3	630A 690V	35009841	1	NDCU-21	NAMC-21 & NIOC-01	63985317
ACA 635-2545-6	12	170M5874 UR	700A 690V	10037557	12	170M6205	630A 1000-1250V UR	10001773	12	OFASA 3	630A 690V	35009841	1	NDCU-21	NAMC-21 & NIOC-01	63985317
ACA 635-3350-6	12	170M5876 UR	900A 690V	10006031	16	170M6205	630A 1000-1250V UR	10001773	16	OFASA 3	630A 690V	35009841	1	NDCU-21	NAMC-21 & NIOC-01	63985317
ACA 635-5140-6	24	170M5874 UR	700A 690V	10037557	24	170M6205	630A 1000-1250V UR	10001773	24	OFASA 3	630A 690V	35009841	1	NDCU-21	NAMC-21 & NIOC-01	63985317

ACS600 MultiDrive		Coated Drive Control Unit(ISU)				Optical Distribution(ISU)				Coated Optical Distribution(ISU)				Disconnector		
Section type	Pcs	Type	Info	Order Code	Pcs	Type	Info	Order Code	Pcs	Type	Info	Order Code	Pcs	Type	Info	Order Code
400 V																
ACA 635-0060-3	1	NDCU-21C	NAMC-21C & NIOC-01C	64009095									1	OESA 250 D3PL	250A, 690V, DIN0…1	35055746
ACA 635-0070-3	1	NDCU-21C	NAMC-21C & NIOC-01C	64009095									1	OESA 250 D3PL	250A, 690V, DIN0…1	35055746
ACA 635-0100-3	1	NDCU-21C	NAMC-21C & NIOC-01C	64009095									1	OESA 250 D3PL	250A, 690V, DIN0…1	35055746
ACA 635-0120-3	1	NDCU-21C	NAMC-21C & NIOC-01C	64009095									1	OESA 250 D3PL	250A, 690V, DIN0…1	35055746
ACA 635-0185-3	1	NDCU-21C	NAMC-21C & NIOC-01C	64009095									1	OESA 630 D3PL	630A, 690V, 3-NAP.	61485546
ACA 635-0225-3	1	NDCU-21C	NAMC-21C & NIOC-01C	64009095									1	OESA 630 D3PL	630A, 690V, 3-NAP.	61485546
ACA 635-0265-3	1	NDCU-21C	NAMC-21C & NIOC-01C	64009095									1	OESA 630 D3PL	630A, 690V, 3-NAP.	61485546
ACA 635-0335-3	1	NDCU-21C	NAMC-21C & NIOC-01C	64009095									1	OESA 630 D3PL	630A, 690V, 3-NAP.	61485546
ACA 635-0405-3	1	NDCU-21C	NAMC-21C & NIOC-01C	64009095									1	OESA 630 D3PL	630A, 690V, 3-NAP.	61485546
ACA 635-0505-3	1	NDCU-21C	NAMC-21C & NIOC-01C	64009095									1	OESA 800 D3PL	800A, 690V, 3-NAP.	61485554
ACA 635-0635-3	1	NDCU-21C	NAMC-21C & NIOC-01C	64009095												
ACA 635-0755-3	1	NDCU-21C	NAMC-21C & NIOC-01C	64009095												
ACA 635-0935-3	1	NDCU-21C	NAMC-21C & NIOC-01C	64009095												
ACA 635-1125-3	1	NDCU-21C	NAMC-21C & NIOC-01C	64009095												
ACA 635-1445-3	1	NDCU-21C	NAMC-21C & NIOC-01C	64009095	1	NPBU-42	4 CH	63985287	1	NPBU-42C	4 CH	64011821				
ACA 635-1775-3	1	NDCU-21C	NAMC-21C & NIOC-01C	64009095	1	NPBU-42	4 CH	63985287	1	NPBU-42C	4 CH	64011821				
ACA 635-2145-3	1	NDCU-21C	NAMC-21C & NIOC-01C	64009095	1	NPBU-42	4 CH	63985287	1	NPBU-42C	4 CH	64011821				
ACA 635-2820-3	1	NDCU-21C	NAMC-21C & NIOC-01C	64009095	1	NPBU-42	4 CH	63985287	1	NPBU-42C	4 CH	64011821				
500 V																
ACA 635-0070-5	1	NDCU-21C	NAMC-21C & NIOC-01C	64009095									1	OESA 250 D3PL	250A, 690V, DIN0…1	35055746
ACA 635-0100-5	1	NDCU-21C	NAMC-21C & NIOC-01C	64009095									1	OESA 250 D3PL	250A, 690V, DIN0…1	35055746
ACA 635-0120-5	1	NDCU-21C	NAMC-21C & NIOC-01C	64009095									1	OESA 250 D3PL	250A, 690V, DIN0…1	35055746
ACA 635-0140-5	1	NDCU-21C	NAMC-21C & NIOC-01C	64009095									1	OESA 250 D3PL	250A, 690V, DIN0…1	35055746
ACA 635-0215-5	1	NDCU-21C	NAMC-21C & NIOC-01C	64009095									1	OESA 630 D3PL	630A, 690V, 3-NAP.	61485546
ACA 635-0255-5	1	NDCU-21C	NAMC-21C & NIOC-01C	64009095									1	OESA 630 D3PL	630A, 690V, 3-NAP.	61485546
ACA 635-0325-5	1	NDCU-21C	NAMC-21C & NIOC-01C	64009095									1	OESA 630 D3PL	630A, 690V, 3-NAP.	61485546
ACA 635-0395-5	1	NDCU-21C	NAMC-21C & NIOC-01C	64009095									1	OESA 630 D3PL	630A, 690V, 3-NAP.	61485546
ACA 635-0495-5	1	NDCU-21C	NAMC-21C & NIOC-01C	64009095									1	OESA 630 D3PL	630A, 690V, 3-NAP.	61485546
ACA 635-0615-5	1	NDCU-21C	NAMC-21C & NIOC-01C	64009095									1	OESA 800 D3PL	800A, 690V, 3-NAP.	61485554
ACA 635-0775-5	1	NDCU-21C	NAMC-21C & NIOC-01C	64009095												
ACA 635-0925-5	1	NDCU-21C	NAMC-21C & NIOC-01C	64009095												
ACA 635-1095-5	1	NDCU-21C	NAMC-21C & NIOC-01C	64009095												
ACA 635-1385-5	1	NDCU-21C	NAMC-21C & NIOC-01C	64009095												
ACA 635-1765-5	1	NDCU-21C	NAMC-21C & NIOC-01C	64009095	1	NPBU-42	4 CH	63985287	1	NPBU-42C	4 CH	64011821				
ACA 635-2165-5	1	NDCU-21C	NAMC-21C & NIOC-01C	64009095	1	NPBU-42	4 CH	63985287	1	NPBU-42C	4 CH	64011821				
ACA 635-2625-5	1	NDCU-21C	NAMC-21C & NIOC-01C	64009095	1	NPBU-42	4 CH	63985287	1	NPBU-42C	4 CH	64011821				
ACA 635-3450-5	1	NDCU-21C	NAMC-21C & NIOC-01C	64009095	1	NPBU-42	4 CH	63985287	1	NPBU-42C	4 CH	64011821				
690 V																
ACA 635-0060-6	1	NDCU-21C	NAMC-21C & NIOC-01C	64009095									1	OESA 250 D3PL	250A, 690V, DIN0…1	35055746
ACA 635-0070-6	1	NDCU-21C	NAMC-21C & NIOC-01C	64009095									1	OESA 250 D3PL	250A, 690V, DIN0…1	35055746
ACA 635-0100-6	1	NDCU-21C	NAMC-21C & NIOC-01C	64009095									1	OESA 250 D3PL	250A, 690V, DIN0…1	35055746
ACA 635-0120-6	1	NDCU-21C	NAMC-21C & NIOC-01C	64009095									1	OESA 250 D3PL	250A, 690V, DIN0…1	35055746
ACA 635-0185-6	1	NDCU-21C	NAMC-21C & NIOC-01C	64009095									1	OESA 630 D3PL	630A, 690V, 3-NAP.	61485546
ACA 635-0205-6	1	NDCU-21C	NAMC-21C & NIOC-01C	64009095									1	OESA 630 D3PL	630A, 690V, 3-NAP.	61485546
ACA 635-0255-6	1	NDCU-21C	NAMC-21C & NIOC-01C	64009095									1	OESA 630 D3PL	630A, 690V, 3-NAP.	61485546
ACA 635-0315-6	1	NDCU-21C	NAMC-21C & NIOC-01C	64009095									1	OESA 630 D3PL	630A, 690V, 3-NAP.	61485546
ACA 635-0375-6	1	NDCU-21C	NAMC-21C & NIOC-01C	64009095									1	OESA 630 D3PL	630A, 690V, 3-NAP.	61485546
ACA 635-0485-6	1	NDCU-21C	NAMC-21C & NIOC-01C	64009095									1	OESA 630 D3PL	630A, 690V, 3-NAP.	61485546
ACA 635-0605-6	1	NDCU-21C	NAMC-21C & NIOC-01C	64009095									1	OESA 630 D3PL	630A, 690V, 3-NAP.	61485546
ACA 635-0755-6	1	NDCU-21C	NAMC-21C & NIOC-01C	64009095												
ACA 635-0905-6	1	NDCU-21C	NAMC-21C & NIOC-01C	64009095												
ACA 635-1045-6	1	NDCU-21C	NAMC-21C & NIOC-01C	64009095												
ACA 635-1385-6	1	NDCU-21C	NAMC-21C & NIOC-01C	64009095												
ACA 635-1715-6	1	NDCU-21C	NAMC-21C & NIOC-01C	64009095	1	NPBU-42	4 CH	63985287	1	NPBU-42C	4 CH	64011821				
ACA 635-2125-6	1	NDCU-21C	NAMC-21C & NIOC-01C	64009095	1	NPBU-42	4 CH	63985287	1	NPBU-42C	4 CH	64011821				
ACA 635-2545-6	1	NDCU-21C	NAMC-21C & NIOC-01C	64009095	1	NPBU-42	4 CH	63985287	1	NPBU-42C	4 CH	64011821				
ACA 635-3350-6	1	NDCU-21C	NAMC-21C & NIOC-01C	64009095	1	NPBU-42	4 CH	63985287	1	NPBU-42C	4 CH	64011821				
ACA 635-5140-6	1	NDCU-21C	NAMC-21C & NIOC-01C	64009095	1	NPBU-42	4 CH	63985287	1	NPBU-42C	4 CH	64011821				

ACS600 MultiDrive		Main contactor/Main circuit breaker(230V)				Main contactor/Main circuit breaker(115V)				Charging Circuit□AC-Fuse				Fuse-Base		
Section type	Pcs	Type	Info	Order Code	Pcs	Type	Info	Order Code	Pcs	Type	Info	Order Code	Pcs	Type	Info	Order Code
400 V																
ACA 635-0060-3	1	EH145-30-11/EM	230VAC 50/60HZ 200A	10020719	1	EH145-30-11/AF	115VAC 50/60HZ 200A	64052527	2	OFAA 00H 16	16A 690V IEC00	9712321	1	OFAX 00 S2L	2X125A 690V	58065749
ACA 635-0070-3	1	EH145-30-11/EM	230VAC 50/60HZ 200A	10020719	1	EH145-30-11/AF	115VAC 50/60HZ 200A	64052527	2	OFAA 00H 16	16A 690V IEC00	9712321	1	OFAX 00 S2L	2X125A 690V	58065749
ACA 635-0100-3	1	EH145-30-11/EM	230VAC 50/60HZ 200A	10020719	1	EH145-30-11/AF	115VAC 50/60HZ 200A	64052527	2	OFAA 00H 16	16A 690V IEC00	9712321	1	OFAX 00 S2L	2X125A 690V	58065749
ACA 635-0120-3	1	EH145-30-11/EM	230VAC 50/60HZ 200A	10020719	1	EH145-30-11/AF	115VAC 50/60HZ 200A	64052527	2	OFAA 00H 16	16A 690V IEC00	9712321	1	OFAX 00 S2L	2X125A 690V	58065749
ACA 635-0185-3	1	EH370-30-22/EM	550A(ITH) 1000V(UE)	10029368	1	EH370-30-22/EG	1000V(UE) 550A(ITH)	64081152	2	OFAA 00H 16	16A 690V IEC00	9712321	1	OFAX 00 S2L	2X125A 690V	58065749
ACA 635-0225-3	1	EH370-30-22/EM	550A(ITH) 1000V(UE)	10029368	1	EH370-30-22/EG	1000V(UE) 550A(ITH)	64081152	2	OFAA 00H 16	16A 690V IEC00	9712321	1	OFAX 00 S2L	2X125A 690V	58065749
ACA 635-0265-3	1	EH370-30-22/EM	550A(ITH) 1000V(UE)	10029368	1	EH370-30-22/EG	1000V(UE) 550A(ITH)	64081152	2	OFAA 00H 16	16A 690V IEC00	9712321	1	OFAX 00 S2L	2X125A 690V	58065749
ACA 635-0335-3	1	EH550-30-22/EM	800A(ITH) 1000V(UE)	10027527	1	EH550-30-22/EG	1000V(UE) 800A(ITH)	64081357	2	OFAA 00H 16	16A 690V IEC00	9712321	1	OFAX 00 S2L	2X125A 690V	58065749
ACA 635-0405-3	1	EH550-30-22/EM	800A(ITH) 1000V(UE)	10027527	1	EH550-30-22/EG	1000V(UE) 800A(ITH)	64081357	2	OFAA 00H 16	16A 690V IEC00	9712321	1	OFAX 00 S2L	2X125A 690V	58065749
ACA 635-0505-3	1	EH700-30-11/EM	700A 690V1S + 1A	10013381	1	EH700-30-11/EM	114VAC 50/60HZ 700A 690V	61219536	2	OFAA 00H 16	16A 690V IEC00	9712321	1	OFAX 00 S2L	2X125A 690V	58065749
ACA 635-0635-3	1	E3S12/DRIVES/230	1250A/690V, 1SDA047997R1	10037352					2	OFAA 00H 20	20A 690V IEC00	9712330	1	OFAX 00 S2L	2X125A 690V	58065749
ACA 635-0755-3	1	E3S12/DRIVES/230	1250A/690V, 1SDA047997R1	10037352					2	OFAA 00H 20	20A 690V IEC00	9712330	1	OFAX 00 S2L	2X125A 690V	58065749
ACA 635-0935-3	1	E3S16/DRIVES/230	1600A/690V, 1SDA047998R1	10037361					2	OFAA 00H 35	35A 690V IEC00	9712356	1	OFAX 00 S2L	2X125A 690V	58065749
ACA 635-1125-3	1	E3S16/DRIVES/230	1600A/690V, 1SDA047998R1	10037361					2	OFAA 00H 35	35A 690V IEC00	9712356	1	OFAX 00 S2L	2X125A 690V	58065749
ACA 635-1445-3	1	E3S20/DRIVES/230	2000A/690V, 1SDA047999R1	10037379					2	OFAA 00H 40	40A 690V IEC00	64208021	1	OFAX 00 S2L	2X125A 690V	58065749
ACA 635-1775-3	1	E3S32/DRIVES/230	3200A/690V, 1SDA048001R1	10037395					2	OFAA 00H 63	63A 690V IEC00	9712372	1	OFAX 00 S2L	2X125A 690V	58065749
ACA 635-2145-3	1	E3S32/DRIVES/230	3200A/690V, 1SDA048001R1	10037395					2	OFAA 00H 63	63A 690V IEC00	9712372	1	OFAX 00 S2L	2X125A 690V	58065749
ACA 635-2820-3	1	E6 4000A	4000A(ITH) 690V(UE)	64044133					2	OFAA 00H 80	80A 690V IEC00	9712381	1	OFAX 00 S2L	2X125A 690V	58065749
500 V																
ACA 635-0070-5	1	EH145-30-11/EM	230VAC 50/60HZ 200A	10020719	1	EH145-30-11/AF	115VAC 50/60HZ 200A	64052527	2	OFAA 00H 16	16A 690V IEC00	9712321	1	OFAX 00 S2L	2X125A 690V	58065749
ACA 635-0100-5	1	EH145-30-11/EM	230VAC 50/60HZ 200A	10020719	1	EH145-30-11/AF	115VAC 50/60HZ 200A	64052527	2	OFAA 00H 16	16A 690V IEC00	9712321	1	OFAX 00 S2L	2X125A 690V	58065749
ACA 635-0120-5	1	EH145-30-11/EM	230VAC 50/60HZ 200A	10020719	1	EH145-30-11/AF	115VAC 50/60HZ 200A	64052527	2	OFAA 00H 16	16A 690V IEC00	9712321	1	OFAX 00 S2L	2X125A 690V	58065749
ACA 635-0140-5	1	EH145-30-11/EM	230VAC 50/60HZ 200A	10020719	1	EH145-30-11/AF	115VAC 50/60HZ 200A	64052527	2	OFAA 00H 16	16A 690V IEC00	9712321	1	OFAX 00 S2L	2X125A 690V	58065749
ACA 635-0215-5	1	EH370-30-22/EM	550A(ITH) 1000V(UE)	10029368	1	EH370-30-22/EG	1000V(UE) 550A(ITH)	64081152	2	OFAA 00H 16	16A 690V IEC00	9712321	1	OFAX 00 S2L	2X125A 690V	58065749
ACA 635-0255-5	1	EH370-30-22/EM	550A(ITH) 1000V(UE)	10029368	1	EH370-30-22/EG	1000V(UE) 550A(ITH)	64081152	2	OFAA 00H 16	16A 690V IEC00	9712321	1	OFAX 00 S2L	2X125A 690V	58065749
ACA 635-0325-5	1	EH370-30-22/EM	550A(ITH) 1000V(UE)	10029368	1	EH370-30-22/EG	1000V(UE) 550A(ITH)	64081152	2	OFAA 00H 16	16A 690V IEC00	9712321	1	OFAX 00 S2L	2X125A 690V	58065749
ACA 635-0395-5	1	EH550-30-22/EM	800A(ITH) 1000V(UE)	10027527	1	EH550-30-22/EG	1000V(UE) 800A(ITH)	64081357	2	OFAA 00H 20	20A 690V IEC00	9712330	1	OFAX 00 S2L	2X125A 690V	58065749
ACA 635-0495-5	1	EH550-30-22/EM	800A(ITH) 1000V(UE)	10027527	1	EH550-30-22/EG	1000V(UE) 800A(ITH)	64081357	2	OFAA 00H 20	20A 690V IEC00	9712330	1	OFAX 00 S2L	2X125A 690V	58065749
ACA 635-0615-5	1	EH700-30-11/EM	700A 690V1S + 1A	10013381	1	EH700-30-11/EM	114VAC 50/60HZ 700A 690V	61219536	2	OFAA 00H 20	20A 690V IEC00	9712330	1	OFAX 00 S2L	2X125A 690V	58065749
ACA 635-0775-5	1	E3S16/DRIVES/230	1600A/690V, 1SDA047998R1	10037361					2	OFAA 00H 20	20A 690V IEC00	9712330	1	OFAX 00 S2L	2X125A 690V	58065749
ACA 635-0925-5	1	E3S16/DRIVES/230	1600A/690V, 1SDA047998R1	10037361					2	OFAA 00H 20	20A 690V IEC00	9712330	1	OFAX 00 S2L	2X125A 690V	58065749
ACA 635-1095-5	1	E3S20/DRIVES/230	2000A/690V, 1SDA047999R1	10037379					2	OFAA 00H 40	40A 690V IEC00	64208021	1	OFAX 00 S2L	2X125A 690V	58065749
ACA 635-1385-5	1	E3S20/DRIVES/230	2000A/690V, 1SDA047999R1	10037379					2	OFAA 00H 40	40A 690V IEC00	64208021	1	OFAX 00 S2L	2X125A 690V	58065749
ACA 635-1765-5	1	E3S25/DRIVES/230	2500A/690V, 1SDA048000R1	10037387					2	OFAA 00H 40	40A 690V IEC00	64208021	1	OFAX 00 S2L	2X125A 690V	58065749
ACA 635-2165-5	1	E3S32/DRIVES/230	3200A/690V, 1SDA048001R1	10037395					2	OFAA 00H 63	63A 690V IEC00	9712372	1	OFAX 00 S2L	2X125A 690V	58065749
ACA 635-2625-5	1	E3S32/DRIVES/230	3200A/690V, 1SDA048001R1	10037395					2	OFAA 00H 63	63A 690V IEC00	9712372	1	OFAX 00 S2L	2X125A 690V	58065749
ACA 635-3450-5	1	E6 4000A	4000A(ITH) 690V(UE)	64044133					2	OFAA 00H 80	80A 690V IEC00	9712381	1	OFAX 00 S2L	2X125A 690V	58065749
690 V																
ACA 635-0060-6	1	EH145-30-11/EM	230VAC 50/60HZ 200A	10020719	1	EH145-30-11/AF	115VAC 50/60HZ 200A	64052527	2	OFAA 00H 16	16A 690V IEC00	9712321	1	OFAX 00 S2L	2X125A 690V	58065749
ACA 635-0070-6	1	EH145-30-11/EM	230VAC 50/60HZ 200A	10020719	1	EH145-30-11/AF	115VAC 50/60HZ 200A	64052527	2	OFAA 00H 16	16A 690V IEC00	9712321	1	OFAX 00 S2L	2X125A 690V	58065749
ACA 635-0100-6	1	EH145-30-11/EM	230VAC 50/60HZ 200A	10020719	1	EH145-30-11/AF	115VAC 50/60HZ 200A	64052527	2	OFAA 00H 16	16A 690V IEC00	9712321	1	OFAX 00 S2L	2X125A 690V	58065749
ACA 635-0120-6	1	EH145-30-11/EM	230VAC 50/60HZ 200A	10020719	1	EH145-30-11/AF	115VAC 50/60HZ 200A	64052527	2	OFAA 00H 16	16A 690V IEC00	9712321	1	OFAX 00 S2L	2X125A 690V	58065749
ACA 635-0185-6	1	EH370-30-22/EM	550A(ITH) 1000V(UE)	10029368	1	EH370-30-22/EG	1000V(UE) 550A(ITH)	64081152	2	OFAA 00H 16	16A 690V IEC00	9712321	1	OFAX 00 S2L	2X125A 690V	58065749
ACA 635-0205-6	1	EH370-30-22/EM	550A(ITH) 1000V(UE)	10029368	1	EH370-30-22/EG	1000V(UE) 550A(ITH)	64081152	2	OFAA 00H 16	16A 690V IEC00	9712321	1	OFAX 00 S2L	2X125A 690V	58065749
ACA 635-0255-6	1	EH370-30-22/EM	550A(ITH) 1000V(UE)	10029368	1	EH370-30-22/EG	1000V(UE) 550A(ITH)	64081152	2	OFAA 00H 16	16A 690V IEC00	9712321	1	OFAX 00 S2L	2X125A 690V	58065749
ACA 635-0315-6	1	EH370-30-22/EM	550A(ITH) 1000V(UE)	10029368	1	EH370-30-22/EG	1000V(UE) 550A(ITH)	64081152	2	OFAA 00H 16	16A 690V IEC00	9712321	1	OFAX 00 S2L	2X125A 690V	58065749
ACA 635-0375-6	1	EH370-30-22/EM	550A(ITH) 1000V(UE)	10029368	1	EH370-30-22/EG	1000V(UE) 550A(ITH)	64081152	2	OFAA 00H 25	25A 690V IEC00	9712348	1	OFAX 00 S2L	2X125A 690V	58065749
ACA 635-0485-6	1	EH370-30-22/EM	550A(ITH) 1000V(UE)	10029368	1	EH370-30-22/EG	1000V(UE) 550A(ITH)	64081152	2	OFAA 00H 25	25A 690V IEC00	9712348	1	OFAX 00 S2L	2X125A 690V	58065749
ACA 635-0605-6	1	EH550-30-22/EM	800A(ITH) 1000V(UE)	10027527	1	EH550-30-22/EG	1000V(UE) 800A(ITH)	64081357	2	OFAA 00H 25	25A 690V IEC00	9712348	1	OFAX 00 S2L	2X125A 690V	58065749
ACA 635-0755-6	1	E3S12/DRIVES/230	1250A/690V, 1SDA047997R1	10037352					2	OFAA 00H 40	40A 690V IEC00	64208021	1	OFAX 00 S2L	2X125A 690V	58065749
ACA 635-0905-6	1	E3S12/DRIVES/230	1250A/690V, 1SDA047997R1	10037352					2	OFAA 00H 40	40A 690V IEC00	64208021	1	OFAX 00 S2L	2X125A 690V	58065749
ACA 635-1045-6	1	E3S12/DRIVES/230	1250A/690V, 1SDA047997R1	10037352					2	OFAA 00H 50	50A 690V IEC00	9712364	1	OFAX 00 S2L	2X125A 690V	58065749
ACA 635-1385-6	1	E3S12/DRIVES/230	1250A/690V, 1SDA047997R1	10037352					2	OFAA 00H 50	50A 690V IEC00	9712364	1	OFAX 00 S2L	2X125A 690V	58065749
ACA 635-1715-6	1	E3S16/DRIVES/230	1600A/690V, 1SDA047998R1	10037361					2	OFAA 00H 63	63A 690V IEC00	9712372	1	OFAX 00 S2L	2X125A 690V	58065749
ACA 635-2125-6	1	E3S20/DRIVES/230	2000A/690V, 1SDA047999R1	10037379					2	OFAA 00H 100	100A 690V IEC00	9712399	1	OFAX 00 S2L	2X125A 690V	58065749
ACA 635-2545-6	1	E3S20/DRIVES/230	2000A/690V, 1SDA047999R1	10037379					2	OFAA 00H 100	100A 690V IEC00	9712399	1	OFAX 00 S2L	2X125A 690V	58065749
ACA 635-3350-6	1	E3S32/DRIVES/230	3200A/690V, 1SDA048001R1	10037395					2	OFAA 00H 125	125A 690V IEC00	64079638	1	OFAX 00 S2L	2X125A 690V	58065749
ACA 635-5140-6	1	E6 4000A	4000A(ITH) 690V(UE)	64044133					2	OFAA 00H 125	125A 690V IEC00	64079638	1	OFAX 00 S2L	2X125A 690V	58065749

