

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	 <p>8B0C0160HC00.001-1</p>
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.

Technical data • 8BOC control supply units - 400W

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

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

7.2 Technical data

Product ID	8BOC0160HW00.000-1 8BOC0160HC00.000-1	8BOC0160HW00.001-1 8BOC0160HC00.001-1
Wall mounting Cold plate or feed-through mounting		
General information		
C-UL-US listed	Yes	
Available cooling and mounting methods		
Wall mounting	Yes	
Cold plate or feed-through mounting	Yes	
Module width	1	
DC bus connection		
Voltage	800 VDC	
Operating range in continuous operation	260 - 900 VDC	
Full continuous power	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	25 VDC * (DC bus voltage / 315)	
DC bus voltage 315 ... 900 VDC	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	In preparation	
Cold plate or feed-through mounting	In preparation	
Startup delay	Max. 1 sec.	
Startup time	Approx. 5 - 20 ms	
Residual ripple	Typ. 50 mV _{SS}	

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

Technical data • 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	Yes	
Overload protection	Yes	
Short circuit protection	Yes	
Feedback protection	Max. 26 VDC (also when turned off)	
Over-temperature protection	Yes	
Dielectric strength to ground	±50 VDC	
Output / input isolation	SELV / PELV requirements	
Design	ACOPOSMulti backplane	
24 VDC Out		
Output voltage		
DC bus voltage 260 ... 315 VDC	---	25 VDC * (DC bus voltage / 315)
DC bus voltage 315 ... 900 VDC	---	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	---	Yes
Overload protection	---	Yes
Short circuit protection	---	Yes
Feedback protection	---	Max. 35 VDC (also when turned off)
Over-temperature protection	---	Yes
Dielectric strength to ground	---	±50 VDC
Output / input isolation	---	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	---	0.5 - 6 mm ²
Approbation data UL/C-UL-US	---	22 - 10
CSA	---	22 - 10
Terminal connection cross section of 24 VDC Out 2 output		
Flexible and fine wire lines with wire tip sleeves	---	0.2 - 2.5 mm ²
Approbation data UL/C-UL-US	---	22 - 12
CSA	---	22 - 12

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

Technical data • 8B0C control supply units - 400W

Product ID	8B0C0160HW00.000-1 8B0C0160HC00.000-1	8B0C0160HW00.001-1 8B0C0160HC00.001-1
Wall mounting Cold plate or feed-through mounting		
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 Approval data UL/C-UL-US CSA	--- --- ---	0.2 - 2.5 mm ² 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.)

