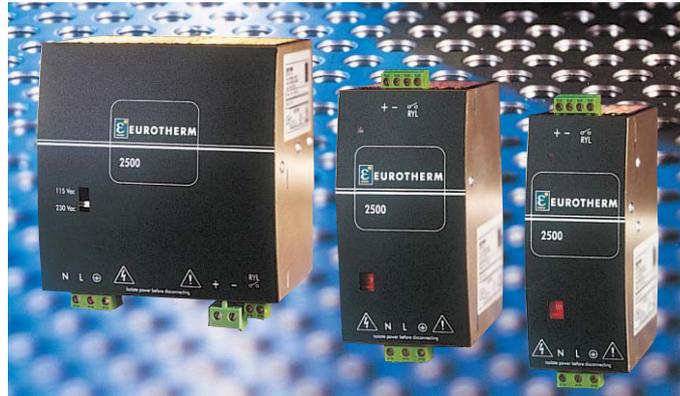


# 2500P MODEL



## 2500P - 24v dc DIN rail power supply

### Ideal for:

- 2500 DIN rail controller
- Other 24V instrumentation systems
- Buffer PSU for mains cycle drop-out

Ideal for use with the 2500 I/O controller, the 2500P delivers a range of high performance, DIN rail mounted switched-mode power supplies, that easily meet the demanding requirements of modern technical specifications, while remaining cost effective. The highly stable 24 volt dc supplies come in three current ratings 2.5A, 5A and 10A.

A novel retaining system allows easy DIN rail attachment, just insert and click into place, with no tools required for assembly or removal.

The 2500P range has every thing neatly arranged on the clearly and well-labelled front panel. The terminals, comprising convenient plug and socket connectors are easily accessible, positioned on the front edge of the device. A front panel mounted switch allows easy selection of mains supply voltage.

The power supplies incorporate de-coupling diodes in the output and can therefore be connected in parallel to supply higher currents if required. This feature also allows the adoption of a 'n+1' redundancy strategy, where the failure of a single supply allows other supplies connected in parallel to supply the required load current.

Each unit in the range is fitted with an LED indicator and an external connectable pair of normally open relay contacts that indicate the health and the dc output.

### Features:

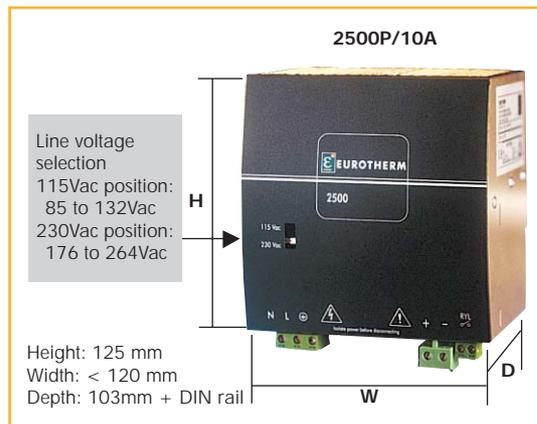
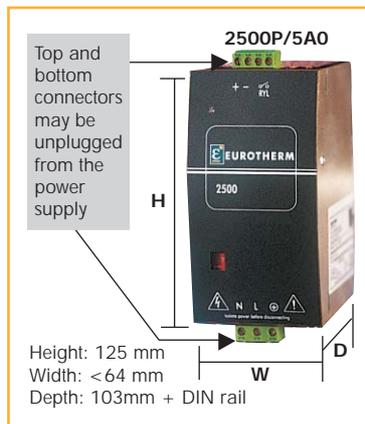
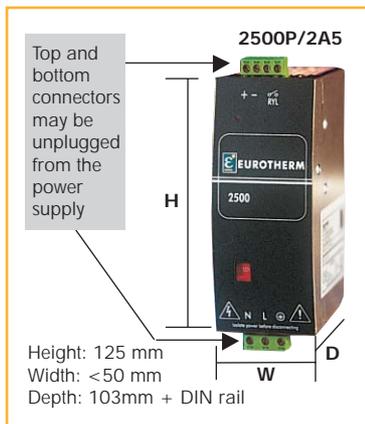
- **Size** Up to 30% smaller than competitive switched mode units
- **DIN rail mounting** Simplifies installation and maintenance
- **Diode de-coupled output** Allows paralled connection for additional supply security
- **Relay and LED indication** Facilitates local and remote diagnostics
- **Reserve capability** Enables the unit to supply up to 25% more current for a short time at high temperatures
- **20m sec hold-up time** Reduces nuisance equipment drop-outs
- **Reliability** High MTBF > 310,000 hours
- **Three year warranty** Low ownership cost