ACS600 MultiDrive		Resistor				Fan for ISU (230V)				Fan for ISU (115V)				Fan for AC-Filter(230V)		
Section type	Pcs	Type	Info	Order Code	Pcs	Type	Info	Order Code	Pcs	Type	Info	Order Code	Pcs	Type	Info	Order Code
400 V	*Total Number*		*Total Resistance/ Ohm*													
ACA 635-0060-3	1	RRYB 117/CE	10.00	10003997	1	G2E140-AIXX	230V 50/60 Hz	64114158	1	G2E140-AIXX	115V 60 Hz	64114191	1	G2E140-AIXX	230V 50/60HZ	64114158
ACA 635-0070-3	1	RRYB 117/CE	10.00	10003997	1	G2E140-AIXX	230V 50/60 Hz	64114158	1	G2E140-AIXX	115V 60 Hz	64114191	1	G2E140-AIXX	230V 50/60HZ	64114158
ACA 635-0100-3	1	RRYB 117/CE	10.00	10003997	1	G2E140-AIXX	230V 50/60 Hz	64114158	1	G2E140-AIXX	115V 60 Hz	64114191	1	G2E140-AIXX	230V 50/60HZ	64114158
ACA 635-0120-3	1	RRYB 117/CE	10.00	10003997	1	G2E140-AIXX	230V 50/60 Hz	64114158	1	G2E140-AIXX	115V 60 Hz	64114191	1	G2E140-AIXX	230V 50/60HZ	64114158
ACA 635-0185-3	1	RRYB 117/CE	10.00	10003997	1	D4E225-CC0X	230V 50/60 Hz	64114336	1	D4E225-CC0X	115V 60 Hz	64114344	1	D2E133-CO47-XV	230VAC +/-10%50/60HZ 0,77A	64421077
ACA 635-0225-3	1	RRYB 117/CE	10.00	10003997	1	D4E225-CC0X	230V 50/60 Hz	64114336	1	D4E225-CC0X	115V 60 Hz	64114344	1	D2E133-CO47-XV	230VAC +/-10%50/60HZ 0,77A	64421077
ACA 635-0265-3	1	RRYB 117/CE	10.00	10003997	1	D4E225-CC0X	230V 50/60 Hz	64114336	1	D4E225-CC0X	115V 60 Hz	64114344	1	D2E133-CO47-XV	230VAC +/-10%50/60HZ 0,77A	64421077
ACA 635-0335-3	1	RRYB 117/CE	10.00	10003997	1	D4E225-CC0X	230V 50/60 Hz	64114336	1	D4E225-CC0X	115V 60 Hz	64114344	1	D2E133-CO47-XV	230VAC +/-10%50/60HZ 0,77A	64421077
ACA 635-0405-3	1	RRYB 117/CE	10.00	10003997	1	D4E225-CC0X	230V 50/60 Hz	64114336	1	D4E225-CC0X	115V 60 Hz	64114344	1	D2E133-CO47-XV	230VAC +/-10%50/60HZ 0,77A	64421077
ACA 635-0505-3	2	RRYB 117/CE	5.00	10003997	2	D4E225-CC0X	230V 50/60 Hz	64114336	2	D4E225-CC0X	115V 60 Hz	64114344	1	W2E 250-HL-06-05	230V 50/60HZ 130-200W	10028841
ACA 635-0635-3	2	RRYB 117/CE	5.00	10003997	2	D4E225-CC0X	230V 50/60 Hz	64114336	2	D4E225-CC0X	115V 60 Hz	64114344	1	D4E225-CC01-39	230VAC +/-10%50/60HZ 2,8A	64114336
ACA 635-0755-3	2	RRYB 117/CE	5.00	10003997	2	D4E225-CC0X	230V 50/60 Hz	64114336	2	D4E225-CC0X	115V 60 Hz	64114344	1	D4E225-CC01-39	230VAC +/-10%50/60HZ 2,8A	64114336
ACA 635-0935-3	3	RRYB 117/CE	3.33	10003997	3	D4E225-CC0X	230V 50/60 Hz	64114336	3	D4E225-CC0X	115V 60 Hz	64114344	1	D4E225-CC01-39	230VAC +/-10%50/60HZ 2,8A	64114336
ACA 635-1125-3	3	RRYB 117/CE	3.33	10003997	3	D4E225-CC0X	230V 50/60 Hz	64114336	3	D4E225-CC0X	115V 60 Hz	64114344	1	D4E225-CC01-39	230VAC +/-10%50/60HZ 2,8A	64114336
ACA 635-1445-3	4	RRYB 117/CE	2.50	10003997	4	D4E225-CC0X	230V 50/60 Hz	64114336	4	D4E225-CC0X	115V 60 Hz	64114344	2	D4E225-CC01-39	230VAC +/-10%50/60HZ 2,8A	64114336
ACA 635-1775-3	6	RRYB 117/CE	1.67	10003997	6	D4E225-CC0X	230V 50/60 Hz	64114336	6	D4E225-CC0X	115V 60 Hz	64114344	2	D4E225-CC01-39	230VAC +/-10%50/60HZ 2,8A	64114336
ACA 635-2145-3	6	RRYB 117/CE	1.67	10003997	6	D4E225-CC0X	230V 50/60 Hz	64114336	6	D4E225-CC0X	115V 60 Hz	64114344	2	D4E225-CC01-39	230VAC +/-10%50/60HZ 2,8A	64114336
ACA 635-2820-3	7	RRYB 117/CE	1.43	10003997	8	D4E225-CC0X	230V 50/60 Hz	64114336	8	D4E225-CC0X	115V 60 Hz	64114344	4	D4E225-CC01-39	230VAC +/-10%50/60HZ 2,8A	64114336
500 V																
ACA 635-0070-5	1	RRYB 117/CE	10.00	10003997	1	G2E140-AIXX	230V 50/60 Hz	64114158	1	G2E140-AIXX	115V 60 Hz	64114191	1	G2E140-AIXX	230V 50/60HZ	64114158
ACA 635-0100-5	1	RRYB 117/CE	10.00	10003997	1	G2E140-AIXX	230V 50/60 Hz	64114158	1	G2E140-AIXX	115V 60 Hz	64114191	1	G2E140-AIXX	230V 50/60HZ	64114158
ACA 635-0120-5	1	RRYB 117/CE	10.00	10003997	1	G2E140-AIXX	230V 50/60 Hz	64114158	1	G2E140-AIXX	115V 60 Hz	64114191	1	G2E140-AIXX	230V 50/60HZ	64114158
ACA 635-0140-5	1	RRYB 117/CE	10.00	10003997	1	G2E140-AIXX	230V 50/60 Hz	64114158	1	G2E140-AIXX	115V 60 Hz	64114191	1	G2E140-AIXX	230V 50/60HZ	64114158
ACA 635-0215-5	1	RRYB 117/CE	10.00	10003997	1	D4E225-CC0X	230V 50/60 Hz	64114336	1	D4E225-CC0X	115V 60 Hz	64114344	1	D2E133-CO47-XV	230VAC +/-10%50/60HZ 0,77A	64421077
ACA 635-0255-5	1	RRYB 117/CE	10.00	10003997	1	D4E225-CC0X	230V 50/60 Hz	64114336	1	D4E225-CC0X	115V 60 Hz	64114344	1	D2E133-CO47-XV	230VAC +/-10%50/60HZ 0,77A	64421077
ACA 635-0325-5	1	RRYB 117/CE	10.00	10003997	1	D4E225-CC0X	230V 50/60 Hz	64114336	1	D4E225-CC0X	115V 60 Hz	64114344	1	D2E133-CO47-XV	230VAC +/-10%50/60HZ 0,77A	64421077
ACA 635-0395-5	2	RRYB 117/CE	5.00	10003997	1	D4E225-CC0X	230V 50/60 Hz	64114336	1	D4E225-CC0X	115V 60 Hz	64114344	1	D2E133-CO47-XV	230VAC +/-10%50/60HZ 0,77A	64421077
ACA 635-0495-5	2	RRYB 117/CE	5.00	10003997	1	D4E225-CC0X	230V 50/60 Hz	64114336	1	D4E225-CC0X	115V 60 Hz	64114344	1	D2E133-CO47-XV	230VAC +/-10%50/60HZ 0,77A	64421077
ACA 635-0615-5	2	RRYB 117/CE	5.00	10003997	2	D4E225-CC0X	230V 50/60 Hz	64114336	2	D4E225-CC0X	115V 60 Hz	64114344	1	W2E 250-HL-06-05	230V 50/60HZ 130-200W	10028841
ACA 635-0775-5	2	RRYB 117/CE	5.00	10003997	2	D4E225-CC0X	230V 50/60 Hz	64114336	2	D4E225-CC0X	115V 60 Hz	64114344	1	D4E225-CC01-39	230VAC +/-10%50/60HZ 2,8A	64114336
ACA 635-0925-5	2	RRYB 117/CE	5.00	10003997	2	D4E225-CC0X	230V 50/60 Hz	64114336	2	D4E225-CC0X	115V 60 Hz	64114344	1	D4E225-CC01-39	230VAC +/-10%50/60HZ 2,8A	64114336
ACA 635-1095-5	4	RRYB 117/CE	2.50	10003997	3	D4E225-CC0X	230V 50/60 Hz	64114336	3	D4E225-CC0X	115V 60 Hz	64114344	1	D4E225-CC01-39	230VAC +/-10%50/60HZ 2,8A	64114336
ACA 635-1385-5	4	RRYB 117/CE	2.50	10003997	3	D4E225-CC0X	230V 50/60 Hz	64114336	3	D4E225-CC0X	115V 60 Hz	64114344	1	D4E225-CC01-39	230VAC +/-10%50/60HZ 2,8A	64114336
ACA 635-1765-5	4	RRYB 117/CE	2.50	10003997	4	D4E225-CC0X	230V 50/60 Hz	64114336	4	D4E225-CC0X	115V 60 Hz	64114344	2	D4E225-CC01-39	230VAC +/-10%50/60HZ 2,8A	64114336
ACA 635-2165-5	7	RRYB 117/CE	1.43	10003997	6	D4E225-CC0X	230V 50/60 Hz	64114336	6	D4E225-CC0X	115V 60 Hz	64114344	2	D4E225-CC01-39	230VAC +/-10%50/60HZ 2,8A	64114336
ACA 635-2625-5	7	RRYB 117/CE	1.43	10003997	6	D4E225-CC0X	230V 50/60 Hz	64114336	6	D4E225-CC0X	115V 60 Hz	64114344	2	D4E225-CC01-39	230VAC +/-10%50/60HZ 2,8A	64114336
ACA 635-3450-5	8	RRYB 117/CE	1.25	10003997	8	D4E225-CC0X	230V 50/60 Hz	64114336	8	D4E225-CC0X	115V 60 Hz	64114344	4	D4E225-CC01-39	230VAC +/-10%50/60HZ 2,8A	64114336
690 V																
ACA 635-0060-6	1	RRYB 117/CE	10.00	10003997	1	G2E140-AIXX	230V 50/60 Hz	64114158	1	G2E140-AIXX	115V 60 Hz	64114191	1	G2E140-AIXX	230V 50/60HZ	64114158
ACA 635-0070-6	1	RRYB 117/CE	10.00	10003997	1	G2E140-AIXX	230V 50/60 Hz	64114158	1	G2E140-AIXX	115V 60 Hz	64114191	1	G2E140-AIXX	230V 50/60HZ	64114158
ACA 635-0100-6	1	RRYB 117/CE	10.00	10003997	1	G2E140-AIXX	230V 50/60 Hz	64114158	1	G2E140-AIXX	115V 60 Hz	64114191	1	G2E140-AIXX	230V 50/60HZ	64114158
ACA 635-0120-6	1	RRYB 117/CE	10.00	10003997	1	G2E140-AIXX	230V 50/60 Hz	64114158	1	G2E140-AIXX	115V 60 Hz	64114191	1	G2E140-AIXX	230V 50/60HZ	64114158
ACA 635-0185-6	1	RRYB 117/CE	10.00	10003997	1	D4E225-CC0X	230V 50/60 Hz	64114336	1	D4E225-CC0X	115V 60 Hz	64114344	1	D2E133-CF01-XX	230VAC +/-10%50/60HZ 0,77A	64421077
ACA 635-0205-6	1	RRYB 117/CE	10.00	10003997	1	D4E225-CC0X	230V 50/60 Hz	64114336	1	D4E225-CC0X	115V 60 Hz	64114344	1	D2E133-CO47-XV	230VAC +/-10%50/60HZ 0,77A	64421077
ACA 635-0255-6	1	RRYB 117/CE	10.00	10003997	1	D4E225-CC0X	230V 50/60 Hz	64114336	1	D4E225-CC0X	115V 60 Hz	64114344	1	D2E133-CO47-XV	230VAC +/-10%50/60HZ 0,77A	64421077
ACA 635-0315-6	1	RRYB 117/CE	10.00	10003997	1	D4E225-CC0X	230V 50/60 Hz	64114336	1	D4E225-CC0X	115V 60 Hz	64114344	1	D2E133-CO47-XV	230VAC +/-10%50/60HZ 0,77A	64421077
ACA 635-0375-6	2	RRYB 117/CE	5.00	10003997	1	D4E225-CC0X	230V 50/60 Hz	64114336	1	D4E225-CC0X	115V 60 Hz	64114344	1	D2E133-CO47-XV	230VAC +/-10%50/60HZ 0,77A	64421077
ACA 635-0485-6	2	RRYB 117/CE	5.00	10003997	1	D4E225-CC0X	230V 50/60 Hz	64114336	1	D4E225-CC0X	115V 60 Hz	64114344	1	D2E133-CO47-XV	230VAC +/-10%50/60HZ 0,77A	64421077
ACA 635-0605-6	2	RRYB 117/CE	5.00	10003997	2	D4E225-CC0X	230V 50/60 Hz	64114336	2	D4E225-CC0X	115V 60 Hz	64114344	1	W2E 250-HL-06-05	230V 50/60HZ 130-200W	10028841
ACA 635-0755-6	3	RRYB 117/CE	3.33	10003997	2	D4E225-CC0X	230V 50/60 Hz	64114336	2	D4E225-CC0X	115V 60 Hz	64114344	1	D4E225-CC01-39	230VAC +/-10%50/60HZ 2,8A	64114336
ACA 635-0905-6	3	RRYB 117/CE	3.33	10003997	2	D4E225-CC0X	230V 50/60 Hz	64114336	2	D4E225-CC0X	115V 60 Hz	64114344	1	D4E225-CC01-39	230VAC +/-10%50/60HZ 2,8A	64114336
ACA 635-1045-6	5	RRYB 117/CE	2.00	10003997	3	D4E225-CC0X	230V 50/60 Hz	64114336	3	D4E225-CC0X	115V 60 Hz	64114344	1	D4E225-CC01-39	230VAC +/-10%50/60HZ 2,8A	64114336
ACA 635-1385-6	5	RRYB 117/CE	2.00	10003997	3	D4E225-CC0X	230V 50/60 Hz	64114336	3	D4E225-CC0X	115V 60 Hz	64114344	1	D4E225-CC01-39	230VAC +/-10%50/60HZ 2,8A	64114336
ACA 635-1715-6	6	RRYB 117/CE	1.67	10003997	4	D4E225-CC0X	230V 50/60 Hz	64114336	4	D4E225-CC0X	115V 60 Hz	64114344	2	D4E225-CC01-39	230VAC +/-10%50/60HZ 2,8A	64114336
ACA 635-2125-6	10	RRYB 117/CE	1.00	10003997	6	D4E225-CC0X	230V 50/60 Hz	64114336	6	D4E225-CC0X	115V 60 Hz	64114344	2	D4E225-CC01-39	230VAC +/-10%50/60HZ 2,8A	64114336
ACA 635-2545-6	10	RRYB 117/CE	1.00	10003997	6	D4E225-CC0X	230V 50/60 Hz	64114336	6	D4E225-CC0X	115V 60 Hz	64114344	2	D4E225-CC01-39	230VAC +/-10%50/60HZ 2,8A	64114336
ACA 635-3350-6	12	RRYB 117/CE	0.83	10003997	8	D4E225-CC0X	230V 50/60 Hz	64114336	8	D4E225-CC0X	115V 60 Hz	64114344	4	D4E225-CC01-39	230VAC +/-10%50/60HZ 2,8A	64114336
ACA 635-5140-6	14	RRYB 117/CE	0.71	10003997	12	D4E225-CC0X	230V 50/60 Hz	64114336	12	D4E225-CC0X	115V 60 Hz	64114344	4	D4E225-CC01-39	230VAC +/-10%50/60HZ 2,8A	64114336

