PT577

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

Features

- GL Approved for bridge use (PENDING)
- EN60945 compliant
- Universal input (90 – 265Vac)
- Efficiency above 90%
- 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 V_{ac} , 125-375 V_{dc}
Frequency	47 – 63 Hz
	440 Hz with reduced PFC
Inrush current	30 A; cold start @ 230 V_{ac} / 25°C
Input current	<1.3 A @ 230 V_{ac}
Input fuse	4 AT; internal, not user serviceable
Efficiency	> 92%
Safety ground	
leakage current	<3.5 mA

Output

Output voltage	24 V
	adjustable 23 - 29 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	32 V
Overload protection	User selectable (see table 1)
Peak short circuit current	20 A (<100 ms)
Overtemperature protection	± 90 °C internal temp.
Turn-on delay	< 2 s @ 90 V_{ac}
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 ± 6 kV
Electromagnetic fields	EN61000-4-3	10 V/m 8 MHz - 2 GHz
EFT/Burst	EN61000-4-4	2 kV
Surge	EN61000-4-5	Line - Line 0.5 kV
		Line - GND 1 kV
Conducted immunity	EN61000-4-6	3 VRMS, 150 kHz - 80 MHz
Conducted LF	IEC60533	3 VRMS, 50 Hz - 12 kHz
HV immunity	IEC60947-2	2 kV, 60 s

Environmental

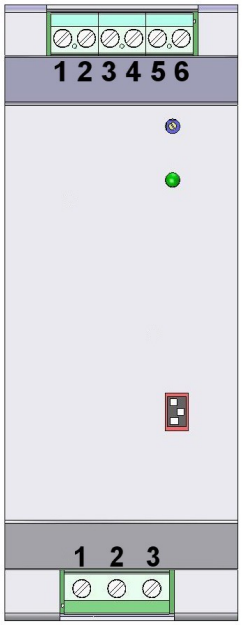
Thermal performance	
operating	-25 - +70°C without derating
storage	-40 - +85°C
Humidity	5 - 95%; non-condensing @ +55°C
	Conformal coating
Vibration	Germanischer Lloyd table 3.16
	High vibration strain
	±1.6 mm displacement; 2 – 25 Hz
	4 g; 25 – 100 Hz (1 octave/min)
Altitude	Max. 10,000 feet; operating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

General

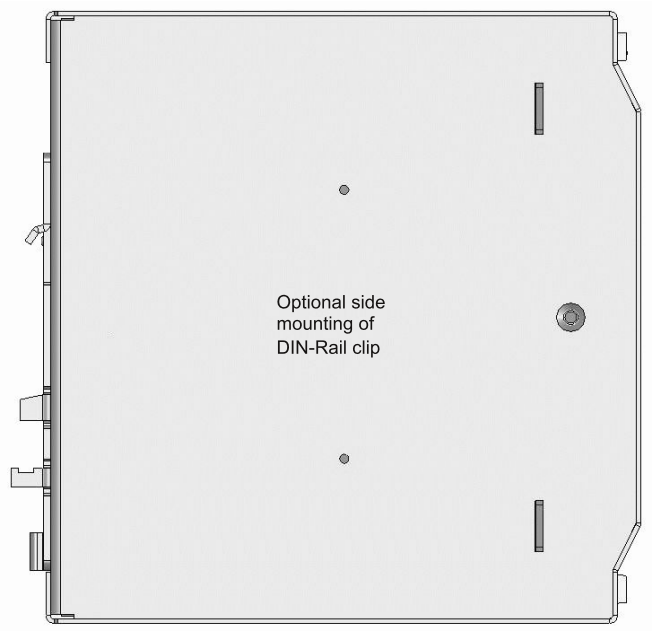
Isolation voltage	Input/Output	3000 V_{ac}
	Input/Chassis	2000 V_{ac}
Safety	According to EN60950	
Weight	< 1.2 kg	
Warranty	2 Years	

PT577

Front view



Side view



Input Connector

Pin	Function
1	Line
2	Neutral
3	Safety Ground

Dimensions

Length	132 mm	
Width	50 mm	
Height	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
EMC Directive 2004/108/EC

Wire Gauge

AWG	24 - 12
Solid	0.2 - 4 mm^2
Flexible	0.2 - 2.5 mm^2

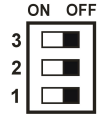
Dip Switch Settings

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

Specifications subject to change without notice

Rev. 5

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