

AUTOMATIONDIRECT

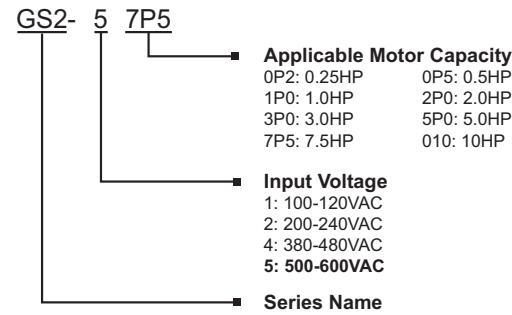
# GS2 575V AC DRIVES

## Revisions to GS2-M 1st Ed, Rev B



**WARNING: REFER TO THE GS2 SERIES DRIVES USER MANUAL (GS2-M 1st Ed, Rev B) FOR ADDITIONAL INFORMATION AND WARNINGS BEFORE INSTALLING A GS2 AC DRIVE.**

### Page 1-3; Model Explanation:



### Page 1-5, 2-9; Drive Specifications:

575V Class							
Model Name: GS2-xxx	51P0	52P0	53P0	55P0	57P5	5010	
<b>Output Rating</b>	Maximum Motor Output HP	1.0	2.0	3.0	5.0	7.5	10
	Maximum Motor Output kW	0.75	1.5	2.2	3.7	5.5	7.5
	Rated Output Current (A)	1.7	3.0	4.2	6.6	9.9	12.2
	Maximum Output Voltage	Three-phase 500 to 600V (proportional to input voltage)					
<b>Input Rating</b>	Rated Output Frequency	0.1 to 400 Hz					
	Rated Voltage/Frequency	Three-phase 500 to 600V					
	Rated Input Current (A)	2.4	4.2	5.9	7.0	10.5	12.9
	Voltage/Frequency Tolerance	Voltage: -15 to +10%; Frequency: +/- 5%					
Watt Loss @ 100% I (W)	30	58	83	132	191	211	
Weight (lbs.)	3.3	3.3	4.4	7.0	7.0	7.3	

### Page 2-4, 2-5; Drive Dimensions:

The dimensions for models GS2-51P0, GS2-52P0, and GS2-53P0 are the same as the dimensions for GS2-10P2.

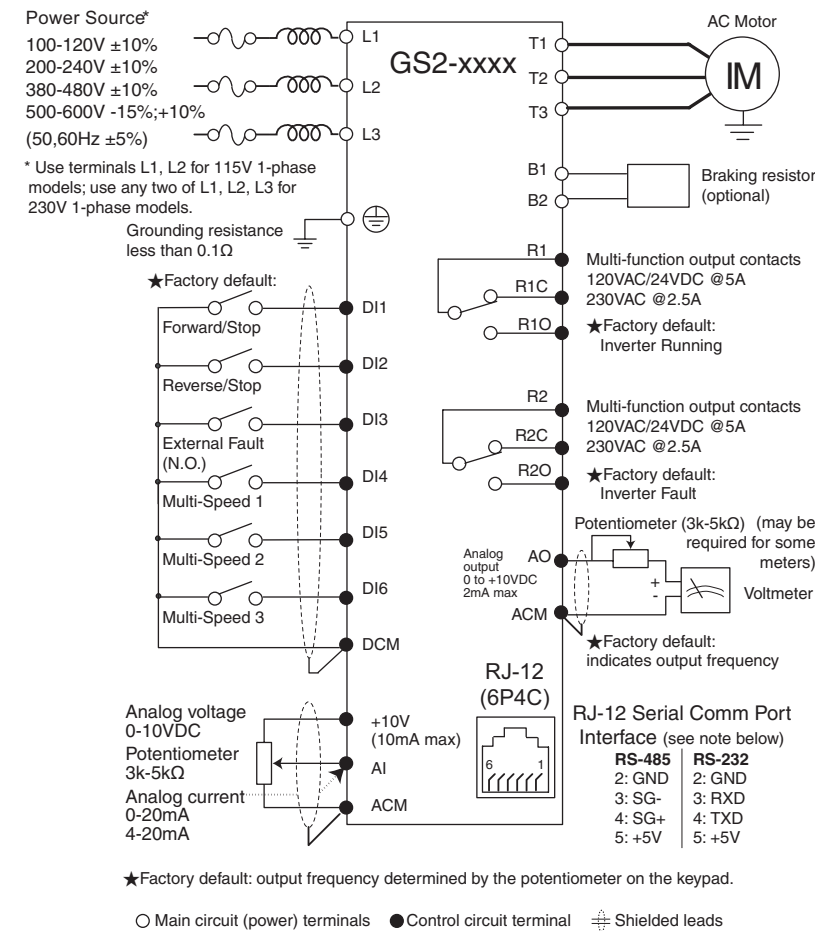
The dimensions for models GS2-55P0, GS2-57P5, and GS2-5010 are the same as the dimensions for GS2-23P0.

### Page 2-8; Power Wiring Specifications:

Main Circuit Wiring Specifications (575V Class)			
AC Drive Model	Maximum Current Input / Output A	Wire Gauge AWG (mm2)	Terminal Screw Torque kcf-cm (lbf-in)
GS2-51P0	2.4 / 1.7	12-14 (3.3-2.1)	14 (12)
GS2-52P0	4.2 / 3.0		
GS2-53P0	5.9 / 4.2		
GS2-55P0	7.0 / 6.6	8-14 (8.4-2.1)	15 (13)
GS2-57P5	10.5 / 9.9		
GS2-5010	12.9 / 12.2		

NOTE: Use 75°C copper wire only.

