

High Density DC-DC Modules



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PS75 Dual Series 75 Watt Wide Input DC-DC Converters Dual Output

Features

- 75W Isolated Output
- Efficiency to 84%
- 400KHz Switching Frequency
- 2 : 1 Input Range
- Regulated Outputs
- Continuous Short Circuit Protection
- Total Output Power 75W with 15A Maximum per Channel
- Industry Standard Half-Brick Package



Electrical Specification

INPUT

Input Voltage Range	18 - 36V (PS75-24Dxx-xx) 36 - 75V (PS75-48Dxx-xx)
Undervoltage Lockout	17V (PS75-24Dxx-xx power up) 15.5V (PS75-24Dxx-xx power down) 34V (PS75-48Dxx-xx power up) 32.5V (PS75-48Dxx-xx power up)
Positive Logic Remote ON/OFF	Open collector ref. to -Input. Module ON: open circuit, Module OFF: <0.8VDC Add suffix N to model number for Negative Logic Remote ON/OFF control
Input Filter	PI Type

OUTPUT

Voltage Accuracy	±2% max.
Transient Response: 25% Step Load Change	<500µSec
External Trim Adj. Range	±5%
Ripple & Noise, 20MHz BW	40mV RMS max, 100mV pk-pk max

ENVIRONMENTAL

Temperature coefficient	±0.03%/°C
Short Circuit Protection	Continuous
Line Regulation	±0.2% max. measured over full input range
Load Regulation	±0.5% max. measured from 0-100% load
Over Voltage Protection trip range, % Vo nom.	115% - 140%
Current Limit	110% - 140% Nominal Output

GENERAL

Efficiency	See table
Isolation Voltage	I/P-O/P, I/P-FG, O/P-FG: 1500VDC min
Isolation Resistance	10 ⁷ ohms min.
Switching Frequency	400KHz Typ.
Operating case Temperature	-40°C to +100°C
Storage Temperature	-55°C to +105°C
Thermal Shutdown, Case Temp.	+100°C Typ.
Dimensions	57.9 x 61.0 x 13.2 mm (2.28 x 2.40 x 0.52 inches)
Case Material	Aluminium baseplate with plastic case

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Output Voltage and Current Ratings

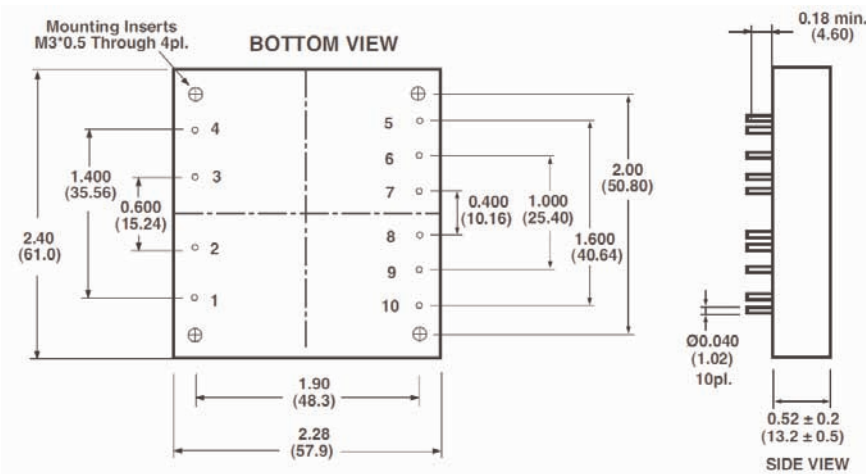
MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	INPUT CURRENT		% EFF.
				NO LOAD	FULL LOAD	
PS75-24D05-3V3	18-36 VDC	Vo1 = 5V / Vo2 = 3.3V	15A / 15A	50mA	3765mA	83
PS75-24D05-2V5	18-36 VDC	Vo1 = 5V / Vo2 = 2.5V	15A / 15A	50mA	3765mA	83
PS75-48D05-3V3	36-75 VDC	Vo1 = 5V / Vo2 = 3.3V	15A / 15A	50mA	1860mA	84
PS75-48D05-2V5	36-75 VDC	Vo1 = 5V / Vo2 = 2.5V	15A / 15A	50mA	1860mA	84

NOTE: Nominal Input Voltage 24V or 48VDC
Efficiency measured with 15A load on Vo1

Mechanical and Connection Details

All dimensions in inches (mm)

Tolerances Inches x.xx ±0.02 x.xxx ±0.010
Millimeters x.x ±0.5 x.xx ±0.25

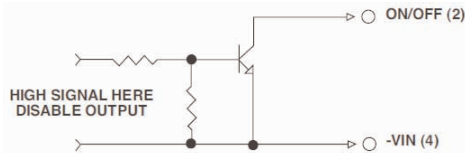


Pin Connection

Pin	Function
1	+Vin
2	ON/OFF
3	CASE
4	-Vin
5	+Vo2
6	-Vo2
7	Vo2 Trim
8	+Vo1
9	-Vo1
10	Vo1 Trim

Remote ON/OFF Control

The PS75 Dual Series allows the user to switch the module on and off electronically with the remote on/off feature. The PS75 Dual Series are available with "positive logic" or "negative logic" (option).

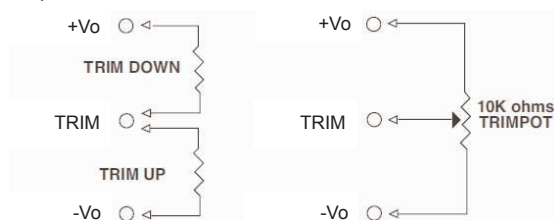


Logic Table

Logic State (Pin 2)	Negative Logic	Positive Logic
Logic low-Switch closed	Module on	Module off
Logic high-Switch open	Module off	Module on

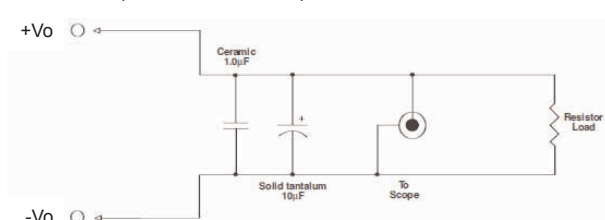
External Output Trim

The output can be trimmed externally (±5%) using a fixed resistor or a trimpot as shown.



Output Noise

The output noise is measured with a 10µF tantalum and a 1.0µF ceramic capacitor across the output.



All specifications typical at nominal line, full load and 25°C unless otherwise stated.