

# H HiTRON

## PCB-MOUNT DC-DC CONVERTER ENCAPSULATED MODULES INDUSTRIAL GRADE 25 WATTS DUAL OUTPUT HDM25-D SERIES



### FEATURES:

- DUAL OUTPUT
- 2:1 INPUT RANGE
- 25W ISOLATED OUTPUT
- SIX-SIDED METAL SHIELD

### SPECIFICATION

#### INPUT SPECIFICATION

**Input Range:** 2:1 DC input range:  
4.5-9/9-18/18-36/36-72Vdc.  
**Input Voltage:** Nominal 5/12/24/48Vdc.  
**Input Current:** Various with input range and load.  
**Input Fuse:** Use external fuse.  
**Input Filter:** Pi-Network.  
**Input Reflect Ripple Current:** 45mA typical.  
**Isolation Resistor:** 1,000 Mega Ohms.  
**Isolation Voltage:** 1,500Vdc.  
**EMI:** Six-sided metal shielding.  
**Remote On/Off:** TTL/CMOS-Compatible Input Control.  
**Positive Logic** version for Standard set up:  
ON(Enable)=Open(or 2.5-5.0Vdc above-Vin)  
OFF(Disable)=Short(or 0-0.8Vdc above-Vin)  
**Negative Logic** version option available by adding a  
"N" suffix to the end of Model #.  
Remark: Voltage refer to -Input(-Vin).

#### OUTPUT SPECIFICATION

**Output Voltage:** See Ratings Chart.  
**Output Current:** See Ratings Chart.  
**Voltage Accuracy:** Main O/P  $\pm 2.0\%$  typical.  
**Line Regulation:**  $\pm 0.06\%$  typical.  
**Load Regulation:** VO1  $\pm 0.60\%$ , VO2  $\pm 0.5\%$  typical.  
**Noise & Ripple:** 1.0% typical.  
**OVP:** Built-in on main output VO1.  
**Adjustability:** VO1 O/P may optionally be external  
trimmed  $\pm 3.0\%$  with a fixed resistors or trim-pot.  
**Short Circuit Protection:**  
Power fold back, and self-recovering.  
**Overload Protection (OLP):**  
Fully protected against output overload and short circuit.  
OLP set at about 125-150% rating output wattage.  
Consult the factory for OLP setting.

#### GENERAL SPECIFICATION

**Efficiency:** 77-85% typical, various with input.  
**Switching Frequency:** Fixed frequency 450K Hz.  
**Circuit Topology:** 450K Hz. Forward Circuit.  
**Transient Response:** Max. excursion 140mV,  
Recovery time  $< 200 \mu\text{Sec.}$  @ 25%  
step load change.  
**Case:** Black coated copper with non-conductive  
metal base.  
**Power Density:** 10.0 Watts. / Cubic inch.  
**MTBF:** 1,000,000 hours to Mil. Std. 217, 25°C.

**Operating Temperature: Industrial Grade** -25°C to  
+85°C range. 0°C to +70°C @ full load without derating.  
From +70°C derating linearly to half load @ +85°C.  
(Refer to the Derating Chart for commercial grade.)  
**Temperature:** -40°C to +105°C for industrial grade.  
**Temperature Coefficient:**  $\pm 0.03\%$  /°C.  
**Humidity:** Up to 95%RH, Non-condensing.  
**Cooling:** Convection cooling up to +70°C @ full load.  
At least 100LFM moving air is recommended for  
full load  $> +71^\circ\text{C}$  in a confined area.  
**Industrial Grade for 12B/24B/48B input.**  
**Commercial Grade only for 5B input.**

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 drains at low Line input & Load and then adding 20-25% for the desired fuse size.

Due to requests in market and advances in technology, specifications subject to change without notice.

