

**PT570-48** 250W DIN-Rail AC/DC power supply for marine and offshore applications



- EN60945 compliant
- Universal input (90 – 265Vac)
- Efficiency 92% typical
- Active Power Factor Correction
- Adjustable output
- Overload and overvoltage protection user selectable
- Thermal overload protection
- Conformal coating
- DC OK potential free contact
- Base plate cooled
- Low profile 1U height
- RoHS compliant

Input

Input Range	90 – 265 Vac , 125 – 375 Vdc
Frequency	47 – 63 Hz 440 Hz with reduced PFC
Inrush Current	30 A; cold start @ 230Vac / 25°C
Input current	<0.65 A @ 230Vac
Input fuse	1.5 AT; internal, not user serviceable
Efficiency	92% typical
Safety ground leakage current	<3.5 mA

Output

Output Voltage	48V adjustable 47 - 56 V
Output Power	250 W continuous 300 W peak (10s)
Minimum load	0 A
Load Regulation	± 0.5 %
Temperature coefficient	± 0.02 %/°C
Overvoltage protection	59 V
Overload protection	Hiccup or latch mode, selectable
Peak short circuit current	7 A (≤ 100 ms)
Overtemperature protection	± 105 °C base plate temp.
Turn-on delay	≤ 2 s @ 90 Vac
Signalling	DC OK            Green LED on front Overload        Blinking orange LED Fail                Red LED
	Potential free contact; active closed; I < 1 A open voltage < 30V
Redundancy	Internal diode optional

EMC Specifications

Emissions	EN60945	conducted & radiated
Harmonics	EN61000-3-2	compliant
ESD	EN61000-4-2	Air ± 8 kV Contact ± 4 kV
Electromagnetic fields	EN61000-4-3	10V/m 8MHz-2GHz
EFT/Burst	EN61000-4-4	2kV
Surge	EN61000-4-5	Line - Line 0.5kV Line - GND 1kV
Conducted immunity	EN61000-4-6	3VRMS, 150kHz-80MHz
Conducted LF	IEC60533	3VRMS, 50Hz-12kHz
HV immunity	IEC60947-2	2kV, 60s

Environmental

Thermal performance	
Operating	-25 - +70°C without derating
Storage	-40 - +85°C
Humidity	5 - 95%; non-condensing @ +55°C Conformal coating
Vibration	Germanischer Lloyd table 3.16 High vibration strain ±1.6 mm displacement; 2 – 25 Hz 4g; 25 – 100 Hz (1 octave/min)
Altitude	10,000 feet; operating 30,000 feet; non-operating

General

Isolation voltage	Input/Output	3000 Vac
	Input/Chassis	2000 Vac
Safety	According to EN60950	
Weight	< 1.0 kg	
Warranty	2 Years	

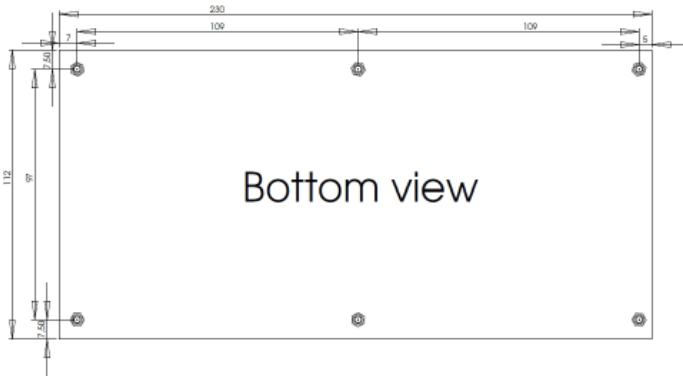
Top view



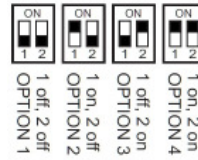
Back view



Bottom view



Dip switch settings



- OPTION 1: overload results in latched switch off
- OPTION 2: overload results in hiccup mode
- OPTION 3: overload results in latched switch off; can be used for other purpose
- OPTION 4: overload results in hiccup mode; can be used for other purpose

Mounting of PSU

6 M3 mounting inserts (depth 3.5mm) in bottom, see drawing.  
Distance 218mm (2x 109) x 97mm.

Input Connector

Pin	Function
1	Line
2	Neutral
3	Safety Ground

Dimensions

Length	230 mm
Width	112 mm
Height	40 mm

Output Connector

Pin	Function
1	Output DC +
2	Output DC +
3	Output DC -
4	Output DC -
5	DC OK; Potential Free Contact
6	DC OK; Potential Free Contact

Approvals

**GL** Germanischer Lloyd  
Environmental category: D, EMC1  
Guidelines for the Performance of Type  
Approvals Chapter 2, Edition 2003

**CE** Low Voltage Directive 2006/95/EC  
EMC Directive 2004/108/EC

Wire Gauge

Input	Solid	0.5 - 6 mm <sup>2</sup>
	Flexible	0.5 - 4 mm <sup>2</sup>
Output	Solid	0.2 - 4 mm <sup>2</sup>
	Flexible	0.2 - 2.5 mm <sup>2</sup>