ACS600 MultiDrive		Fan for AC-Filter(115V)				Mounting Frame				Auxiliary power filter				Charging Contactor 230V		
Section type	Pcs	Type	Info	Order Code	Pcs	Type	Info	Order Code	Pcs	Type	Info	Order Code	Pcs	Type	Info	Order Code
400 V																
ACA 635-0060-3	1	G2E140-AIXX	115V 60HZ	64114191	1	FRAME R6i/R7i		64138375	1	AB-202-20R2	17A 115/230V 59/60HZ	64312359	1	A9-30-10-80	230VAC 50/60 Hz	59017608
ACA 635-0070-3	1	G2E140-AIXX	115V 60HZ	64114191	1	FRAME R6i/R7i		64138375	1	AB-202-20R2	17A 115/230V 59/60HZ	64312359	1	A9-30-10-80	230VAC 50/60 Hz	59017608
ACA 635-0100-3	1	G2E140-AIXX	115V 60HZ	64114191	1	FRAME R6i/R7i		64138375	1	AB-202-20R2	17A 115/230V 59/60HZ	64312359	1	A9-30-10-80	230VAC 50/60 Hz	59017608
ACA 635-0120-3	1	G2E140-AIXX	115V 60HZ	64114191	1	FRAME R6i/R7i		64138375	1	AB-202-20R2	17A 115/230V 59/60HZ	64312359	1	A9-30-10-80	230VAC 50/60 Hz	59017608
ACA 635-0185-3	1	D2E133-CO67-XU	115VAC +/-10%50/60HZ 1,5A	64421093	1	FRAME R8i/9i		64138383	1	AB-202-20R2	17A 115/230V 59/60HZ	64312359	1	A9-30-10-80	230VAC 50/60 Hz	59017608
ACA 635-0225-3	1	D2E133-CO67-XU	115VAC +/-10%50/60HZ 1,5A	64421093	1	FRAME R8i/9i		64138383	1	AB-202-20R2	17A 115/230V 59/60HZ	64312359	1	A9-30-10-80	230VAC 50/60 Hz	59017608
ACA 635-0265-3	1	D2E133-CO67-XU	115VAC +/-10%50/60HZ 1,5A	64421093	1	FRAME R8i/9i		64138383	1	AB-202-20R2	17A 115/230V 59/60HZ	64312359	1	A9-30-10-80	230VAC 50/60 Hz	59017608
ACA 635-0335-3	1	D2E133-CO67-XU	115VAC +/-10%50/60HZ 1,5A	64421093	1	FRAME R8i/9i		64138383	1	AB-202-20R2	17A 115/230V 59/60HZ	64312359	1	A9-30-10-80	230VAC 50/60 Hz	59017608
ACA 635-0405-3	1	D2E133-CO67-XU	115VAC +/-10%50/60HZ 1,5A	64421093	1	FRAME R8i/9i		64138383	1	AB-202-20R2	17A 115/230V 59/60HZ	64312359	1	A9-30-10-80	230VAC 50/60 Hz	59017608
ACA 635-0505-3	1	W2E 250-HL-08-06	115V 50/60HZ	10032318	1	FRAME R10i/11i		64138391	1	AB-202-20R2	17A 115/230V 59/60HZ	64312359	1	A9-30-10-80	230VAC 50/60 Hz	59017608
ACA 635-0635-3	1	D4E225-CC07-37	115VAC +/-10% 60HZ 5A	64114344	1	FRAME R10i/11i		64138391	1	AB-202-20R2	17A 115/230V 59/60HZ	64312359	1	A16-30-10-80	230VAC 50/60 Hz	59017632
ACA 635-0755-3	1	D4E225-CC07-37	115VAC +/-10% 60HZ 5A	64114344	1	FRAME R10i/11i		64138391	1	AB-202-20R2	17A 115/230V 59/60HZ	64312359	1	A16-30-10-80	230VAC 50/60 Hz	59017632
ACA 635-0935-3	1	D4E225-CC07-37	115VAC +/-10% 60HZ 5A	64114344	1	FRAME R12i		64138405	1	AB-202-20R2	17A 115/230V 59/60HZ	64312359	1	A30-30-10-80	230VAC 50/60 Hz	64114395
ACA 635-1125-3	1	D4E225-CC07-37	115VAC +/-10% 60HZ 5A	64114344	1	FRAME R12i		64138405	1	AB-202-20R2	17A 115/230V 59/60HZ	64312359	1	A30-30-10-80	230VAC 50/60 Hz	64114395
ACA 635-1445-3	2	D4E225-CC07-37	115VAC +/-10% 60HZ 5A	64114344	2	FRAME R10i/11i		64138391	1	AB-202-20R2	17A 115/230V 59/60HZ	64312359	1	A30-30-10-80	230VAC 50/60 Hz	64114395
ACA 635-1775-3	2	D4E225-CC07-37	115VAC +/-10% 60HZ 5A	64114344	2	FRAME R12i		64138405	1	AB-202-20R2	17A 115/230V 59/60HZ	64312359	1	A30-30-10-80	230VAC 50/60 Hz	64114395
ACA 635-2145-3	2	D4E225-CC07-37	115VAC +/-10% 60HZ 5A	64114344	2	FRAME R12i		64138405	1	AB-202-20R2	17A 115/230V 59/60HZ	64312359	1	A30-30-10-80	230VAC 50/60 Hz	64114395
ACA 635-2820-3	4	D4E225-CC07-37	115VAC +/-10% 60HZ 5A	64114344	4	FRAME R10i/11i		64138391	1	AB-202-20R2	17A 115/230V 59/60HZ	64312359	1	A30-30-10-80	230VAC 50/60 Hz	64114395
500 V																
ACA 635-0070-5	1	G2E140-AIXX	115V 60HZ	64114191	1	FRAME R6i/R7i		64138375	1	AB-202-20R2	17A 115/230V 59/60HZ	64312359	1	A9-30-10-80	230VAC 50/60 Hz	59017608
ACA 635-0100-5	1	G2E140-AIXX	115V 60HZ	64114191	1	FRAME R6i/R7i		64138375	1	AB-202-20R2	17A 115/230V 59/60HZ	64312359	1	A9-30-10-80	230VAC 50/60 Hz	59017608
ACA 635-0120-5	1	G2E140-AIXX	115V 60HZ	64114191	1	FRAME R6i/R7i		64138375	1	AB-202-20R2	17A 115/230V 59/60HZ	64312359	1	A9-30-10-80	230VAC 50/60 Hz	59017608
ACA 635-0140-5	1	G2E140-AIXX	115V 60HZ	64114191	1	FRAME R6i/R7i		64138375	1	AB-202-20R2	17A 115/230V 59/60HZ	64312359	1	A9-30-10-80	230VAC 50/60 Hz	59017608
ACA 635-0215-5	1	D2E133-CO67-XU	115VAC +/-10%50/60HZ 1,5A	64421093	1	FRAME R8i/9i		64138383	1	AB-202-20R2	17A 115/230V 59/60HZ	64312359	1	A9-30-10-80	230VAC 50/60 Hz	59017608
ACA 635-0255-5	1	D2E133-CO67-XU	115VAC +/-10%50/60HZ 1,5A	64421093	1	FRAME R8i/9i		64138383	1	AB-202-20R2	17A 115/230V 59/60HZ	64312359	1	A9-30-10-80	230VAC 50/60 Hz	59017608
ACA 635-0325-5	1	D2E133-CO67-XU	115VAC +/-10%50/60HZ 1,5A	64421093	1	FRAME R8i/9i		64138383	1	AB-202-20R2	17A 115/230V 59/60HZ	64312359	1	A9-30-10-80	230VAC 50/60 Hz	59017608
ACA 635-0395-5	1	D2E133-CO67-XU	115VAC +/-10%50/60HZ 1,5A	64421093	1	FRAME R8i/9i		64138383	1	AB-202-20R2	17A 115/230V 59/60HZ	64312359	1	A16-30-10-80	230VAC 50/60 Hz	59017632
ACA 635-0495-5	1	D2E133-CO67-XU	115VAC +/-10%50/60HZ 1,5A	64421093	1	FRAME R8i/9i		64138383	1	AB-202-20R2	17A 115/230V 59/60HZ	64312359	1	A16-30-10-80	230VAC 50/60 Hz	59017632
ACA 635-0615-5	1	W2E 250-HL-08-06	115V 50/60HZ	10032318	1	FRAME R10i/11i		64138391	1	AB-202-20R2	17A 115/230V 59/60HZ	64312359	1	A16-30-10-80	230VAC 50/60 Hz	59017632
ACA 635-0775-5	1	D4E225-CC07-37	115VAC +/-10% 60HZ 5A	64114344	1	FRAME R10i/11i		64138391	1	AB-202-20R2	17A 115/230V 59/60HZ	64312359	1	A16-30-10-80	230VAC 50/60 Hz	59017632
ACA 635-0925-5	1	D4E225-CC07-37	115VAC +/-10% 60HZ 5A	64114344	1	FRAME R10i/11i		64138391	1	AB-202-20R2	17A 115/230V 59/60HZ	64312359	1	A16-30-10-80	230VAC 50/60 Hz	59017632
ACA 635-1095-5	1	D4E225-CC07-37	115VAC +/-10% 60HZ 5A	64114344	1	FRAME R12i		64138405	1	AB-202-20R2	17A 115/230V 59/60HZ	64312359	1	A30-30-10-80	230VAC 50/60 Hz	64114395
ACA 635-1385-5	1	D4E225-CC07-37	115VAC +/-10% 60HZ 5A	64114344	1	FRAME R12i		64138405	1	AB-202-20R2	17A 115/230V 59/60HZ	64312359	1	A30-30-10-80	230VAC 50/60 Hz	64114395
ACA 635-1765-5	2	D4E225-CC07-37	115VAC +/-10% 60HZ 5A	64114344	2	FRAME R10i/11i		64138391	1	AB-202-20R2	17A 115/230V 59/60HZ	64312359	1	A30-30-10-80	230VAC 50/60 Hz	64114395
ACA 635-2165-5	2	D4E225-CC07-37	115VAC +/-10% 60HZ 5A	64114344	2	FRAME R12i		64138405	1	AB-202-20R2	17A 115/230V 59/60HZ	64312359	1	A30-30-10-80	230VAC 50/60 Hz	64114395
ACA 635-2625-5	2	D4E225-CC07-37	115VAC +/-10% 60HZ 5A	64114344	2	FRAME R12i		64138405	1	AB-202-20R2	17A 115/230V 59/60HZ	64312359	1	A30-30-10-80	230VAC 50/60 Hz	64114395
ACA 635-3450-5	4	D4E225-CC07-37	115VAC +/-10% 60HZ 5A	64114344	4	FRAME R10i/11i		64138391	1	AB-202-20R2	17A 115/230V 59/60HZ	64312359	1	A50-30-11-80	230VAC 50/60 Hz	59015915
690 V																
ACA 635-0060-6	1	G2E140-AIXX	115V 60HZ	64114191	1	FRAME R6i/R7i		64138375	1	AB-202-20R2	17A 115/230V 59/60HZ	64312359	1	A9-30-10-80	230VAC 50/60 Hz	59017608
ACA 635-0070-6	1	G2E140-AIXX	115V 60HZ	64114191	1	FRAME R6i/R7i		64138375	1	AB-202-20R2	17A 115/230V 59/60HZ	64312359	1	A9-30-10-80	230VAC 50/60 Hz	59017608
ACA 635-0100-6	1	G2E140-AIXX	115V 60HZ	64114191	1	FRAME R6i/R7i		64138375	1	AB-202-20R2	17A 115/230V 59/60HZ	64312359	1	A9-30-10-80	230VAC 50/60 Hz	59017608
ACA 635-0120-6	1	G2E140-AIXX	115V 60HZ	64114191	1	FRAME R6i/R7i		64138375	1	AB-202-20R2	17A 115/230V 59/60HZ	64312359	1	A9-30-10-80	230VAC 50/60 Hz	59017608
ACA 635-0185-6	1	D2E133-CI63-XX	115VAC +/-10%50/60HZ 1,5A	64421093	1	FRAME R8i/9i		64138383	1	AB-202-20R2	17A 115/230V 59/60HZ	64312359	1	A9-30-10-80	230VAC 50/60 Hz	59017608
ACA 635-0205-6	1	D2E133-CO67-XU	115VAC +/-10%50/60HZ 1,5A	64421093	1	FRAME R8i/9i		64138383	1	AB-202-20R2	17A 115/230V 59/60HZ	64312359	1	A9-30-10-80	230VAC 50/60 Hz	59017608
ACA 635-0255-6	1	D2E133-CO67-XU	115VAC +/-10%50/60HZ 1,5A	64421093	1	FRAME R8i/9i		64138383	1	AB-202-20R2	17A 115/230V 59/60HZ	64312359	1	A9-30-10-80	230VAC 50/60 Hz	59017608
ACA 635-0315-6	1	D2E133-CO67-XU	115VAC +/-10%50/60HZ 1,5A	64421093	1	FRAME R8i/9i		64138383	1	AB-202-20R2	17A 115/230V 59/60HZ	64312359	1	A9-30-10-80	230VAC 50/60 Hz	59017608
ACA 635-0375-6	1	D2E133-CO67-XU	115VAC +/-10%50/60HZ 1,5A	64421093	1	FRAME R8i/9i		64138383	1	AB-202-20R2	17A 115/230V 59/60HZ	64312359	1	A16-30-10-80	230VAC 50/60 Hz	59017632
ACA 635-0485-6	1	D2E133-CO67-XU	115VAC +/-10%50/60HZ 1,5A	64421093	1	FRAME R8i/9i		64138383	1	AB-202-20R2	17A 115/230V 59/60HZ	64312359	1	A16-30-10-80	230VAC 50/60 Hz	59017632
ACA 635-0605-6	1	W2E 250-HL-08-06	115V 50/60HZ	10032318	1	FRAME R10i/11i		64138391	1	AB-202-20R2	17A 115/230V 59/60HZ	64312359	1	A16-30-10-80	230VAC 50/60 Hz	59017632
ACA 635-0755-6	1	D4E225-CC07-37	115VAC +/-10% 60HZ 5A	64114344	1	FRAME R10i/11i		64138391	1	AB-202-20R2	17A 115/230V 59/60HZ	64312359	1	A30-30-10-80	230VAC 50/60 Hz	64114395
ACA 635-0905-6	1	D4E225-CC07-37	115VAC +/-10% 60HZ 5A	64114344	1	FRAME R10i/11i		64138391	1	AB-202-20R2	17A 115/230V 59/60HZ	64312359	1	A30-30-10-80	230VAC 50/60 Hz	64114395
ACA 635-1045-6	1	D4E225-CC07-37	115VAC +/-10% 60HZ 5A	64114344	1	FRAME R12i		64138405	1	AB-202-20R2	17A 115/230V 59/60HZ	64312359	1	A30-30-10-80	230VAC 50/60 Hz	64114395
ACA 635-1385-6	1	D4E225-CC07-37	115VAC +/-10% 60HZ 5A	64114344	1	FRAME R12i		64138405	1	AB-202-20R2	17A 115/230V 59/60HZ	64312359	1	A30-30-10-80	230VAC 50/60 Hz	64114395
ACA 635-1715-6	2	D4E225-CC07-37	115VAC +/-10% 60HZ 5A	64114344	2	FRAME R10i/11i		64138391	1	AB-202-20R2	17A 115/230V 59/60HZ	64312359	1	A30-30-10-80	230VAC 50/60 Hz	64114395
ACA 635-2125-6	2	D4E225-CC07-37	115VAC +/-10% 60HZ 5A	64114344	2	FRAME R12i		64138405	1	AB-202-20R2	17A 115/230V 59/60HZ	64312359	1	A50-30-11-80	230VAC 50/60 Hz	59015915
ACA 635-2545-6	2	D4E225-CC07-37	115VAC +/-10% 60HZ 5A	64114344	2	FRAME R12i		64138405	1	AB-202-20R2	17A 115/230V 59/60HZ	64312359	1	A50-30-11-80	230VAC 50/60 Hz	59015915
ACA 635-3350-6	4	D4E225-CC07-37	115VAC +/-10% 60HZ 5A	64114344	4	FRAME R10i/11i		64138391	1	AB-202-20R2	17A 115/230V 59/60HZ	64312359	1	A75-30-11-80	230VAC 50/60 Hz	64262742
ACA 635-5140-6	4	D4E225-CC07-37	115VAC +/-10% 60HZ 5A	64114344	4	FRAME R12i		64138405	1	AB-202-20R2	17A 115/230V 59/60HZ	64312359	1	A75-30-11-80	230VAC 50/60 Hz	64262742

ACS600 MultiDrive		Charging Contactor 115V				AC-reactor mounting frame				Varistor Board		
Section type	Pcs	Type	Info	Order Code	Pcs	Type	Info	Order Code	Pcs	Type	Info	Order Code
400 V												
ACA 635-0060-3	1	A9-30-10-89	115VAC 50/60 Hz	59016989					1	K2001C (400,500V)	400,500V	64284771
ACA 635-0070-3	1	A9-30-10-89	115VAC 50/60 Hz	59016989					1	K2001C (400,500V)	400,500V	64284771
ACA 635-0100-3	1	A9-30-10-89	115VAC 50/60 Hz	59016989					1	K2001C (400,500V)	400,500V	64284771
ACA 635-0120-3	1	A9-30-10-89	115VAC 50/60 Hz	59016989					1	K2001C (400,500V)	400,500V	64284771
ACA 635-0185-3	1	A9-30-10-89	115VAC 50/60 Hz	59016989					1	K2001C (400,500V)	400,500V	64284771
ACA 635-0225-3	1	A9-30-10-89	115VAC 50/60 Hz	59016989					1	K2001C (400,500V)	400,500V	64284771
ACA 635-0265-3	1	A9-30-10-89	115VAC 50/60 Hz	59016989					1	K2001C (400,500V)	400,500V	64284771
ACA 635-0335-3	1	A9-30-10-89	115VAC 50/60 Hz	59016989					1	K2001C (400,500V)	400,500V	64284771
ACA 635-0405-3	1	A9-30-10-89	115VAC 50/60 Hz	59016989					1	K2001C (400,500V)	400,500V	64284771
ACA 635-0505-3	1	A9-30-10-89	115VAC 50/60 Hz	59016989	1	INSTALLATION FOOT FOR ISUL_R10I		64457136	1	K2001C (400,500V)	400,500V	64284771
ACA 635-0635-3	1	A16-30-10-89	115VAC 50/60 Hz	59016997	1	MOUNTING FRAME FOR ISUL_R11I/R1		64450158	1	K2001C (400,500V)	400,500V	64284771
ACA 635-0755-3	1	A16-30-10-89	115VAC 50/60 Hz	59016997	1	MOUNTING FRAME FOR ISUL_R11I/R1		64450158	1	K2001C (400,500V)	400,500V	64284771
ACA 635-0935-3	1	A30-30-10-89	115VAC 50/60 Hz	64315242	1	MOUNTING FRAME FOR ISUL_R11I/R1		64450158	1	K2001C (400,500V)	400,500V	64284771
ACA 635-1125-3	1	A30-30-10-89	115VAC 50/60 Hz	64315242	1	MOUNTING FRAME FOR ISUL_R11I/R1		64450158	1	K2001C (400,500V)	400,500V	64284771
ACA 635-1445-3	1	A30-30-10-89	115VAC 50/60 Hz	64315242	2	MOUNTING FRAME FOR ISUL_R11I/R1		64450158	2	K2001C (400,500V)	400,500V	64284771
ACA 635-1775-3	1	A30-30-10-89	115VAC 50/60 Hz	64315242	2	MOUNTING FRAME FOR ISUL_R11I/R1		64450158	2	K2001C (400,500V)	400,500V	64284771
ACA 635-2145-3	1	A30-30-10-89	115VAC 50/60 Hz	64315242	2	MOUNTING FRAME FOR ISUL_R11I/R1		64450158	2	K2001C (400,500V)	400,500V	64284771
ACA 635-2820-3	1	A30-30-10-89	115VAC 50/60 Hz	64315242	2	MOUNTING FRAME FOR ISUL_R11I/R1		64450158	4	K2001C (400,500V)	400,500V	64284771
500 V												
ACA 635-0070-5	1	A9-30-10-89	115VAC 50/60 Hz	59016989					1	K2001C (400,500V)	400,500V	64284771
ACA 635-0100-5	1	A9-30-10-89	115VAC 50/60 Hz	59016989					1	K2001C (400,500V)	400,500V	64284771
ACA 635-0120-5	1	A9-30-10-89	115VAC 50/60 Hz	59016989					1	K2001C (400,500V)	400,500V	64284771
ACA 635-0140-5	1	A9-30-10-89	115VAC 50/60 Hz	59016989					1	K2001C (400,500V)	400,500V	64284771
ACA 635-0215-5	1	A9-30-10-89	115VAC 50/60 Hz	59016989					1	K2001C (400,500V)	400,500V	64284771
ACA 635-0255-5	1	A9-30-10-89	115VAC 50/60 Hz	59016989					1	K2001C (400,500V)	400,500V	64284771
ACA 635-0325-5	1	A9-30-10-89	115VAC 50/60 Hz	59016989					1	K2001C (400,500V)	400,500V	64284771
ACA 635-0395-5	1	A16-30-10-89	115VAC 50/60 Hz	59016997					1	K2001C (400,500V)	400,500V	64284771
ACA 635-0495-5	1	A16-30-10-89	115VAC 50/60 Hz	59016997					1	K2001C (400,500V)	400,500V	64284771
ACA 635-0615-5	1	A16-30-10-89	115VAC 50/60 Hz	59016997	1	INSTALLATION FOOT FOR ISUL_R10I		64457136	1	K2001C (400,500V)	400,500V	64284771
ACA 635-0775-5	1	A16-30-10-89	115VAC 50/60 Hz	59016997	1	MOUNTING FRAME FOR ISUL_R11I/R1		64450158	1	K2001C (400,500V)	400,500V	64284771
ACA 635-0925-5	1	A16-30-10-89	115VAC 50/60 Hz	59016997	1	MOUNTING FRAME FOR ISUL_R11I/R1		64450158	1	K2001C (400,500V)	400,500V	64284771
ACA 635-1095-5	1	A30-30-10-89	115VAC 50/60 Hz	64315242	1	MOUNTING FRAME FOR ISUL_R11I/R1		64450158	1	K2001C (400,500V)	400,500V	64284771
ACA 635-1385-5	1	A30-30-10-89	115VAC 50/60 Hz	64315242	1	MOUNTING FRAME FOR ISUL_R11I/R1		64450158	1	K2001C (400,500V)	400,500V	64284771
ACA 635-1765-5	1	A30-30-10-89	115VAC 50/60 Hz	64315242	1	MOUNTING FRAME FOR ISUL_R11I/R1		64450158	2	K2001C (400,500V)	400,500V	64284771
ACA 635-2165-5	1	A30-30-10-89	115VAC 50/60 Hz	64315242	1	MOUNTING FRAME FOR ISUL_R11I/R1		64450158	2	K2001C (400,500V)	400,500V	64284771
ACA 635-2625-5	1	A30-30-10-89	115VAC 50/60 Hz	64315242	1	MOUNTING FRAME FOR ISUL_R11I/R1		64450158	2	K2001C (400,500V)	400,500V	64284771
ACA 635-3450-5	1	A50-30-11-89	115VAC 50/60 Hz	59017012	1	MOUNTING FRAME FOR ISUL_R11I/R1		64450158	4	K2001C (400,500V)	400,500V	64284771
690 V												
ACA 635-0060-6	1	A9-30-10-89	115VAC 50/60 Hz	59016989					1	K2002C (690V)	690V	64284827
ACA 635-0070-6	1	A9-30-10-89	115VAC 50/60 Hz	59016989					1	K2002C (690V)	690V	64284827
ACA 635-0100-6	1	A9-30-10-89	115VAC 50/60 Hz	59016989					1	K2002C (690V)	690V	64284827
ACA 635-0120-6	1	A9-30-10-89	115VAC 50/60 Hz	59016989					1	K2002C (690V)	690V	64284827
ACA 635-0185-6	1	A9-30-10-89	115VAC 50/60 Hz	59016989					1	K2002C (690V)	690V	64284827
ACA 635-0205-6	1	A9-30-10-89	115VAC 50/60 Hz	59016989					1	K2002C (690V)	690V	64284827
ACA 635-0255-6	1	A9-30-10-89	115VAC 50/60 Hz	59016989					1	K2002C (690V)	690V	64284827
ACA 635-0315-6	1	A9-30-10-89	115VAC 50/60 Hz	59016989					1	K2002C (690V)	690V	64284827
ACA 635-0375-6	1	A16-30-10-89	115VAC 50/60 Hz	59016997					1	K2002C (690V)	690V	64284827
ACA 635-0485-6	1	A16-30-10-89	115VAC 50/60 Hz	59016997					1	K2002C (690V)	690V	64284827
ACA 635-0605-6	1	A16-30-10-89	115VAC 50/60 Hz	59016997	1	INSTALLATION FOOT FOR ISUL_R10I		64457136	1	K2002C (690V)	690V	64284827
ACA 635-0755-6	1	A30-30-10-89	115VAC 50/60 Hz	64315242	1	MOUNTING FRAME FOR ISUL_R11I/R1		64450158	1	K2002C (690V)	690V	64284827
ACA 635-0905-6	1	A30-30-10-89	115VAC 50/60 Hz	64315242	1	MOUNTING FRAME FOR ISUL_R11I/R1		64450158	1	K2002C (690V)	690V	64284827
ACA 635-1045-6	1	A30-30-10-89	115VAC 50/60 Hz	64315242	1	MOUNTING FRAME FOR ISUL_R11I/R1		64450158	1	K2002C (690V)	690V	64284827
ACA 635-1385-6	1	A30-30-10-89	115VAC 50/60 Hz	64315242	1	MOUNTING FRAME FOR ISUL_R11I/R1		64450158	1	K2002C (690V)	690V	64284827
ACA 635-1715-6	1	A30-30-10-89	115VAC 50/60 Hz	64315242	1	MOUNTING FRAME FOR ISUL_R11I/R1		64450158	2	K2002C (690V)	690V	64284827
ACA 635-2125-6	1	A50-30-11-89	115VAC 50/60 Hz	59017012	1	MOUNTING FRAME FOR ISUL_R11I/R1		64450158	2	K2002C (690V)	690V	64284827
ACA 635-2545-6	1	A50-30-11-89	115VAC 50/60 Hz	59017012	1	MOUNTING FRAME FOR ISUL_R11I/R1		64450158	2	K2002C (690V)	690V	64284827
ACA 635-3350-6	1	A75-30-11-89	115VAC 50/60 Hz	64262751	1	MOUNTING FRAME FOR ISUL_R11I/R1		64450158	4	K2002C (690V)	690V	64284827
ACA 635-5140-6	1	A75-30-11-89	115VAC 50/60 Hz	64262751	1	MOUNTING FRAME FOR ISUL_R11I/R1		64450158	4	K2002C (690V)	690V	64284827

