

High Density DC-DC Modules

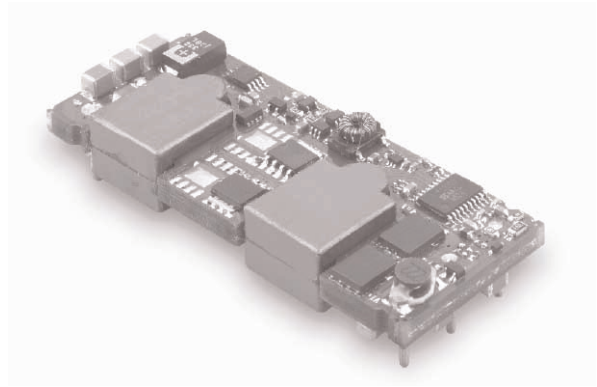


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AS75 Series 30 - 84 Watt DC-DC Converters Single Output

Features

- 2:1 Input Voltage Range
- Eighth brick package
- Regulated outputs
- Efficiency to 92%
- 1500VDC isolation
- Input under voltage protection
- Over current protection
- Over temperature protection



Electrical Specification

INPUT

Input Voltage Range	36 ~ 75V
Undervoltage Lockout	35V (Vin power up) 33V (Vin power down)
Positive Logic Remote ON/OFF	Open Collector ref. to -Input, Module ON: Open Circuit, Module OFF: <1.2VDC Add suffix N to Model No. for Negative Logic Remote ON/OFF
Input Filter	PI Type (12V version: LC type)

OUTPUT

Voltage Accuracy	±1.0% max.
Transient Response: 25% Step Load Change	<400µsec
External Trim Adj. Range	±10%
Ripple & Noise, 20MHz BW	100mV pk-pk max. measured with 10µF tantalum & 1.0µF ceramic capacitors across output

ENVIRONMENTAL

Temperature coefficient	±0.03%/°C max.
Short Circuit Protection	Continuous / Hiccup
Line Regulation	±0.2% max over input voltage range
Load Regulation	±0.5% max from 0-100% load
Over Voltage Protection trip range, % Vo nom.	115 ~ 140%
Current Limit	110% ~ 160% Nominal Output

GENERAL

Efficiency	See table
Isolation Voltage	1500VDC min
Isolation Resistance	10 ⁷ ohms min.
Switching Frequency	250-350KHz depending on output voltage
Over temperature protection	120°C typ.
Operating ambient temperature range	-40°C to +85°C
Storage temperature range	-40°C to +125°C
Dimensions	2.30 x 0.90 x 0.39 inches 58.4 x 22.9 x 10.0 mm
Weight	26g

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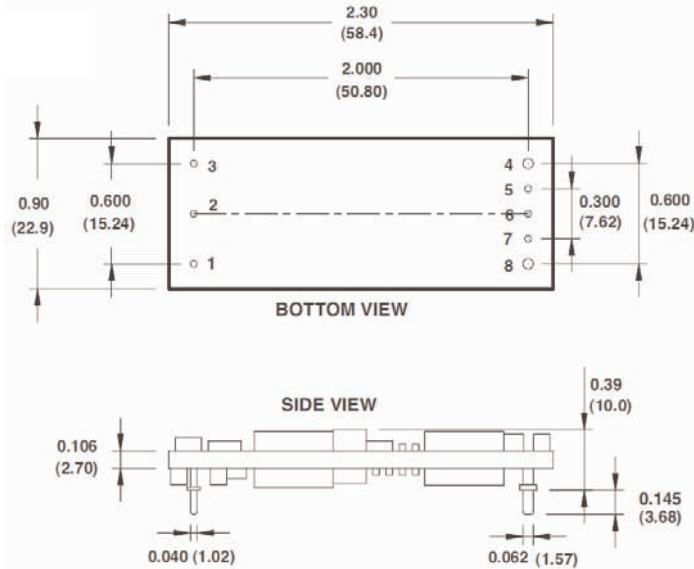
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Output Voltage and Current Ratings

MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT max.	INPUT CURRENT		% EFF.
				NO LOAD	FULL LOAD	
AS75-48S1V0	36-75 VDC	1.0 VDC	30A	60mA	753mA	83
AS75-48S1V2		1.2 VDC	30A	60mA	882mA	85
AS75-48S1V5		1.5 VDC	30A	60mA	1090mA	86
AS75-48S1V8		1.8 VDC	30A	60mA	1293mA	87
AS75-48S2V5		2.5 VDC	25A	60mA	1463mA	89
AS75-48S3V3		3.3VDC	20A	60mA	1528mA	90
AS75-48S05		5VDC	15A	60mA	1736mA	90
AS75-48S12		12VDC	7A	70mA	1902mA	92

NOTE: Nominal Input Voltage 48VDC

Mechanical and Connection Details

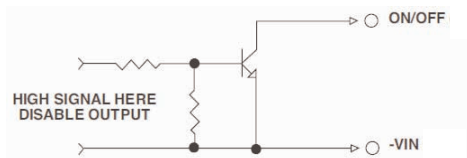


Pin Connection	
Pin	Function
1	+Vin
2	ON/OFF
3	-Vin
4	-Vout
5	-Sense
6	Trim
7	+Sense
8	+Vout

All dimensions in inches (mm)
 Tolerances: Inches x.xx ±0.02 x.xxx ±0.010
 Millimeters x.x ±0.5 x.xx ±0.25

Remote ON/OFF Control

The AS75 Series allows the user to switch the module on and off electronically with the remote on/off feature. The AS75 Series are available with "positive logic" or "negative logic" (option).

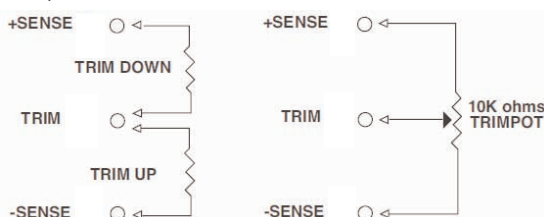


Logic Table

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

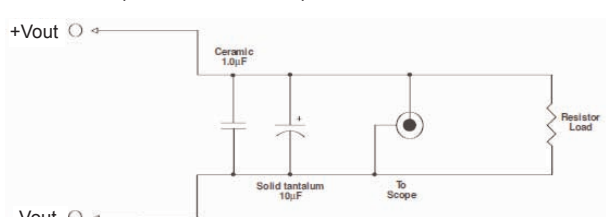
External Output Trim

The output can be trimmed externally (±10%) 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.

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Application Note

Derating:

The case operating temperature range of the AS75 series is -40°C to +85°C. When operating the AS75 series, proper derating or cooling is required.

Following is the derating curve for the AS75.