Technical data • 8B0C control supply units - 400W

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

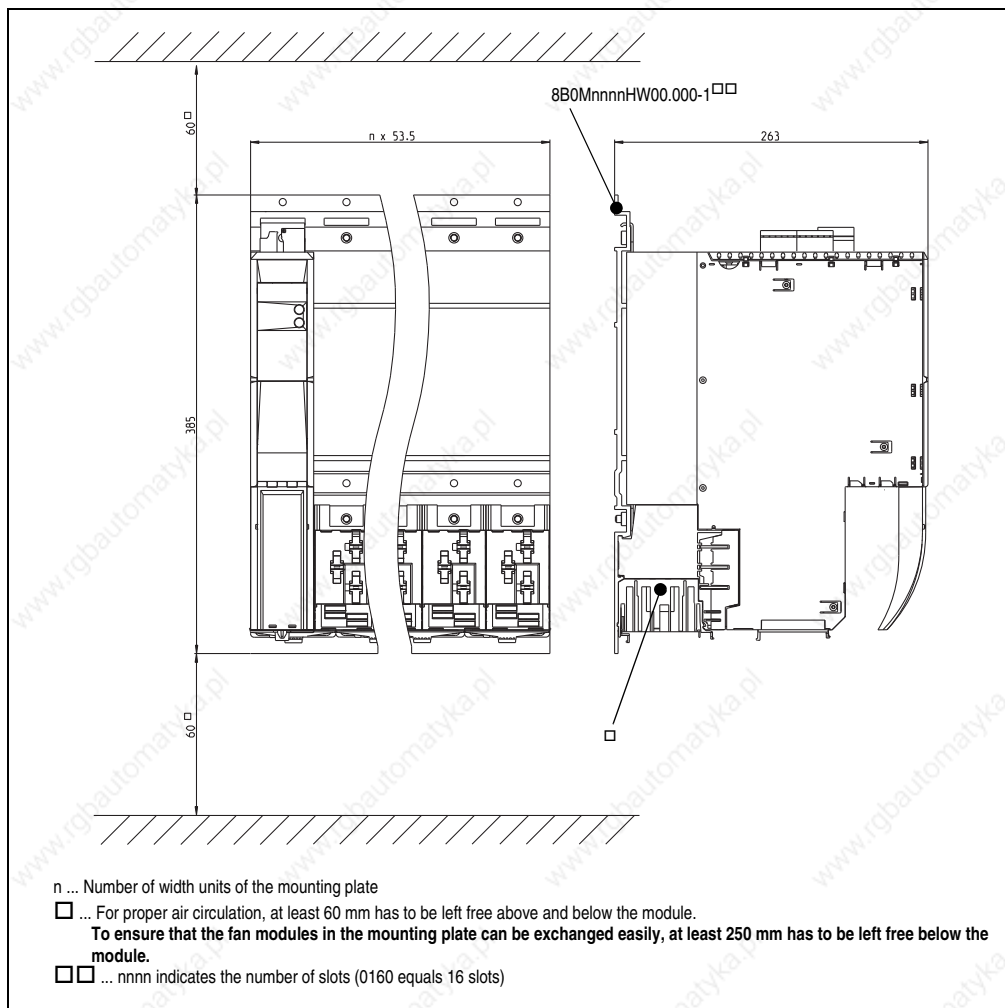


Figure 26: Dimensional diagram and installation dimensions for 8B0C0160HW00.001-1, 8B0C0320HW00.002-1

