DATASHEET

DC/DC-Converter TP20WI-Series 20Watt

- **4:1 Input Range**
- **Efficiency to 90%**
- **2” x 1” Package**
- **continuous short circuit Protection**
- **Ext. Output Trim**

RoHS compliant

Model Number	Input Voltage	Output Voltage	Output Current	Input No Load	Current Full Load	% Eff.
TP20WI-24S3.3	9 -36 V	3.3 VDC	5500 mA	55 mA	869 mA	87
TP20WI-24S05	9 -36 V	5 VDC	4000 mA	55 mA	926 mA	90
TP20WI-24S12	9 -36 V	12 VDC	1670 mA	55 mA	928 mA	90
TP20WI-24S15	9 -36 V	15 VDC	1330 mA	55 mA	924 mA	90
TP20WI-24D05	9 -36 V	±5 VDC	±2000 mA	70 mA	937 mA	89
TP20WI-24D12	9 -36 V	±12 VDC	±835 mA	35 mA	947 mA	88
TP20WI-24D15	9 -36 V	±15 VDC	±666 mA	35 mA	947 mA	88
TP20WI-48S3.3	18 – 75 V	3.3 VDC	5500 mA	25 mA	430 mA	88
TP20WI-48S05	18 – 75 V	5 VDC	4000 mA	25 mA	463 mA	90
TP20WI-48S12	18 – 75 V	12 VDC	1670 mA	25 mA	464 mA	90
TP20WI-48S15	18 – 75 V	15 VDC	1330 mA	25 mA	462 mA	90
TP20WI-48D05	18 – 75 V	±5 VDC	±2000 mA	35 mA	468 mA	89
TP20WI-48D12	18 – 75 V	±12 VDC	±835 mA	25 mA	474 mA	88
TP20WI-48D15	18 – 75 V	±15 VDC	±666 mA	25 mA	474 mA	88

All Specifications are Typical at Nominal Line, Full load, and 25°C Unless Otherwise Noted /

INPUT SPECIFICATIONS

INPUT UNDER-VOLTAGE LOCKOUT…… 24Vin power down…….. 8.0V typ
24Vin power up …….. 8.8V typ
48Vin power down …….. 17V typ
48Vin power up…….. 16V typ

INPUT SURGE VOLTAGE (100ms max) …….. 24V ……50VDC max
48V …… 100VDC max

INPUT FILTER..... PI Type

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OUTPUT SPECIFICATIONS

Voltage Accuracy	±1.5% max
RIPPLE AND NOISE, 20MHz BW	max. 75mVpp.
Temperature Coefficient	±0.03%/C max
Line Regulation[1] (single)	±0.2%.
(dual)	±0.5%.
Load Regulation[2]	±1.0%.
Cross Regulation (dual output); load cross variation 25%/100%	±5.0%.
Over Voltage Protection	(Zenerdiode)
Short Circuit Protection	continuous
EXTERNAL TRIM ADJUSTABLE RANGE	±10%
Start up time	5ms typ.

GENERAL SPECIFICATIONS

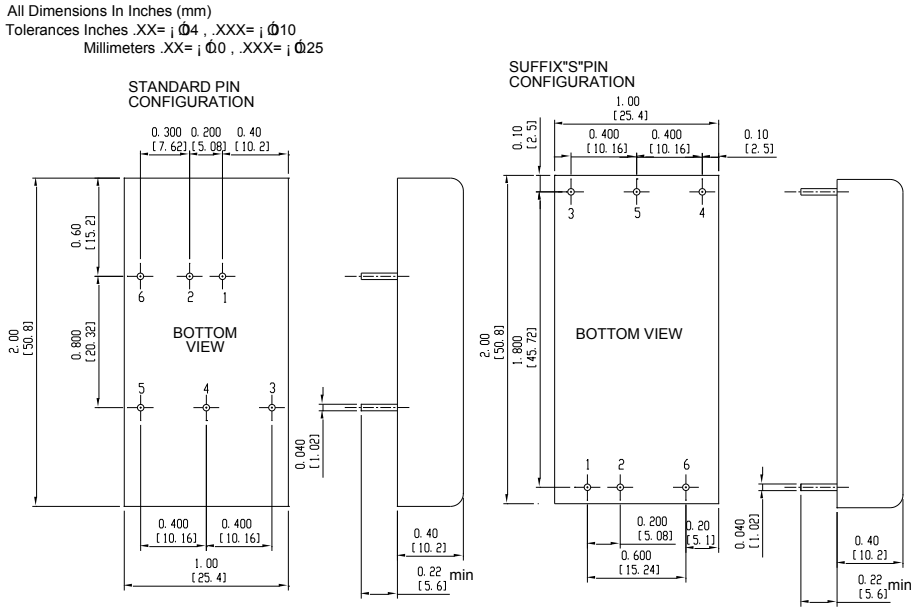
ISOLATION VOLTAGE	1500VDC max.
ISOLATION RESISTANCE	10 MOhm
SWITCHING FREQUENCY	350KHz typ.
OPERATING TEMPERATURE RANGE	-40°C TO +85°C
DERATING, ABOVE 71°C	LINEARY TO ZERO POWER AT 100 °C
THERMAL SHUT DOWN; CASE TEMPERATURE	105°Cmax.
STORAGE TEMPERATURE RANGE	-55°C TO +125°C
CASE MATERIAL	Black Coated Copper with Non-Conductive Base
DIMENSIONS	2,00×1,00×0,40 INCHES (50.8 × 25.4 × 10.2mm)

NOTE:

1. Measured From High Line To Low Line
2. Measured From Full Load To 10% Load
3. Maximum case temperature under any operating conditions should not exceed 105°C
4. Suffix “S” for Model Number with Alternative Pin Configuration (only for single output)

MECHANICAL SPECIFICATIONS

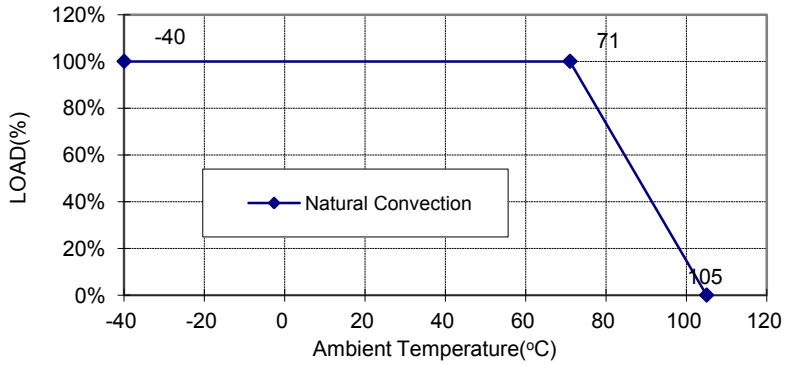
NOTE: Pin Size = 0.02” (0.5mm) Ø



PIN CONNECTION		
Pin	Single	Dual
1	+Vin	+Vin
2	-Vin	-Vin
3	+Vout	+Vout
4	Trim	Common
5	-Vout	-Vout
6	Remote ON/OFF	

POWER DERATING

Typical Derating curve for Natural Convection



REMOTE ON/OFF CONTROL

Logic Compatibility	Open collector TTL refer to -Vin
Modul ON	> 5.5V or Open Circuit
Module OFF	<1.2 Vdc