7. 8B0C control supply units - 400W

Warning!

The auxiliary supply modules are components of and may only be used in connection with the ACOPOSmulti drive system.

Information:

Up to five auxiliary supply modules with any power rating can be set up in parallel.

7.1 Order data

Model number	Short description	Figure
	Wall mounting	 8B0C0160HC00.001-1
8B0C0160HW00.000-1	ACOPOSmulti auxiliary supply module 16A, HV, wall mounting	
8B0C0160HW00.001-1	ACOPOSmulti auxiliary supply module 16A, HV, wall mounting, 24VOut 1x16A, 1x5A	
	Cold plate or feed-through mounting	
8B0C0160HC00.000-1	ACOPOSmulti auxiliary supply module 16A, HV, cold plate or feed-through mounting	
8B0C0160HC00.001-1	ACOPOSmulti auxiliary supply module 16A, HV, cold plate or feed-through mounting, 24VOut 1x16A, 1x5A	

Table 24: Order data - 8B0C control supply units 400W

Required accessories				
Model number	**Amount**	**Short description**	**Comment**	**Page**
8TB2106.2010-00	1	Screw terminal 6 pins, 1 row RM5.08 Label 1: numbered serially	Plug for X1 connection	286
8TB2104.2010-00 [1)]	1	Screw terminal 4 pins, 1 row RM5.08 Label 1: numbered serially	Plug for X2 connection	288
8TB3104.201M-10 [1)]	1	Screw terminal 4 pins, 1 row RM7.62 Label 1: numbered serially Coding M: 1011	Plug for X3 connection	288

Table 25: Required accessories for 8B0C auxiliary supply modules 400W

1) Only for 8B0C0160Hx00.001-1.

Optional accessories				
Model number	**Amount**	**Short description**	**Comment**	**Page**
8BXF001.0000-00	---	ACOPOSmulti fan module Replacement fan for ACOPOSmulti modules (8BVP/8B0C/8BVI/8BVE/8B0K)	Replacement fan for ACOPOSmulti modules (8BVP/8B0C/8BVI/8BVE/8B0K)	---

Table 26: Optional accessories for auxiliary supply modules 8B0C 400W

7.2 Technical data

Product ID **Wall mounting** **Cold plate or feed-through mounting**	**8B0C0160HW00.000-1** **8B0C0160HC00.000-1**	**8B0C0160HW00.001-1** **8B0C0160HC00.001-1**
General information		
C-UL-US listed	Yes	
Available cooling and mounting methods Wall mounting Cold plate or feed-through mounting	 Yes Yes	
Module width	1	
DC bus connection		
Voltage Operating range in continuous operation Full continuous power	800 VDC 260 - 900 VDC 315 - 900 VDC	
Continuous power consumption	Max. 470 W	
Power loss at max. device power	In preparation	
DC bus capacitance	In preparation	
Design	ACOPOSmulti backplane	
24 VDC output		
Continuous power [1)]	400 W	
Output voltage DC bus voltage 260 ... 315 VDC DC bus voltage 315 ... 900 VDC	 25 VDC * (DC bus voltage / 315) 24 VDC ±6%	
Continuous current	16 ADC	
Reduction of continuous power according to ambient temperature above 40°C	No reduction	
Reduction of continuous power depending on installation altitude Starting at 500 m above sea level	 40 W per 1000 m	
Reduction of continuous power depending on cooling method Wall mounting Cold plate or feed-through mounting	 In preparation In preparation	
Startup delay	Max. 1 sec.	
Startup time	Approx. 5 - 20 ms	
Residual ripple	Typ. 50 mV_{SS}	