ACS600 MultiDrive	Modtool		Module				Module with Prevention of unexpected Start-up				Coated Module		
Section type	Name	Pcs	Type Code	Info	Order Code	Pcs	Type Code	Info	Order Code	Pcs	Type Code	Info	Order Code
400V													
ACA 610-0005-3	ACN634-0005-3	1	ACN6340005300000000900	5 kVA, 400 V	64115944	1	ACN6340005300000000902	5 kVA, 400 V	61316434	1	ACN6340005300000300900	5 kVA, 400 V	64187708
ACA 610-0006-3	ACN634-0006-3	1	ACN6340006300000000900	6 kVA, 400 V	64116053	1	ACN6340006300000000902	6 kVA, 400 V	61316442	1	ACN6340006300000300900	6 kVA, 400 V	64187724
ACA 610-0009-3	ACN634-0009-3	1	ACN6340009300000000900	9 kVA, 400 V	64116231	1	ACN6340009300000000902	9 kVA, 400 V	61316451	1	ACN6340009300000300900	9 kVA, 400 V	64187741
ACA 610-0011-3	ACN634-0011-3	1	ACN6340011300000000900	11 kVA, 400 V	64116363	1	ACN6340011300000000902	11 kVA, 400 V	61316469	1	ACN6340011300000300900	11 kVA, 400 V	64187821
ACA 610-0016-3	ACN634-0016-3	1	ACN6340016300000000900	16 kVA, 400 V	64116509	1	ACN6340016300000000902	16 kVA, 400 V	61316477	1	ACN6340016300000300900	16 kVA, 400 V	64187848
ACA 610-0020-3	ACN634-0020-3	1	ACN6340020300000000900	20 kVA, 400 V	64116550	1	ACN6340020300000000902	20 kVA, 400 V	61316485	1	ACN6340020300000300900	20 kVA, 400 V	64187988
ACA 610-0025-3	ACN634-0025-3	1	ACN6340025300000000900	25 kVA, 400 V	64116592	1	ACN6340025300000000902	25 kVA, 400 V	61316493	1	ACN6340025300000300900	25 kVA, 400 V	64188003
ACA 610-0030-3	ACN634-0030-3	1	ACN6340030300000000900	30 kVA, 400 V	64116690	1	ACN6340030300000000902	30 kVA, 400 V	61316507	1	ACN6340030300000300900	30 kVA, 400 V	64188101
ACA 610-0040-3	ACN634-0040-3	1	ACN6340040300000000900	40 kVA, 400 V	64118315	1	ACN6340040300000000902	40 kVA, 400 V	61316515	1	ACN6340040300000300900	40 kVA, 400 V	64188127
ACA 610-0050-3	ACN634-0050-3	1	ACN6340050300000000900	50 kVA, 400 V	64118528	1	ACN6340050300000000902	50 kVA, 400 V	61362401	1	ACN6340050300000300900	50 kVA, 400 V	64188143
ACA 610-0060-3	ACN634-0060-3	1	ACN6340060300000000900	60 kVA, 400 V	64118561	1	ACN6340060300000000902	60 kVA, 400 V	61316531	1	ACN6340060300000300900	60 kVA, 400 V	64188267
ACA 610-0070-3	ACN634-0070-3	1	ACN6340070300000000900	70 kVA, 400 V	64118641	1	ACN6340070300000000902	70 kVA, 400 V	61362517	1	ACN6340070300000300900	70 kVA, 400 V	64188283
ACA 610-0100-3	ACN634-0100-3	1	ACN6340100300000000900	100 kVA, 400 V	64118722	1	ACN6340100300000000902	100 kVA, 400 V	61362525	1	ACN6340100300000300900	100 kVA, 400 V	64188381
ACA 610-0120-3	ACN634-0120-3	1	ACN6340120300000000900	120 kVA, 400 V	64118765	1	ACN6340120300000000902	120 kVA, 400 V	61316175	1	ACN6340120300000300900	120 kVA, 400 V	64188402
ACA 610-0185-3	ACN634-0185-3	1	ACN6340185300000000900	180 kVA, 400 V	64120786	1	ACN6340185300000000902	180 kVA, 400 V	61370421	1	ACN6340185300000300900	180 kVA, 400 V	64188500
ACA 610-0225-3	ACN634-0225-3	1	ACN6340225300000000900	220 kVA, 400 V	64120859	1	ACN6340225300000000902	220 kVA, 400 V	61454918	1	ACN6340225300000300900	220 kVA, 400 V	64188526
ACA 610-0265-3	ACN634-0265-3	1	ACN6340265300000000900	260 kVA, 400 V	64120905	1	ACN6340265300000000902	260 kVA, 400 V	61434348	1	ACN6340265300000300900	260 kVA, 400 V	64188542
ACA 610-0335-3	ACN634-0335-3	1	ACN6340335300000000900	330 kVA, 400 V	64120999	1	ACN6340335300000000902	330 kVA, 400 V	61454934	1	ACN6340335300000300900	330 kVA, 400 V	64188704
ACA 610-0405-3	ACN634-0405-3	1	ACN6340405300000000900	400 kVA, 400 V	64121073	1	ACN6340405300000000902	400 kVA, 400 V	61426957	1	ACN6340405300000300900	400 kVA, 400 V	64188721
ACA 610-0500-3	ACN634-0505-3	1	ACN6340505300000000900	500 kVA, 400 V	64123564	1	ACN6340505300000000902	500 kVA, 400 V	61479813	1	ACN6340505300000300900	500 kVA, 400 V	64188828
ACA 610-0630-3	ACN634-0635-3	1	ACN6340635300000000900	630 kVA, 400 V	64124030	1	ACN6340635300000000902	630 kVA, 400 V	61479830	1	ACN6340635300000300900	630 kVA, 400 V	64189441
ACA 610-0765-3	ACN634-0755-3	1	ACN6340755300000000900	760 kVA, 400 V	64124374	1	ACN6340755300000000902	760 kVA, 400 V	61479848	1	ACN6340755300000300900	760 kVA, 400 V	64189476
ACA 610-0935-3	ACN634-0935-3	1	ACN6340935300000000902	930 kVA, 400 V	61454942	1	ACN6340935300000000902	930 kVA, 400 V	61454942	1	ACN6340935300000300902	930 kVA, 400 V	64185373
ACA 610-1125-3	ACN634-1125-3	1	ACN6341125300000000902	1120 kVA, 400 V	61434151	1	ACN6341125300000000902	1120 kVA, 400 V	61434151	1	ACN6341125300000300902	1120 kVA, 400 V	64185420
500V													
ACA 610-0006-5	ACN634-0006-5	1	ACN6340006500000000900	6 kVA, 500 V	64118862	1	ACN6340006500000000902	6 kVA, 500 V	61370862	1	ACN6340006500000300900	6 kVA, 500 V	64187767
ACA 610-0009-5	ACN634-0009-5	1	ACN6340009500000000900	9 kVA, 500 V	64118901	1	ACN6340009500000000902	9 kVA, 500 V	61316191	1	ACN6340009500000300900	9 kVA, 500 V	64187783
ACA 610-0011-5	ACN634-0011-5	1	ACN6340011500000000900	11 kVA, 500 V	64119079	1	ACN6340011500000000902	11 kVA, 500 V	61316591	1	ACN6340011500000300900	11 kVA, 500 V	64187805
ACA 610-0016-5	ACN634-0016-5	1	ACN6340016500000000900	16 kVA, 500 V	64119125	1	ACN6340016500000000902	16 kVA, 500 V	61316213	1	ACN6340016500000300900	16 kVA, 500 V	64187864
ACA 610-0020-5	ACN634-0020-5	1	ACN6340020500000000900	20 kVA, 500 V	64119214	1	ACN6340020500000000902	20 kVA, 500 V	61316612	1	ACN6340020500000300900	20 kVA, 500 V	64187881
ACA 610-0025-5	ACN634-0025-5	1	ACN6340025500000000900	25 kVA, 500 V	64119257	1	ACN6340025500000000902	25 kVA, 500 V	61316230	1	ACN6340025500000300900	25 kVA, 500 V	64188020
ACA 610-0030-5	ACN634-0030-5	1	ACN6340030500000000900	30 kVA, 500 V	64119303	1	ACN6340030500000000902	30 kVA, 500 V	61316639	1	ACN6340030500000300900	30 kVA, 500 V	64188046
ACA 610-0040-5	ACN634-0040-5	1	ACN6340040500000000900	40 kVA, 500 V	64119346	1	ACN6340040500000000902	40 kVA, 500 V	61316647	1	ACN6340040500000300900	40 kVA, 500 V	64188160
ACA 610-0050-5	ACN634-0050-5	1	ACN6340050500000000900	50 kVA, 500 V	64119389	1	ACN6340050500000000902	50 kVA, 500 V	61316264	1	ACN6340050500000300900	50 kVA, 500 V	64188186
ACA 610-0060-5	ACN634-0060-5	1	ACN6340060500000000900	60 kVA, 500 V	64119435	1	ACN6340060500000000902	60 kVA, 500 V	61316272	1	ACN6340060500000300900	60 kVA, 500 V	64188208
ACA 610-0070-5	ACN634-0070-5	1	ACN6340070500000000900	70 kVA, 500 V	64119508	1	ACN6340070500000000902	70 kVA, 500 V	61316281	1	ACN6340070500000300900	70 kVA, 500 V	64188305
ACA 610-0100-5	ACN634-0100-5	1	ACN6340100500000000900	100 kVA, 500 V	64119541	1	ACN6340100500000000902	100 kVA, 500 V	61316299	1	ACN6340100500000300900	100 kVA, 500 V	64188321
ACA 610-0120-5	ACN634-0120-5	1	ACN6340120500000000900	120 kVA, 500 V	64119591	1	ACN6340120500000000902	120 kVA, 500 V	61316302	1	ACN6340120500000300900	120 kVA, 500 V	64188429
ACA 610-0140-5	ACN634-0140-5	1	ACN6340140500000000900	140 kVA, 500 V	64119630	1	ACN6340140500000000902	140 kVA, 500 V	61384723	1	ACN6340140500000300900	140 kVA, 500 V	64188445
ACA 610-0215-5	ACN634-0215-5	1	ACN6340215500000000900	210 kVA, 500 V	64121791	1	ACN6340215500000000902	210 kVA, 500 V	61454985	1	ACN6340215500000300900	210 kVA, 500 V	64188569
ACA 610-0255-5	ACN634-0255-5	1	ACN6340255500000000900	250 kVA, 500 V	64121847	1	ACN6340255500000000902	250 kVA, 500 V	61454993	1	ACN6340255500000300900	250 kVA, 500 V	64188585
ACA 610-0325-5	ACN634-0325-5	1	ACN6340325500000000900	320 kVA, 500 V	64121880	1	ACN6340325500000000902	320 kVA, 500 V	61434364	1	ACN6340325500000300900	320 kVA, 500 V	64188607
ACA 610-0395-5	ACN634-0395-5	1	ACN6340395500000000900	390 kVA, 500 V	64121928	1	ACN6340395500000000902	390 kVA, 500 V	61455001	1	ACN6340395500000300900	390 kVA, 500 V	64188747
ACA 610-0495-5	ACN634-0495-5	1	ACN6340495500000000900	490 kVA, 500 V	64121961	1	ACN6340495500000000902	490 kVA, 500 V	61426965	1	ACN6340495500000300900	490 kVA, 500 V	64188763
ACA 610-0610-5	ACN634-0615-5	1	ACN6340615500000000900	610 kVA, 500 V	64124790	1	ACN6340615500000000902	610 kVA, 500 V	61479881	1	ACN6340615500000300900	610 kVA, 500 V	64189387
ACA 610-0770-5	ACN634-0775-5	1	ACN6340775500000000900	770 kVA, 500 V	64125001	1	ACN6340775500000000902	770 kVA, 500 V	61479899	1	ACN6340775500000300900	770 kVA, 500 V	64189514
ACA 610-0935-5	ACN634-0925-5	1	ACN6340925500000000900	930 kVA, 500 V	64125281	1	ACN6340925500000000902	930 kVA, 500 V	61479902	1	ACN6340925500000300900	930 kVA, 500 V	64189549
ACA 610-1095-5	ACN634-1095-5	1	ACN6341095500000000902	1090 kVA, 500 V	61455019	1	ACN6341095500000000902	1090 kVA, 500 V	61455019	1	ACN6341095500000300902	1090 kVA, 500 V	64185471
ACA 610-1385-5	ACN634-1385-5	1	ACN6341385500000000902	1380 kVA, 500 V	61434160	1	ACN6341385500000000902	1380 kVA, 500 V	61434160	1	ACN6341385500000300902	1380 kVA, 500 V	64160273

