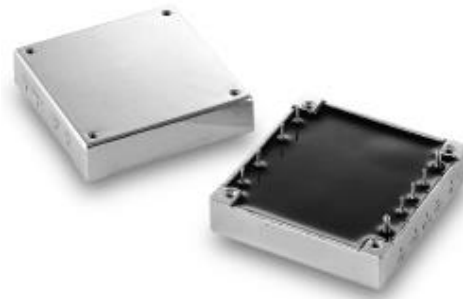




25 to 50 Watt Wide Input DC/DC Converters Series DV502H



Features

- 25 - 50 Watt Isolated Output
- Regulated Outputs
- 2 : 1 Wide Input Range
- 300 KHz Switching Frequency
- Industry Standard Half-Brick Package
- UL60950-1 Approved
- Efficiency to 89%
- Continuous Short Circuit Protection
- Five-Sided Metal Case
- CE Mark Meets 2006/95/EC, 93/68/ & 89/336/EEC
- Safety Meets UL60950-1, EN60950-1 & IEC60950-1

MODEL NUMBER	INPUT VOLTAGE [VDC]	OUTPUT VOLTAGE [VDC]	OUTPUT CURRENT [A]	INPUT CURRENT NO LOAD [mA]	INPUT CURRENT LOAD [mA]	EFF. [%]	CAP. LOAD Max. [μ F]	CASE
DV9-18-2,5S10000H	9 - 18	2,5	10	50	2740	76	10000	H
DV9-18-3,3S10000H		3,3	10	50	3481	79	10000	
DV9-18-05S10000H		5	10	50	5020	83	10000	
DV9-18-12S4160H		12	4,16	50	4781	87	4000	
DV9-18-15S3330H		15	3,33	50	4781	87	2000	
DV9-18-24S2080H		24	2,08	50	4781	87	1500	
DV18-36-2,5S10000H	18 - 36	2,5	10	50	1335	78	10000	H
DV18-36-3,3S10000H		3,3	10	50	1698	81	10000	
DV18-36-05S10000H		5	10	50	2450	85	10000	
DV18-36-12S4160H		12	4,16	50	2263	88	10000	
DV18-36-15S3330H		15	3,33	50	2363	88	4000	
DV18-36-24S2080H		24	2,08	50	2363	88	2000	
DV18-36-48S1040H-04	48	1,04	50		84			
DV36-75-2,5S10000H	36 - 75	2,5	10	50	676	77	10000	H
DV36-75-3,3S10000H		3,3	10	50	848	81	10000	
DV36-75-05S10000H		5	10	50	1240	84	10000	
DV36-75-12S4160H		12	4,16	50	1181	88	10000	
DV36-75-15S3330H		15	3,33	50	1181	88	4000	
DV36-75-24S2080H		24	2,08	50	1168	89	2000	

NOTE:

1. Nominal Input Voltage 12, 24 or 48Vdc
2. Input Voltage (72V) 50,4 – 93,6VDC, (110V) 77 – 144VDC and other wide inputs on Request.

INPUT SPECIFICATIONS:

Input Voltage Range	12V.....	9-18V
	24V.....	18-36V
	48V.....	36-75V
Input Surge Voltage (100ms max.).....	12V.....	25Vdc max.
	24V.....	50Vdc max.
	48V.....	100Vdc max.
Undervoltage lockout:	12Vin power up.....	8,8V
	power down.....	8V
	24Vin power up.....	17V
	power down.....	16V
	48Vin power up.....	34V
	power down.....	32,5V
Input Filter		Pi Type
Positive Logic Remote ON/OFF (see note 2 & 3)		

OUTPUT SPECIFICATION:

Voltage Accuracy		±1,0%max.
Transient Response: 25% Step Load Change		<500µ sec.
External Trim Adj. Range.....		±10%
Ripple and Noise, 20 MHz BW.....	2,5V & 3,3V & 5V.....	20mV RMS / 75mV pk-pk max
	12V & 15V.....	30mV RMS / 100mV pk-pk max
	24V.....	100mV RMS / 240mV pk-pk max
	48V.....	200mV RMS / 480mV pk-pk max
Temperature Coefficient		±0,03%/°C max.
Short Circuit Protection		Continuous
Line Regulation (From High Line to Low Line).....		±0,2% max.
Load Regulation (From Full Load to Zero Load).....		±0,2% max.
Over Voltage Protection trip Range, % Vo nom		115-140%
Current Limit.....		110-150% Nominal Output
Start up time		5ms typ.

