

ON-BOARD DC-DC CONVERTER ENCAPSULATED MODULES 15-WATTS TRIPLE OUTPUT APS15DM-T SERIES



FEATURES:

- TRIPLE OUTPUT.
- WIDE 4:1 & 2:1 INPUT RANGE.
- 15W ISOLATED OUTPUT.
- SIX-SIDED METAL SHIELD.

SPECIFICATION

INPUT SPECIFICATION

Input Range: Wide 4:1 & 2:1 input DC 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
Overvoltage Shutdown: Optional. Factory set
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: VO1 & VO3 O/P $\pm 2.0\%$ typ.
 Aux. VO2 O/P $\pm 5.0\%$ 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
 foldback type

GENERAL SPECIFICATION

Efficiency: Typ. 80%, various with input
Switching Frequency: Fixed freq. 100KHz
Circuit Topology: 100K Hz. forward circuit
Transient Response: Full to 1/2 load <200 μ sec.
Case: Black coated steel with non-conductive
 metal base
Weight: 65.0g (2.4 Oz.)
Power Density: 10 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 (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.

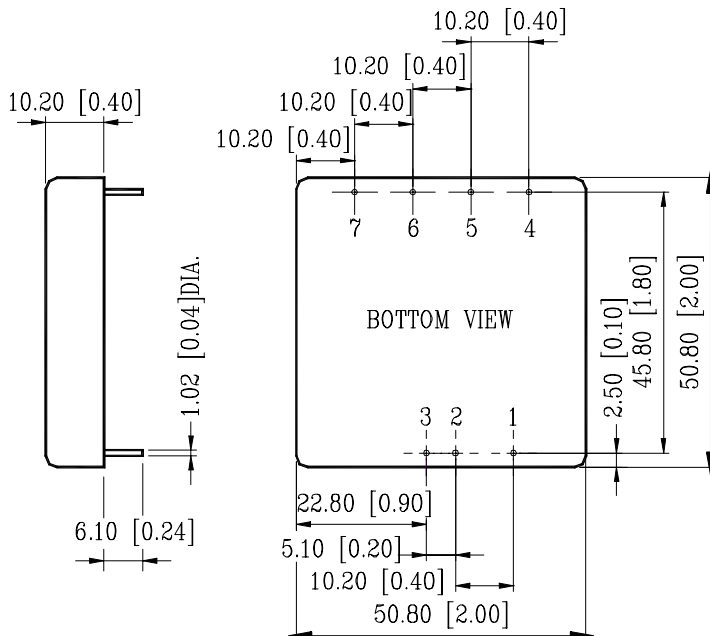
INPUT/OUTPUT & VOLTAGE/CURRENT RATINGS CHART

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	
APS15DM-12B-T3/12	9.0- 18.0	20	1,300	+3.3V	+12.0V	-12.0V	1.50A	0.30A	0.30A	DM2B
APS15DM-12B-T3/15	9.0- 18.0	20	1,330	+3.3V	+15.0V	-15.0V	1.50A	0.25A	0.25A	DM2B
APS15DM-12B-T3/+12,-5	9.0- 18.0	20	1,200	+3.3V	+12.0V	-5.0V	1.50A	0.30A	0.50A	DM2B
APS15DM-12B-T5/12	9.0- 18.0	20	1,556	+5.0V	+12.0V	-12.0V	1.50A	0.30A	0.30A	DM2B
APS15DM-12B-T5/15	9.0- 18.0	20	1,562	+5.0V	+15.0V	-15.0V	1.50A	0.25A	0.25A	DM2B
APS15DM-12B-T5/+12,-5	9.0- 18.0	20	1,415	+5.0V	+12.0V	-5.0V	1.50A	0.30A	0.50A	DM2B
APS15DM-24B-T3/12	18.0- 36.0	20	650	+3.3V	+12.0V	-12.0V	1.50A	0.30A	0.30A	DM2B
APS15DM-24B-T3/15	18.0- 36.0	20	665	+3.3V	+15.0V	-15.0V	1.50A	0.25A	0.25A	DM2B
APS15DM-24B-T3/+12,-5	18.0- 36.0	20	600	+3.3V	+12.0V	-5.0V	1.50A	0.30A	0.50A	DM2B
APS15DM-24B-T5/12	18.0- 36.0	20	778	+5.0V	+12.0V	-12.0V	1.50A	0.30A	0.30A	DM2B
APS15DM-24B-T5/15	18.0- 36.0	20	781	+5.0V	+15.0V	-15.0V	1.50A	0.25A	0.25A	DM2B
APS15DM-24B-T5/+12,-5	18.0- 36.0	20	707	+5.0V	+12.0V	-5.0V	1.50A	0.30A	0.50A	DM2B
