

## Preferred Module PSE Power Supply System



**Rectifier  
37 GR 48**

**For Further  
Rectifiers**

**Control Unit  
1 PCE 01**

*Preferred Modules* is a special and prioritized INDUSTRONIC product line. These solutions secure the well-known quality of our PA, PAGA, Intercom and Siren Systems. Especially designed for use in industrial environments, our years of experience have made these modules the number one choice of our Oil & Gas, Chemical & Pharmaceutical, Steel and Power industry customers.

One of our Preferred Module is the PSE power supply system. It is ideal for different power applications, offering compact, efficient, flexible and reliable uninterruptable DC power supply at 48 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 3 power rectifiers of the 37 GR 48 series providing an output power of up to 112 A. 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, however the control unit can then not perform any monitoring, measuring and control functions.

The integrated 1 PCE 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
- Monitoring of battery balance
- Continuous self-monitoring of device functions
- Failure messages via dry contacts and display

## Modules



<b>Type</b>	PMOD PS E48V 01/1
<b>Description</b>	19" sub rack with 3 RU, equipped with a control unit of the 1 PCE 01 series, one rectifier, wiring kit incl. fuses, terminals, connection cable, and more
<b>Type Number</b>	325-220-001



<b>Type</b>	PMOD PS E48V 01/2
<b>Description</b>	19" sub rack with 3 RU, equipped with a control unit of the 1 PCE 01 series, two rectifiers (for shared performance or 1+1 configuration), wiring kit incl. fuses, terminals, connection cable, and more
<b>Type Number</b>	325-220-002



<b>Type</b>	PMOD PS E48V 01/3
<b>Description</b>	19" sub rack with 3 RU, equipped with a control unit of the 1 PCE 01 series, three rectifiers (for shared performance or 2+1 configuration), wiring kit incl. fuses, terminals, connection cable, and more
<b>Type Number</b>	325-220-003

## Components



<b>Type</b>	1 PCE 01
<b>Description</b>	Control unit for PSE power supply systems, color display with user-friendly menus
<b>Type Number</b>	008-302-013



<b>Type</b>	37 GR 48
<b>Description</b>	Rectifier for PSE power supply systems, automatic set-up from system control unit, hot-swap
<b>Type Number</b>	008-201-073



<b>Description</b>	Mounting, installation and parametrization instructions
<b>Type Number</b>	UMN-325-220-001

## Accessories

<b>Description</b>	Battery balance set for PSE power supply*
<b>Type Number</b>	309-799-128

\*Available as an option if batteries are required.

## Technical Data

Mechanical Data	
• Mounting	19" system rack, 3 RU
• Width x height x depth	483 mm x 132 mm x 350 mm (19" x 5.2" x 13.74")
• Weight	Approx. 17.5 kg (approx. 38.6 lbs)
• Number of rectifier slots	3

Electrical Data		
• Wide AC input voltage range	90 VAC to 275 VAC	
• AC frequency range	45 Hz to 66 Hz	
• Maximum input current	8.5 AAC up to 25.5 AAC at 230 VAC, 11.5 AAC up to 34.5 AAC at 120VAC	
• Adjustable DC output voltage	43 VDC to 57 VDC	
• DC output power derating	Starting at voltage < 175 VAC	
• Maximum output current	37 A, up to 112 A at 230 VAC, 23 A, up to 69 A at 120 VAC	
• Maximum output power	1,800 W, up to 5,400 W at 230 VAC, 1,100 W, up to 3,300 W at 120 VAC	
• Efficiency	>= 92 %	
• Ripple	<= 10 mV rms	

Terminals and Interfaces		
• Mains input	3 x L, N, PE 4 mm <sup>2</sup>	
• DC output	1 x L+ / L- 25 mm <sup>2</sup>	
• Fault message outputs	3 relay outputs (dry contact, normally closed) for common, mains and battery failure	
• Battery balance	1 x Mid Tap 4 mm <sup>2</sup>	
• Temperature sensor	RJ45	

Environmental Requirements		
• Ambient temperature during operation	-10 °C to +50 °C (+14 °F to +122 °F)	
• Relative humidity (non-condensing)	Max. 95 %	

Standards and Certifications		
• EMC	EN 61000-6-2, EN 61000-6-3	
• Safety	EN 60950-1, IEC 60950-1, UL 60950-1, AS/NZS 60950-1	
• North America	UL, FCC	
• Offshore	DNV (No. 2.4)	

## Type Overview

Type	Input*	Operating Rectifiers	Redundant Rectifiers	Input*	Output*	Type Number
PMOD PS E48V 01/1	120 VAC	1	-	11.5 A	23 A	325-220-001
	230 VAC	1	-	8.5 A	37 A	
PMOD PS E48V 01/2	120 VAC	2	-	23 A	46 A	325-220-002
		1	1	11.5 A	23 A	
	230 VAC	2	-	17 A	74 A	
		1	1	8.5 A	37 A	
PMOD PS E48V 01/3	120 VAC	3	-	34.5 A	69 A	325-220-003
		2	1	23 A	46 A	
	230 VAC	3	-	25.5 A	112 A	
		2	1	17 A	74 A	

\*at 48 VDC output

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