

General Specifications

Models A2PW503, A2PW504
24 V DC Output Power Supply
Units



GS 33J62K51-01EN

[Release 6]

■ GENERAL

This General Specifications (GS) covers the hardware specifications of the 24 V DC Output Power Supply Unit (A2PW503, A2PW504) used with the N-IO system. This power supply unit is also used for the Node Interface Unit (A2NN30D) of the N-IO system, but this GS describes only the case that it is used, for example, as an external power supply for field devices.

■ STANDARD SPECIFICATIONS

For the installation environment for this product, refer to the GS "N-IO System Overview" (GS 33J62A10-01EN).

This power supply unit can be installed in a dual-redundant configuration. It also has a dual-redundant configuration output balance function to improve reliability. Use A2PW503, A2PW504 for the purpose of supplying power to devices connected to CENTUM and to meet the Safety Standards and EMC Standards, the devices must be installed in a lockable metal cabinet. The cabinet must conform to IEC/EN/CSA 61010-2-201 or provide degrees of protection IP3X or above and IK09 or above. Do not use the unit to supply power to devices such as transmitters.

● 24 V DC Output Power Supply Electrical Specifications

Item	Specifications	
Model	A2PW503	A2PW504
Input power supply voltage (*1)	100 to 240 V AC 50/60 Hz	24 V DC
Input power supply voltage tolerance (*1)	85 to 264 V AC	20.4 to 28.8 V DC
Power factor (when rated output)	90 % typical (*2)	—
Maximum power consumption	165 V A	150 W
Rated output voltage	24 V	24 V
Rated output voltage range (*3)	24 V +4%/-6%	24 V +4%/-6%
Efficiency (when rated input/output)	90 % typical	90 % typical
Rated output current (*4)	5 A	5 A
Withstanding voltage (between input and output terminal)	3000 V AC for 1 minute	500 V AC for 1 minute
Withstanding voltage (between input and Ground terminal)	1500 V AC for 1 minute	500 V AC for 1 minute
Insulation resistance (between input and output terminal)	50 MΩ or more at 500 V DC	50 MΩ or more at 500 V DC
Insulation resistance (between input and Ground terminal)	50 MΩ or more at 500 V DC	50 MΩ or more at 500 V DC
Output holdup time	90 ms typical	9 ms typical (*5)
Life span (power supply ambient temperature 40 °C)	8 years	8 years
Weight	Approx. 1.4 kg (configuration maximum valve)	Approx. 1.3 kg (configuration maximum valve)