查询"HDM25-12B-D15"供应商

## INPUT/OUTPUT & VOLTAGE/CURRENT RATINGS CHART

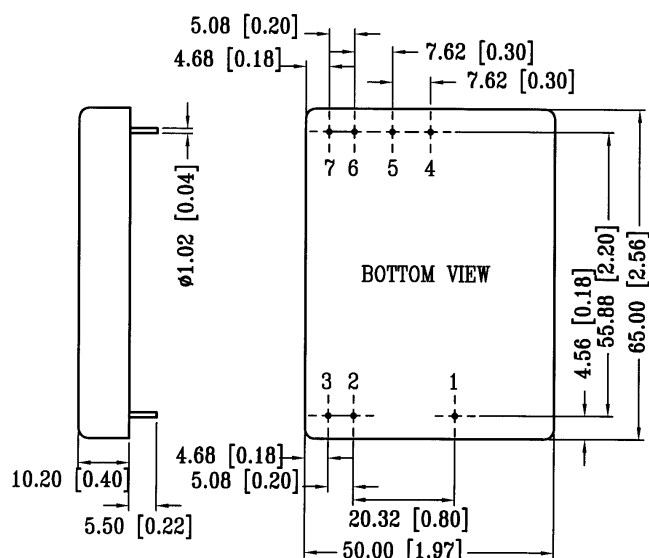
### DUAL OUTPUT

| MODEL NO.     | INPUT<br>Vdc | INPUT CURRENT |       | OUTPUT (Vdc) |        | OUTPUT (A) |       | CASE<br>SIZE |
|---------------|--------------|---------------|-------|--------------|--------|------------|-------|--------------|
|               |              | N.L. (mA)     | F.L.  | +VO1@★       | -VO2   | +VO1       | -VO2  |              |
| HDM25-5B-D12  | 4.5- 9.0     | 150           | 5,020 | +12.0V       | -12.0V | 0.84A      | 0.84A | DM2H         |
| HDM25-5B-D15  | 4.5- 9.0     | 150           | 5,020 | +15.0V       | -15.0V | 0.67A      | 0.67A | DM2H         |
| HDM25-12B-D12 | 9.0-18.0     | 100           | 2,100 | +12.0V       | -12.0V | 0.84A      | 0.84A | DM2H         |
| HDM25-12B-D15 | 9.0-18.0     | 100           | 2,100 | +15.0V       | -15.0V | 0.67A      | 0.67A | DM2H         |
| HDM25-24B-D12 | 18.0-36.0    | 60            | 1,050 | +12.0V       | -12.0V | 0.84A      | 0.84A | DM2H         |
| HDM25-24B-D15 | 18.0-36.0    | 60            | 1,050 | +15.0V       | -15.0V | 0.67A      | 0.67A | DM2H         |
| HDM25-48B-D12 | 36.0-72.0    | 60            | 530   | +12.0V       | -12.0V | 0.84A      | 0.84A | DM2H         |
| HDM25-48B-D15 | 36.0-72.0    | 60            | 530   | +15.0V       | -15.0V | 0.67A      | 0.67A | DM2H         |

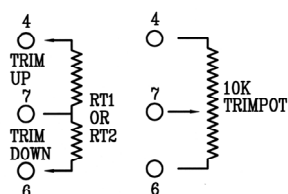
Symbols: "★" OVP built-in. "@" Adjustable. "||" Double Feedback.

### MECHANICAL DIMENSIONS: MM [INCHES]

WEIGHT:85 g (3.0 Oz.)



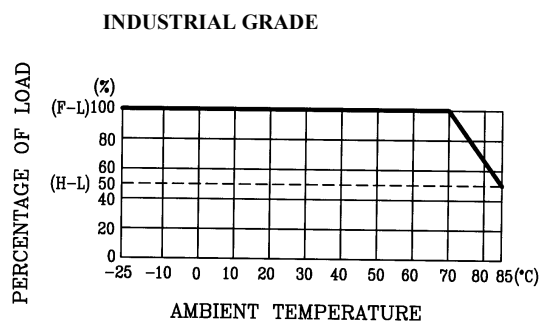
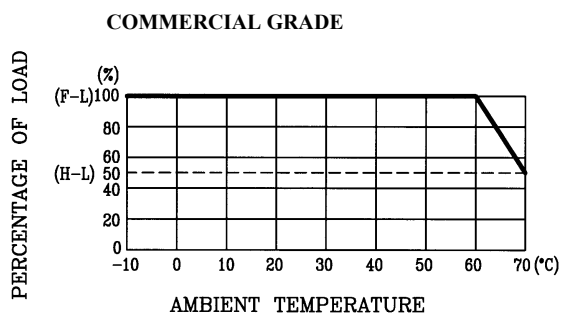
CASE SIZE: DM2H



### PIN ASSIGNMENT

| PIN NO. | DUAL          |
|---------|---------------|
| PIN# 1. | +INPUT        |
| PIN# 2. | -INPUT        |
| PIN# 3. | REMOTE ON/OFF |
| PIN# 4. | +VO1          |
| PIN# 5. | DC-COM        |
| PIN# 6. | -VO2          |
| PIN# 7. | OUTPUT TRIM   |

### DERATING CHART



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