Table 27: Technical data for 8B0C control supply units 400W

Product ID Wall mounting Cold plate or feed-through mounting	8B0C0160HW00.000-1 8B0C0160HC00.000-1	8B0C0160HW00.001-1 8B0C0160HC00.001-1
24 VDC internal system supply voltage		
Output voltage	25 VDC ±1.6%	
Peak current (< 4 s) DC bus voltage (UDC): 350 ... 900 VDC	21 ADC	
Protective measures Open circuit protection Overload protection Short circuit protection Feedback protection Over-temperature protection Dielectric strength to ground Output / input isolation	 Yes Yes Yes Max. 26 VDC (also when turned off) Yes ±50 VDC SELV / PELV requirements	
Design	ACOPOSmulti backplane	
24 VDC Out		
Output voltage DC bus voltage 260 ... 315 VDC DC bus voltage 315 ... 900 VDC	 --- ---	 25 VDC * (DC bus voltage / 315) 24 VDC ±6%
Peak current (< 4 s) over the total operating range of the DC bus voltage.	---	---
Protection of 24 VDC Out 1 output	---	16 A (slow-blow) electronic, automatic reset
Protection of 24 VDC Out 2 output	---	5 A (slow-blow) electronic, automatic reset
Protective measures Open circuit protection Overload protection Short circuit protection Feedback protection Over-temperature protection Dielectric strength to ground Output / input isolation	 --- --- --- --- --- --- ---	 Yes Yes Yes Max. 35 VDC (also when turned off) Yes ±50 VDC SELV / PELV requirements
Design 24 VDC, COM	 ---	 Connectors
Terminal connection cross section of 24 VDC Out 1 output Flexible and fine wire lines with wire tip sleeves Approbation data UL/C-UL-US CSA	 --- --- ---	 0.5 - 6 mm² 22 - 10 22 - 10
Terminal connection cross section of 24 VDC Out 2 output Flexible and fine wire lines with wire tip sleeves Approbation data UL/C-UL-US CSA	 --- --- ---	 0.2 - 2.5 mm² 22 - 12 22 - 12

Table 27: Technical data for 8B0C control supply units 400W (Forts.)

Product ID Wall mounting Cold plate or feed-through mounting	8B0C0160HW00.000-1 8B0C0160HC00.000-1	8B0C0160HW00.001-1 8B0C0160HC00.001-1
24 VDC Out 1 controller input		
Wiring	---	Sink
Electrical isolation Input - 24 VDC	 ---	 Yes
Modulation compared to ground potential	---	Max. ±50 V
Input voltage Rated Maximum	 --- ---	 24 VDC 30 VDC
Switching threshold LOW (24 VDC Out 1 is switched on) HIGH (24 VDC Out 1 is switched off)	 --- ---	 <5 V >15 V
Input current at rated voltage	---	Approx. 10 mA
Switching delay ON (24 VDC Out 1 is switched on) OFF (24 VDC Out 1 is switched off) [2]	 --- ---	 Max. 25 ms Max. 0.25 ms
Design	---	Connectors
Terminal connection cross section of the 24 VDC Out 1 control input Flexible and fine wire lines with wire tip sleeves Approbation data UL/C-UL-US CSA	 --- --- ---	 0.2 - 2.5 mm² 30 - 12 22 - 12
Operational conditions		
Ambient temperature during operation Max. ambient temperature	5 to 40°C +55°C	
Relative humidity during operation	5 to 85%, non-condensing	
Installation at altitudes above sea level Maximum installation altitude [3]	0 to 500 m 4000 m	
Degree of pollution according to EN 60664-1	2 (non-conductive material)	
Overvoltage cat. according to IEC 60364-4-443:1999	III	
EN 60529 protection	IP20	
Storage and transport conditions		
Storage temperature	-25 to +55°C	
Relative humidity during storage	5 to 95%, non-condensing	
Transport temperature	-25 to +70°C	
Relative humidity during transport	95% at +40°C	

