

DC-DC Converters



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PS20B Series
20 Watt Wide Input
PCB Mounting
Single Output



Features

- 20W Isolated Output
- Efficiency to 88%
- Fixed Switching Frequency
- 2 : 1 Input Range
- Continuous Short Circuit Protection
- Pi Input Filter
- Regulated Outputs

MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT MIN.	OUTPUT CURRENT MAX	INPUT CURRENT NO LOAD		%EFF FULL LOAD
PS20B-24-1V8	18-36 VDC	1.8 VDC	0 mA	6000 mA	30 mA	549 mA	82
PS20B-24-2V5	18-36 VDC	2.5 VDC	0 mA	6000 mA	30 mA	744 mA	84
PS20B-24-3V3	18-36 VDC	3.3 VDC	0 mA	5000 mA	50 mA	800 mA	86
PS20B-24-05	18-36 VDC	5.0 VDC	0 mA	4000 mA	55 mA	958 mA	87
PS20B-24-12	18-36 VDC	12 VDC	0 mA	1670 mA	55 mA	960 mA	87
PS20B-24-15	18-36 VDC	15 VDC	0 mA	1330 mA	55 mA	956 mA	87
PS20B-48-1V8	36-75 VDC	1.8 VDC	0 mA	6000 mA	30 mA	271 mA	83
PS20B-48-2V5	36-75 VDC	2.5 VDC	0 mA	6000 mA	30 mA	368 mA	85
PS20B-48-3V3	36-75 VDC	3.3 VDC	0 mA	5000 mA	30 mA	395 mA	87
PS20B-48-05	36-75 VDC	5.0 VDC	0 mA	4000 mA	40 mA	475 mA	88
PS20B-48-12	36-75 VDC	12 VDC	0 mA	1670 mA	40 mA	480 mA	87
PS20B-48-15	36-75 VDC	15 VDC	0 mA	1330 mA	40 mA	478 mA	87

NOTE: 1. Nominal Input Voltage 24, 48 VDC

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Electrical Specification

INPUT

Input Voltage Range	24V	18-36V
	48V	36-75V
Undervoltage lockout	24Vin power up	17V
	24Vin power down	16V
	48Vin power up	34V
	48Vin power down	33V

Input Filter Pi Type

Positive Logic Remote ON/OFF Control:

Logic Compatibility CMOS or Open Collector TTL

Module ON >+5.5VDC or Open Circuit

Module OFF <1.8VDC

OUTPUT

Voltage Accuracy ±1.5% max.

Transient Response : Single 25% Step Load Change <500µsec.

Ripple & Noise, 20MHz BW, 75mV p-p max.

Temperature Coefficient ±0.03%/°C max.

Short Circuit Protection Continuous

Line Regulation¹ ±0.2% max.

Load Regulation² ±1.0% max.

Output Over Voltage Protection Zener or TVS Clamp

External Trim Adj. Range ±10%

GENERAL

Efficiency See Table

Isolation Voltage 1500VDC

Isolation Resistance 10⁸ohms min.

Switching Frequency 300KHz, Typ.

EMI/RFI Six Sided Continuous Shield

Operating Ambient Temperature -40°C to +85°C

Derating, Above 71°C Linearly to Zero Power at +100°C

Case Temperature 100°C max.

Storage Temperature -55°C to +105°C

Dimensions 2 x 1 x 0.4 inches (50.8 x 25.4 x 10.2 mm)

CASE MATERIAL

Metal Case Material Black Coated Copper with Non-Conductive Base

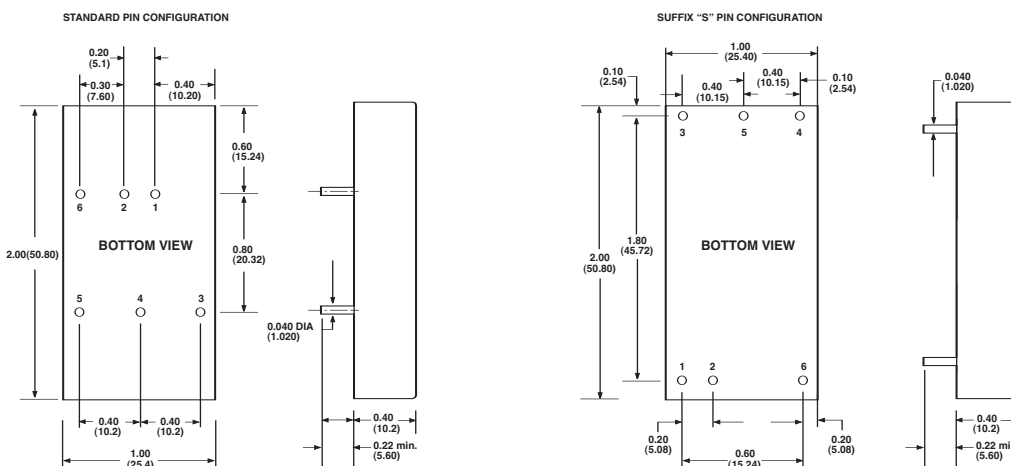
NOTE:

1. Measured From High Line to Low Line
2. Measured From Full Load to 1/10 Load
3. The output noise is measured with 0.1µF ceramic capacitor
4. Suffix "S" to the Model Number with Alternative Pin Configuration

All Dimensions in Inches (mm)
Tolerance Inches .xxx = ±.04, .xxxx = ±.010
Millimetres .xxx = ±1.0, .xxxx = ±0.25

Pin Connection

Pin	Function
1	+V Input
2	-V Input
3	+V output
4	Trim
5	-V Output
6	Remote ON/OFF



All Specifications Typical At Nominal Line, Full Load and 25°C Unless Otherwise Noted.