*1: Voltage at input terminal

*2: When input voltage 115 V AC/230 V AC

*3: When static load

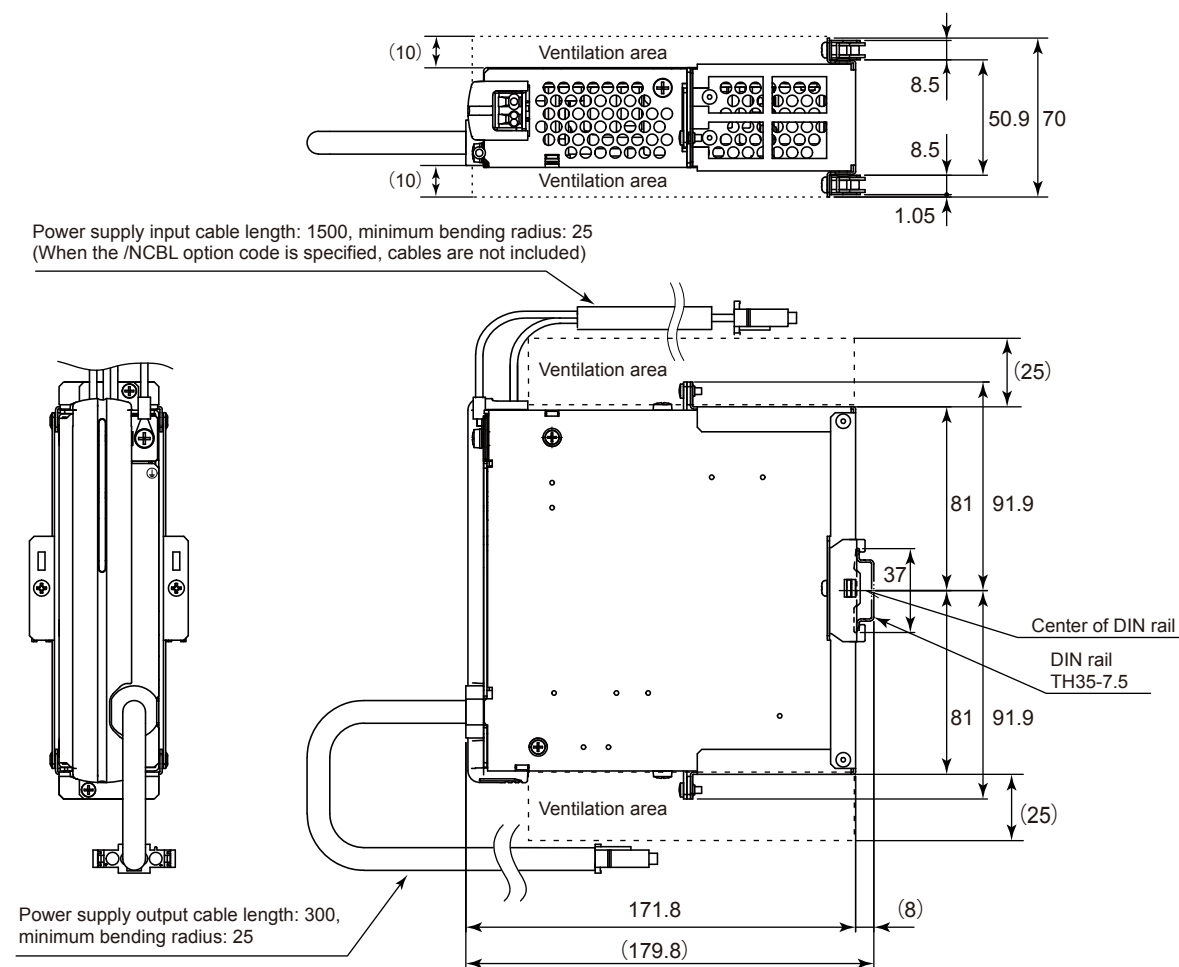
*4: When 24 V output

*5: When 24 V DC rated input in the case that the input power supply source is shut off

EXTERNAL DIMENSIONS

● A2PW503-S0□□0/DN, A2PW504-S0□□0/DN 24 V DC Output Power Supply Unit

Unit: mm



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■ CABLE CONNECTIONS

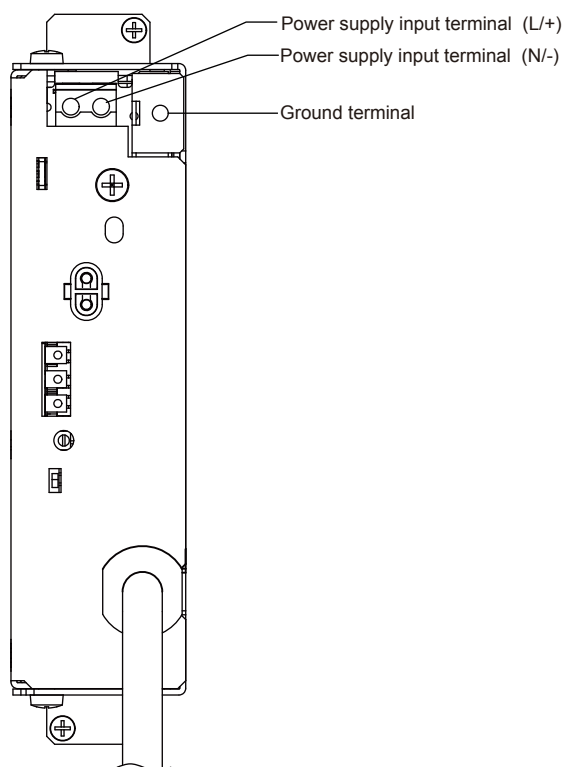
● Power Supply Input Connection

Use the dedicated power supply input cable included with the main unit by connecting it to the Power Supply Bus Unit, Vertical Type (AEPV7D) (style S2 or later). The operating temperature range is different between this product and the Power Supply Bus Unit, Vertical Type (AEPV7D) so be careful when installing them.

24 V DC Output Power Supply Unit (A2PW503, A2PW504): 0 to 60 °C (-40 to 70 °C optional temperature environment)

Power Supply Bus Unit, Vertical Type (AEPV7D): -20 to 70 °C

If you do not use the dedicated cable, you need to supply power to the power supply input terminal of the 24 V DC Output power supply unit. For the cable termination process, refer to the GS "Field Connection Specifications (for N-IO)" (GS 33J62A20-01EN).



