

**PT577-48** 250W DIN-Rail AC/DC power supply for marine and offshore applications



Features

- GL Approved for bridge use
- EN60945 compliant
- Universal input (90 – 265Vac)
- Efficiency above 92%
- Active Power Factor Correction
- Adjustable output
- Overload and overvoltage protection
- Thermal overload protection
- Conformal coating
- DC OK signal and potential free contact
- Cooling by free air convection
- DIN-Rail mounting on back or side
- RoHS compliant
- Internal redundancy diode
- Single or parallel mode user selectable

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	<1.3 A @ 230Vac
Input fuse	4 AT; internal, not user serviceable
Efficiency	>92%
Safety ground leakage current	<3.5 mA

Output

Output Voltage	48V adjustable 47 - 56 V
Output Power	250 W Peak power 360 W(60s)
Minimum load	0 A
Load Regulation	± 0.5 %
Temperature coefficient	± 0.02 %/°C
Overvoltage protection	64 V
Overload protection	User selectable (see table 1)
Peak short circuit current	10 A (≤ 100 ms)
Overtemperature protection	± 90 °C internal temp.
Turn-on delay	≤ 2 s @ 90 Vac
DC OK signalling	Green LED on front Potential free contact; active closed; I < 1 A open voltage < 30V

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

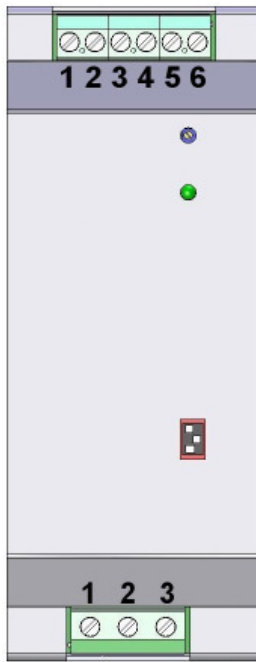
Environmental

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

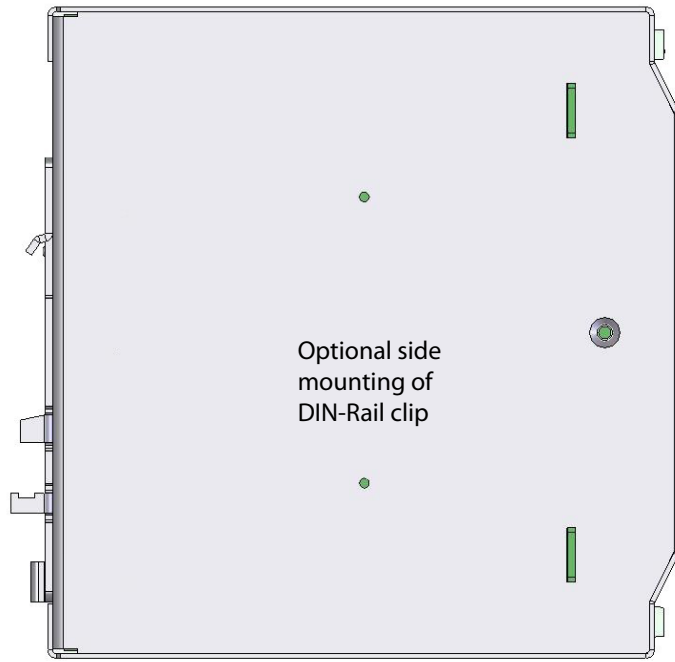
General

Isolation voltage	Input/Output	3000 Vac
	Input/Chassis	2000 Vac
Safety	According to EN60950	
Weight	< 1.2 kg	
Warranty	2 Years	

Front view



Side view



Input Connector

Pin	Function
1	Line
2	Neutral
3	Safety Ground

Dimensions

Height	132 mm
Width	50 mm
Depth	128 mm Excluding DIN-Rail mounting device
	Add 10 mm for standard mounting device and EN50022 DIN-Rail

Output Connector

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

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 and 93/68/EEC  
 EMC Directive 2004/108/EC, 92/31/EEC and 93/68/EEC

Wire Gauge

AWG	24 - 12
Solid	0.2 - 4 mm <sup>2</sup>
Flexible	0.2 - 2.5 mm <sup>2</sup>

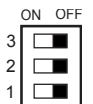
Dip Switch Settings

Table 1

SW1	SW2	SW3	
OFF	OFF	X	OPTION 1
OFF	ON	X	OPTION 2
ON	OFF	X	OPTION 3
ON	ON	X	OPTION 4

Table 2

SW1	SW2	SW3	
X	X	OFF	SINGLE OPERATION
X	X	ON	PARALLEL OPERATION



OPTION 1: overload results in latched switch off  
 OPTION 2: overload results in hiccup mode  
 OPTION 3: overload results in current limit, with latched switch off short circuit protection  
 OPTION 4: overload results in current limit, with latched switch off short circuit protection