APS15DM-48B-T3/12	36.0- 72.0	15	325	+3.3V	+12.0V	-12.0V	1.50A	0.30A	0.30A	DM2B
APS15DM-48B-T3/15	36.0- 72.0	15	332	+3.3V	+15.0V	-15.0V	1.50A	0.25A	0.25A	DM2B
APS15DM-48B-T3/+12,-5	36.0- 72.0	15	300	+3.3V	+12.0V	-5.0V	1.50A	0.30A	0.50A	DM2B
APS15DM-48B-T5/12	36.0- 72.0	15	389	+5.0V	+12.0V	-12.0V	1.50A	0.30A	0.30A	DM2B
APS15DM-48B-T5/15	36.0- 72.0	15	390	+5.0V	+15.0V	-15.0V	1.50A	0.25A	0.25A	DM2B
APS15DM-48B-T5/+12,-5	36.0- 72.0	15	353	+5.0V	+12.0V	-5.0V	1.50A	0.30A	0.50A	DM2B
APS15DM-12D-T3/12	9.0- 36.0	30	1,320	+3.3V	+12.0V	-12.0V	1.50A	0.30A	0.30A	DM2B
APS15DM-12D-T3/15	9.0- 36.0	30	1,350	+3.3V	+15.0V	-15.0V	1.50A	0.25A	0.25A	DM2B
APS15DM-12D-T3/+12,-5	9.0- 36.0	30	1,220	+3.3V	+12.0V	-5.0V	1.50A	0.30A	0.50A	DM2B
APS15DM-12D-T5/12	9.0- 36.0	30	1,576	+5.0V	+12.0V	-12.0V	1.50A	0.30A	0.30A	DM2B
APS15DM-12D-T5/15	9.0- 36.0	30	1,582	+5.0V	+15.0V	-15.0V	1.50A	0.25A	0.25A	DM2B
APS15DM-12D-T5/+12,-5	9.0- 36.0	30	1,435	+5.0V	+12.0V	-5.0V	1.50A	0.30A	0.50A	DM2B
APS15DM-24D-T3/12	9.0- 36.0	30	660	+3.3V	+12.0V	-12.0V	1.50A	0.30A	0.30A	DM2B
APS15DM-24D-T3/15	9.0- 36.0	30	675	+3.3V	+15.0V	-15.0V	1.50A	0.25A	0.25A	DM2B
APS15DM-24D-T3/+12,-5	9.0- 36.0	30	610	+3.3V	+12.0V	-5.0V	1.50A	0.30A	0.50A	DM2B
APS15DM-24D-T5/12	9.0- 36.0	30	788	+5.0V	+12.0V	-12.0V	1.50A	0.30A	0.30A	DM2B
APS15DM-24D-T5/15	9.0- 36.0	30	791	+5.0V	+15.0V	-15.0V	1.50A	0.25A	0.25A	DM2B
APS15DM-24D-T5/+12,-5	9.0- 36.0	30	717	+5.0V	+12.0V	-5.0V	1.50A	0.30A	0.50A	DM2B
APS15DM-48D-T3/12	20.0- 72.0	15	330	+3.3V	+12.0V	-12.0V	1.50A	0.30A	0.30A	DM2B
APS15DM-48D-T3/15	20.0- 72.0	15	337	+3.3V	+15.0V	-15.0V	1.50A	0.25A	0.25A	DM2B
APS15DM-48D-T3/+12,-5	20.0- 72.0	15	305	+3.3V	+12.0V	-5.0V	1.50A	0.30A	0.50A	DM2B
APS15DM-48D-T5/12	20.0- 72.0	15	394	+5.0V	+12.0V	-12.0V	1.50A	0.30A	0.30A	DM2B
APS15DM-48D-T5/15	20.0- 72.0	15	395	+5.0V	+15.0V	-15.0V	1.50A	0.25A	0.25A	DM2B
APS15DM-48D-T5/+12,-5	20.0- 72.0	15	358	+5.0V	+12.0V	-5.0V	1.50A	0.30A	0.50A	DM2B

MECHANICAL DIMENSIONS: MM [INCHES]

Weight: 65.0g (2.4 Oz.)



PIN ASSIGNMENT

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

CASE SIZE: DM2B