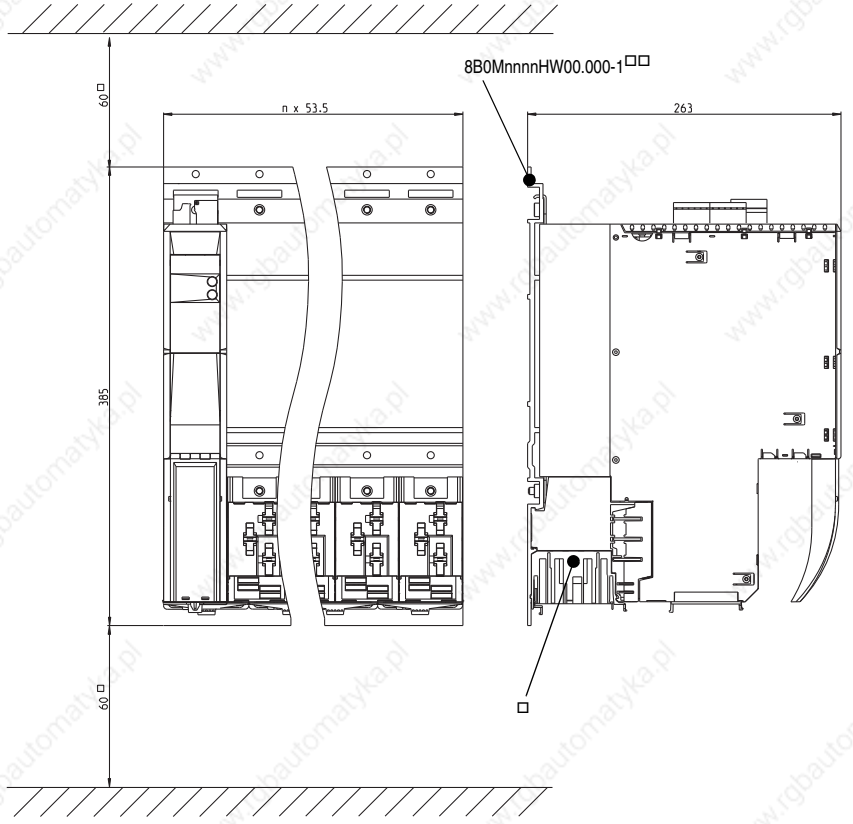
Table 27: Technical data for 8B0C control supply units 400W (Forts.)

Product ID Wall mounting Cold plate or feed-through mounting	8B0C0160HW00.000-1 8B0C0160HC00.000-1	8B0C0160HW00.001-1 8B0C0160HC00.001-1
Mechanical characteristics		
Dimensions[4] Width Height Depth Wall mounting Cold-plate Feed-through mounting	 53 mm 317 mm 263 mm 212 mm 209 mm	
Weight Wall mounting Cold-plate Feed-through mounting	 In preparation Approx. 2.6 kg Approx. 2.6 kg	

Table 27: Technical data for 8B0C control supply units 400W (Forts.)

1) Valid in the following conditions: 55°C ambient temperature, installation altitude < 500 m above sea level.
2) The output and any connected loads are not actively discharged when switching off.
3) Continuous operation of ACOPOSmulti control supply units at altitudes ranging from 500 m to 4000 m above sea level is possible (taking the continuous power reductions listed into consideration). Additional requirements are to be arranged with B&R.
4) The dimensions define the true device dimensions including the respective mounting plate. Make sure to leave additional space above and below the device for mounting, connections and air circulation (see section 2 "Dimension diagrams and installation dimensions" on page 143).

8B0C0160HW00.001-1, 8B0C0320HW00.002-1



n ... Number of width units of the mounting plate

□ ... For proper air circulation, at least 60 mm has to be left free above and below the module.
To ensure that the fan modules in the mounting plate can be exchanged easily, at least 250 mm has to be left free below the module.

