

TOTAL POWER INTERNATIONAL, INC.

10 WATT DC-DC CONVERTER

TPDM11 SERIES VERY LOW PROFILE

FEATURES

Wide 4:1 Input Range
Single & Dual Output
Six- Sided Shield
10W Isolated Output
Very Low Profile 7mm High



SPECIFICATION

INPUT SPECIFICATION

Input Range: Wide 4:1 DC input range.
See Ratings Chart.
Input Voltage: Nominal 12/24/48Vdc.
Input Current: Various with input range and load.
See Ratings Chart.
Input Fuse: Use external fuse.
Input Filter: Pi-Network.
Undervoltage Shutdown: 8Vdc.
Isolation Resistor: 1,000 Mega Ohms.
Isolation Voltage: 1,500Vdc.
EMI: Six-sided metal shielding.
Remote On/Off: TTL/CMOS-Compatible Input Control.
Logic input reference to -input/-Vin.
Logic [1]/Open (or 2.5-7.0Vdc above -Vin)=ON.
Logic [2]/Short (or 0-0.08Vdc above -Vin)=OFF.

OUTPUT SPECIFICATION

Output Voltage: See Ratings Chart.
Output Current: See Ratings Chart.
Voltage Accuracy: Main O/P $\pm 2.0\%$ typ.
Line Regulation: $\pm 0.5\%$ typ.
Load Regulation: Single O/P $\pm 1.0\%$ typ.
Dual O/P $\pm 2.0\%$ typ.
Noise & Ripple: Typ. 100mV for 3.3V/5.0V &
1.0% for others peak to peak.
OVP: Built-in on main output.
Adjustability: Not available.
Short Circuit Protection: Power fold back,
Self-recovering.
Overload Protection: About 130% of overrange by
foldback type.

GENERAL SPECIFICATION

Efficiency: Typ. 78% various with input.
Switching Frequency: Fixed frequency 450K Hz.
Circuit Topology: 450K Hz. Forward Circuit.
Transient Response: Full to 1/2 load $< 200 \mu\text{Sec}$.
Case: Black coated aluminum with non-conductive
metal base.
Weight: 20.0g (0.71 Oz.)
Power Density: 17.2Watts/ Cubic inch.

Operating Temperature: -40°C to $+85^{\circ}\text{C}$ range. -25°C to
 $+71^{\circ}\text{C}$ @ full load without derating. Derating linearly
 $3.5\%/^{\circ}\text{C}$ from $+71^{\circ}\text{C}$ @ full load to $+85^{\circ}\text{C}$ @ half-load.
Storage Temperature: -55°C to $+110^{\circ}\text{C}$.
Humidity: Up to 95% RH, Non-condensing.
Temperature Coefficient: $0.02\%/^{\circ}\text{C}$.
Cooling: Convection cooling up to 60°C @F-L. At least
100LFM moving air is recommended for F-L $> +60^{\circ}\text{C}$ in
a confined area.
Commercial Grade: Full load up to $+71^{\circ}\text{C}$ with moving air.
Industrial Grade: $+71$ to $+85^{\circ}\text{C}$ F-L to H-L with moving air.

NOTE: (1) All measurements are at nominal input, full load and $+25^{\circ}\text{C}$ unless otherwise specified.

(2) Line Regulation measured from High to Low Lines at full load.

(3) Load Regulation measured from Full Load (F-L) to Half-Load (H-L) at nominal input.

(4) Correct fuse size by calculating the max. DC current drain at low Line input & Load and then adding 20-25% for the desired fuse size.

