

# DC-DC Converter

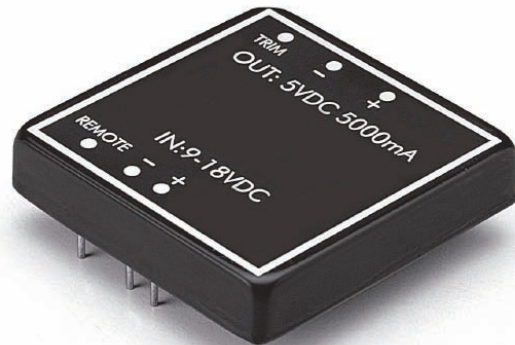
**POWER  
SOLVE**

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PS25 Series  
25 - 30 Watt Wide Input  
PCB Mounting  
Single, Dual & Triple Outputs

## Features

- 25 - 30 W Isolated Output
- 2 : 1 Input Range
- Regulated Outputs
- Remote On/Off Control
- Efficiency to 85%
- External Output Trimming Function
- Six-Sided Shielded Metal Case



## Electrical Specification

### INPUT

Input Voltage Range	9 - 18V (PS25-12-xxx models) 18 - 36V (PS25-24-xxx models) 36 - 72V (PS25-48-xxx models)
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Input Filter	Pi Type
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### OUTPUT

Voltage Accuracy, Single Output	±2.0% max.
Dual +Output	±2.0% max.
Dual -Output	±3.0% max.
Triple Output: 5V	±2.0% max.
±12V / ±15V	±5.0% max.
Voltage Balance (Dual)	±1.0% max.
Transient Response	
Single: 25% step load change	<500µ sec.
Dual: Full load to ½ load ±1% error band	<500µ sec.
External Trim Adj. Range	±10%
Temperature Coefficient	±0.02% / °C
Ripple and Noise (20MHz BW)	10mV rms, 75mV pk-pk max.
Short Circuit Protection	Continuous
Line Regulation, Single/Dual	±0.5% measured over full input range
Triple	±1.0%
Load Regulation, Single/Dual	±1.0% measured from 25-100% load
Triple	±5.0%

### GENERAL

Efficiency	See Table
Isolation Voltage	500VDC min.
Isolation Resistance	10 <sup>9</sup> Ohms
Switching Frequency	300KHz typ.
Operating Temperature Range	-25°C to +71°C
Derating, above 60°C	Linearly to Zero power at 100°C
Case Temperature	+100°C max.
Cooling	Natural Convection
Storage Temperature Range	-55°C to 105°C
EMI/RFI	Six-sided continuous shield
Dimensions	2.00 x 2.00 x 0.40 Inches 50.8 x 50.8 x 10.2 mm
Case material	Black coated Copper with Non-conductive base
Weight	65g

Typical at nominal line, full load & 25°C unless otherwise stated.

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## Output Voltage and Current Ratings

MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	INPUT CURRENT		% EFF.
				No Load	Full Load	
PS25-12-33S		3.3V	5000mA	30mA	1860mA	74%
PS25-12-05S		5V	5000mA	30mA	2675mA	78%
PS25-12-12S		12V	2500mA	30mA	3050mA	82%
PS25-12-15S		15V	2000mA	30mA	3050mA	82%
PS25-12-05D	9 - 18VDC	±5V	±2500mA	35mA	2675mA	78%
PS25-12-12D		±12V	±1250mA	35mA	3050mA	82%
PS25-12-15D		±15V	±1000mA	35mA	3050mA	82%
PS25-12-512D		5V/±12V	3500mA/±310mA	35mA	2640mA	79%
PS25-12-515D		5V/±15V	3500mA/±250mA	35mA	2640mA	79%
PS25-24-33S		3.3V	5000mA	30mA	920mA	75%
PS25-24-05S		5V	5000mA	30mA	1336mA	79%
PS25-24-12S		12V	2500mA	30mA	1525mA	82%
PS25-24-15S		15V	2000mA	30mA	1525mA	82%
PS25-24-05D	18 - 36VDC	±5V	±2500mA	30mA	1336mA	79%
P2S5-24-12D		±12V	±1250mA	30mA	1470mA	85%
PS25-24-15D		±15V	±1000mA	30mA	1470mA	85%
PS25-24-512D		5V/±12V	3500mA/±310mA	30mA	1320mA	80%
PS25-24-515D		5V/±15V	3500mA/±250mA	30mA	1320mA	80%
PS25-48-33S		3.3V	5000mA	20mA	460mA	75%
PS25-48-05S		5V	5000mA	20mA	660mA	79%
PS25-48-12S		12V	2500mA	20mA	765mA	82%
PS25-48-15S		15V	2000mA	20mA	765mA	82%
PS25-48-05D	36 - 72VDC	±5V	±2500mA	25mA	660mA	79%
P2S5-48-12D		±12V	±1250mA	25mA	735mA	85%
PS25-48-15D		±15V	±1000mA	25mA	735mA	85%
PS25-48-512D		5V/±12V	3500mA/±310mA	25mA	655mA	80%
PS25-48-515D		5V/±15V	3500mA/±250mA	25mA	655mA	80%

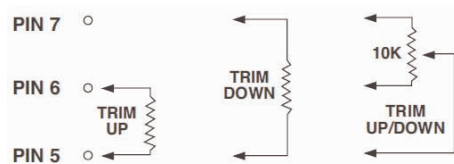
Maximum total power from all outputs is limited to 25W but no output should exceed its maximum current.

## Remote On/Off Control

Logic Compatibility	CMOS or Open Collector TTL
Ec-On	>+5.5VDC or Open Circuit
Ec-Off	<1.8VDC
Shutdown Idle Current	10mA
Control Common	Referenced to -Vin

## External Output Trimming

Output may be externally trimmed (±10%) with a fixed resistor or an external trimpot

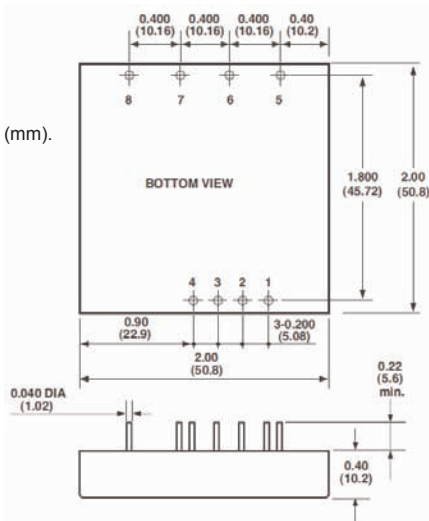


## Mechanical and Connection Details

All Dimensions in Inches (mm).

Tolerance:

Inches x.xx ±0.4  
x.xxx ±0.010  
Millimeters x.x ±1.0  
x.xx ±0.25



Pin	Single Output	Dual Output	Triple Output
1	On/Off Control	On/Off Control	On/Off Control
2	No Pin	No Pin	No Pin
3	-Vin	-Vin	-Vin
4	+Vin	+Vin	+Vin
5	Trim	Trim	-Aux. Out
6	-Vout	-Vout	Common
7	+Vout	Common	+5V Out
8	No Pin	+Vout	+Aux. Out

## Triple Output Loading

Pin	Voltage (VDC)	Current (A)	
		Min.	Nom.
7	+5	0.50	3.5
8 & 5	±12	0.10	0.31
8 & 5	±15	0.10	0.25

Minimum current on each output is required to maintain specified regulation