

3 kW Universal Power Module

For more than 10 years, PRE's Universal Power Module is one of the most competitive AC/DC products in the market for industrial power supplies. It has a 1 phase input and can work in constant voltage mode or in constant current mode. The UPM features active PFC and is based on the latest techniques of HF power electronics design, which results in a high efficiency and excellent overall performance. The power rating is 3kW continuous and there are several output voltages available. The UPM output can be controlled through a voltage- or current set point. Other control methods and/or configurations are optionally available.



Features

- 1 phase Input with active PFC
- Standard Industrial controls
- Optional RS485/CANbus controls
- Robust, durable and lightweight design
- Up to 5 units in parallel

Applications

- Cathodic protection
- Industrial applications
- Industrial Battery Charger
- Process Industry

Specifications

Model	UPM12V100A	UPM24V100A*	UPM48V50A*	UPM120V25A*		
Output	Voltage range	2 – 16V	2 – 30V	4 – 60V		
	Current Range	0 – 100A	0 – 100A	0 – 50A		
	Rated Power (max.) (5)	1600W	3000W	3000W		
	Ripple + Noise (2)	100mVp-p	100mVp-p	150mVp-p		
	Voltage & Current Tolerance (3)	2% (typ.) 5% max.				
	Line / Load Regulation (typ.)	2%				
	Setup Time	500ms				
	Hold up Time (typ.)	10ms				
Input	AC Voltage Range (5)	230Vac $\pm 10\%$ 47 – 63Hz				
	Power Factor	>0,99 @ 230Vac & Rated Power				
	Efficiency (typ.)	88%	90%	91%		
	AC Current (typ.)	8A @ 230Vac &	15A @ 230Vac & Rated Power			
	Inrush Current (typ.)	50A (100us) Cold Start @ 230Vac				
	Leakage Current	<3.5mA @ 400Vac				
Protection	Input UVP & OVP	$\pm 20\%$ @ 400Vac				
	Output OVP	20V	35V	65V		
	Over Temperature	85°C at main Heatsink. Output Power derating at >40 °C temperature ambient				
Control	Current	4–20mA or 2–10V				
	Current Control Speed	100A/s	100A/s	50A/s		
	Voltage	4–20mA or 2–10V				
	Voltage Control Speed	16V/s	30V/s	60V/s		
	Remote on/off	Enable Input (5 – 24V logic High) & Power OK relay output (N/O 30V/1A max.)				
General	Storage Temperature	-20 – 70°C				
	Working Temperature	0 – 50°C (rated power up to 40C)				
	Working Humidity	20 – 90% Non Condensing				
	Dimension & Weight	345x225x120mm / 5kg				
	Lifetime (MTBF, Telcordia)	>1Mio hours @ 25 °C (Designed to meet a failure rate of <0.1% / Year)				
Safety & EMC(4) 	Safety	EN60950				
	Emission (Industrial)	EN55011, class A (optional B)				
	Immunity (Industrial)	EN61000-4-2, EN61000-4-3, EN61000-4-4, EN61000-4-5, EN61000-4-6, EN61000-4-11.				
	Ingress Protection Rating	IP20				
	Approvals	CE				

1. All parameters NOT specially mentioned are measured at 400VAC input, rated load and 20°C ambient temperature.

*) on request.

2. Ripple & noise are measured at 20MHz of bandwidth by using a standard probe.

3. Tolerance : includes set up tolerance, line regulation and load regulation.

4. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives.

5. Derating may be needed under low input voltage and higher ambient temperature. Please check the derating curve for more details.

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