

# PSC 600 Series

250 - 800 WATTS DC/DC SINGLE OUTPUT

## Features

- Single outputs from 5Vdc to 125Vdc.
- Conformal coating.
- Under voltage alarm.
- High efficiency.
- Operating temperature range  $-25^{\circ}\text{C}$  to  $+70^{\circ}\text{C}$  with no derating.
- Fully encapsulated, IP30 as standard.
- Convection cooled.



## Specifications

### INPUT

Voltage	See Table
Isolation	Input - Output: 2.5kVac / 4kVdc Input - Case: 2.5kVac / 4kVdc Output - Case, all outputs: 2kVdc
Reverse input voltage protection	Parallel diode (Input code: 24, 48) Series diode (Input code: 110, 220)

### OUTPUT

Voltage	See table.
Current	See table.
Source regulation	0.2%.
Load regulation	0.2%.
Output ripple (50kHz)	20mV p-p typ.
Input ripple attenuation on output 50 to 400Hz	150:1
Voltage adjustment	90% - 110%.
Current limit protection	105%.
Overvoltage protection	115%.
Under voltage alarm	90% of nominal output.
Remote sense	Option S.
Soft start	Yes.
Start-up time	1s
Hold-up time	2-25ms
Efficiency	80 - 93%
Switching Frequency	50 kHz

## Selection Table

### T-input range for mobile application

U <sub>in</sub> 0.1s-52	Continuous range	Code
14.4-33.6V	16.8-30V	24T
21.6-50.4V	25.2-45V	36T
28.8-67.2V	33.6-60V	48T
43.2-110.8V	50.4-90V	72T
66-154V	77-137.5V	110T

The total output power can be derated on a T-range compared with the above output rating table. Input according to EN50155:2001 and IEC90571:1998

## ENVIRONMENTAL

Operating temperature	$-25^{\circ}\text{C}$ to $70^{\circ}\text{C}$ (100% load, single output >10Vdc). $-25^{\circ}\text{C}$ to $+55^{\circ}\text{C}$ (100% load, single output <10Vdc).
Temperature coefficient	0.02%/°C.
Storage temperature	$-40^{\circ}\text{C}$ to $85^{\circ}\text{C}$ .

## GENERAL

Cooling	Convectional cooling.
Optional Features	<p><b>-Built in series diode – C.</b></p> <p><b>-Remote sense – S.</b></p> <p><b>-Inrush current limit.</b> On input code 24 and 48 the inrush limit circuit is optional. This option affects the input voltage range. The circuit is always active thus acting at voltage dips below the stop level &gt; 10ms.</p> <p><b>-2.5kVac isolation input/case –E1.</b> On the 24 and 48 inputs. The emission level increases to level A.</p> <p><b>-2.5kVac isolation output/case –E2.</b> The emission level increases to level A.</p> <p><b>-Euro panel –L,10TE OR 14TE</b></p> <p><b>-Wall mounting panels –N.</b> Included H15 connector holder. Standard female Connector H15-T. To mount on a DIN TS-35 rail, we can supply optional DIN rail clips.</p> <p><b>-Wider input range</b> The PSC600 series can be supplied with wide input range to meet train or mobile application demands.</p>

## STANDARDS

Safety	IEC60950
EMI standards	EN55011/EN55022 class B, EN61000-6-3
C-Tick	AS/NZS CISPR11: 2002 Group1 Class A
EMC standards	EN61000-6-2, EN/IEC61000-4-4, EN61000-4-5

### Note:

For mechanical dimensions and mounting options please contact Powerbox for further details.

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## Selection Table

MODEL NUMBER	INPUT	OUTPUT		CASE	GHE	POWER
PSC250 24/5	20-32V	5V	50A	46mm	10TE	250W
PSC400 24/12	20-32V	12V	33A	46mm	10TE	400W
PSC400 24/15	20-32V	15V	27A	46mm	10TE	400W
PSC600 24/24	20-32V	24V	25A	46mm	10TE	600W
PSC600 24/48	20-32V	48V	12.5A	46mm	10TE	600W
PSC600 24/110	20-32V	110V	5.5A	46mm	10TE	600W
PSC600 24/125	20-32V	125V	4.8A	46mm	10TE	600W
PSC250 48/5	41-60V	5V	50A	46mm	10TE	250W
PSC400 48/12	41-60V	12V	33A	46mm	10TE	400W
PSC700 48/12	41-60V	12V	60A	56mm	14TE	720W
PSC400 48/15	41-60V	15V	27A	46mm	10TE	400W
PSC800 48/15	41-60V	15V	54A	56mm	14TE	800W
PSC600 48/24	41-60V	24V	25A	46mm	10TE	600W
PSC800 48/24	41-60V	24V	33A	56mm	14TE	800W
PSC600 48/48	41-60V	48V	12.5A	46mm	10TE	600W
PSC800 48/48	41-60V	48V	17A	56mm	14TE	800W
PSC600 48/110	41-60V	110V	5.5A	46mm	10TE	600W
PSC800 48/110	41-60V	110V	7.3A	56mm	14TE	800W
PSC600 48/125	41-60V	125V	4.8A	46mm	10TE	600W
PSC800 48/125	41-60V	125V	6.4A	56mm	14TE	800W
PSC250 110/5	93-150V	5V	50A	46mm	10TE	250W
PSC400 110/12	93-150V	12V	33A	46mm	10TE	400W
PSC700 110/12	93-150V	12V	60A	56mm	14TE	720W
PSC400 110/15	93-150V	15V	27A	46mm	10TE	400W
PSC800 110/15	93-150V	15V	54A	56mm	14TE	800W
PSC600 110/24	93-150V	24V	25A	46mm	10TE	600W
PSC800 110/24	93-150V	24V	33A	56mm	14TE	800W
PSC600 110/48	93-150V	48V	12.5A	56mm	10TE	600W
PSC800 110/48	93-150V	48V	17A	46mm	14TE	800W
PSC600 110/110	93-150V	110V	5.5A	46mm	10TE	600W
PSC800 110/110	93-150V	110V	7.3A	56mm	14TE	800W
PSC600 110/125	93-150V	125V	4.8A	46mm	10TE	600W
PSC800 110/125	93-150V	125V	6.4A	56mm	14TE	800W
PSC250 220/5	187-300V	5V	50A	46mm	10TE	250W
PSC400 220/12	187-300V	12V	33A	46mm	10TE	400W
PSC700 220/12	187-300V	12V	60A	56mm	14TE	720W
PSC400 220/15	187-300V	15V	27A	46mm	10TE	400W
PSC800 220/15	187-300V	15V	54A	56mm	14TE	800W
PSC600 220/24	187-300V	24V	25A	46mm	10TE	600W
PSC800 220/24	187-300V	24V	33A	56mm	14TE	800W
PSC600 220/48	187-300V	48V	12.5A	46mm	10TE	600W
PSC800 220/48	187-300V	48V	17A	56mm	14TE	800W
PSC600 220/110	187-300V	110V	5.5A	46mm	10TE	600W
PSC800 220/110	187-300V	110V	7.3A	56mm	14TE	800W
PSC600 220/125	187-300V	125V	4.8A	46mm	10TE	600W
PSC800 220/125	187-300V	125V	6.4A	56mm	14TE	800W