### Page 2-11; Basic Wiring Diagram:



### Page 4-2, 4-3, 4-10, 5-3 (4-11, 4-20, 4-21, 4-59); Parameters:

Motor Parameters			
GS2 Parameter	Description	Range	Default
P 0.00	Motor Nameplate Voltage	115/230V: 200/208/220/230/240	240
		460V: 380/400/415/440/460/480	480
		575V: 380 to 637	575

Volts/Hertz Parameters			
GS2 Parameter	Description	Range	Default
P 2.05	Mid-point Voltage	115/230V: 2.0 to 255V	10.0
		460V: 2.0 to 510V	20.0
		575V: 2.0 to 637V	24.0
P 2.07	Min. Output Voltage	115/230V: 2.0 to 50.0V	10.0
		460V: 2.0 to 100.0V	20.0
		575V: 2.0 to 130.6V	24.0
P 2.08	PWM Carrier Frequency	115V/230V/460V	12
		575V	6

Communications Parameters (continued)			
GS2 Parameter	Description	Range	Default
P 9.42	Manufacturer Model Information	16-20: Reserved 21: GS2-51P0 (575V / 3ph / 1 hp) 22: GS2-52P0 (575V / 3ph / 2 hp) 23: GS2-53P0 (575V / 3ph / 3 hp) 24: GS2-55P0 (575V / 3ph / 5 hp) 25: GS2-57P5 (575V / 3ph / 7.5 hp) 26: GS2-5010 (575V / 3ph / 10 hp)	#

### Page A-2, A-3; Line Reactors:

AC Line Reactors						
Part Number	Drive Model and Side/Phase	Drive HP	Drive Volts In / Out	Impedance	Inductance	Watts Loss
GS-42P0-LR	GS2-42P0 in/out/3 GS2-53P0 in/out/3	2 3	460 / 460 575 / 575	3%	6.50 mH	13
GS-43P0-LR	GS2-43P0 in/out/3 GS2-55P0 in/out/3	3 5	460 / 460 575 / 575	3%	5.00 mH	31
GS-47P5-LR	GS2-47P5 in/out/3 GS2-57P5 in/out/3 GS2-5010 in/out/3	7.5 7.5 10	460 / 460 575 / 575 575 / 575	3%	2.50 mH	26
GS-51P0-LR	GS2-51P0 in/out/3	1	575 / 575	3%	20.0 mH	9
GS-52P0-LR	GS2-52P0 in/out/3	2	575 / 575	3%	9.10 mH	15

AC Line Reactor Dimensions (inches)							
Part Number	H	W	D	Mtg. D	Mtg. W	Mtg Slot Hole Size	Weight (lbs)
GS-51P0-LR	3.33	4.40	2.83	1.77	1.44	0.28 x 0.63	3
GS-52P0-LR	3.33	4.40	3.33	2.37	1.44	0.28 x 0.63	3

### Page A-9; EMI Filters:

Note: CE compliance requires the use of EMI filters; not available for 575V drives.

### Page A-7; Dynamic Braking Resistors:

Braking Resistor Specifications						
Part Number	Quantity and Wiring	Drive Model	Braking Torque	Ohms	Watts	Duty Cycle
GS-20P5-BR	1	GS2-10P2, GS2-10P5, GS2-20P5	270%	200Ω	80	10%
GS-21P0-BR	1	GS2-11P0, GS2-21P0	125%	200Ω	80	10%
GS-22P0-BR	1	GS2-22P0	125%	100Ω	300	10%
GS-23P0-BR	1	GS2-23P0	125%	70Ω	300	10%
GS-25P0-BR	1	GS2-25P0	125%	40Ω	400	10%
GS-27P5-BR	1	GS2-27P5	125%	30Ω	500	10%
GS-41P0-BR	1	GS2-41P0	125%	750Ω	80	10%
GS-42P0-BR	1	GS2-42P0, GS2-51P0, GS2-52P0	125%	400Ω	300	10%
	2 in parallel	GS2-53P0, GS2-55P0, GS2-57P5	125%			10%
GS-43P0-BR	1	GS2-43P0	125%	250Ω	300	10%
GS-45P0-BR	1	GS2-45P0	125%	150Ω	400	10%
GS-47P5-BR	1	GS2-47P5	125%	100Ω	500	10%
GS-4010-BR	1	GS2-4010	125%	75Ω	1000	10%
	2 in series	GS2-5010	125%			10%

### Page A-13; Power Input Fuses:

Fuses (for 575V GS2 drive models)						
Drive Model	Fuse Rating	Fuse Type (Qty Req'd)	Edison Fuse	Edison Fuse Block	Poles	Wire Range
GS2-51P0	6A @ 600V	CC (3)	HCLR6	BC6033PQ or CHCC3D or CHCC3DI	3	18-8 AWG (1-16 mm <sup>2</sup> )
GS2-52P0	10A @ 600V		HCLR10			
GS2-53P0	15A @ 600V		HCLR15			
GS2-55P0			HCLR20			
GS2-57P5			HCLR30			
GS2-5010	30A @ 600V					