99 - 150 Watt, 4:1 Wide Input DC/DC Converters Series DV1504H

E357872

RoHS

Features

- 99 - 150 Watt Isolated Output
- 4:1 Wide Input Range
- Regulated Outputs
- Fully Isolated 1500VDC
- Continuous Short Circuit Protection
- CE Mark Meets 2004/108/EC
- Efficiency to 91%
- Over Temperature Protection
- Over Voltage/Current Protection
- Industry Standard Half-Brick Package
- Remote On/Off
- UL60950-1 Approval (Except 28 & 48 Vout)

MODEL NUMBER	INPUT VOLTAGE [VDC]	OUTPUT VOLTAGE [VDC]	OUTPUT CURRENT [A] Max.	INPUT CURRENT NO LOAD [mA]	INPUT CURRENT MAX. LOAD [mA]	EFF. [%]	CAPACITOR LOAD MAX. [µF]	CASE
DV9-36-3,3S30000H	9 – 36	3,3	30	200	4741	87	30000	H
DV9-36-05S30000H		5	30	200	7184	87	30000	
DV9-36-12S12500H		12	12,5	100	7102	88	12500	
DV9-36-15S10000H		15	10	100	7184	87	10000	
DV9-36-24S6500H		24	6,5	100	7386	88	1800	
DV9-36-28S5400H		28	5,4	100	7325	86	1800	
DV9-36-48S3120H		48	3,12	200	7428	84	1000	
DV18-75-3,3S30000H	18 – 75	3,3	30	100	2344	88	30000	H
DV18-75-05S30000H		5	30	100	3472	90	30000	
DV18-75-12S12500H		12	12,5	50	3434	91	12500	
DV18-75-15S10000H		15	10	50	3472	90	10000	
DV18-75-24S6500H		24	6,5	50	3611	90	2200	
DV18-75-28S5400H		28	5,4	50	3580	88	2200	
DV18-75-48S3120H		48	3,12	100	3633	86	1000	

NOTE:
1. Nominal Input Voltage 24V & 48 Vdc

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INPUT SPECIFICATIONS:

Input Voltage Range ..... See Table
Input Surge Voltage(100ms max.) .. 24V..... 50Vdc max.
48V..... 100Vdc max.
Under Voltage lockout: . 24Vin power up..... 8,8V typ.
24Vin power down..... 8,0V typ.
48Vin power up..... 17V typ.
48Vin power down..... 16V typ.
Input Filter ..... Pi Type
Positive Logic Remote ON/OFF (Note 4&5)

OUTPUT SPECIFICATION:

Voltage Accuracy (Note 7)..... ±1,5%max.
Transient Response: 25% Step Load Change ..... <500µ sec.
External Trim Adj. Range ..... ±10%
Ripple and Noise, 20 MHz BW (Note 3)
3,3V & 5V ..... 40mV RMS / 100mV pk-pk max.
12V & 15V ..... 60mV RMS / 150mV pk-pk max.
24V ..... 100mV RMS / 240mV pk-pk max.
28V ..... 100mV RMS / 280mV pk-pk max.
48V ..... 200mV RMS / 480mV pk-pk max.
Temperature Coefficient ..... ±0,03%/°C
Short Circuit Protection..... Continuous
Line Regulation (Note 1)..... ±0,2% max.
Load Regulation (Note 2) ..... ±0,2% max.
Over Voltage Protection trip Range, % Vo nom 115-140%
Current Limit..... 110-140% Nominal Output
Start-up Time ..... 25ms typ.

All Specifications Typical at Nominal Line, Full Load and 25°C.

GENERAL SPECIFICATIONS:

Efficiency..... See Table
Isolation Voltage..... Input/Output..... 1500 VDC min.
Input/Case..... 1500 VDC min.
Output/Case..... 1500 VDC min.
Isolation Resistance ..... 10^7 Ohm min.
Isolation Capacitance ..... 1000pF typ.
Switching Frequency ..... 250KHz typ.
Operating Case Temperature Range..... -40°C to +100°C
Storage Temperature Range ..... -55°C to +105°C
Thermal Shutdown, Case Temp. .....110°C typ.
Humidity ..... 95% RH max. Non condensing
MTBF (MIL-STD-217F,GB,25°C,Full Load) .....400KHrs typ.
Dimensions ..... 2,28 x 2,40 x 0,52 inches
(57,9 x 61,0 x 13,2 mm)
Weight..... 112 g

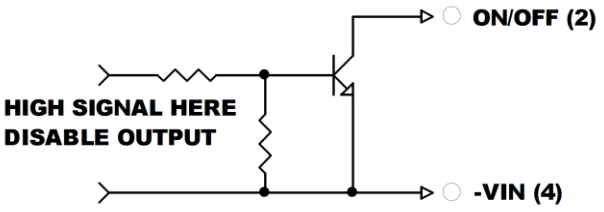
MATERIAL:

