

High-function General-purpose Inverters RX2 Series

PG Option Unit 3G3AX-RX2-PG01

The PG Option Unit is an optional unit for the 3G3RX2 Series Inverter. With this unit, you can realize highly accurate system operation with minimum speed fluctuation, and position control via pulse train position command input by detecting the rotation speed of the motor with an encoder and using the data for feedback.

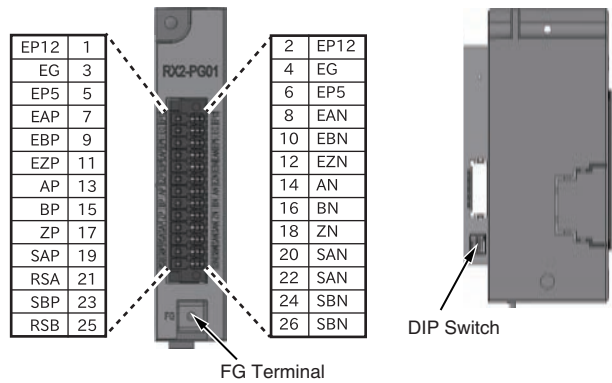


Specifications

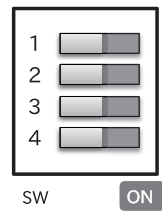
Item		Specifications	
Model		3G3AX-RX2-PG01	
Dimensions (width × height × depth)		20.5 × 98.0 × 70.0 mm	
Weight		170 g	
Environ ment	Ambient operating temperature	-10 to 50°C	With no icing or condensation
	Ambient operating humidity	20 to 90% RH	
	Storage temperature *	-20 to 65°C	
	Vibration resistance	5.9 m/s ² (0.6G), 10 to 55 Hz	
	Protective structure	IP00	
Encoder feedback		• Standard encoder pulse number: 1024 pulse/r • Max. input pulse number : 200k pulse/s	
Position command		• Max. input pulse number : 200k pulse/s	
Protection function		• Encoder cable disconnection Error • PG Option Unit Connection Error	

* The storage temperature is the temperature during transportation.

Terminal Arrangement and DIP Switch Setting



Setting the DIP Switch



Slide to the left to turn the switch OFF, and slide to the right to turn the switch ON.

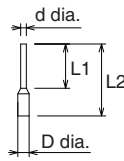
Switch No.	Settings	
1	ON	Encoder phase A / B, disconnection detection enabled
	OFF	Encoder phase A / B, disconnection detection disabled
2	ON	Encoder phase Z, disconnection detection enabled
	OFF	Encoder phase Z, disconnection detection disabled
3	ON	Do not change
	OFF	
4	ON	Do not change
	OFF	

Note: All switches are set to OFF as the default setting.

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Wire size and recommended rod terminal shape

Wire size mm ² (AWG)	L1 [mm]	L2 [mm]	d dia. [mm]	D dia. [mm]
0.25 (24)	10.0	14.5	0.8	2.0
0.34 (22)	10.0	14.5	0.8	2.0
0.5 (20)	10.0	16.0	1.1	2.5
0.75 (18)	10.0	16.0	1.3	3.4



Terminal Functions

Terminal name		Terminal symbol	Functions	Common terminal	Electric specifications
Input terminal	Pulse train position command input	SAP SAN SBP SBN RSA RSB	- Pulse train input procedure - MD0: 90° phase difference pulse - MD1: Forward/Reverse signal, pulse train - MD2: Forward pulse/Reverse pulse Mode settings is made in the pulse train mode selection (ob-11). - RSA: Termination resistor ON/OFF terminal between SAP and SAN - RSB: Termination resistor ON/OFF terminal between SBP and SBN - Termination resistor settings - Built-in termination resistor: 150 Ω, switch between enabled and disabled with the wiring - RSA, RSB terminals released: Built-in termination resistor disabled - RSA-SAN short-circuit, RSB-SBN short-circuit: Built-in termination resistor enabled		5V DC receiver input (RS-422 compliance)
	Encoder signal input	EAP EAN EBP EBN EZP EZN	A, B, Z: Rotary encoder signal input		Photo coupler input (Corresponds to the 5V DC line driver output type rotary encoder)
Output terminal	Encoder signal output	AP AN BP BN ZP ZN	Output the encoder signal input. (Pulse ratio 1 : 1)		5V DC line driver output (RS-422 compliance)
	Power supply for encoder	EP5 EP12	+5V DC power supply +12V DC power supply	EG	Total supply capacity of EP5 and EP12 (250 mA max.)
Functional Grounding terminal		FG	Connect to the Functional Grounding connection. (Screw size: M3)		

Installation

Install the unit in SLOT2 and tighten with screws.