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CONTROLS  
PROCESS AUTOMATION  
RECORDERS

## Mechanical assembly and dimensional details



## Technical specification

### General:

Supply voltage range	85 to 132Vac/176 to 264Vac (switchable)
Supply frequency	47 to 63Hz
Supply current	
2.5A model	230V = 0.7A; 115V = 1.3A
5A model	230V = 1.4A; 115V = 2.6A
10A model	230V = <2.6A; 115V = <6A
Inrush current	
2.5A model	<25Amps
5A model	<15Amps
10A model	<30Amps
Recommended input fusing	10A circuit breaker
Output voltage at nominal power	24Vdc $\pm$ 0.5%
Ripple (inc. spikes)	<30mV peak to peak
Output current	
2500P/2A5	2.5 Amps
2500/5A0	5 Amps
2500/10A	10 Amps
Hold-up time	
2500P/2A5	>20 msec (196V ac full load)
2500P/5A0	>20 msec (196V ac full load)
2500P/10A	>20 msec (196V ac full load)
Start up delay	0.1 seconds typical
Efficiency	5 to 20 msec depending on load (230V ac supply; 24V dc output)
2500P/2A5	87.5% at 2.5 Amps
2500P/5A0	90% at 5 Amps
2500P/10A	90% at 10 Amps
Temperature	
Operation	-10 to +60°C
Storage	-25 to +85°C
MTBF	>310,000 hours at full load in an ambient temperature of 40°C.

### Mechanical:

Casing	Robust metal case to IP20
Mounting	Clip-on DIN rail Type TS35
Weight	
2500P/2A5	460 grammes
2500P/5A0	620 grammes
2500P/10A	1100 grammes

### Alarm relay:

Contacts close	When output voltage >22.1V $\pm$ 4%
Contacts open	When output falls below 19.8V $\pm$ 4%
Isolation	Relay contact to output: 500Vdc
Switchable power	1A at 28Vdc
Max. switching voltage	50V

### EMC:

Emissions	EN 50081-1 includes EN 50081-2) Class B (EN 55011, EN55022) conducted and radiated noise, and EN 50081, Ann.1 (DC output)
Immunity	EN50082-2 (includes EN 50082-1)
Static discharge	EN61000-4-2 (IEC801-2), Level 4 (withstands 8kV) direct discharge, 15kV air discharge)
Electromagnetic radiated fields	ENV50140 (IEC801-3), level 3 (10V/m)
Burst, assym/unsymm coupled to ac input lines	EN61000-4-4 (IEC801-4) level 4 (4kV)
coupled to dc output lines	level 3 (2kV)
Surge transients	EN 61000-4-5
Differential (line to protect earth)	Isolation class 4 (4kV)
Common mode (line to neutral)	Isolation class 4 (2kV)
Conducted noise immunity	ENV50141 (draft version of IEC801-6) level 3 (10V. 150kHz to 80mHz)
Mains breaks	EN61000-4-11
Transient immunity	To VDE0160/w2 over entire load range

## Ordering Code

Model	Description	Option 1	Option 2	Option 3	Option 4	Language
<b>2500P</b>	DIN rail mounting 24V PSU for 2500, fully protected					
	<b>2A5</b>	60 watt, 2.5 amp				
	<b>5A0</b>	120 watt, 5 amp				
	<b>10A</b>	240 watt, 10 amp				
		-	-	-	-	<b>ENG</b> English manual

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