ACS600 MultiDrive		Coated Module with Prevention of unexpected Start-up				Fan kit 230 V				Fan kit 115 V				DC - fuse		
Section type	Pcs	Type Code	Info	Order Code	Pcs	Type	Info	Order Code	Pcs	Type	Info	Order Code	Pcs	Type	Info	Order Code
400V																
ACA 610-0005-3	1	ACN63400053000003009 02	5 kVA, 400 V	64182731		Internal fan (dc)				Internal fan (dc)			2	170M 1561	25A 660V DIN000	10028566
ACA 610-0006-3	1	ACN63400063000003009 02	6 kVA, 400 V	64182773		Internal fan (dc)				Internal fan (dc)			2	170M 1561	25A 660V DIN000	10028566
ACA 610-0009-3	1	ACN63400093000003009 02	9 kVA, 400 V	64182811		Internal fan (dc)				Internal fan (dc)			2	170M 1561	25A 660V DIN000	10028566
ACA 610-0011-3	1	ACN63400113000003009 02	11 kVA, 400 V	64180789		Internal fan (dc)				Internal fan (dc)			2	170M 1564	50A 660V ULTRAR.	09838767
ACA 610-0016-3	1	ACN63400163000003009 02	16 kVA, 400 V	64182919		Internal fan (dc)				Internal fan (dc)			2	170M 1564	50A 660V ULTRAR.	09838767
ACA 610-0020-3	1	ACN63400203000003009 02	20 kVA, 400 V	64183826		Internal fan (dc)				Internal fan (dc)			2	170M 1566	80A 660V ULTRAR.	09838791
ACA 610-0025-3	1	ACN63400253000003009 02	25 kVA, 400 V	64183885		Internal fan (dc)				Internal fan (dc)			2	170M 1566	80A 660V ULTRAR.	09838791
ACA 610-0030-3	1	ACN63400303000003009 02	30 kVA, 400 V	64184164		Internal fan (dc)				Internal fan (dc)			2	170M 1569 ZILOX	160A 660V	10003521
ACA 610-0040-3	1	ACN63400403000003009 02	40 kVA, 400 V	64184229		Internal fan (dc)				Internal fan (dc)			2	170M 1569 ZILOX	160A 660V	10003521
ACA 610-0050-3	1	ACN63400503000003009 02	50 kVA, 400 V	64184245		Internal fan (dc)				Internal fan (dc)			2	170M 1569 ZILOX	160A 660V	10003521
ACA 610-0060-3	1	ACN63400603000003009 02	60 kVA, 400 V	64184393	1	G2E140-AIXX	230V 50/60 Hz	64114158	1	G2E140-AIXX	115V 60 Hz	64114191	2	170M 1570 ZILOX	200A 660V	10003539
ACA 610-0070-3	1	ACN63400703000003009 02	70 kVA, 400 V	64184431	1	G2E140-AIXX	230V 50/60 Hz	64114158	1	G2E140-AIXX	115V 60 Hz	64114191	2	170M 1570 ZILOX	200A 660V	10003539
ACA 610-0100-3	1	ACN63401003000003009 02	100 kVA, 400 V	64184598	1	G2E140-AIXX	230V 50/60 Hz	64114158	1	G2E140-AIXX	115V 60 Hz	64114191	2	170M 3818	350A 660V DIN1*	10028582
ACA 610-0120-3	1	ACN63401203000003009 02	120 kVA, 400 V	64184628	1	G2E140-AIXX	230V 50/60 Hz	64114158	1	G2E140-AIXX	115V 60 Hz	64114191	2	170M 3818	350A 660V DIN1*	10028582
ACA 610-0185-3	1	ACN63401853000003009 02	180 kVA, 400 V	64184725	1	D4E225-CC0X	230V 50/60 Hz	64114336	1	D4E225-CC0X	115V 60 Hz	64114344	2	170M 6810	630A 660V DIN3	10030617
ACA 610-0225-3	1	ACN63402253000003009 02	220 kVA, 400 V	64184741	1	D4E225-CC0X	230V 50/60 Hz	64114336	1	D4E225-CC0X	115V 60 Hz	64114344	2	170M 6810	630A 660V DIN3	10030617
ACA 610-0265-3	1	ACN63402653000003009 02	260 kVA, 400 V	64160346	1	D4E225-CC0X	230V 50/60 Hz	64114336	1	D4E225-CC0X	115V 60 Hz	64114344	2	170M 6810	630A 660V DIN3	10030617
ACA 610-0335-3	1	ACN63403353000003009 02	330 kVA, 400 V	64185004	1	D4E225-CC0X	230V 50/60 Hz	64114336	1	D4E225-CC0X	115V 60 Hz	64114344	2	170M 6814	1000A 690V DIN3	10030625
ACA 610-0405-3	1	ACN63404053000003009 02	400 kVA, 400 V	64185021	1	D4E225-CC0X	230V 50/60 Hz	64114336	1	D4E225-CC0X	115V 60 Hz	64114344	2	170M 6814	1000A 690V DIN3	10030625
ACA 610-0500-3	1	ACN63405053000003009 02	500 kVA, 400 V	64185047	2	D4E225-CC0X	230V 50/60 Hz	64114336	2	D4E225-CC0X	115V 60 Hz	64114344	4	170M 6810	630A 660V DIN3	10030617
ACA 610-0630-3	1	ACN63406353000003009 02	630 kVA, 400 V	64185179	2	D4E225-CC0X	230V 50/60 Hz	64114336	2	D4E225-CC0X	115V 60 Hz	64114344	4	170M 6814	1000A 690V DIN3	10030625
ACA 610-0765-3	1	ACN63407553000003009 02	760 kVA, 400 V	64185225	2	D4E225-CC0X	230V 50/60 Hz	64114336	2	D4E225-CC0X	115V 60 Hz	64114344	4	170M 6814	1000A 690V DIN3	10030625
ACA 610-0935-3	1	ACN63409353000003009 02	930 kVA, 400 V	64185373	3	D4E225-CC0X	230V 50/60 Hz	64114336	3	D4E225-CC0X	115V 60 Hz	64114344	6	170M 6814	1000A 690V DIN3	10030625
ACA 610-1125-3	1	ACN63411253000003009 02	1120 kVA, 400 V	64185420	3	D4E225-CC0X	230V 50/60 Hz	64114336	3	D4E225-CC0X	115V 60 Hz	64114344	6	170M 6814	1000A 690V DIN3	10030625
500V																
ACA 610-0006-5	1	ACN63400065000003009 02	6 kVA, 500 V	64182854		Internal fan (dc)				Internal fan (dc)			2	170M 1561	25A 660V DIN000	10028566
ACA 610-0009-5	1	ACN63400095000003009 02	9 kVA, 500 V	64182889		Internal fan (dc)				Internal fan (dc)			2	170M 1561	25A 660V DIN000	10028566
ACA 610-0011-5	1	ACN63400115000003009 02	11 kVA, 500 V	64158937		Internal fan (dc)				Internal fan (dc)			2	170M 1561	25A 660V DIN000	10028566
ACA 610-0016-5	1	ACN63400165000003009 02	16 kVA, 500 V	64159267		Internal fan (dc)				Internal fan (dc)			2	170M 1564	50A 660V ULTRAR.	09838767
ACA 610-0020-5	1	ACN63400205000003009 02	20 kVA, 500 V	64159313		Internal fan (dc)				Internal fan (dc)			2	170M 1564	50A 660V ULTRAR.	09838767
ACA 610-0025-5	1	ACN63400255000003009 02	25 kVA, 500 V	64183907		Internal fan (dc)				Internal fan (dc)			2	170M 1566	80A 660V ULTRAR.	09838791
ACA 610-0030-5	1	ACN63400305000003009 02	30 kVA, 500 V	64183931		Internal fan (dc)				Internal fan (dc)			2	170M 1566	80A 660V ULTRAR.	09838791
ACA 610-0040-5	1	ACN63400405000003009 02	40 kVA, 500 V	64174631		Internal fan (dc)				Internal fan (dc)			2	170M 1569 ZILOX	160A 660V	10003521
ACA 610-0050-5	1	ACN63400505000003009 02	50 kVA, 500 V	64184261		Internal fan (dc)				Internal fan (dc)			2	170M 1569 ZILOX	160A 660V	10003521
ACA 610-0060-5	1	ACN63400605000003009 02	60 kVA, 500 V	64184288		Internal fan (dc)				Internal fan (dc)			2	170M 1569 ZILOX	160A 660V	10003521
ACA 610-0070-5	1	ACN63400705000003009 02	70 kVA, 500 V	64184466	1	G2E140-AIXX	230V 50/60 Hz	64114158	1	G2E140-AIXX	115V 60 Hz	64114191	2	170M 1570 ZILOX	200A 660V	10003539
ACA 610-0100-5	1	ACN63401005000003009 02	100 kVA, 500 V	64159429	1	G2E140-AIXX	230V 50/60 Hz	64114158	1	G2E140-AIXX	115V 60 Hz	64114191	2	170M 1570 ZILOX	200A 660V	10003539
ACA 610-0120-5	1	ACN63401205000003009 02	120 kVA, 500 V	64184652	1	G2E140-AIXX	230V 50/60 Hz	64114158	1	G2E140-AIXX	115V 60 Hz	64114191	2	170M 3818	350A 660V DIN1*	10028582
ACA 610-0140-5	1	ACN63401405000003009 02	140 kVA, 500 V	64159798	1	G2E140-AIXX	230V 50/60 Hz	64114158	1	G2E140-AIXX	115V 60 Hz	64114191	2	170M 3818	350A 660V DIN1*	10028582
ACA 610-0215-5	1	ACN63402155000003009 02	210 kVA, 500 V	64159887	1	D4E225-CC0X	230V 50/60 Hz	64114336	1	D4E225-CC0X	115V 60 Hz	64114344	2	170M 6810	630A 660V DIN3	10030617
ACA 610-0255-5	1	ACN63402555000003009 02	250 kVA, 500 V	64184768	1	D4E225-CC0X	230V 50/60 Hz	64114336	1	D4E225-CC0X	115V 60 Hz	64114344	2	170M 6810	630A 660V DIN3	10030617
ACA 610-0325-5	1	ACN63403255000003009 02	320 kVA, 500 V	64159976	1	D4E225-CC0X	230V 50/60 Hz	64114336	1	D4E225-CC0X	115V 60 Hz	64114344	2	170M 6810	630A 660V DIN3	10030617
ACA 610-0395-5	1	ACN63403955000003009 02	390 kVA, 500 V	64159992	1	D4E225-CC0X	230V 50/60 Hz	64114336	1	D4E225-CC0X	115V 60 Hz	64114344	2	170M 6814	1000A 690V DIN3	10030625
ACA 610-0495-5	1	ACN63404955000003009 02	490 kVA, 500 V	64160079	1	D4E225-CC0X	230V 50/60 Hz	64114336	1	D4E225-CC0X	115V 60 Hz	64114344	2	170M 6814	1000A 690V DIN3	10030625
ACA 610-0610-5	1	ACN63406155000003009 02	610 kVA, 500 V	64160095	2	D4E225-CC0X	230V 50/60 Hz	64114336	2	D4E225-CC0X	115V 60 Hz	64114344	4	170M 6810	630A 660V DIN3	10030617
ACA 610-0770-5	1	ACN63407755000003009 02	770 kVA, 500 V	64160184	2	D4E225-CC0X	230V 50/60 Hz	64114336	2	D4E225-CC0X	115V 60 Hz	64114344	4	170M 6814	1000A 690V DIN3	10030625
ACA 610-0935-5	1	ACN63409255000003009 02	930 kVA, 500 V	64185268	2	D4E225-CC0X	230V 50/60 Hz	64114336	2	D4E225-CC0X	115V 60 Hz	64114344	4	170M 6814	1000A 690V DIN3	10030625
ACA 610-1095-5	1	ACN63410955000003009 02	1090 kVA, 500 V	64185471	3	D4E225-CC0X	230V 50/60 Hz	64114336	3	D4E225-CC0X	115V 60 Hz	64114344	6	170M 6814	1000A 690V DIN3	10030625
ACA 610-1385-5	1	ACN63413855000003009 02	1380 kVA, 500 V	64160273	3	D4E225-CC0X	230V 50/60 Hz	64114336	3	D4E225-CC0X	115V 60 Hz	64114344	6	170M 6814	1000A 690V DIN3	10030625

ACS600 MultiDrive		DC - fuse Base				Du/dt filter				Charging Circuit Fuse				Charging Circuit Fuse Base		
Section type	Pcs	Type	Info	Order Code	Pcs	Type	Info	Order Code	Pcs	Type	Info	Order Code	Pcs	Type	Info	Order Code
400V																
ACA 610-0005-3	1	OFAX00S2L	2X125A 690V	58065749	1	NOCH0016-6	15A, 150uH	58983527								
ACA 610-0006-3	1	OFAX00S2L	2X125A 690V	58065749	1	NOCH0016-6	15A, 150uH	58983527								
ACA 610-0009-3	1	OFAX00S2L	2X125A 690V	58065749	1	NOCH0016-6	15A, 150uH	58983527								
ACA 610-0011-3	1	OFAX00S2L	2X125A 690V	58065749	1	NOCH0016-6	15A, 150uH	58983527								
ACA 610-0016-3	1	OFAX00S2L	2X125A 690V	58065749	1	NOCH0030-6	28A, 140uH	58983519								
ACA 610-0020-3	1	OFAX00S2L	2X125A 690V	58065749	1	NOCH0030-6	28A, 140uH	58983519								
ACA 610-0025-3	1	OFAX00S2L	2X125A 690V	58065749	1	NOCH0070-6	65A, 115uH	58983501								
ACA 610-0030-3	1	OFAX00S2L	2X125A 690V	58065749	1	NOCH0070-6	65A, 115uH	58983501								
ACA 610-0040-3	1	OFAX00S2L	2X125A 690V	58065749	1	NOCH0070-6	65A, 115uH	58983501								
ACA 610-0050-3	1	OFAX00S2L	2X125A 690V	58065749	1	NOCH0070-6	65A, 115uH	58983501								
ACA 610-0060-3	1	OFAX00S2L	2X125A 690V	58065749	1	NOCH0070-6	65A, 115uH	58983501								
ACA 610-0070-3	1	OFAX00S2L	2X125A 690V	58065749	3	NOCH0120-6	105A, 92uH	10030366								
ACA 610-0100-3	1	OFAX1S2	2X250A 690V	10029082	3	NOCH0120-6	105A, 92uH	10030366	2	170M 1564	50A,660V ULTRAR.	09838767	1	OFAX00S2L	2X125A 690V	58065749
ACA 610-0120-3	1	OFAX1S2	2X250A 690V	10029082	3	NOCH0120-6	105A, 92uH	10030366	2	170M 1564	50A,660V ULTRAR.	09838767	1	OFAX00S2L	2X125A 690V	58065749
ACA 610-0185-3	2	OFASA 3	630A 690V	35009841	3	NOCH0260-6	225A, 74uH	10030358	2	170M 1564	50A,660V ULTRAR.	09838767	1	OFAX00S2L	2X125A 690V	58065749
ACA 610-0225-3	2	OFASA 3	630A 690V	35009841	3	NOCH0260-6	225A, 74uH	10030358	2	170M 1564	50A,660V ULTRAR.	09838767	1	OFAX00S2L	2X125A 690V	58065749
ACA 610-0265-3	2	OFASA 3	630A 690V	35009841	3	NOCH0400-6	351A, 52uH	10030340	2	170M 1564	50A,660V ULTRAR.	09838767	1	OFAX00S2L	2X125A 690V	58065749
ACA 610-0335-3	2	OFASA 3	630A 690V	35009841	3	NOCH0400-6	351A, 52uH	10030340	2	170M 1564	50A,660V ULTRAR.	09838767	1	OFAX00S2L	2X125A 690V	58065749
ACA 610-0405-3	2	OFASA 3	630A 690V	35009841	3	NOCH0760-6	672A, 35uH	10030731	2	170M 1564	50A,660V ULTRAR.	09838767	1	OFAX00S2L	2X125A 690V	58065749
ACA 610-0500-3	4	OFASA 3	630A 690V	35009841	3	NOCH0760-6	672A, 35uH	10030731	2	170M 1564	50A,660V ULTRAR.	09838767	1	OFAX00S2L	2X125A 690V	58065749
ACA 610-0630-3	4	OFASA 3	630A 690V	35009841	9	NOCH0400-6	351A, 52uH	10030340	2	170M 1564	50A,660V ULTRAR.	09838767	1	OFAX00S2L	2X125A 690V	58065749
ACA 610-0765-3	4	OFASA 3	630A 690V	35009841	9	NOCH0400-6	351A, 52uH	10030340	2	170M 1564	50A,660V ULTRAR.	09838767	1	OFAX00S2L	2X125A 690V	58065749
ACA 610-0935-3	6	OFASA 3	630A 690V	35009841	9	NOCH0400-6	351A, 52uH	10030340	2	170M 1564	50A,660V ULTRAR.	09838767	1	OFAX00S2L	2X125A 690V	58065749
ACA 610-1125-3	6	OFASA 3	630A 690V	35009841	6	NOCH0760-6	672A, 35uH	10030731	2	170M 1564	50A,660V ULTRAR.	09838767	1	OFAX00S2L	2X125A 690V	58065749
500V																
ACA 610-0006-5	1	OFAX00S2L	2X125A 690V	58065749	1	NOCH0016-6	15A, 150uH	58983527								
ACA 610-0009-5	1	OFAX00S2L	2X125A 690V	58065749	1	NOCH0016-6	15A, 150uH	58983527								
ACA 610-0011-5	1	OFAX00S2L	2X125A 690V	58065749	1	NOCH0016-6	15A, 150uH	58983527								
ACA 610-0016-5	1	OFAX00S2L	2X125A 690V	58065749	1	NOCH0016-6	15A, 150uH	58983527								
ACA 610-0020-5	1	OFAX00S2L	2X125A 690V	58065749	1	NOCH0030-6	28A, 140uH	58983519								
ACA 610-0025-5	1	OFAX00S2L	2X125A 690V	58065749	1	NOCH0030-6	28A, 140uH	58983519								
ACA 610-0030-5	1	OFAX00S2L	2X125A 690V	58065749	1	NOCH0070-6	65A, 115uH	58983501								
ACA 610-0040-5	1	OFAX00S2L	2X125A 690V	58065749	1	NOCH0070-6	65A, 115uH	58983501								
ACA 610-0050-5	1	OFAX00S2L	2X125A 690V	58065749	1	NOCH0070-6	65A, 115uH	58983501								
ACA 610-0060-5	1	OFAX00S2L	2X125A 690V	58065749	1	NOCH0070-6	65A, 115uH	58983501								
ACA 610-0070-5	1	OFAX00S2L	2X125A 690V	58065749	1	NOCH0070-6	65A, 115uH	58983501								
ACA 610-0100-5	1	OFAX00S2L	2X125A 690V	58065749	3	NOCH0120-6	105A, 92uH	10030366								
ACA 610-0120-5	1	OFAX1S2	2X250A 690V	10029082	3	NOCH0120-6	105A, 92uH	10030366	2	170M 1564	50A,660V ULTRAR.	09838767	1	OFAX00S2L	2X125A 690V	58065749
ACA 610-0140-5	1	OFAX1S2	2X250A 690V	10029082	3	NOCH0120-6	105A, 92uH	10030366	2	170M 1564	50A,660V ULTRAR.	09838767	1	OFAX00S2L	2X125A 690V	58065749
ACA 610-0215-5	2	OFASA 3	630A 690V	35009841	3	NOCH0260-6	225A, 74uH	10030358	2	170M 1564	50A,660V ULTRAR.	09838767	1	OFAX00S2L	2X125A 690V	58065749
ACA 610-0255-5	2	OFASA 3	630A 690V	35009841	3	NOCH0260-6	225A, 74uH	10030358	2	170M 1564	50A,660V ULTRAR.	09838767	1	OFAX00S2L	2X125A 690V	58065749
ACA 610-0325-5	2	OFASA 3	630A 690V	35009841	3	NOCH0400-6	351A, 52uH	10030340	2	170M 1564	50A,660V ULTRAR.	09838767	1	OFAX00S2L	2X125A 690V	58065749
ACA 610-0395-5	2	OFASA 3	630A 690V	35009841	3	NOCH0400-6	351A, 52uH	10030340	2	170M 1564	50A,660V ULTRAR.	09838767	1	OFAX00S2L	2X125A 690V	58065749
ACA 610-0495-5	2	OFASA 3	630A 690V	35009841	3	NOCH0760-6	672A, 35uH	10030731	2	170M 1564	50A,660V ULTRAR.	09838767	1	OFAX00S2L	2X125A 690V	58065749
ACA 610-0610-5	4	OFASA 3	630A 690V	35009841	3	NOCH0760-6	672A, 35uH	10030731	2	170M 1564	50A,660V ULTRAR.	09838767	1	OFAX00S2L	2X125A 690V	58065749
ACA 610-0770-5	4	OFASA 3	630A 690V	35009841	3	NOCH0760-6	672A, 35uH	10030731	2	170M 1564	50A,660V ULTRAR.	09838767	1	OFAX00S2L	2X125A 690V	58065749
ACA 610-0935-5	4	OFASA 3	630A 690V	35009841	9	NOCH0400-6	351A, 52uH	10030340	2	170M 1564	50A,660V ULTRAR.	09838767	1	OFAX00S2L	2X125A 690V	58065749
ACA 610-1095-5	6	OFASA 3	630A 690V	35009841	9	NOCH0400-6	351A, 52uH	10030340	2	170M 1564	50A,660V ULTRAR.	09838767	1	OFAX00S2L	2X125A 690V	58065749
ACA 610-1385-5	6	OFASA 3	630A 690V	35009841	6	NOCH0760-6	672A, 35uH	10030731	2	170M 1564	50A,660V ULTRAR.	09838767	1	OFAX00S2L	2X125A 690V	58065749