GENERAL SPECIFICATIONS:

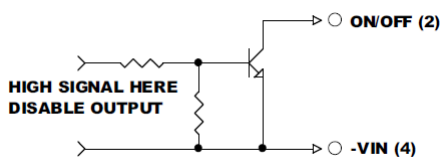
Efficiency		See Table
Isolation Voltage	Input/Output.....	1500 VDC min.
	Input/Case.....	1500 VDC min.
	Output/Case.....	1500 VDC min.
Isolation Resistance.....		10 ⁷ Ohm min.
Isolation Capacitance.....		1000pF typ.
Switching Frequency	Vin12V,24V.....	400KHz typ.
	48V Vin / 48V Vout.....	300KHz typ.
Operating Case Temperature Range		-40°C to +100°C
Storage Temperature Range		-55°C to +105°C
Thermal Shutdown, Case Temp.....		100°C typ.
Humidity		95% RH max. Non condensing
MTBF (MIL_STD-217F,GB,25°C, Full Load).....		1000Khrs typ.
Dimensions.....		2,28 x 2,40 x 0,50 inches (57,9 x 61,0 x 12,7 mm)
Weight		88 g
Case Material		Aluminum

NOTE:

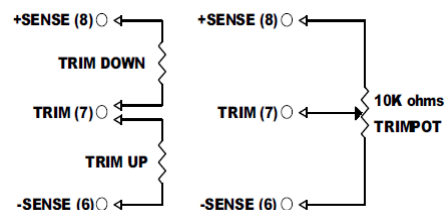
2. Positive Logic Remote ON/OFF:
Logic Compatibility..... Open Collector Ref. To -Inut
Module ON..... Open Circuit
Module OFF..... < 0,8Vdc
3. Suffix "N" to the Model Number with Negative Logic Remote ON/OFF
4. Output Ripple and Noise measured with 10µF tantalum and 1µF Ceramic capacitor across output.
5. Suffix "-C" to the Model Number with Clear Mounting Insert (3.2mm DIA)

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

REMOTE ON/OFF



OUTPUT TRIM

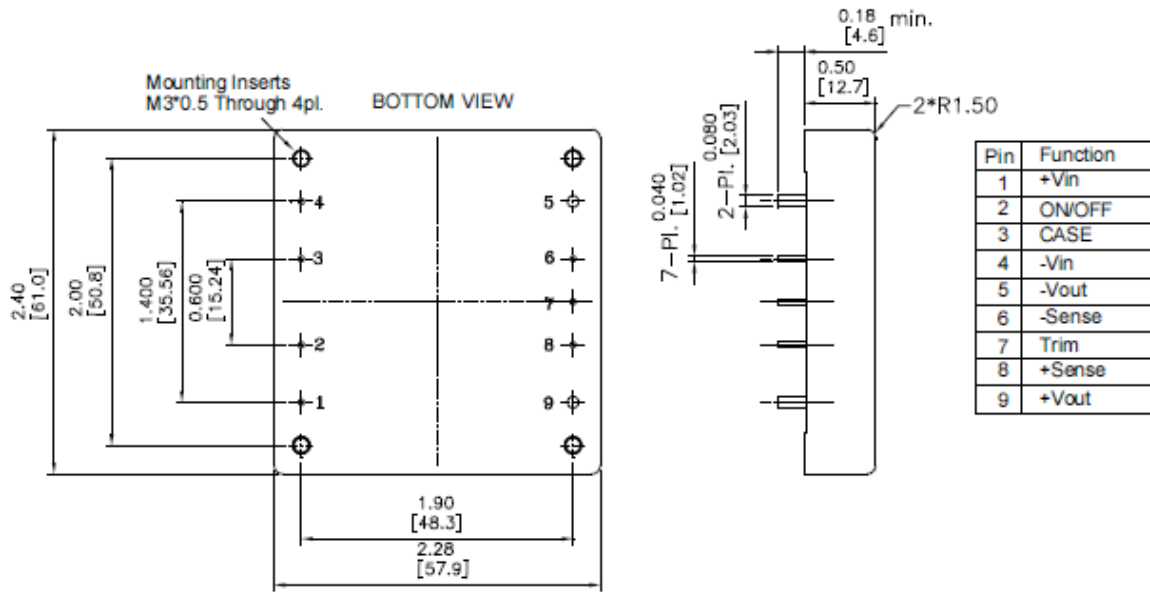


Case H

Series DV502H

All Dimensions in Inches (mm)