□□ ... nnnn indicates the number of slots (0160 equals 16 slots)

Figure 26: Dimensional diagram and installation dimensions for 8B0C0160HW00.001-1, 8B0C0320HW00.002-1

5.2 8B0C0160Hx00.001-1, 8B0C0320Hx00.002-1

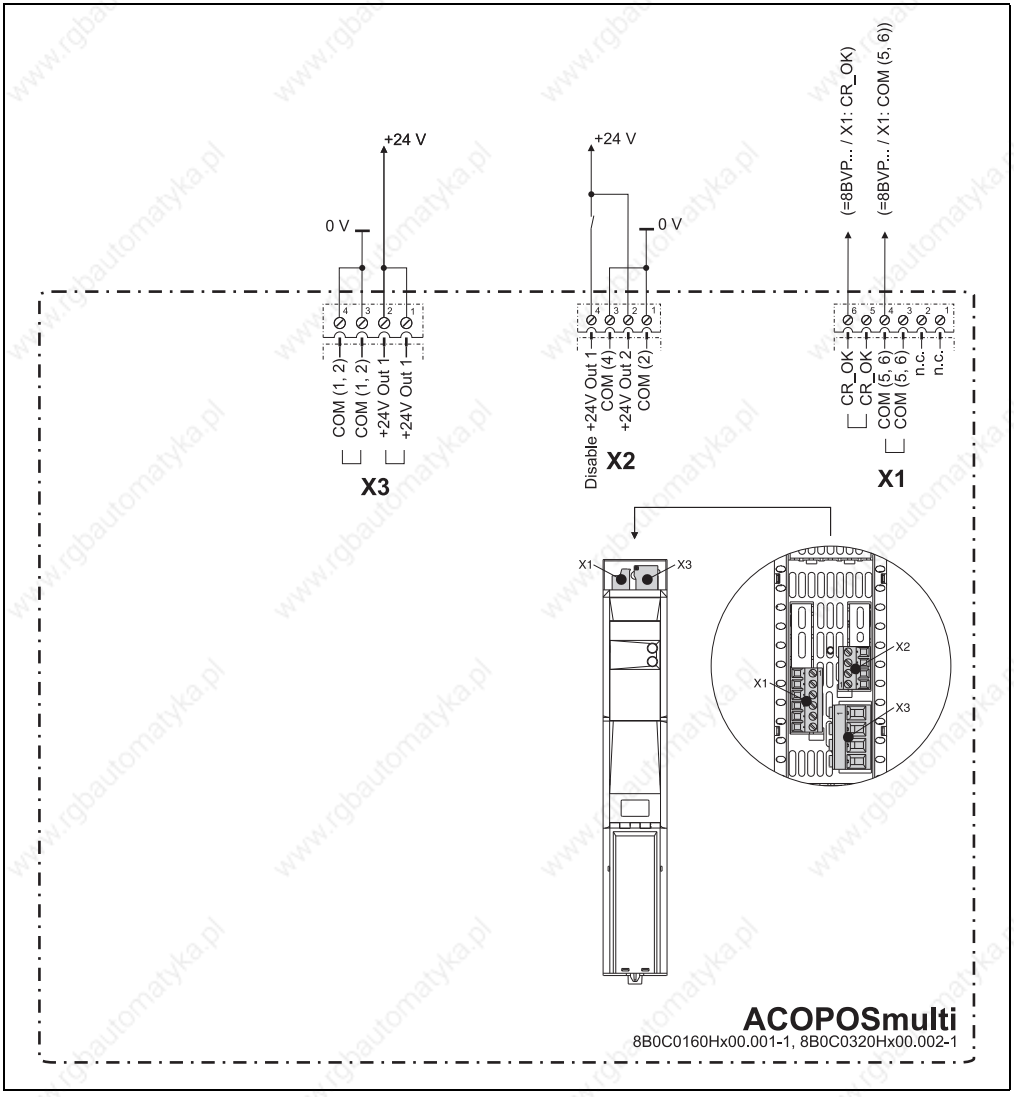


Figure 98: Overview of pin assignments - 8B0C0160Hx00.001-1, 8B0C0320Hx00.002-1

5.2.1 Pin assignments - X1 plug

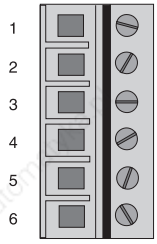
X1	Pin	Name	Function
	1	---	---
	2	---	---
	3	COM (5, 6)	DC bus ready 0 V
	4	COM (5, 6)	DC bus ready 0 V
	5	CR_OK	DC bus ready
	6	CR_OK	DC bus ready