ACS600 MultiDrive		Fuse Switch 230 V				Fuse Switch 115 V				Coated Fuse Switch 230 V		
Section type	Pcs	Type	Info	Order Code	Pcs	Type	Info	Order Code	Pcs	Type	Info	Order Code
400V												
ACA 610-0005-3	1	R2...R4, 400...690 V KIT		64089650	1	R2...R4, 400...690 V KIT		64089650	1	R2...R4, 400...690 V KIT		64089650
ACA 610-0006-3	1	R2...R4, 400...690 V KIT		64089650	1	R2...R4, 400...690 V KIT		64089650	1	R2...R4, 400...690 V KIT		64089650
ACA 610-0009-3	1	R2...R4, 400...690 V KIT		64089650	1	R2...R4, 400...690 V KIT		64089650	1	R2...R4, 400...690 V KIT		64089650
ACA 610-0011-3	1	R2...R4, 400...690 V KIT		64089650	1	R2...R4, 400...690 V KIT		64089650	1	R2...R4, 400...690 V KIT		64089650
ACA 610-0016-3	1	R2...R4, 400...690 V KIT		64089650	1	R2...R4, 400...690 V KIT		64089650	1	R2...R4, 400...690 V KIT		64089650
ACA 610-0020-3	1	R2...R4, 400...690 V KIT		64089650	1	R2...R4, 400...690 V KIT		64089650	1	R2...R4, 400...690 V KIT		64089650
ACA 610-0025-3	1	R2...R4, 400...690 V KIT		64089650	1	R2...R4, 400...690 V KIT		64089650	1	R2...R4, 400...690 V KIT		64089650
ACA 610-0030-3	1	R5, 400/500 V KIT		64089676	1	R5, 400/500 V KIT		64089676	1	R5, 400/500 V KIT		64089676
ACA 610-0040-3	1	R5, 400/500 V KIT		64089676	1	R5, 400/500 V KIT		64089676	1	R5, 400/500 V KIT		64089676
ACA 610-0050-3	1	R5, 400/500 V KIT		64089676	1	R5, 400/500 V KIT		64089676	1	R5, 400/500 V KIT		64089676
ACA 610-0060-3	1	R6, 400/500 V KIT		64089561	1	R6, 400/500 V KIT		64089561	1	R6, 400/500 V KIT		64089561
ACA 610-0070-3	1	R6, 400/500 V KIT		64089561	1	R6, 400/500 V KIT		64089561	1	R6, 400/500 V KIT		64089561
ACA 610-0100-3	1	R7, 400/500 V KIT	230 V 50/60 Hz	64089510	1	R7, 400/500 V KIT	115 V 60 Hz	64089692	1	R7, 400/500 V KIT	230 V 50/60 Hz	64349619
ACA 610-0120-3	1	R7, 400/500 V KIT	230 V 50/60 Hz	64089510	1	R7, 400/500 V KIT	115 V 60 Hz	64089692	1	R7, 400/500 V KIT	230 V 50/60 Hz	64349619
ACA 610-0185-3	1	R8/R9, 400/500 V KIT	230 V 50/60 Hz	64089609	1	R8/R9, 400/500 V KIT	115 V 60 Hz	64089731	1	R8/R9, 400/500 V KIT	230 V 50/60 Hz	64349660
ACA 610-0225-3	1	R8/R9, 400/500 V KIT	230 V 50/60 Hz	64089609	1	R8/R9, 400/500 V KIT	115 V 60 Hz	64089731	1	R8/R9, 400/500 V KIT	230 V 50/60 Hz	64349660
ACA 610-0265-3	1	R8/R9, 400/500 V KIT	230 V 50/60 Hz	64089609	1	R8/R9, 400/500 V KIT	115 V 60 Hz	64089731	1	R8/R9, 400/500 V KIT	230 V 50/60 Hz	64349660
ACA 610-0335-3	1	R8/R9, 400/500 V KIT	230 V 50/60 Hz	64089609	1	R8/R9, 400/500 V KIT	115 V 60 Hz	64089731	1	R8/R9, 400/500 V KIT	230 V 50/60 Hz	64349660
ACA 610-0405-3	1	R8/R9, 400/500 V KIT	230 V 50/60 Hz	64089609	1	R8/R9, 400/500 V KIT	115 V 60 Hz	64089731	1	R8/R9, 400/500 V KIT	230 V 50/60 Hz	64349660
ACA 610-0500-3	1	R10/R11, 400/500 V KIT	230 V 50/60 Hz	64089625	1	R10/R11, 400/500 V KIT	115 V 60 Hz	64089765	1	R10/R11, 400/500 V KIT	230 V 50/60 Hz	64349201
ACA 610-0630-3	1	R10/R11, 400/500 V KIT	230 V 50/60 Hz	64089625	1	R10/R11, 400/500 V KIT	115 V 60 Hz	64089765	1	R10/R11, 400/500 V KIT	230 V 50/60 Hz	64349201
ACA 610-0765-3	1	R10/R11, 400/500 V KIT	230 V 50/60 Hz	64089625	1	R10/R11, 400/500 V KIT	115 V 60 Hz	64089765	1	R10/R11, 400/500 V KIT	230 V 50/60 Hz	64349201
ACA 610-0935-3	1	R12, 400/500 V KIT	230 V 50/60 Hz	64089641	1	R12, 400/500 V KIT	115 V 60 Hz	64089790	1	R12, 400/500 V KIT	230 V 50/60 Hz	64349503
ACA 610-1125-3	1	R12, 400/500 V KIT	230 V 50/60 Hz	64089641	1	R12, 400/500 V KIT	115 V 60 Hz	64089790	1	R12, 400/500 V KIT	230 V 50/60 Hz	64349503
500V												
ACA 610-0006-5	1	R2...R4, 400...690 V KIT		64089650	1	R2...R4, 400...690 V KIT		64089650	1	R2...R4, 400...690 V KIT		64089650
ACA 610-0009-5	1	R2...R4, 400...690 V KIT		64089650	1	R2...R4, 400...690 V KIT		64089650	1	R2...R4, 400...690 V KIT		64089650
ACA 610-0011-5	1	R2...R4, 400...690 V KIT		64089650	1	R2...R4, 400...690 V KIT		64089650	1	R2...R4, 400...690 V KIT		64089650
ACA 610-0016-5	1	R2...R4, 400...690 V KIT		64089650	1	R2...R4, 400...690 V KIT		64089650	1	R2...R4, 400...690 V KIT		64089650
ACA 610-0020-5	1	R2...R4, 400...690 V KIT		64089650	1	R2...R4, 400...690 V KIT		64089650	1	R2...R4, 400...690 V KIT		64089650
ACA 610-0025-5	1	R2...R4, 400...690 V KIT		64089650	1	R2...R4, 400...690 V KIT		64089650	1	R2...R4, 400...690 V KIT		64089650
ACA 610-0030-5	1	R2...R4, 400...690 V KIT		64089650	1	R2...R4, 400...690 V KIT		64089650	1	R2...R4, 400...690 V KIT		64089650
ACA 610-0040-5	1	R5, 400/500 V KIT		64089676	1	R5, 400/500 V KIT		64089676	1	R5, 400/500 V KIT		64089676
ACA 610-0050-5	1	R5, 400/500 V KIT		64089676	1	R5, 400/500 V KIT		64089676	1	R5, 400/500 V KIT		64089676
ACA 610-0060-5	1	R5, 400/500 V KIT		64089676	1	R5, 400/500 V KIT		64089676	1	R5, 400/500 V KIT		64089676
ACA 610-0070-5	1	R6, 400/500 V KIT		64089561	1	R6, 400/500 V KIT		64089561	1	R6, 400/500 V KIT		64089561
ACA 610-0100-5	1	R6, 400/500 V KIT		64089561	1	R6, 400/500 V KIT		64089561	1	R6, 400/500 V KIT		64089561
ACA 610-0120-5	1	R7, 400/500 V KIT	230 V 50/60 Hz	64089510	1	R7, 400/500 V KIT	115 V 60 Hz	64089692	1	R7, 400/500 V KIT	230 V 50/60 Hz	64349619
ACA 610-0140-5	1	R7, 400/500 V KIT	230 V 50/60 Hz	64089510	1	R7, 400/500 V KIT	115 V 60 Hz	64089692	1	R7, 400/500 V KIT	230 V 50/60 Hz	64349619
ACA 610-0215-5	1	R8/R9, 400/500 V KIT	230 V 50/60 Hz	64089609	1	R8/R9, 400/500 V KIT	115 V 60 Hz	64089731	1	R8/R9, 400/500 V KIT	230 V 50/60 Hz	64349660
ACA 610-0255-5	1	R8/R9, 400/500 V KIT	230 V 50/60 Hz	64089609	1	R8/R9, 400/500 V KIT	115 V 60 Hz	64089731	1	R8/R9, 400/500 V KIT	230 V 50/60 Hz	64349660
ACA 610-0325-5	1	R8/R9, 400/500 V KIT	230 V 50/60 Hz	64089609	1	R8/R9, 400/500 V KIT	115 V 60 Hz	64089731	1	R8/R9, 400/500 V KIT	230 V 50/60 Hz	64349660
ACA 610-0395-5	1	R8/R9, 400/500 V KIT	230 V 50/60 Hz	64089609	1	R8/R9, 400/500 V KIT	115 V 60 Hz	64089731	1	R8/R9, 400/500 V KIT	230 V 50/60 Hz	64349660
ACA 610-0495-5	1	R8/R9, 400/500 V KIT	230 V 50/60 Hz	64089609	1	R8/R9, 400/500 V KIT	115 V 60 Hz	64089731	1	R8/R9, 400/500 V KIT	230 V 50/60 Hz	64349660
ACA 610-0610-5	1	R10/R11, 400/500 V KIT	230 V 50/60 Hz	64089625	1	R10/R11, 400/500 V KIT	115 V 60 Hz	64089765	1	R10/R11, 400/500 V KIT	230 V 50/60 Hz	64349201
ACA 610-0770-5	1	R10/R11, 400/500 V KIT	230 V 50/60 Hz	64089625	1	R10/R11, 400/500 V KIT	115 V 60 Hz	64089765	1	R10/R11, 400/500 V KIT	230 V 50/60 Hz	64349201
ACA 610-0935-5	1	R10/R11, 400/500 V KIT	230 V 50/60 Hz	64089625	1	R10/R11, 400/500 V KIT	115 V 60 Hz	64089765	1	R10/R11, 400/500 V KIT	230 V 50/60 Hz	64349201
ACA 610-1095-5	1	R12, 400/500 V KIT	230 V 50/60 Hz	64089641	1	R12, 400/500 V KIT	115 V 60 Hz	64089790	1	R12, 400/500 V KIT	230 V 50/60 Hz	64349503
ACA 610-1385-5	1	R12, 400/500 V KIT	230 V 50/60 Hz	64089641	1	R12, 400/500 V KIT	115 V 60 Hz	64089790	1	R12, 400/500 V KIT	230 V 50/60 Hz	64349503

ACS600 MultiDrive		Coated Fuse Switch 115 V				Mounting Frame			Common mode filter				Light common mode filter		
Section type	Pcs	Type	Info	Order Code	Pcs	Type	Order Code	Pcs	Type	Info	Order Code	Pcs	Type	Info	Order Code
400V															
ACA 610-0005-3	1	R2...R4, 400...690 V KIT		64089650											
ACA 610-0006-3	1	R2...R4, 400...690 V KIT		64089650											
ACA 610-0009-3	1	R2...R4, 400...690 V KIT		64089650											
ACA 610-0011-3	1	R2...R4, 400...690 V KIT		64089650											
ACA 610-0016-3	1	R2...R4, 400...690 V KIT		64089650											
ACA 610-0020-3	1	R2...R4, 400...690 V KIT		64089650											
ACA 610-0025-3	1	R2...R4, 400...690 V KIT		64089650											
ACA 610-0030-3	1	R5, 400/500 V KIT		64089676											
ACA 610-0040-3	1	R5, 400/500 V KIT		64089676											
ACA 610-0050-3	1	R5, 400/500 V KIT		64089676											
ACA 610-0060-3	1	R6, 400/500 V KIT		64089561	1	FRAME R6i/7i	64138375								
ACA 610-0070-3	1	R6, 400/500 V KIT		64089561	1	FRAME R6i/7i	64138375								
ACA 610-0100-3	1	R7, 400/500 V KIT	115 V 60 Hz	64349627	1	FRAME R6i/7i	64138375								
ACA 610-0120-3	1	R7, 400/500 V KIT	115 V 60 Hz	64349627	1	FRAME R6i/7i	64138375								
ACA 610-0185-3	1	R8/R9, 400/500 V KIT	115 V 60 Hz	64349678	1	FRAME R8i/9i	64138383	1	BEARING CURR. FILTER	3 TOROIDS KIT	64315811	1	BEARING CURR. FILTER	1 TOROID KIT	64392611
ACA 610-0225-3	1	R8/R9, 400/500 V KIT	115 V 60 Hz	64349678	1	FRAME R8i/9i	64138383	1	BEARING CURR. FILTER	3 TOROIDS KIT	64315811	1	BEARING CURR. FILTER	1 TOROID KIT	64392611
ACA 610-0265-3	1	R8/R9, 400/500 V KIT	115 V 60 Hz	64349678	1	FRAME R8i/9i	64138383	1	BEARING CURR. FILTER	3 TOROIDS KIT	64315811	1	BEARING CURR. FILTER	1 TOROID KIT	64392611
ACA 610-0335-3	1	R8/R9, 400/500 V KIT	115 V 60 Hz	64349678	1	FRAME R8i/9i	64138383	1	BEARING CURR. FILTER	3 TOROIDS KIT	64315811	1	BEARING CURR. FILTER	1 TOROID KIT	64392611
ACA 610-0405-3	1	R8/R9, 400/500 V KIT	115 V 60 Hz	64349678	1	FRAME R8i/9i	64138383	2	BEARING CURR. FILTER	3 TOROIDS KIT	64315811	2	BEARING CURR. FILTER	1 TOROID KIT	64392611
ACA 610-0500-3	1	R10/R11, 400/500 V KIT	115 V 60 Hz	64349457	1	FRAME R10i/11i	64138391	3	BEARING CURR. FILTER	3 TOROIDS KIT	64315811	3	BEARING CURR. FILTER	1 TOROID KIT	64392611
ACA 610-0630-3	1	R10/R11, 400/500 V KIT	115 V 60 Hz	64349457	1	FRAME R10i/11i	64138391	3	BEARING CURR. FILTER	3 TOROIDS KIT	64315811	3	BEARING CURR. FILTER	1 TOROID KIT	64392611
ACA 610-0765-3	1	R10/R11, 400/500 V KIT	115 V 60 Hz	64349457	1	FRAME R10i/11i	64138391	4	BEARING CURR. FILTER	3 TOROIDS KIT	64315811	4	BEARING CURR. FILTER	1 TOROID KIT	64392611
ACA 610-0935-3	1	R12, 400/500 V KIT	115 V 60 Hz	64349520	1	FRAME R12i	64138405	6	BEARING CURR. FILTER	3 TOROIDS KIT	64315811	6	BEARING CURR. FILTER	1 TOROID KIT	64392611
ACA 610-1125-3	1	R12, 400/500 V KIT	115 V 60 Hz	64349520	1	FRAME R12i	64138405	6	BEARING CURR. FILTER	3 TOROIDS KIT	64315811	6	BEARING CURR. FILTER	1 TOROID KIT	64392611
500V															
ACA 610-0006-5	1	R2...R4, 400...690 V KIT		64089650											
ACA 610-0009-5	1	R2...R4, 400...690 V KIT		64089650											
ACA 610-0011-5	1	R2...R4, 400...690 V KIT		64089650											
ACA 610-0016-5	1	R2...R4, 400...690 V KIT		64089650											
ACA 610-0020-5	1	R2...R4, 400...690 V KIT		64089650											
ACA 610-0025-5	1	R2...R4, 400...690 V KIT		64089650											
ACA 610-0030-5	1	R2...R4, 400...690 V KIT		64089650											
ACA 610-0040-5	1	R5, 400/500 V KIT		64089676											
ACA 610-0050-5	1	R5, 400/500 V KIT		64089676											
ACA 610-0060-5	1	R5, 400/500 V KIT		64089676											
ACA 610-0070-5	1	R6, 400/500 V KIT		64089561	1	FRAME R6i/7i	64138375								
ACA 610-0100-5	1	R6, 400/500 V KIT		64089561	1	FRAME R6i/7i	64138375								
ACA 610-0120-5	1	R7, 400/500 V KIT	115 V 60 Hz	64349627	1	FRAME R6i/7i	64138375								
ACA 610-0140-5	1	R7, 400/500 V KIT	115 V 60 Hz	64349627	1	FRAME R6i/7i	64138375								
ACA 610-0215-5	1	R8/R9, 400/500 V KIT	115 V 60 Hz	64349678	1	FRAME R8i/9i	64138383	1	BEARING CURR. FILTER	3 TOROIDS KIT	64315811	1	BEARING CURR. FILTER	1 TOROID KIT	64392611
ACA 610-0255-5	1	R8/R9, 400/500 V KIT	115 V 60 Hz	64349678	1	FRAME R8i/9i	64138383	1	BEARING CURR. FILTER	3 TOROIDS KIT	64315811	1	BEARING CURR. FILTER	1 TOROID KIT	64392611
ACA 610-0325-5	1	R8/R9, 400/500 V KIT	115 V 60 Hz	64349678	1	FRAME R8i/9i	64138383	1	BEARING CURR. FILTER	3 TOROIDS KIT	64315811	1	BEARING CURR. FILTER	1 TOROID KIT	64392611
ACA 610-0395-5	1	R8/R9, 400/500 V KIT	115 V 60 Hz	64349678	1	FRAME R8i/9i	64138383	1	BEARING CURR. FILTER	3 TOROIDS KIT	64315811	1	BEARING CURR. FILTER	1 TOROID KIT	64392611
ACA 610-0495-5	1	R8/R9, 400/500 V KIT	115 V 60 Hz	64349678	1	FRAME R8i/9i	64138383	2	BEARING CURR. FILTER	3 TOROIDS KIT	64315811	2	BEARING CURR. FILTER	1 TOROID KIT	64392611
ACA 610-0610-5	1	R10/R11, 400/500 V KIT	115 V 60 Hz	64349457	1	FRAME R10i/11i	64138391	3	BEARING CURR. FILTER	3 TOROIDS KIT	64315811	3	BEARING CURR. FILTER	1 TOROID KIT	64392611
ACA 610-0770-5	1	R10/R11, 400/500 V KIT	115 V 60 Hz	64349457	1	FRAME R10i/11i	64138391	4	BEARING CURR. FILTER	3 TOROIDS KIT	64315811	4	BEARING CURR. FILTER	1 TOROID KIT	64392611
ACA 610-0935-5	1	R10/R11, 400/500 V KIT	115 V 60 Hz	64349457	1	FRAME R10i/11i	64138391	4	BEARING CURR. FILTER	3 TOROIDS KIT	64315811	4	BEARING CURR. FILTER	1 TOROID KIT	64392611
ACA 610-1095-5	1	R12, 400/500 V KIT	115 V 60 Hz	64349520	1	FRAME R12i	64138405	6	BEARING CURR. FILTER	3 TOROIDS KIT	64315811	6	BEARING CURR. FILTER	1 TOROID KIT	64392611
ACA 610-1385-5	1	R12, 400/500 V KIT	115 V 60 Hz	64349520	1	FRAME R12i	64138405	6	BEARING CURR. FILTER	3 TOROIDS KIT	64315811	6	BEARING CURR. FILTER	1 TOROID KIT	64392611

ACS600 MultiDrive	Modtool		Module				Module with Prevention of unexpected Start-up				Coated Module		
Section type	Name	Pcs	Type Code	Info	Order Code	Pcs	Type Code	Info	Order Code	Pcs	Type Code	Info	Order Code
690V													
ACA 610-0009-6	ACN634-0009-6	1	ACN6340009600000000900	9 kVA, 690 V	64119699	1	ACN6340009600000000902	9 kVA, 690 V	61338438	1	ACN6340009600000300900	9 kVA, 690 V	64187902
ACA 610-0011-6	ACN634-0011-6	1	ACN6340011600000000900	11 kVA, 690 V	64119826	1	ACN6340011600000000902	11 kVA, 690 V	61316329	1	ACN6340011600000300900	11 kVA, 690 V	64187929
ACA 610-0016-6	ACN634-0016-6	1	ACN6340016600000000900	16 kVA, 690 V	64120026	1	ACN6340016600000000902	16 kVA, 690 V	61316337	1	ACN6340016600000300900	16 kVA, 690 V	64187945
ACA 610-0020-6	ACN634-0020-6	1	ACN6340020600000000900	20 kVA, 690 V	64120093	1	ACN6340020600000000902	20 kVA, 690 V	61316345	1	ACN6340020600000300900	20 kVA, 690 V	64187961
ACA 610-0025-6	ACN634-0025-6	1	ACN6340025600000000900	25 kVA, 690 V	64120182	1	ACN6340025600000000902	25 kVA, 690 V	61316353	1	ACN6340025600000300900	25 kVA, 690 V	64188062
ACA 610-0030-6	ACN634-0030-6	1	ACN6340030600000000900	30 kVA, 690 V	64120221	1	ACN6340030600000000902	30 kVA, 690 V	61316361	1	ACN6340030600000300900	30 kVA, 690 V	64188089
ACA 610-0040-6	ACN634-0040-6	1	ACN6340040600000000900	40 kVA, 690 V	64120263	1	ACN6340040600000000902	40 kVA, 690 V	61316370	1	ACN6340040600000300900	40 kVA, 690 V	64188224
ACA 610-0050-6	ACN634-0050-6	1	ACN6340050600000000900	50 kVA, 690 V	64120301	1	ACN6340050600000000902	50 kVA, 690 V	61316388	1	ACN6340050600000300900	50 kVA, 690 V	64188241
ACA 610-0060-6	ACN634-0060-6	1	ACN6340060600000000900	60 kVA, 690 V	64120344	1	ACN6340060600000000902	60 kVA, 690 V	61316396	1	ACN6340060600000300900	60 kVA, 690 V	64188348
ACA 610-0070-6	ACN634-0070-6	1	ACN6340070600000000900	70 kVA, 690 V	64120395	1	ACN6340070600000000902	70 kVA, 690 V	61316400	1	ACN6340070600000300900	70 kVA, 690 V	64188364
ACA 610-0100-6	ACN634-0100-6	1	ACN6340100600000000900	100 kVA, 690 V	64120433	1	ACN6340100600000000902	100 kVA, 690 V	61385207	1	ACN6340100600000300900	100 kVA, 690 V	64188461
ACA 610-0120-6	ACN634-0120-6	1	ACN6340120600000000900	120 kVA, 690 V	64120484	1	ACN6340120600000000902	120 kVA, 690 V	61385215	1	ACN6340120600000300900	120 kVA, 690 V	64188488
ACA 610-0185-6	ACN634-0185-6	1	ACN6340185600000000900	180 kVA, 690 V	64122011	1	ACN6340185600000000902	180 kVA, 690 V	61455043	1	ACN6340185600000300900	180 kVA, 690 V	64188623
ACA 610-0205-6	ACN634-0205-6	1	ACN6340205600000000900	210 kVA, 690 V	64125851	1	ACN6340205600000000902	210 kVA, 690 V	61455051	1	ACN6340205600000300900	210 kVA, 690 V	64188640
ACA 610-0255-6	ACN634-0255-6	1	ACN6340255600000000900	250 kVA, 690 V	64125893	1	ACN6340255600000000902	250 kVA, 690 V	61455060	1	ACN6340255600000300900	250 kVA, 690 V	64188666
ACA 610-0315-6	ACN634-0315-6	1	ACN6340315600000000900	310 kVA, 690 V	64125931	1	ACN6340315600000000902	310 kVA, 690 V	61434381	1	ACN6340315600000300900	310 kVA, 690 V	64188682
ACA 610-0375-6	ACN634-0375-6	1	ACN6340375600000000900	370 kVA, 690 V	64125974	1	ACN6340375600000000902	370 kVA, 690 V	61455078	1	ACN6340375600000300900	370 kVA, 690 V	64188780
ACA 610-0485-6	ACN634-0485-6	1	ACN6340485600000000900	490 kVA, 690 V	64126016	1	ACN6340485600000000902	490 kVA, 690 V	61426973	1	ACN6340485600000300900	490 kVA, 690 V	64188801
ACA 610-0600-6	ACN634-0605-6	1	ACN6340605600000000900	600 kVA, 690 V	64126491	1	ACN6340605600000000902	600 kVA, 690 V	61479945	1	ACN6340605600000300900	600 kVA, 690 V	64189417
ACA 610-0750-6	ACN634-0755-6	1	ACN6340755600000000900	750 kVA, 690 V	64126679	1	ACN6340755600000000902	750 kVA, 690 V	61479953	1	ACN6340755600000300900	750 kVA, 690 V	64189671
ACA 610-0900-6	ACN634-0905-6	1	ACN6340905600000000900	900 kVA, 690 V	64126776	1	ACN6340905600000000902	900 kVA, 690 V	61479961	1	ACN6340905600000300900	900 kVA, 690 V	64189743
ACA 610-1045-6	ACN634-1045-6	1	ACN6341045600000000902	1040 kVA, 690 V	61455086	1	ACN6341045600000000902	1040 kVA, 690 V	61455086	1	ACN6341045600000300902	1040 kVA, 690 V	64185560
ACA 610-1385-6	ACN634-1385-6	1	ACN6341385600000000902	1380 kVA, 690 V	61434178	1	ACN6341385600000000902	1380 kVA, 690 V	61434178	1	ACN6341385600000300902	1380 kVA, 690 V	64172590

