

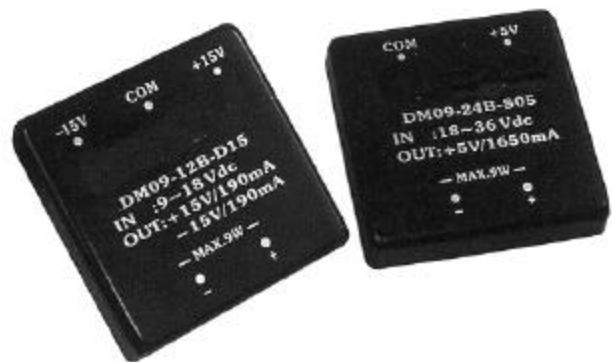
TOTAL POWER INTERNATIONAL, INC.

9 WATT DC-DC CONVERTER

TPDM09 SERIES

FEATURES

2:1 Input Range
Isolated Single & Dual Output
Six- Sided Shield
9W Isolated Output



SPECIFICATION

INPUT SPECIFICATION

Input Range: 2:1 DC input range.
See Ratings Chart.
Input Voltage: Nominal 12/24/48 Vdc.
Input Current: Various with input range & load.
See Ratings Chart.
Input Fuse: Use external fuse.
Input Filter: Pi-Network.
Isolation Resistance: 1,000 Mega Ohms.
Isolation Voltage: 1,500Vdc.
EMI: Six-sided metal shielding.

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. 65-75%, various with input.
Switching Frequency: 40-70K Hz., various with
input and loading condition.
Circuit Topology: Free Running Flyback Circuit.
Transient Response: Full to 1/2 load $< 200 \mu\text{Sec}$.
Case: Black coated steel with non-conductive
metal base.
Weight: 62.5g (2.2 Oz.)
Power Density: 5.6Watts./ Cubic inch.

Operating Temperature: -25°C to +71°C range.
-20°C to +60°C @ full load without derating.
Temperature: -40°C to +105°C.
Temperature Coefficient: 0.02% /°C.
Cooling: Convection cooling up to +60°C @ full load.
At least 100LFM moving air is recommended for F-L
> +60°C in a confined area.
Humidity: Up to 95%RH, Non-condensing.
Commercial Grade only.

NOTE: (1) All measurements are at nominal input, full load, and +25°C unless otherwise specified.
(2) Line Regulation measured from High to Low Lines at full load.
(3) Load Regulation measured from Full Load to 1/2 Full Load 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.

OUTPUT VOLTAGE / CURRENT RATING CHARTS

SINGLE OUTPUT

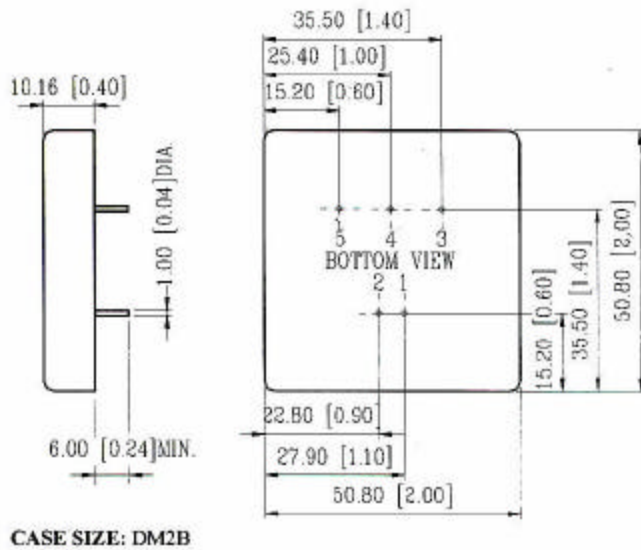
Model Number	Input Voltage VDC	Input Current		Output VDC	
		N.L. (mA)	F.L.		(A)
TPDM09-12B-S03	9.0-18.0	60	650	3.3V	1.65A
TPDM09-12B-S05	9.0-18.0	60	930	5.0V	1.65A
TPDM09-12B-S09	9.0-18.0	60	950	9.0V	0.95A
TPDM09-12B-S12	9.0-18.0	60	940	12.0V	0.70A
TPDM09-12B-S15	9.0-18.0	60	990	15.0V	0.60A
TPDM09-12B-S24	9.0-18.0	60	1060	24.0V	0.40A
TPDM09-24B-S03	18.0-36.0	35	325	3.3V	1.65A
TPDM09-24B-S05	18.0-36.0	35	465	5.0V	1.65A
TPDM09-24B-S09	18.0-36.0	35	475	9.0V	0.95A
TPDM09-24B-S12	18.0-36.0	35	470	12.0V	0.70A
TPDM09-24B-S15	18.0-36.0	35	495	15.0V	0.60A
TPDM09-24B-S24	18.0-36.0	35	530	24.0V	0.40A
TPDM09-48B-S03	36.0-72.0	20	163	3.3V	1.65A
TPDM09-48B-S05	36.0-72.0	20	233	5.0V	1.65A
TPDM09-48B-S09	36.0-72.0	20	238	9.0V	0.95A
TPDM09-48B-S12	36.0-72.0	20	235	12.0V	0.70A
TPDM09-48B-S15	36.0-72.0	20	247	15.0V	0.60A
TPDM09-48B-S24	36.0-72.0	20	265	24.0V	0.40A

DUAL OUTPUT

Model Number	Input Voltage VDC	Input Current		Output VDC		Output (A)	
		N.L. (mA)	F.L.	+V01	-V02		
TPDM09-12B-D05	9.0-18.0	50	960	+5.0V	-5.0V	0.85A	0.85A
TPDM09-12B-D12	9.0-18.0	50	970	+12.0V	-12.0V	0.36A	0.36A
TPDM09-12B-D15	9.0-18.0	50	990	+15.0V	-15.0V	0.30A	0.30A
TPDM09-24B-D05	18.0-36.0	30	480	+5.0V	-5.0V	0.85A	0.85A
TPDM09-24B-D12	18.0-36.0	30	485	+12.0V	-12.0V	0.36A	0.36V
TPDM09-24B-D15	18.0-36.0	30	495	+15.0V	-15.0V	0.30A	0.30A
TPDM09-48B-D05	36.0-72.0	20	240	+5.0V	-5.0V	0.85A	0.85A
TPDM09-48B-D12	36.0-72.0	20	243	+12.0V	-12.0V	0.36A	0.36A
TPDM09-48B-D15	36.0-72.0	20	248	+15.0V	-15.0V	0.30A	0.30A

MECHANICAL DIMENSIONS: MM [INCHES]

Weight: 62.5g (2.2 Oz.)



PIN ASSIGNMENT

PIN NO.	SINGLE	DUAL
PIN #1	- INPUT	- INPUT
PIN #2	+ INPUT	+ INPUT
PIN #3	DC-COM	- VO2
PIN #4	NC	DC-COM
PIN #5	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.

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