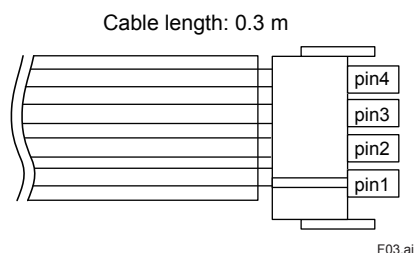
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Terminal	Connection Type	For A2PW503	For A2PW504
Power supply input terminal (L/+)	Pressure clamp terminal	AC input (L)	DC input (+)
Power supply input terminal (N/-)	Pressure clamp terminal	AC input (N)	DC input (-)
Ground terminal	M4 screws	Protective grounding	Functional grounding

● Power Supply Output Connector

The manufacture part numbers of the output connector are shown below.

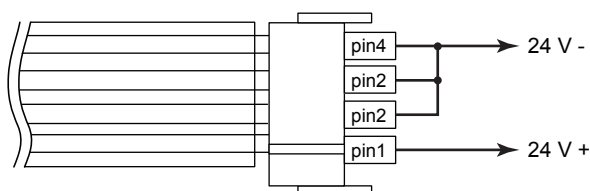
Housing: TE Connectivity 350779-1
Contact: TE Connectivity 350550-1



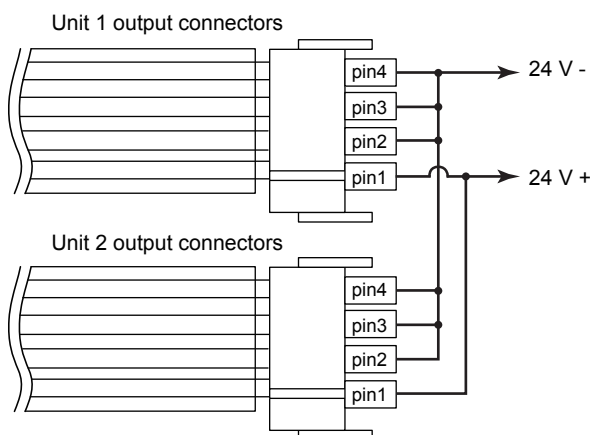
● Output Connection Method

When using the power supply unit as an external power supply for a field device of A2BN3D, A2BN4D, or A2BN5D, short pin 3 and pin 4 with pin 2 (24 V-). When connecting power supply units in a dual-redundant configuration, connect the wires to the two units externally as shown in the figure below. Only a single or dual-redundant configuration can be possible.

Single



Dual-redundant



■ MODELS AND SUFFIX CODES

24 V DC Output Power Supply Unit (120 W, 100 to 240 V AC Input)

		Description
Model	A2PW503	24 V DC Output Power Supply Unit (120 W, 100 to 240 V AC Input)
Suffix Codes	-S	Standard type
	0	Always 0
	0	With no explosion protection
	1	With explosion protection
	0	Basic type
	1	With ISA Standard G3 option
	2	With temperature (-40 to 70 °C) option
	3	With ISA Standard G3 option and temperature (-40 to 70 °C) option
	0	Always 0
Option Codes	/DN	DIN rail mount type (*1)
	/NCBL	With no power supply cable (*2)

*1: When using the unit as an external power supply for a field device, specify the /DN option code.
When ordering this power supply unit for maintenance of the Node Interface Unit (A2NN30D), do not specify the /DN option code.

*2: An input cable for the power supply unit.

24 V DC Output Power Supply Unit (120 W, 24 V DC Input)

		Description
Model	A2PW504	24 V DC Output Power Supply Unit (120 W, 24 V DC Input)
Suffix Codes	-S	Standard type
	0	Always 0
	0	With no explosion protection
	1	With explosion protection
	0	Basic type
	1	With ISA Standard G3 option
	2	With temperature (-40 to 70 °C) option
	3	With ISA Standard G3 option and temperature (-40 to 70 °C) option
	0	Always 0
Option Codes	/DN	DIN rail mount type (*1)
	/NCBL	With no power supply cable (*2)

*1: When using the unit as an external power supply for a field device, specify the /DN option code.
When ordering this power supply unit for maintenance of the Node Interface Unit (A2NN30D), do not specify the /DN option code.

*2: An input cable for the power supply unit.

■ APPLICABLE STANDARDS

Refer to the GS "Integrated Production Control System CENTUM VP System Overview" (GS 33J01A10-01EN).

■ ORDERING INFORMATION

Specify models, suffix codes, and option codes when ordering.

For selecting the right products for explosion protection, please refer to TI 33Q01J30-01E without fail.

■ TRADEMARKS

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