ACS600 MultiDrive		Coated Module with Prevention of unexpected Start-up				Fan kit 230 V				Fan kit 115 V				DC - fuse		
Section type	Pcs	Type Code	Info	Order Code	Pcs	Type	Info	Order Code	Pcs	Type	Info	Order Code	Pcs	Type	Info	Order Code
690V																
ACA 610-0009-6	1	ACN6340009600000300902	9 kVA, 690 V	64183672		Internal fan (dc)				Internal fan (dc)			2	170M 2674	25A 1000V DIN00	10032041
ACA 610-0011-6	1	ACN6340011600000300902	11 kVA, 690 V	64183745		Internal fan (dc)				Internal fan (dc)			2	170M 2674	25A 1000V DIN00	10032041
ACA 610-0016-6	1	ACN6340016600000300902	16 kVA, 690 V	64183770		Internal fan (dc)				Internal fan (dc)			2	170M 2676	35A 1000V DIN00	10033250
ACA 610-0020-6	1	ACN6340020600000300902	20 kVA, 690 V	64183796		Internal fan (dc)				Internal fan (dc)			2	170M 2676	35A 1000V DIN00	10033250
ACA 610-0025-6	1	ACN6340025600000300902	25 kVA, 690 V	64183958		Internal fan (dc)				Internal fan (dc)			2	170M 2679	63A 1000V DIN00	10029791
ACA 610-0030-6	1	ACN6340030600000300902	30 kVA, 690 V	64184113		Internal fan (dc)				Internal fan (dc)			2	170M 2679	63A 1000V DIN00	10029791
ACA 610-0040-6	1	ACN6340040600000300902	40 kVA, 690 V	64184326		Internal fan (dc)				Internal fan (dc)			2	170M 2680	80A 1000V DIN00	10029805
ACA 610-0050-6	1	ACN6340050600000300902	50 kVA, 690 V	64184369		Internal fan (dc)				Internal fan (dc)			2	170M 2680	80A 1000V DIN00	10029805
ACA 610-0060-6	1	ACN6340060600000300902	60 kVA, 690 V	64184482	1	G2E140-AIXX	230V 50/60 Hz	64114158	1	G2E140-AIXX	115V 60 Hz	64114191	2	170M 2682	125A 1000V DIN00	10029813
ACA 610-0070-6	1	ACN6340070600000300902	70 kVA, 690 V	64184504	1	G2E140-AIXX	230V 50/60 Hz	64114158	1	G2E140-AIXX	115V 60 Hz	64114191	2	170M 2682	125A 1000V DIN00	10029813
ACA 610-0100-6	1	ACN6340100600000300902	100 kVA, 690 V	64184679	1	G2E140-AIXX	230V 50/60 Hz	64114158	1	G2E140-AIXX	115V 60 Hz	64114191	2	170M 4700	200A 1000-1250V UR	10001731
ACA 610-0120-6	1	ACN6340120600000300902	120 kVA, 690 V	64184709	1	G2E140-AIXX	230V 50/60 Hz	64114158	1	G2E140-AIXX	115V 60 Hz	64114191	2	170M 4700	200A 1000-1250V UR	10001731
ACA 610-0185-6	1	ACN6340185600000300902	180 kVA, 690 V	64184784	1	D4E225-CC0X	230V 50/60 Hz	64114336	1	D4E225-CC0X	115V 60 Hz	64114344	2	170M 6301	315A 1250V 3KN/110	10037158
ACA 610-0205-6	1	ACN6340205600000300902	210 kVA, 690 V	64184814	1	D4E225-CC0X	230V 50/60 Hz	64114336	1	D4E225-CC0X	115V 60 Hz	64114344	2	170M 6301	315A 1250V 3KN/110	10037158
ACA 610-0255-6	1	ACN6340255600000300902	250 kVA, 690 V	64184831	1	D4E225-CC0X	230V 50/60 Hz	64114336	1	D4E225-CC0X	115V 60 Hz	64114344	2	170M 6303	400A 1250V 3SHT	10037166
ACA 610-0315-6	1	ACN6340315600000300902	310 kVA, 690 V	64184857	1	D4E225-CC0X	230V 50/60 Hz	64114336	1	D4E225-CC0X	115V 60 Hz	64114344	2	170M 6303	400A 1250V 3SHT	10037166
ACA 610-0375-6	1	ACN6340375600000300902	370 kVA, 690 V	64184954	1	D4E225-CC0X	230V 50/60 Hz	64114336	1	D4E225-CC0X	115V 60 Hz	64114344	2	170M 6205	630A 1000-1250V UR	10001773
ACA 610-0485-6	1	ACN6340485600000300902	490 kVA, 690 V	64184971	1	D4E225-CC0X	230V 50/60 Hz	64114336	1	D4E225-CC0X	115V 60 Hz	64114344	2	170M 6205	630A 1000-1250V UR	10001773
ACA 610-0600-6	1	ACN6340605600000300902	600 kVA, 690 V	64185110	2	D4E225-CC0X	230V 50/60 Hz	64114336	2	D4E225-CC0X	115V 60 Hz	64114344	2	170M 6203	400A 1250V 3SHT	10029881
ACA 610-0750-6	1	ACN6340755600000300902	750 kVA, 690 V	64185331	2	D4E225-CC0X	230V 50/60 Hz	64114336	2	D4E225-CC0X	115V 60 Hz	64114344	4	170M 6205	630A 1000-1250V UR	10001773
ACA 610-0900-6	1	ACN6340905600000300902	900 kVA, 690 V	64171038	2	D4E225-CC0X	230V 50/60 Hz	64114336	2	D4E225-CC0X	115V 60 Hz	64114344	4	170M 6205	630A 1000-1250V UR	10001773
ACA 610-1045-6	1	ACN6341045600000300902	1040 kVA, 690 V	64185560	3	D4E225-CC0X	230V 50/60 Hz	64114336	3	D4E225-CC0X	115V 60 Hz	64114344	6	170M 6205	630A 1000-1250V UR	10001773
ACA 610-1385-6	1	ACN6341385600000300902	1380 kVA, 690 V	64172590	3	D4E225-CC0X	230V 50/60 Hz	64114336	3	D4E225-CC0X	115V 60 Hz	64114344	6	170M 6205	630A 1000-1250V UR	10001773

ACS600 MultiDrive		DC - fuse Base				Du/dt filter				Charging Circuit Fuse				Charging Circuit Fuse Base		
Section type	Pcs	Type	Info	Order Code	Pcs	Type	Info	Order Code	Pcs	Type	Info	Order Code	Pcs	Type	Info	Order Code
690V																
ACA 610-0009-6	1	OFAX00S2L	2X125A 690V	58065749	1	NOCH0016-6	15A, 150uH	58983527								
ACA 610-0011-6	1	OFAX00S2L	2X125A 690V	58065749	1	NOCH0016-6	15A, 150uH	58983527								
ACA 610-0016-6	1	OFAX00S2L	2X125A 690V	58065749	1	NOCH0016-6	15A, 150uH	58983527								
ACA 610-0020-6	1	OFAX00S2L	2X125A 690V	58065749	1	NOCH0030-6	28A, 140uH	58983519								
ACA 610-0025-6	1	OFAX00S2L	2X125A 690V	58065749	1	NOCH0030-6	28A, 140uH	58983519								
ACA 610-0030-6	1	OFAX00S2L	2X125A 690V	58065749	1	NOCH0030-6	28A, 140uH	58983519								
ACA 610-0040-6	1	OFAX00S2L	2X125A 690V	58065749	1	NOCH0070-6	65A, 115uH	58983501								
ACA 610-0050-6	1	OFAX00S2L	2X125A 690V	58065749	1	NOCH0070-6	65A, 115uH	58983501								
ACA 610-0060-6	1	OFAX00S2L	2X125A 690V	58065749	1	NOCH0070-6	65A, 115uH	58983501								
ACA 610-0070-6	1	OFAX00S2L	2X125A 690V	58065749	1	NOCH0070-6	65A, 115uH	58983501								
ACA 610-0100-6	1	OFAX1S2	2X250A 690V	10029082	3	NOCH0120-6	105A, 92uH	10030366	2	170M2690	10A,1000V DIN00	10032601	1	OFAX00S2L	2X125A 690V	58065749
ACA 610-0120-6	1	OFAX1S2	2X250A 690V	10029082	3	NOCH0120-6	105A, 92uH	10030366	2	170M2690	10A,1000V DIN00	10032601	1	OFAX00S2L	2X125A 690V	58065749
ACA 610-0185-6	2	OFASA 3	630A 690V	35009841	3	NOCH0260-6	225A, 74uH	10030358	2	170M2690	10A,1000V DIN00	10032601	1	OFAX00S2L	2X125A 690V	58065749
ACA 610-0205-6	2	OFASA 3	630A 690V	35009841	3	NOCH0260-6	225A, 74uH	10030358	2	170M2690	10A,1000V DIN00	10032601	1	OFAX00S2L	2X125A 690V	58065749
ACA 610-0255-6	2	OFASA 3	630A 690V	35009841	3	NOCH0260-6	225A, 74uH	10030358	2	170M2690	10A,1000V DIN00	10032601	1	OFAX00S2L	2X125A 690V	58065749
ACA 610-0315-6	2	OFASA 3	630A 690V	35009841	3	NOCH0260-6	225A, 74uH	10030358	2	170M2690	10A,1000V DIN00	10032601	1	OFAX00S2L	2X125A 690V	58065749
ACA 610-0375-6	2	OFASA 3	630A 690V	35009841	3	NOCH0400-6	351A, 52uH	10030340	2	170M2690	10A,1000V DIN00	10032601	1	OFAX00S2L	2X125A 690V	58065749
ACA 610-0485-6	2	OFASA 3	630A 690V	35009841	3	NOCH0400-6	351A, 52uH	10030340	2	170M2690	10A,1000V DIN00	10032601	1	OFAX00S2L	2X125A 690V	58065749
ACA 610-0600-6	2	OFASA 3	630A 690V	35009841	3	NOCH0760-6	672A, 35uH	10030731	2	170M2690	10A,1000V DIN00	10032601	1	OFAX00S2L	2X125A 690V	58065749
ACA 610-0750-6	4	OFASA 3	630A 690V	35009841	3	NOCH0760-6	672A, 35uH	10030731	2	170M2690	10A,1000V DIN00	10032601	1	OFAX00S2L	2X125A 690V	58065749
ACA 610-0900-6	4	OFASA 3	630A 690V	35009841	3	NOCH0760-6	672A, 35uH	10030731	2	170M2690	10A,1000V DIN00	10032601	1	OFAX00S2L	2X125A 690V	58065749
ACA 610-1045-6	6	OFASA 3	630A 690V	35009841	9	NOCH0400-6	351A, 52uH	10030340	2	170M2690	10A,1000V DIN00	10032601	1	OFAX00S2L	2X125A 690V	58065749
ACA 610-1385-6	6	OFASA 3	630A 690V	35009841	9	NOCH0400-6	351A, 52uH	10030340	2	170M2690	10A,1000V DIN00	10032601	1	OFAX00S2L	2X125A 690V	58065749

ACS600 MultiDrive		Fuse Switch 230 V				Fuse Switch 115 V				Coated Fuse Switch 230 V		
Section type	Pcs	Type	Info	Order Code	Pcs	Type	Info	Order Code	Pcs	Type	Info	Order Code
690V												
ACA 610-0009-6	1	R2...R4, 400...690 V KIT		64089650	1	R2...R4, 400...690 V KIT		64089650	1	R2...R4, 400...690 V KIT		64089650
ACA 610-0011-6	1	R2...R4, 400...690 V KIT		64089650	1	R2...R4, 400...690 V KIT		64089650	1	R2...R4, 400...690 V KIT		64089650
ACA 610-0016-6	1	R2...R4, 400...690 V KIT		64089650	1	R2...R4, 400...690 V KIT		64089650	1	R2...R4, 400...690 V KIT		64089650
ACA 610-0020-6	1	R2...R4, 400...690 V KIT		64089650	1	R2...R4, 400...690 V KIT		64089650	1	R2...R4, 400...690 V KIT		64089650
ACA 610-0025-6	1	R2...R4, 400...690 V KIT		64089650	1	R2...R4, 400...690 V KIT		64089650	1	R2...R4, 400...690 V KIT		64089650
ACA 610-0030-6	1	R2...R4, 400...690 V KIT		64089650	1	R2...R4, 400...690 V KIT		64089650	1	R2...R4, 400...690 V KIT		64089650
ACA 610-0040-6	1	R5/R6, 690 V KIT		64089684	1	R5/R6, 690 V KIT		64089684	1	R5/R6, 690 V KIT		64089684
ACA 610-0050-6	1	R5/R6, 690 V KIT		64089684	1	R5/R6, 690 V KIT		64089684	1	R5/R6, 690 V KIT		64089684
ACA 610-0060-6	1	R5/R6, 690 V KIT		64089684	1	R5/R6, 690 V KIT		64089684	1	R5/R6, 690 V KIT		64089684
ACA 610-0070-6	1	R5/R6, 690 V KIT		64089684	1	R5/R6, 690 V KIT		64089684	1	R5/R6, 690 V KIT		64089684
ACA 610-0100-6	1	R7, 690 V KIT	230 V 50/60 Hz	64089579	1	R7, 690 V KIT	115 V 60 Hz	64089706	1	R7, 690 V KIT	230 V 50/60 Hz	64349643
ACA 610-0120-6	1	R7, 690 V KIT	230 V 50/60 Hz	64089579	1	R7, 690 V KIT	115 V 60 Hz	64089706	1	R7, 690 V KIT	230 V 50/60 Hz	64349643
ACA 610-0185-6	1	R8/R9, 690 V KIT	230 V 50/60 Hz	64089587	1	R8/R9, 690 V KIT	115 V 60 Hz	64089714	1	R8/R9, 690 V KIT	230 V 50/60 Hz	64349686
ACA 610-0205-6	1	R8/R9, 690 V KIT	230 V 50/60 Hz	64089587	1	R8/R9, 690 V KIT	115 V 60 Hz	64089714	1	R8/R9, 690 V KIT	230 V 50/60 Hz	64349686
ACA 610-0255-6	1	R8/R9, 690 V KIT	230 V 50/60 Hz	64089587	1	R8/R9, 690 V KIT	115 V 60 Hz	64089714	1	R8/R9, 690 V KIT	230 V 50/60 Hz	64349686
ACA 610-0315-6	1	R8/R9, 690 V KIT	230 V 50/60 Hz	64089587	1	R8/R9, 690 V KIT	115 V 60 Hz	64089714	1	R8/R9, 690 V KIT	230 V 50/60 Hz	64349686
ACA 610-0375-6	1	R8/R9, 690 V KIT	230 V 50/60 Hz	64089587	1	R8/R9, 690 V KIT	115 V 60 Hz	64089714	1	R8/R9, 690 V KIT	230 V 50/60 Hz	64349686
ACA 610-0485-6	1	R8/R9, 690 V KIT	230 V 50/60 Hz	64089587	1	R8/R9, 690 V KIT	115 V 60 Hz	64089714	1	R8/R9, 690 V KIT	230 V 50/60 Hz	64349686
ACA 610-0600-6	1	R10, 690 V KIT	230 V 50/60 Hz	64089595	1	R10, 690 V KIT	115 V 60 Hz	64089811	1	R10, 690 V KIT	230 V 50/60 Hz	64349147
ACA 610-0750-6	1	R11, 690 V KIT	230 V 50/60 Hz	64089617	1	R11, 690 V KIT	115 V 60 Hz	64089757	1	R11, 690 V KIT	230 V 50/60 Hz	64349473
ACA 610-0900-6	1	R11, 690 V KIT	230 V 50/60 Hz	64089617	1	R11, 690 V KIT	115 V 60 Hz	64089757	1	R11, 690 V KIT	230 V 50/60 Hz	64349473
ACA 610-1045-6	1	R12, 690 V KIT	230 V 50/60 Hz	64089633	1	R12, 690 V KIT	115 V 60 Hz	64089773	1	R12, 690 V KIT	230 V 50/60 Hz	64349538
ACA 610-1385-6	1	R12, 690 V KIT	230 V 50/60 Hz	64089633	1	R12, 690 V KIT	115 V 60 Hz	64089773	1	R12, 690 V KIT	230 V 50/60 Hz	64349538

ACS600 MultiDrive		Coated Fuse Switch 115 V				Mounting Frame			Common mode filter				Light common mode filter		
Section type	Pcs	Type	Info	Order Code	Pcs	Type	Order Code	Pcs	Type	Info	Order Code	Pcs	Type	Info	Order Code
690V															
ACA 610-0009-6	1	R2...R4, 400...690 V KIT		64089650											
ACA 610-0011-6	1	R2...R4, 400...690 V KIT		64089650											
ACA 610-0016-6	1	R2...R4, 400...690 V KIT		64089650											
ACA 610-0020-6	1	R2...R4, 400...690 V KIT		64089650											
ACA 610-0025-6	1	R2...R4, 400...690 V KIT		64089650											
ACA 610-0030-6	1	R2...R4, 400...690 V KIT		64089650											
ACA 610-0040-6	1	R5/R6, 690 V KIT		64089684											
ACA 610-0050-6	1	R5/R6, 690 V KIT		64089684											
ACA 610-0060-6	1	R5/R6, 690 V KIT		64089684	1	FRAME R6i/7i	64138375								
ACA 610-0070-6	1	R5/R6, 690 V KIT		64089684	1	FRAME R6i/7i	64138375								
ACA 610-0100-6	1	R7, 690 V KIT	115 V 60 Hz	64349651	1	FRAME R6i/7i	64138375								
ACA 610-0120-6	1	R7, 690 V KIT	115 V 60 Hz	64349651	1	FRAME R6i/7i	64138375								
ACA 610-0185-6	1	R8/R9, 690 V KIT	115 V 60 Hz	64349694	1	FRAME R8i/9i	64138383	1	BEARING CURR. FILTER	3 TOROIDS KIT	64315811	1	BEARING CURR. FILTER	1 TOROID KIT	64392611
ACA 610-0205-6	1	R8/R9, 690 V KIT	115 V 60 Hz	64349694	1	FRAME R8i/9i	64138383	1	BEARING CURR. FILTER	3 TOROIDS KIT	64315811	1	BEARING CURR. FILTER	1 TOROID KIT	64392611
ACA 610-0255-6	1	R8/R9, 690 V KIT	115 V 60 Hz	64349694	1	FRAME R8i/9i	64138383	1	BEARING CURR. FILTER	3 TOROIDS KIT	64315811	1	BEARING CURR. FILTER	1 TOROID KIT	64392611
ACA 610-0315-6	1	R8/R9, 690 V KIT	115 V 60 Hz	64349694	1	FRAME R8i/9i	64138383	1	BEARING CURR. FILTER	3 TOROIDS KIT	64315811	1	BEARING CURR. FILTER	1 TOROID KIT	64392611
ACA 610-0375-6	1	R8/R9, 690 V KIT	115 V 60 Hz	64349694	1	FRAME R8i/9i	64138383	1	BEARING CURR. FILTER	3 TOROIDS KIT	64315811	1	BEARING CURR. FILTER	1 TOROID KIT	64392611
ACA 610-0485-6	1	R8/R9, 690 V KIT	115 V 60 Hz	64349694	1	FRAME R8i/9i	64138383	2	BEARING CURR. FILTER	3 TOROIDS KIT	64315811	2	BEARING CURR. FILTER	1 TOROID KIT	64392611
ACA 610-0600-6	1	R10, 690 V KIT	115 V 60 Hz	64349198	1	FRAME R10i/11i	64138391	3	BEARING CURR. FILTER	3 TOROIDS KIT	64315811	3	BEARING CURR. FILTER	1 TOROID KIT	64392611
ACA 610-0750-6	1	R11, 690 V KIT	115 V 60 Hz	64349481	1	FRAME R10i/11i	64138391	3	BEARING CURR. FILTER	3 TOROIDS KIT	64315811	3	BEARING CURR. FILTER	1 TOROID KIT	64392611
ACA 610-0900-6	1	R11, 690 V KIT	115 V 60 Hz	64349481	1	FRAME R10i/11i	64138391	4	BEARING CURR. FILTER	3 TOROIDS KIT	64315811	4	BEARING CURR. FILTER	1 TOROID KIT	64392611
ACA 610-1045-6	1	R12, 690 V KIT	115 V 60 Hz	64349546	1	FRAME R12i	64138405	6	BEARING CURR. FILTER	3 TOROIDS KIT	64315811	6	BEARING CURR. FILTER	1 TOROID KIT	64392611
ACA 610-1385-6	1	R12, 690 V KIT	115 V 60 Hz	64349546	1	FRAME R12i	64138405	6	BEARING CURR. FILTER	3 TOROIDS KIT	64315811	6	BEARING CURR. FILTER	1 TOROID KIT	64392611