TOTAL POWER INT'L INC. TOLL FREE ORDER HOT LINE 1-877-646-0900

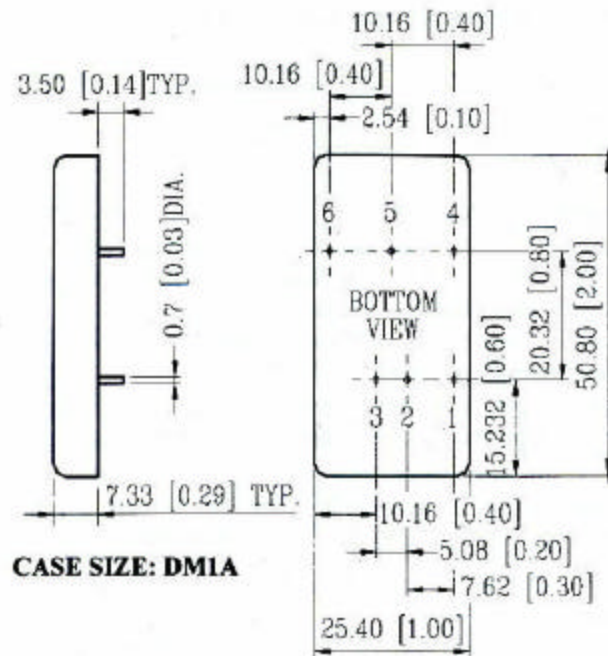
OUTPUT VOLTAGE / CURRENT RATING CHARTS

SINGLE OUTPUT

Model Number	Input Voltage VDC	Input Current		Output	
		N.L. (mA)	F.L.	+V01 (Vdc)	V01 (A)
TPDM11-12D-S03	9.0-36.0	50	900	3.3V	2.50A
TPDM11-12D-S05	9.0-36.0	50	1070	5.0V	2.00A
TPDM11-12D-S09	9.0-36.0	50	1050	9.0V	1.10A
TPDM11-12D-S12	9.0-36.0	50	1050	12.0V	0.83A
TPDM11-12D-S15	9.0-36.0	50	1050	15.0V	0.67A
TPDM11-48D-S03	18.0-72.0	46	220	3.3V	2.50A
TPDM11-48D-S05	18.0-72.0	46	260	5.0V	2.00A
TPDM11-48D-S09	18.0-72.0	46	255	9.0V	1.10A
TPDM11-48D-S12	18.0-72.0	46	255	12.0V	0.83A
TPDM11-48D-S15	18.0-72.0	46	255	15.0V	0.67A

DUAL OUTPUT

Model Number	Input Voltage VDC	Input Current		Output VDC		Output (A)	
		N.L. (mA)	F.L.	+V01	-V01		
TPDM11-12D-D03	9.0-36.0	50	910	+3.3V	-3.3V	1.25A	1.25A
TPDM11-12D-D05	9.0-36.0	50	1070	+5.0V	-5.0V	1.00A	1.00A
TPDM11-12D-D12	9.0-36.0	50	1070	+12.0V	-12.0V	0.42A	0.42A
TPDM11-12D-D15	9.0-36.0	50	1040	+15.0V	-15.0V	0.33A	0.33A
TPDM11-48D-D03	18.0-72.0	46	220	+3.3V	-3.3V	1.25A	1.25A
TPDM11-48D-D05	18.0-72.0	46	260	+5.0V	-5.0V	1.00A	1.00A
TPDM11-48D-D12	18.0-72.0	46	260	+12.0V	-12.0V	0.42A	0.42A
TPDM11-48D-D12	18.0-72.0	46	255	+15.0V	-15.0V	0.33A	0.33A

MECHANICAL DIMENSIONS: MM [INCHES]**Weight: 20.0g (0.71 Oz.)****PIN ASSIGNMENT**

PIN NO.	SINGLE	DUAL
PIN# 1.	Remote ON/OFF	Remote ON/OFF
PIN# 2.	- INPUT/-Vin	- INPUT/-Vin
PIN# 3.	+ INPUT	+ INPUT
PIN# 4.	DC-COM	- VO2
PIN# 5.	NC	DC-COM
PIN# 6.	VO1	+VO1

THREE EASY STEPS TO OBTAIN A SAMPLE OR PLACE AN ORDER.

1. PRINT OUT THIS PDF DATA SHEET AND DETERMINE MODEL NEEDED.
2. FILL OUT QUICK QUOTE REQUEST FORM. TPI WILL QUICKLY E-MAIL YOU THE COST OF SAMPLE OR QUANTITY YOU REQUESTED.
3. ONCE YOU RECEIVE OUR QUOTE YOU CAN FILL OUT OUR WEB SITE ORDER FORM OR CALL OUR TOLL FREE HOT LINE NUMBER TO PLACE YOUR ORDER.

1-877-646-0900