

PSG

Power Supply Systems



The INDUSTRONIC power supply systems of the PSG series are ideal for different power applications, offering compact, efficient, flexible and reliable uninterruptable DC power supply at 60 VDC. Based on the latest technology they are modularly designed and thus highly flexible and adaptable to all requirements.

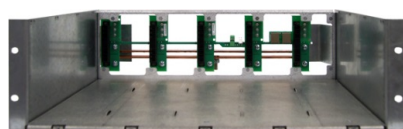
The 19" rack-mount system can be equipped with up to 4 or 9 power rectifiers of the 40 GR 60 series providing an output power of up to 160 A at 230 VAC and 180 A at 120 VAC. They can be safely connected or disconnected during operation (hot swap). In the event of a control unit failure the rectifiers switch over to basic operation mode. In this case no monitoring, measuring and control functions are performed.

The integrated 1 PCG 01 control unit monitors and controls the power supply system. It offers highly advanced control and monitoring features including failures. Mains failure, DC output voltage monitoring with overvoltage/undervoltage indication, Battery temperature and battery balance monitoring, Rectifier and control unit failure are integrated monitoring functions.

Features and Functions

- Fast on-line expansion of rectifiers (hot-swap)
- High power density
- Wide range mains input
- Temperature-controlled float and boost charge, IU charging characteristic (measuring extension card as optional accessory)
- Monitoring of battery balance (optional accessories)
- Continuous self-monitoring of device functions
- Failure messages via dry contacts and display

Components



Type	System Rack
Description	19" sub rack with 3 RU, can be equipped with a control unit of the 1 PCG 01 series, for up to 4 or 5 rectifiers
Type Number	031-001-255



Type	1 PCG 01
Description	Control unit for PSG power supply systems, display with user-friendly menus
Type Number	008-302-015



Type	40 GR 60
Description	Rectifier for PSG power supply systems, hot-swap
Type Number	008-201-086

Accessories



Description	Battery balance set for PSG power supply
Type Number	309-799-631



Description	Measuring extension card TUI for PSG
Type Number	309-799-630

Technical Data

Mechanical Data	• Mounting	19" system rack
	• Width x height x depth	19" x 3 RU x 390 mm (15.4") at 230 VAC 19" x up to 6 RU x 390 mm (15.4") at 120 VAC
	• Weight	Approx. 8 kg to 36 kg (approx. 17.6 lbs to 79.4 lbs)
	• Number of rectifier slots	4 at 230 VAC, 9 at 120 VAC
Electrical Data	• Wide AC input voltage range	85 VAC to 265 VAC
	• AC frequency range	47 Hz to 63 Hz
	• Maximum input current	14 AAC up to 56 AAC at 230 VAC, 14 AAC up to 126 AAC at 120 VAC
	• Adjustable DC output voltage	60 VDC to 72 VDC
	• Maximum output current	40 A, up to 160 A at 230 VAC, 20 A, up to 180 A at 120 VAC
	• Maximum output power	2,900 W, up to 11,600 W at 230 VAC, 1,400 W, up to 12,600 W at 120 VAC
	• Efficiency	>= 91 %
	• Ripple	<= 1 % (P-P)
Terminals and Interfaces	• Mains input	For each 5 x L, N, PE 4 mm ²
	• DC output	2 x M8 bolt
	• Fault message outputs	3 relay outputs (dry contact, normally closed) for common, mains and battery failure
	• Battery balance	Optional
	• Temperature sensor	Optional
Environmental Requirements	• Ambient temperature during operation	-5 °C to +40 °C (+23 °F to +104 °F)
	• Relative humidity (non-condensing)	Max. 90 %
Standards and Certifications	• EMC	EN 61000-3-2, EN 61000-3-3
	• Safety	EN 60950-1

Type Overview

Type	Input (nom.)	Output (nom.)	Rectifier	Type Number
230 VAC input / 60 VDC output				
PSG-230/60/40	230 VAC / 14 A	60 VDC / 40 A	1	309-799-600
PSG-230/60/80	230 VAC / 28 A	60 VDC / 80 A	2	309-799-601
PSG-230/60/120	230 VAC / 42 A	60 VDC / 120 A	3	309-799-602
PSG-230/60/160	230 VAC / 56 A	60 VDC / 160 A	4	309-799-603
120 VAC input / 60 VDC output				
PSG-120/60/20	120 VAC / 14 A	60 VDC / 20 A	1	309-799-610
PSG-120/60/40	120 VAC / 28 A	60 VDC / 40 A	2	309-799-611
PSG-120/60/60	120 VAC / 42 A	60 VDC / 60 A	3	309-799-612
PSG-120/60/80	120 VAC / 56 A	60 VDC / 80 A	4	309-799-613
PSG-120/60/100	120 VAC / 70 A	60 VDC / 100 A	5	309-799-614
PSG-120/60/120	120 VAC / 84 A	60 VDC / 120 A	6	309-799-615
PSG-120/60/140	120 VAC / 98 A	60 VDC / 140 A	7	309-799-616
PSG-120/60/160	120 VAC / 112 A	60 VDC / 160 A	8	309-799-617
PSG-120/60/180	120 VAC / 126 A	60 VDC / 180 A	9	309-799-618

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