ACS600 MD	Modtool		Braking Chopper				Coated Braking Chopper				Fan kit 230 V for chopper		
Section type	Name	Pcs	Type	Info	Order Code	Pcs	Type	Info	Order Code	Pcs	Type	Info	Order Code
400V													
ACA 621-0210-3	Chopper-0210-3	1	NBRA658	230/268 kW 400/500 V	58914886	1	NBRA658C	230/268 kW 400/500 V	58974676	1	G2E140-AIXX	230V 50/60 Hz	64114158
ACA 621-0320-3	Chopper-0320-3	1	NBRA659	353/403 kW 400/500 V	58915009	1	NBRA659C	353/403 kW 400/500 V	58972720	1	G2E140-AIXX	230V 50/60 Hz	64114158
ACA 621-0640-3	Chopper-0640-3	2	NBRA659	353/403 kW 400/500 V	58915009	2	NBRA659C	353/403 kW 400/500 V	58972720	2	G2E140-AIXX	230V 50/60 Hz	64114158
ACA 621-0960-3	Chopper-0960-3	3	NBRA659	353/403 kW 400/500 V	58915009	3	NBRA659C	353/403 kW 400/500 V	58972720	3	G2E140-AIXX	230V 50/60 Hz	64114158
ACA 621-1280-3	Chopper-1280-3	4	NBRA659	353/403 kW 400/500 V	58915009	4	NBRA659C	353/403 kW 400/500 V	58972720	4	G2E140-AIXX	230V 50/60 Hz	64114158
ACA 621-1600-3	Chopper-1600-3	5	NBRA659	353/403 kW 400/500 V	58915009	5	NBRA659C	353/403 kW 400/500 V	58972720	5	G2E140-AIXX	230V 50/60 Hz	64114158
ACA 621-1920-3	Chopper-1920-3	6	NBRA659	353/403 kW 400/500 V	58915009	6	NBRA659C	353/403 kW 400/500 V	58972720	6	G2E140-AIXX	230V 50/60 Hz	64114158
ACA 622-0210-3	Chopper+Resistors-0210-3	1	NBRA658	230/268 kW 400/500 V	58914886	1	NBRA658C	230/268 kW 400/500 V	58974676	1	G2E140-AIXX	230V 50/60 Hz	64114158
ACA 622-0320-3	Chopper+Resistors-0320-3	1	NBRA659	353/403 kW 400/500 V	58915009	1	NBRA659C	353/403 kW 400/500 V	58972720	1	G2E140-AIXX	230V 50/60 Hz	64114158
ACA 622-0640-3	Chopper+Resistors-0640-3	2	NBRA659	353/403 kW 400/500 V	58915009	2	NBRA659C	353/403 kW 400/500 V	58972720	2	G2E140-AIXX	230V 50/60 Hz	64114158
ACA 622-0960-3	Chopper+Resistors-0960-3	3	NBRA659	353/403 kW 400/500 V	58915009	3	NBRA659C	353/403 kW 400/500 V	58972720	3	G2E140-AIXX	230V 50/60 Hz	64114158
ACA 622-1280-3	Chopper+Resistors-1280-3	4	NBRA659	353/403 kW 400/500 V	58915009	4	NBRA659C	353/403 kW 400/500 V	58972720	4	G2E140-AIXX	230V 50/60 Hz	64114158
ACA 622-1600-3	Chopper+Resistors-1600-3	5	NBRA659	353/403 kW 400/500 V	58915009	5	NBRA659C	353/403 kW 400/500 V	58972720	5	G2E140-AIXX	230V 50/60 Hz	64114158
ACA 622-1920-3	Chopper+Resistors-1920-3	6	NBRA659	353/403 kW 400/500 V	58915009	6	NBRA659C	353/403 kW 400/500 V	58972720	6	G2E140-AIXX	230V 50/60 Hz	64114158
500V													
ACA 621-0260-5	Chopper-0260-5	1	NBRA658	230/268 kW 400/500 V	58914886	1	NBRA658C	230/268 kW 400/500 V	58974676	1	G2E140-AIXX	230V 50/60 Hz	64114158
ACA 621-0400-5	Chopper-0400-5	1	NBRA659	353/403 kW 400/500 V	58915009	1	NBRA659C	353/403 kW 400/500 V	58972720	1	G2E140-AIXX	230V 50/60 Hz	64114158
ACA 621-0800-5	Chopper-0800-5	2	NBRA659	353/403 kW 400/500 V	58915009	2	NBRA659C	353/403 kW 400/500 V	58972720	2	G2E140-AIXX	230V 50/60 Hz	64114158
ACA 621-1200-5	Chopper-1200-5	3	NBRA659	353/403 kW 400/500 V	58915009	3	NBRA659C	353/403 kW 400/500 V	58972720	3	G2E140-AIXX	230V 50/60 Hz	64114158
ACA 621-1600-5	Chopper-1600-5	4	NBRA659	353/403 kW 400/500 V	58915009	4	NBRA659C	353/403 kW 400/500 V	58972720	4	G2E140-AIXX	230V 50/60 Hz	64114158
ACA 621-2000-5	Chopper-2000-5	5	NBRA659	353/403 kW 400/500 V	58915009	5	NBRA659C	353/403 kW 400/500 V	58972720	5	G2E140-AIXX	230V 50/60 Hz	64114158
ACA 621-2400-5	Chopper-2400-5	6	NBRA659	353/403 kW 400/500 V	58915009	6	NBRA659C	353/403 kW 400/500 V	58972720	6	G2E140-AIXX	230V 50/60 Hz	64114158
ACA 622-0260-5	Chopper+Resistors-0260-5	1	NBRA658	230/268 kW 400/500 V	58914886	1	NBRA658C	230/268 kW 400/500 V	58974676	1	G2E140-AIXX	230V 50/60 Hz	64114158
ACA 622-0400-5	Chopper+Resistors-0400-5	1	NBRA659	353/403 kW 400/500 V	58915009	1	NBRA659C	353/403 kW 400/500 V	58972720	1	G2E140-AIXX	230V 50/60 Hz	64114158
ACA 622-0800-5	Chopper+Resistors-0800-5	2	NBRA659	353/403 kW 400/500 V	58915009	2	NBRA659C	353/403 kW 400/500 V	58972720	2	G2E140-AIXX	230V 50/60 Hz	64114158
ACA 622-1200-5	Chopper+Resistors-1200-5	3	NBRA659	353/403 kW 400/500 V	58915009	3	NBRA659C	353/403 kW 400/500 V	58972720	3	G2E140-AIXX	230V 50/60 Hz	64114158
ACA 622-1600-5	Chopper+Resistors-1600-5	4	NBRA659	353/403 kW 400/500 V	58915009	4	NBRA659C	353/403 kW 400/500 V	58972720	4	G2E140-AIXX	230V 50/60 Hz	64114158
ACA 622-2000-5	Chopper+Resistors-2000-5	5	NBRA659	353/403 kW 400/500 V	58915009	5	NBRA659C	353/403 kW 400/500 V	58972720	5	G2E140-AIXX	230V 50/60 Hz	64114158
ACA 622-2400-5	Chopper+Resistors-2400-5	6	NBRA659	353/403 kW 400/500 V	58915009	6	NBRA659C	353/403 kW 400/500 V	58972720	6	G2E140-AIXX	230V 50/60 Hz	64114158
690V													
ACA 621-0400-6	Chopper-0400-6	1	NBRA669	404 kW 690 V	58945081	1	NBRA669C	404 kW 690 V	59011065	1	G2E140-AIXX	230V 50/60 Hz	64114158
ACA 621-0800-6	Chopper-0800-6	2	NBRA669	404 kW 690 V	58945081	2	NBRA669C	404 kW 690 V	59011065	2	G2E140-AIXX	230V 50/60 Hz	64114158
ACA 621-1200-6	Chopper-1200-6	3	NBRA669	404 kW 690 V	58945081	3	NBRA669C	404 kW 690 V	59011065	3	G2E140-AIXX	230V 50/60 Hz	64114158
ACA 621-1600-6	Chopper-1600-6	4	NBRA669	404 kW 690 V	58945081	4	NBRA669C	404 kW 690 V	59011065	4	G2E140-AIXX	230V 50/60 Hz	64114158
ACA 621-2000-6	Chopper-2000-6	5	NBRA669	404 kW 690 V	58945081	5	NBRA669C	404 kW 690 V	59011065	5	G2E140-AIXX	230V 50/60 Hz	64114158
ACA 621-2400-6	Chopper-2400-6	6	NBRA669	404 kW 690 V	58945081	6	NBRA669C	404 kW 690 V	59011065	6	G2E140-AIXX	230V 50/60 Hz	64114158
ACA 622-0400-6	Chopper+Resistors-0400-6	1	NBRA669	404 kW 690 V	58945081	1	NBRA669C	404 kW 690 V	59011065	1	G2E140-AIXX	230V 50/60 Hz	64114158
ACA 622-0800-6	Chopper+Resistors-0800-6	2	NBRA669	404 kW 690 V	58945081	2	NBRA669C	404 kW 690 V	59011065	2	G2E140-AIXX	230V 50/60 Hz	64114158
ACA 622-1200-6	Chopper+Resistors-1200-6	3	NBRA669	404 kW 690 V	58945081	3	NBRA669C	404 kW 690 V	59011065	3	G2E140-AIXX	230V 50/60 Hz	64114158
ACA 622-1600-6	Chopper+Resistors-1600-6	4	NBRA669	404 kW 690 V	58945081	4	NBRA669C	404 kW 690 V	59011065	4	G2E140-AIXX	230V 50/60 Hz	64114158
ACA 622-2000-6	Chopper+Resistors-2000-6	5	NBRA669	404 kW 690 V	58945081	5	NBRA669C	404 kW 690 V	59011065	5	G2E140-AIXX	230V 50/60 Hz	64114158
ACA 622-2400-6	Chopper+Resistors-2400-6	6	NBRA669	404 kW 690 V	58945081	6	NBRA669C	404 kW 690 V	59011065	6	G2E140-AIXX	230V 50/60 Hz	64114158

ACS600 MD		Fan kit 115 V for chopper				DC - fuse				DC - fuse Base		
Section type	**Pcs**	**Type**	**Info**	**Order Code**	**Pcs**	**Type**	**Info**	**Order Code**	**Pcs**	**Type**	**Info**	**Order Code**
400V												
ACA 621-0210-3	1	G2E140-AIXX	115V 60 Hz	64114191	2	170M 5142	400A 1000-1250V UR	10028183	2	170H 3005	1400V 630A 110 MM	10028205
ACA 621-0320-3	1	G2E140-AIXX	115V 60 Hz	64114191	2	170M 5146	630A 1000-1250 V UR	10028191	2	170H 3005	1400V 630A 110 MM	10028205
ACA 621-0640-3	2	G2E140-AIXX	115V 60 Hz	64114191	4	170M 5146	630A 1000-1250 V UR	10028191	4	170H 3005	1400V 630A 110 MM	10028205
ACA 621-0960-3	3	G2E140-AIXX	115V 60 Hz	64114191	6	170M 5146	630A 1000-1250 V UR	10028191	6	170H 3005	1400V 630A 110 MM	10028205
ACA 621-1280-3	4	G2E140-AIXX	115V 60 Hz	64114191	8	170M 5146	630A 1000-1250 V UR	10028191	8	170H 3005	1400V 630A 110 MM	10028205
ACA 621-1600-3	5	G2E140-AIXX	115V 60 Hz	64114191	10	170M 5146	630A 1000-1250 V UR	10028191	10	170H 3005	1400V 630A 110 MM	10028205
ACA 621-1920-3	6	G2E140-AIXX	115V 60 Hz	64114191	12	170M 5146	630A 1000-1250 V UR	10028191	12	170H 3005	1400V 630A 110 MM	10028205
ACA 622-0210-3	1	G2E140-AIXX	115V 60 Hz	64114191	2	170M 5142	400A 1000-1250V UR	10028183	2	170H 3005	1400V 630A 110 MM	10028205
ACA 622-0320-3	1	G2E140-AIXX	115V 60 Hz	64114191	2	170M 5146	630A 1000-1250 V UR	10028191	2	170H 3005	1400V 630A 110 MM	10028205
ACA 622-0640-3	2	G2E140-AIXX	115V 60 Hz	64114191	4	170M 5146	630A 1000-1250 V UR	10028191	4	170H 3005	1400V 630A 110 MM	10028205
ACA 622-0960-3	3	G2E140-AIXX	115V 60 Hz	64114191	6	170M 5146	630A 1000-1250 V UR	10028191	6	170H 3005	1400V 630A 110 MM	10028205
ACA 622-1280-3	4	G2E140-AIXX	115V 60 Hz	64114191	8	170M 5146	630A 1000-1250 V UR	10028191	8	170H 3005	1400V 630A 110 MM	10028205
ACA 622-1600-3	5	G2E140-AIXX	115V 60 Hz	64114191	10	170M 5146	630A 1000-1250 V UR	10028191	10	170H 3005	1400V 630A 110 MM	10028205
ACA 622-1920-3	6	G2E140-AIXX	115V 60 Hz	64114191	12	170M 5146	630A 1000-1250 V UR	10028191	12	170H 3005	1400V 630A 110 MM	10028205
500V												
ACA 621-0260-5	1	G2E140-AIXX	115V 60 Hz	64114191	2	170M 5142	400A 1000-1250V UR	10028183	2	170H 3005	1400V 630A 110 MM	10028205
ACA 621-0400-5	1	G2E140-AIXX	115V 60 Hz	64114191	2	170M 5146	630A 1000-1250 V UR	10028191	2	170H 3005	1400V 630A 110 MM	10028205
ACA 621-0800-5	2	G2E140-AIXX	115V 60 Hz	64114191	4	170M 5146	630A 1000-1250 V UR	10028191	4	170H 3005	1400V 630A 110 MM	10028205
ACA 621-1200-5	3	G2E140-AIXX	115V 60 Hz	64114191	6	170M 5146	630A 1000-1250 V UR	10028191	6	170H 3005	1400V 630A 110 MM	10028205
ACA 621-1600-5	4	G2E140-AIXX	115V 60 Hz	64114191	8	170M 5146	630A 1000-1250 V UR	10028191	8	170H 3005	1400V 630A 110 MM	10028205
ACA 621-2000-5	5	G2E140-AIXX	115V 60 Hz	64114191	10	170M 5146	630A 1000-1250 V UR	10028191	10	170H 3005	1400V 630A 110 MM	10028205
ACA 621-2400-5	6	G2E140-AIXX	115V 60 Hz	64114191	12	170M 5146	630A 1000-1250 V UR	10028191	12	170H 3005	1400V 630A 110 MM	10028205
ACA 622-0260-5	1	G2E140-AIXX	115V 60 Hz	64114191	2	170M 5142	400A 1000-1250V UR	10028183	2	170H 3005	1400V 630A 110 MM	10028205
ACA 622-0400-5	1	G2E140-AIXX	115V 60 Hz	64114191	2	170M 5146	630A 1000-1250 V UR	10028191	2	170H 3005	1400V 630A 110 MM	10028205
ACA 622-0800-5	2	G2E140-AIXX	115V 60 Hz	64114191	4	170M 5146	630A 1000-1250 V UR	10028191	4	170H 3005	1400V 630A 110 MM	10028205
ACA 622-1200-5	3	G2E140-AIXX	115V 60 Hz	64114191	6	170M 5146	630A 1000-1250 V UR	10028191	6	170H 3005	1400V 630A 110 MM	10028205
ACA 622-1600-5	4	G2E140-AIXX	115V 60 Hz	64114191	8	170M 5146	630A 1000-1250 V UR	10028191	8	170H 3005	1400V 630A 110 MM	10028205
ACA 622-2000-5	5	G2E140-AIXX	115V 60 Hz	64114191	10	170M 5146	630A 1000-1250 V UR	10028191	10	170H 3005	1400V 630A 110 MM	10028205
ACA 622-2400-5	6	G2E140-AIXX	115V 60 Hz	64114191	12	170M 5146	630A 1000-1250 V UR	10028191	12	170H 3005	1400V 630A 110 MM	10028205
690V												
ACA 621-0400-6	1	G2E140-AIXX	115V 60 Hz	64114191	2	170M 5146	630A 1000-1250 V UR	10028191	2	170H 3005	1400V 630A 110 MM	10028205
ACA 621-0800-6	2	G2E140-AIXX	115V 60 Hz	64114191	4	170M 5146	630A 1000-1250 V UR	10028191	4	170H 3005	1400V 630A 110 MM	10028205
ACA 621-1200-6	3	G2E140-AIXX	115V 60 Hz	64114191	6	170M 5146	630A 1000-1250 V UR	10028191	6	170H 3005	1400V 630A 110 MM	10028205
ACA 621-1600-6	4	G2E140-AIXX	115V 60 Hz	64114191	8	170M 5146	630A 1000-1250 V UR	10028191	8	170H 3005	1400V 630A 110 MM	10028205
ACA 621-2000-6	5	G2E140-AIXX	115V 60 Hz	64114191	10	170M 5146	630A 1000-1250 V UR	10028191	10	170H 3005	1400V 630A 110 MM	10028205
ACA 621-2400-6	6	G2E140-AIXX	115V 60 Hz	64114191	12	170M 5146	630A 1000-1250 V UR	10028191	12	170H 3005	1400V 630A 110 MM	10028205
ACA 622-0400-6	1	G2E140-AIXX	115V 60 Hz	64114191	2	170M 5146	630A 1000-1250 V UR	10028191	2	170H 3005	1400V 630A 110 MM	10028205
ACA 622-0800-6	2	G2E140-AIXX	115V 60 Hz	64114191	4	170M 5146	630A 1000-1250 V UR	10028191	4	170H 3005	1400V 630A 110 MM	10028205
ACA 622-1200-6	3	G2E140-AIXX	115V 60 Hz	64114191	6	170M 5146	630A 1000-1250 V UR	10028191	6	170H 3005	1400V 630A 110 MM	10028205
ACA 622-1600-6	4	G2E140-AIXX	115V 60 Hz	64114191	8	170M 5146	630A 1000-1250 V UR	10028191	8	170H 3005	1400V 630A 110 MM	10028205
ACA 622-2000-6	5	G2E140-AIXX	115V 60 Hz	64114191	10	170M 5146	630A 1000-1250 V UR	10028191	10	170H 3005	1400V 630A 110 MM	10028205
ACA 622-2400-6	6	G2E140-AIXX	115V 60 Hz	64114191	12	170M 5146	630A 1000-1250 V UR	10028191	12	170H 3005	1400V 630A 110 MM	10028205

ACS600 MD		Braking Resistors				Fan kit 230 V for resistor				Fan kit 115 V for resistor		
Section type	Pcs	Type	Info	Order Code	Pcs	Type	Info	Order Code	Pcs	Type	Info	Order Code
400V												
ACA 621-0210-3												
ACA 621-0320-3												
ACA 621-0640-3												
ACA 621-0960-3												
ACA 621-1280-3												
ACA 621-1600-3												
ACA 621-1920-3												
ACA 622-0210-3	2	SAFUR210F575	575V 210kW 3.4 Ohm	57446994	1	D4E225-CC0X	230V 50/60 Hz	64114336	1	D4E225-CC0X	115V 60 Hz	64114344
ACA 622-0320-3	2	SAFUR180F460	460V 180kW 2.4 Ohm	57446935	1	D4E225-CC0X	230V 50/60 Hz	64114336	1	D4E225-CC0X	115V 60 Hz	64114344
ACA 622-0640-3	4	SAFUR180F460	460V 180kW 2.4 Ohm	57446935	2	D4E225-CC0X	230V 50/60 Hz	64114336	2	D4E225-CC0X	115V 60 Hz	64114344
ACA 622-0960-3	6	SAFUR180F460	460V 180kW 2.4 Ohm	57446935	3	D4E225-CC0X	230V 50/60 Hz	64114336	3	D4E225-CC0X	115V 60 Hz	64114344
ACA 622-1280-3	8	SAFUR180F460	460V 180kW 2.4 Ohm	57446935	4	D4E225-CC0X	230V 50/60 Hz	64114336	4	D4E225-CC0X	115V 60 Hz	64114344
ACA 622-1600-3	10	SAFUR180F460	460V 180kW 2.4 Ohm	57446935	5	D4E225-CC0X	230V 50/60 Hz	64114336	5	D4E225-CC0X	115V 60 Hz	64114344
ACA 622-1920-3	12	SAFUR180F460	460V 180kW 2.4 Ohm	57446935	6	D4E225-CC0X	230V 50/60 Hz	64114336	6	D4E225-CC0X	115V 60 Hz	64114344
500V												
ACA 621-0260-5												
ACA 621-0400-5												
ACA 621-0800-5												
ACA 621-1200-5												
ACA 621-1600-5												
ACA 621-2000-5												
ACA 621-2400-5												
ACA 622-0260-5	2	SAFUR125F500	500V 125kW 4.0 Ohm	57446951	1	D4E225-CC0X	230V 50/60 Hz	64114336	1	D4E225-CC0X	115V 60 Hz	64114344
ACA 622-0400-5	2	SAFUR200F500	500V 200kW 2.7 Ohm	57446960	1	D4E225-CC0X	230V 50/60 Hz	64114336	1	D4E225-CC0X	115V 60 Hz	64114344
ACA 622-0800-5	4	SAFUR200F500	500V 200kW 2.7 Ohm	57446960	2	D4E225-CC0X	230V 50/60 Hz	64114336	2	D4E225-CC0X	115V 60 Hz	64114344
ACA 622-1200-5	6	SAFUR200F500	500V 200kW 2.7 Ohm	57446960	3	D4E225-CC0X	230V 50/60 Hz	64114336	3	D4E225-CC0X	115V 60 Hz	64114344
ACA 622-1600-5	8	SAFUR200F500	500V 200kW 2.7 Ohm	57446960	4	D4E225-CC0X	230V 50/60 Hz	64114336	4	D4E225-CC0X	115V 60 Hz	64114344
ACA 622-2000-5	10	SAFUR200F500	500V 200kW 2.7 Ohm	57446960	5	D4E225-CC0X	230V 50/60 Hz	64114336	5	D4E225-CC0X	115V 60 Hz	64114344
ACA 622-2400-5	12	SAFUR200F500	500V 200kW 2.7 Ohm	57446960	6	D4E225-CC0X	230V 50/60 Hz	64114336	6	D4E225-CC0X	115V 60 Hz	64114344
690V												
ACA 621-0400-6												
ACA 621-0800-6												
ACA 621-1200-6												
ACA 621-1600-6												
ACA 621-2000-6												
ACA 621-2400-6												
ACA 622-0400-6	2	SAFUR200F500	500V 200kW 2.7 Ohm	57446960	1	D4E225-CC0X	230V 50/60 Hz	64114336	1	D4E225-CC0X	115V 60 Hz	64114344
ACA 622-0800-6	4	SAFUR200F500	500V 200kW 2.7 Ohm	57446960	2	D4E225-CC0X	230V 50/60 Hz	64114336	2	D4E225-CC0X	115V 60 Hz	64114344
ACA 622-1200-6	6	SAFUR200F500	500V 200kW 2.7 Ohm	57446960	3	D4E225-CC0X	230V 50/60 Hz	64114336	3	D4E225-CC0X	115V 60 Hz	64114344
ACA 622-1600-6	8	SAFUR200F500	500V 200kW 2.7 Ohm	57446960	4	D4E225-CC0X	230V 50/60 Hz	64114336	4	D4E225-CC0X	115V 60 Hz	64114344
ACA 622-2000-6	10	SAFUR200F500	500V 200kW 2.7 Ohm	57446960	5	D4E225-CC0X	230V 50/60 Hz	64114336	5	D4E225-CC0X	115V 60 Hz	64114344
ACA 622-2400-6	12	SAFUR200F500	500V 200kW 2.7 Ohm	57446960	6	D4E225-CC0X	230V 50/60 Hz	64114336	6	D4E225-CC0X	115V 60 Hz	64114344

MultiDrive Modules Catalogue/EN
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EFFECTIVE: 9.4.2001

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