Case Material .....Aluminum Base Plate with Plastic Case

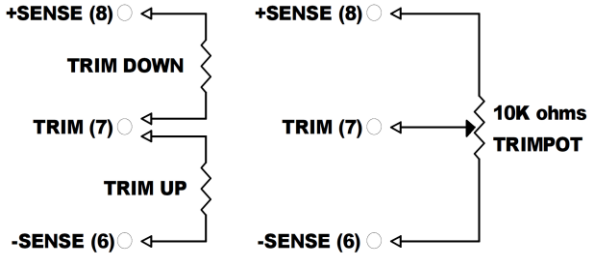
NOTE:

1. Measured from high line to low line.
2. Measured from full load to zero load.
3. Output ripple and noise measured with 10uF tantalum and 1uF ceramic capacitor across output.
4. Logic compatibility …….. open collector ref to –input
   Module on ……..…… >3.5VDC or open circuit
   Module off ……..…….…….. <1.8VDC
6. Suffix “-C” to the model number with clear mounting insert. (3.2mm DIA.)
7. Require a 47uF aluminum capacitor connected between +Vout and –Vout for 48Vout models.

Remote On/Off Control



External Output Trim



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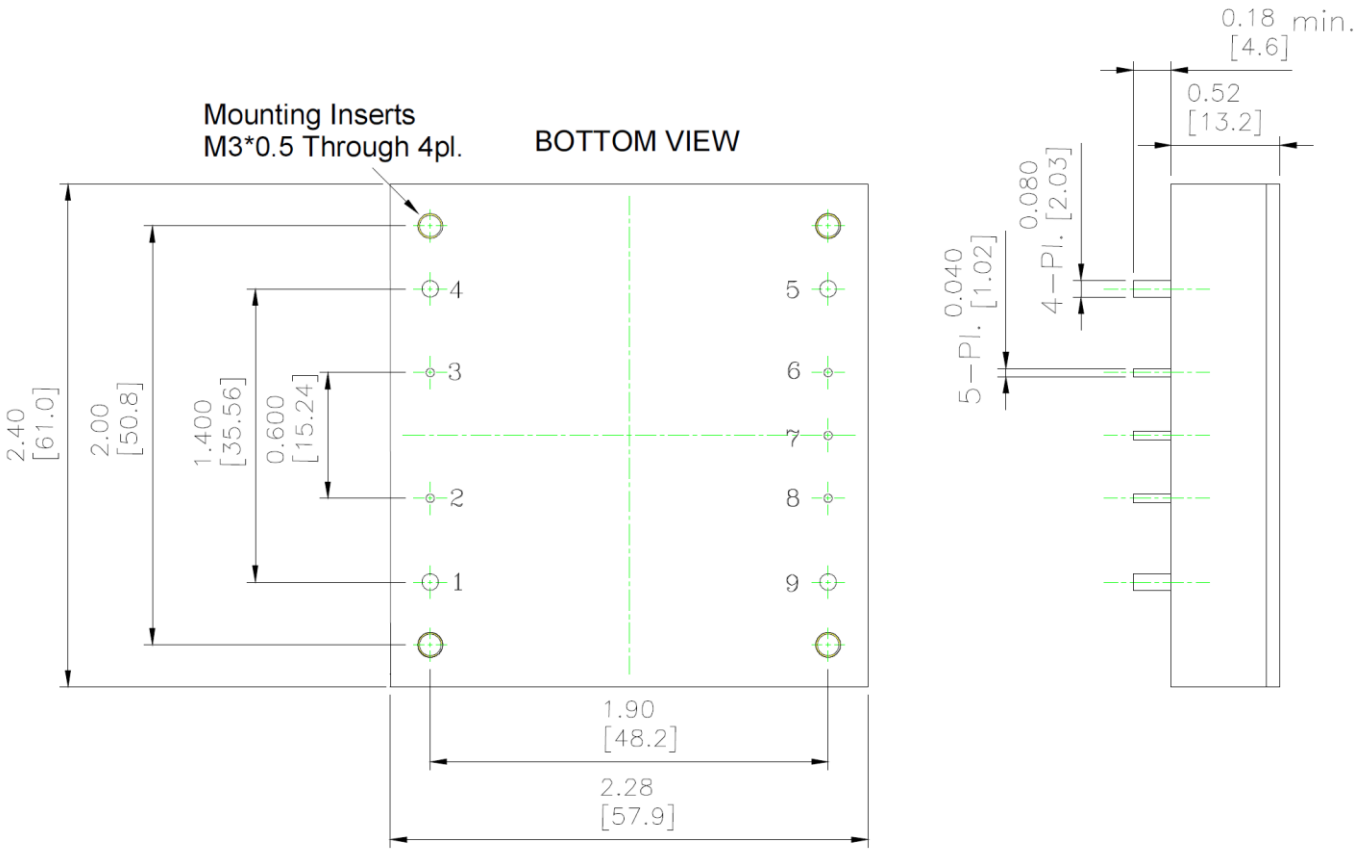
All Dimensions in Inches (mm)
Tolerance Inches x.xx = ±0.02 x.xxx = ±0.010
Millimeters x.x = ±0.5 x.xx = ±0.25