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

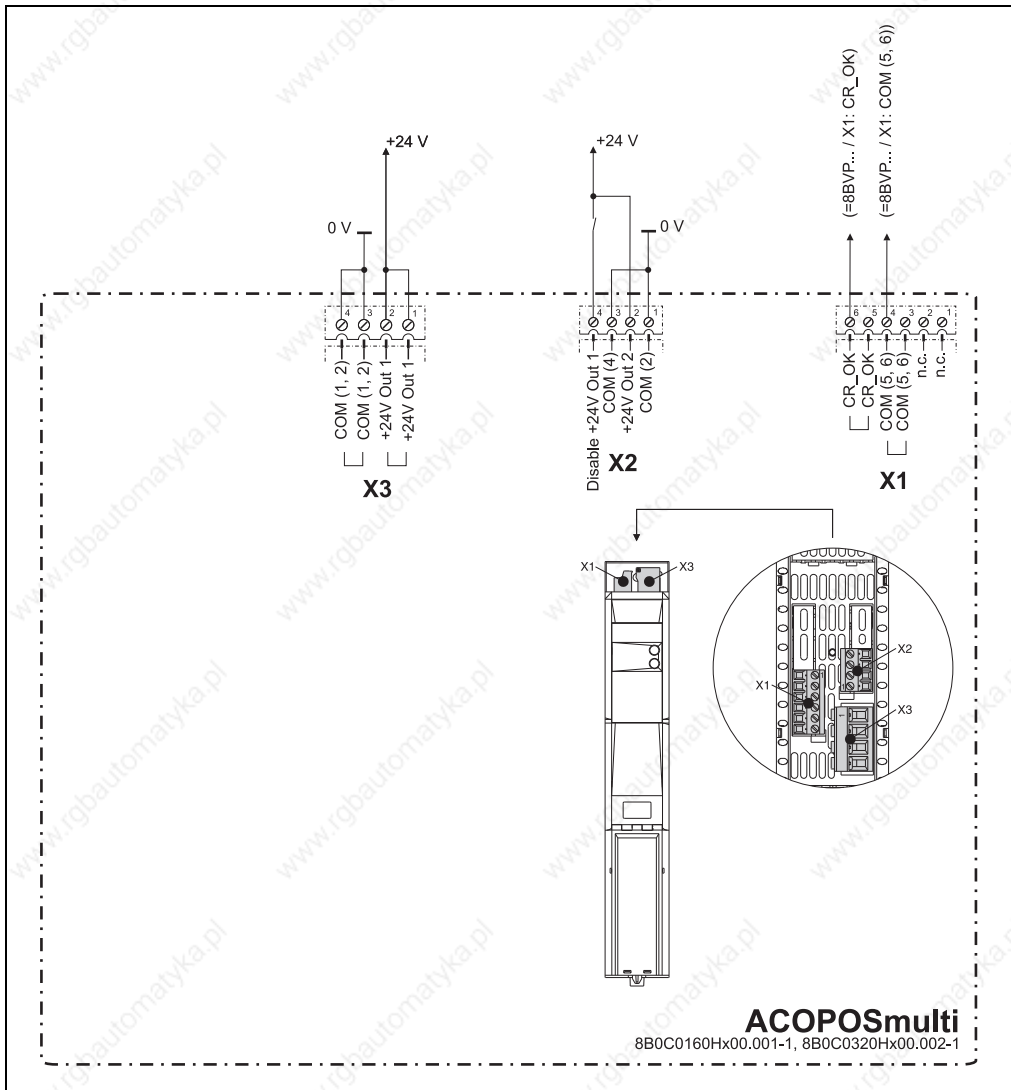


Figure 98: Overview of pin assignments - 8B0C0160Hx00.001-1, 8B0C0320Hx00.002-1

5.2.1 Pin assignments - X1 plug

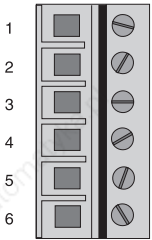
X1		Pin	Name	Function
	1	---	---	---
	2	---	---	---
	3	COM (5, 6)	DC bus ready 0 V	
	4	COM (5, 6)	DC bus ready 0 V	
	5	CR_OK	DC bus ready	
	6	CR_OK	DC bus ready	

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

5.2.2 Pin assignments - X2 plug

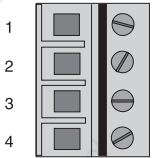
X2		Pin	Name	Function
	1	COM (2)	+24 V output 2 0 V	
	2	+24V Out 2	+24 V output 2	
	3	COM (4)	Disable +24 V output 1 0 V	
	4	Disable +24V Out 1	Disable +24 V output 1	

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

5.2.3 Pin assignments - X3 plug

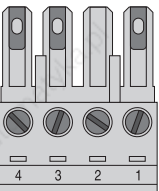
X3		Pin	Name	Function
	1	+24V Out 1	+24 V output 1	
	2	+24V Out 1	+24 V output 1	
	3	COM (1, 2)	+24 V output 1 0 V	
	4	COM (1, 2)	+24 V output 1 0 V	

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

5.2.4 Input/output circuit diagram

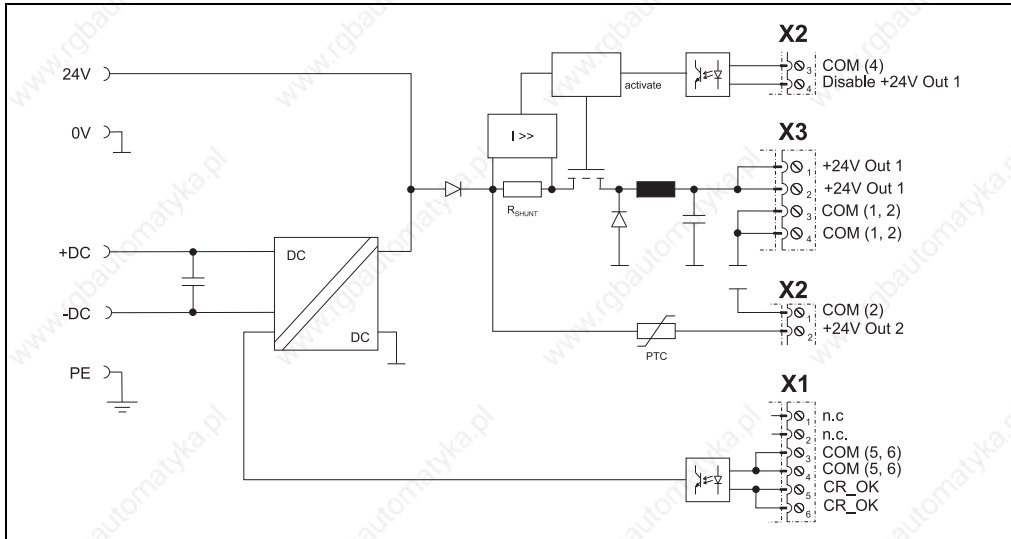


Figure 99: Input/output circuit diagram 8B0C0160Hx00.001-1, 8B0C0320Hx00.002-1

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!