

HiTRON

ON-BOARD DC-DC CONVERTER ENCAPSULATED MODULES 16 WATTS TRIPLE OUTPUT HDM16-T SERIES



FEATURES:

- TRIPLE OUTPUT.
- 2:1 INPUT RANGE.
- 16W ISOLATED OUTPUT.
- SIX-SIDED METAL SHIELD.

SPECIFICATION

INPUT SPECIFICATION

Input Range: 2:1 DC input range.
See Ratings Chart.

Input Voltage: Nominal 24/48Vdc.

Input Current: Various with input range & load. See Ratings Chart.

Input Fuse: Use external fuse.

Input Filter: Pi-Network.

Undervoltage Shutdown: 8Vdc.

Isolation Resistance: 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: VO1 & VO3 $\pm 2.0\%$ typ.
VO2 O/P $\pm 5.0\%$

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
foldback type.

GENERAL SPECIFICATION

Efficiency: Typ. 80%, various with input.

Switching Frequency: Fixed frequency 100K Hz.

Circuit Topology: 100K Hz. Forward Circuit.

Transient Response: Full to 1/2 load $< 200 \mu\text{Sec}$.

Case: Black coated steel with non-conductive metal base.

Weight: 61.0g (2.15 Oz.)

Power Density: 10.45 Watts./ 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.

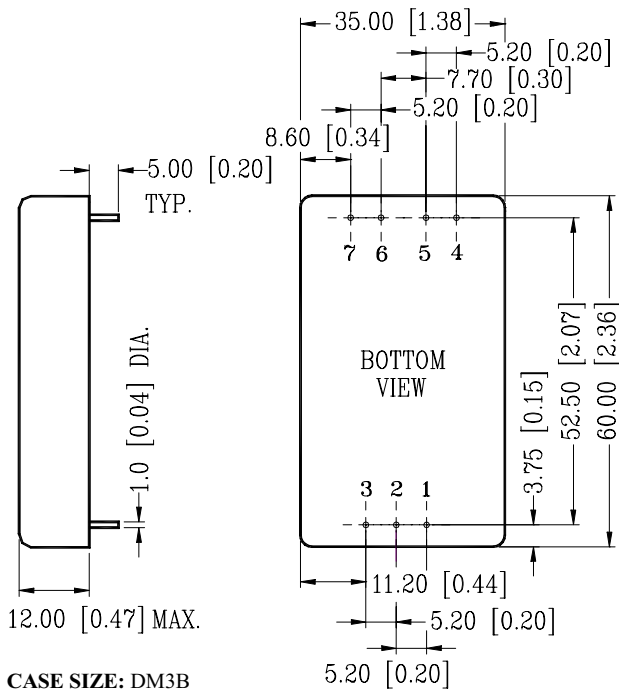
INPUT/ OUTPUT VOLTAGE/ CURRENT RATINGS CHART

TRIPLE OUTPUT

MODEL NO.	INPUT Vdc	INPUT CURRENT		OUTPUT (Vdc)			OUTPUT(A)			CASE SIZE
		N.L. (mA)	F.L.	+VO1	+VO2	-VO3	+VO1	+VO2	-VO3	
HDM16-24B-T3/5	18.0-36.0	20	850	+3.3V	+5.0V	-5.0V	2.5A	0.70A	0.70A	DM3B
HDM16-24B-T3/12	18.0-36.0	20	840	+3.3V	+12.0V	-12.0V	2.5A	0.29A	0.29A	DM3B
HDM16-24B-T3/15	18.0-36.0	20	830	+3.3V	+15.0V	-15.0V	2.5A	0.23A	0.23A	DM3B
HDM16-24B-T3/ 5,-12	18.0-36.0	20	850	+3.3V	+5.0V	-12.0V	1.6A	1.00A	0.41A	DM3B
HDM16-24B-T3/ 5,-15	18.0-36.0	20	850	+3.3V	+5.0V	-15.0V	1.6A	1.00A	0.33A	DM3B
HDM16-24B-T5/12	18.0-36.0	20	840	+5.0V	+12.0V	-12.0V	2.0A	0.25A	0.25A	DM3B
HDM16-24B-T5/15	18.0-36.0	20	840	+5.0V	+15.0V	-15.0V	2.0A	0.20A	0.20A	DM3B
HDM16-24B-T5/+12,-5	18.0-36.0	20	840	+5.0V	+15.0V	-5.0V	2.0A	0.30A	0.60A	DM3B
HDM16-48B-T3/5	36.0-72.0	20	425	+3.3V	+5.0V	-5.0V	2.5A	0.70A	0.70A	DM3B
HDM16-48B-T3/12	36.0-72.0	20	420	+3.3V	+12.0V	-12.0V	2.5A	0.29A	0.29A	DM3B
HDM16-48B-T3/15	36.0-72.0	20	415	+3.3V	+15.0V	-15.0V	2.5A	0.23A	0.23A	DM3B
HDM16-48B-T3/ 5,-12	36.0-72.0	20	425	+3.3V	+5.0V	-12.0V	1.6A	1.00A	0.41A	DM3B
HDM16-48B-T3/ 5,-15	36.0-72.0	20	425	+3.3V	+5.0V	-15.0V	1.6A	1.00A	0.33A	DM3B
HDM16-48B-T5/12	36.0-72.0	20	420	+5.0V	+12.0V	-12.0V	2.0A	0.25A	0.25A	DM3B
HDM16-48B-T5/15	36.0-72.0	20	420	+5.0V	+15.0V	-15.0V	2.0A	0.20A	0.20A	DM3B
HDM16-48B-T5/+12,-5	36.0-72.0	20	420	+5.0V	+15.0V	-5.0V	2.0A	0.30A	0.60A	DM3B

MECHANICAL DIMENSIONS: MM [INCHES]

Weight: 61.0g (2.15 Oz.)



PIN ASSIGNMENT

PIN NO.	TRIPLE
PIN #1.	- INPUT/-Vin
PIN #2.	+ INPUT
PIN #3.	Remote ON/OFF
PIN #4.	-VO3
PIN #5.	DC-COM
PIN #6.	+VO1
PIN #7.	+VO2