PIN CONNECTION	
Pin	**Function**
1	**+V Input**
2	**Remote ON/OFF**
3	**Case**
4	**-V Input**
5	**-V Output**
6	**-Sense**
7	**Trim**
8	**+Sense**
9	**+V Output**

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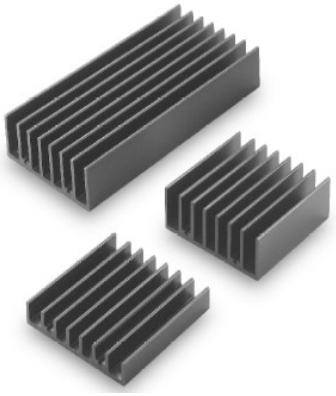
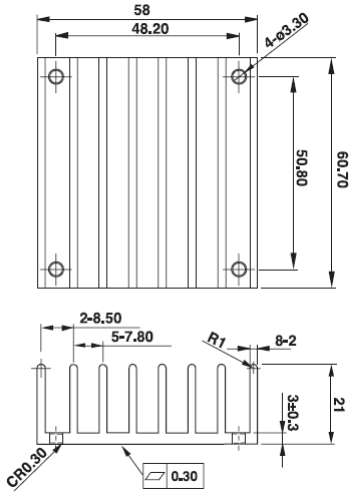
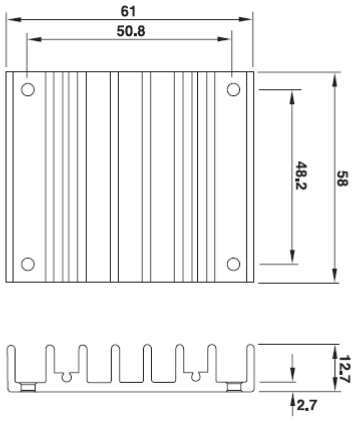


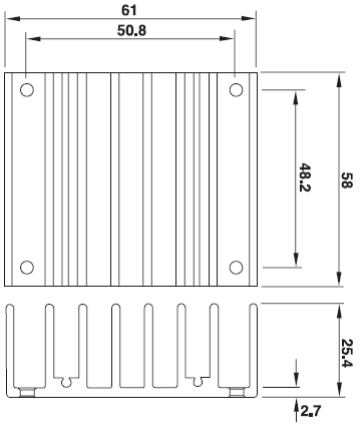
CASE H: HEAT SINK

Vertical Fins	Vertical Fins	Vertical Fins
Order No. 17.079.201	**Order No. 17.079.202**	**Order No. 17.079.203**
Model No. M-C308	**Model No. M-C091**	**Model No. M-C092**

all dimensions in mm





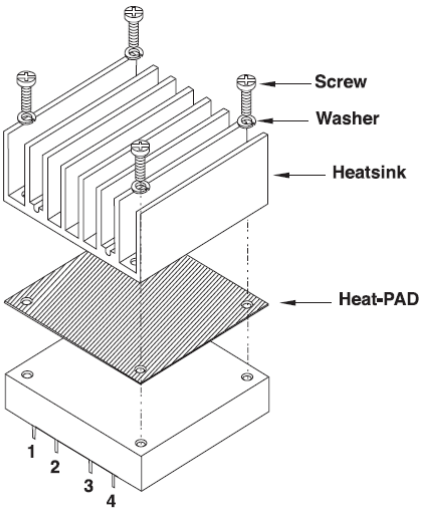


Rca: 3,9°C/W (typ.), At natural convection
1,74°C/W (typ.), At 100LFM
1,33°C/W (typ.), At 200LFM
1,12°C/W (typ.), At 300LFM
0,97°C/W (typ.), At 400LFM

Rca: 4,7°C/W (typ.), At natural convection
2,89°C/W (typ.), At 100LFM
2,30°C/W (typ.), At 200LFM
1,88°C/W (typ.), At 300LFM
1,59°C/W (typ.), At 400LFM

Rca: 3°C/W (typ.), At natural convection
1,44°C/W (typ.), At 100LFM
1,17°C/W (typ.), At 200LFM
1,04°C/W (typ.), At 300LFM
0,95°C/W (typ.), At 400LFM

Heat Sink Assambly
example



Screw SMP+SW M3x8L

Thermal pad SZ56,9x60x0,25

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