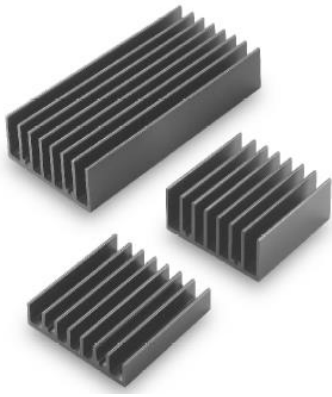
Tolerance Inches x.xx±0.02 x.xxx±0.010
 Millimeters x.x±0.5 x.xx±0.25



Pin	Function
1	+Vin
2	ON/OFF
3	CASE
4	-Vin
5	-Vout
6	-Sense
7	Trim
8	+Sense
9	+Vout

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

Technical change reserved / Technische Änderungen vorbehalten



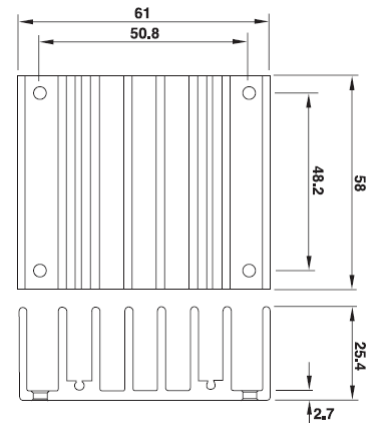
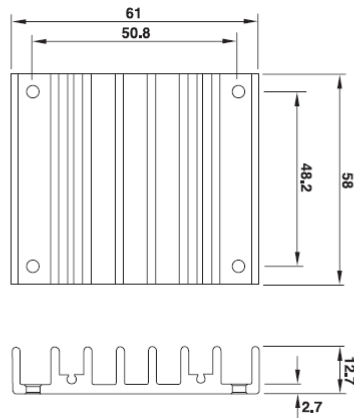
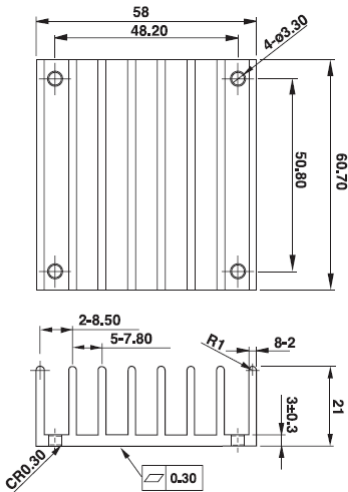
CASE H: HEAT SINK

Vertical Fins
Order No. 17.079.201
Model No. M-C308

Vertical Fins
Order No. 17.079.202
Model No. M-C091

Vertical Fins
Order No. 17.079.203
Model No. M-C092

all dimensions in mm

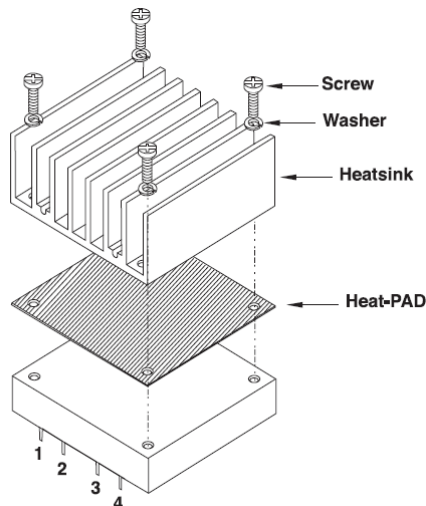


Rca: 3,9°C/W (typ.), At natural convection
1,74°C/W (typ.), At 100LFM
1,33°C/W (typ.), At 200LFM
1,12°C/W (typ.), At 300LFM
0,97°C/W (typ.), At 400LFM

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

Washer

Heatsink

Heat-PAD

Screw SMP+SW M3x8L

Thermal pad SZ56,9x60x0,25