Table 124: Pin assignments for plug X1 8B0C0160Hx00.001-1, 8B0C0320Hx00.002-1

5.2.2 Pin assignments - X2 plug

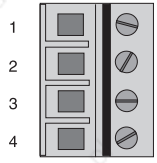
X2	Pin	Name	Function
	1	COM (2)	+24 V output 2 0 V
	2	+24V Out 2	+24 V output 2
	3	COM (4)	Disable +24 V output 1 0 V
	4	Disable +24V Out 1	Disable +24 V output 1

Table 125: Pin assignments for plug X2 8B0C0160Hx00.001-1, 8B0C0320Hx00.002-1

5.2.3 Pin assignments - X3 plug

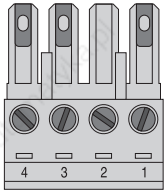
X3	Pin	Name	Function
	1	+24V Out 1	+24 V output 1
	2	+24V Out 1	+24 V output 1
	3	COM (1, 2)	+24 V output 1 0 V
	4	COM (1, 2)	+24 V output 1 0 V

Table 126: Pin assignments for plug X3 8B0C0160Hx00.001-1, 8B0C0320Hx00.002-1

5.2.4 Input/output circuit diagram

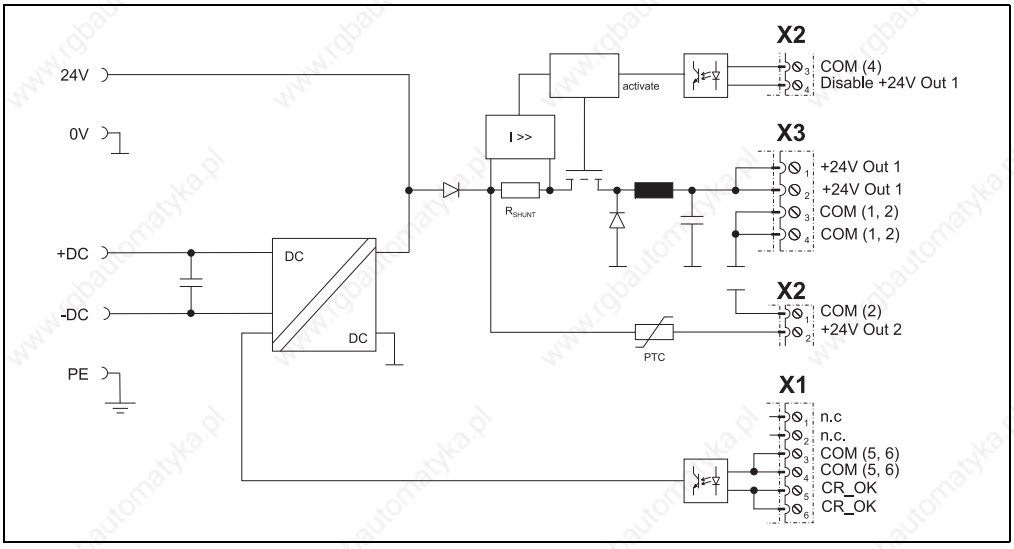


Figure 99: Input/output circuit diagram 8B0C0160Hx00.001-1, 8B0C0320Hx00.002-1

5.2.5 Parallel connection of multiple 8B0C auxiliary supply modules

Warning!

When the external 24V outputs (24V Out 1, 24 V Out 2) are connected in parallel, the corresponding COM connections must also be connected in parallel!