



**100 Watt, 66 – 160VDC Wide Input
DC/DC Converters
Series DV100Q3-110**



Features

- 100 Watt Isolated Output
- Regulated Outputs
- 3 : 1 Wide Input Range
- 200 KHz Switching Frequency
- UL60950-1 Approval (Except 3,3 Vout)
- Shock & Vibration: EN50155 (EN61373)
- Remote ON/OFF
- Efficiency to 93%
- Continuous Short Circuit Protection
- Over Temperature Protection
- Over Voltage/Current Protection
- Industry Standard Quarter-Brick Package
- EMC: EN50155 (EN50121-3-2) with External Filter

MODEL NUMBER	INPUT VOLTAGE [VDC]	OUTPUT VOLTAGE [VDC]	OUTPUT CURRENT [A]	INPUT CURRENT NO LOAD [mA]	INPUT CURRENT FULL LOAD [mA]	EFF. [%]	CAP. LOAD Max. [µF]	CASE
DV100Q3-110S3,3	66 – 160	3,3	25	40	833	90	10000	Q
DV100Q3-110S05		5	20	30	983	92	10000	
DV100Q3-110S12		12	8,4	40	985	93	8800	
DV100Q3-110S24		24	4,2	60	996	92	1500	

NOTE:
1. Nominal Input Voltage 110 Vdc

INPUT SPECIFICATIONS:

Input Voltage Range.....	66-160V
Input Surge Voltage (100ms max.).....	180Vdc max.
Undervoltage lockout.....	power up 62V
	power down 56V
Input Filter.....	Pi Type
Positive Logic Remote ON/OFF	see note 2 & 3

OUTPUT SPECIFICATION:

Voltage Accuracy.....	±1,5%max.
Transient Responce25% Step Load Change	<200µ sec.
External Trim Adj. Range.....	±10%
Ripple and Noise, 20 MHz BW	see note 4
	3,3V & 5V40mV RMS / 100mV pk-pk max
	12V60mV RMS / 150mV pk-pk max
	24V100mV RMS / 240mV 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	110-180% Nominal Output
Start up time	45ms typ.

GENERAL SPECIFICATIONS:

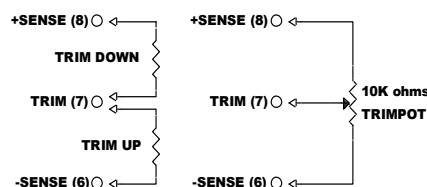
Efficiency	See Table
Isolation Voltage.....	Input/Output 2250 VDC min.
	Input/Case 2250 VDC min.
	Output/Case 1500 VDC min.
Isolation Resistance	10 ⁷ Ohm min.
Isolation Capacitance.....	1000pF typ.
Switching Frequency.....	200 KHz typ.
Operating Case Temperature Range	-40°C to +100°C
Storage Temperature Range	-55°C to +105°C
Humidity	95% RH max. Non condensing
Thermal Shutdown, Case Temp.....	105°C typ.
MTBF (MIL-HDBK-217F, GB, 25°C, Full Load)	3,3Vout400Khrs typ.
	5Vout240Khrs typ.
	Other Vout320Khrs typ.
Safety (Except 3,3Vout)	Approval UL60950-1 2 nd (Basic insulation)
EMC (Note 7)	meet EN50155 (EN50121-3-2) with external filter
Shock/Vibration	meet EN50155 (EN61373)
Environmental.....	meet EN50155 (EN60068-2-1)
Dimensions	57,9 x 36,8 x 12,7 mm
Weight.....	61,5 g
Case Material	Aluminum Baseplate with Plastic Case

NOTE:

- Positive Logic Remote ON/OFF:
 Logic Compatibility Open Collector Ref. to -Inut
 Module ON..... >3,5Vdc to 75Vdc or Open Circuit
 Module OFF..... < 1,8Vdc
- Suffix "N" to the Model Number with Negative Logic Remote ON/OFF.
 Module ON..... < 1,8Vdc
 Module OFF..... >3,5Vdc to 75Vdc or Open Circuit
- Output Ripple and Noise measured with 10µF tantalum and 1µF Ceramic capacitor across output.
- Suffix "-C" to the Model Number with Clear Mounting Insert (3.2mm DIA)
- An external input capacitor 120uF for all models are recommended to reduce input ripple voltage.
- Design meet EN50155 and RIA12 refer to Application Note.

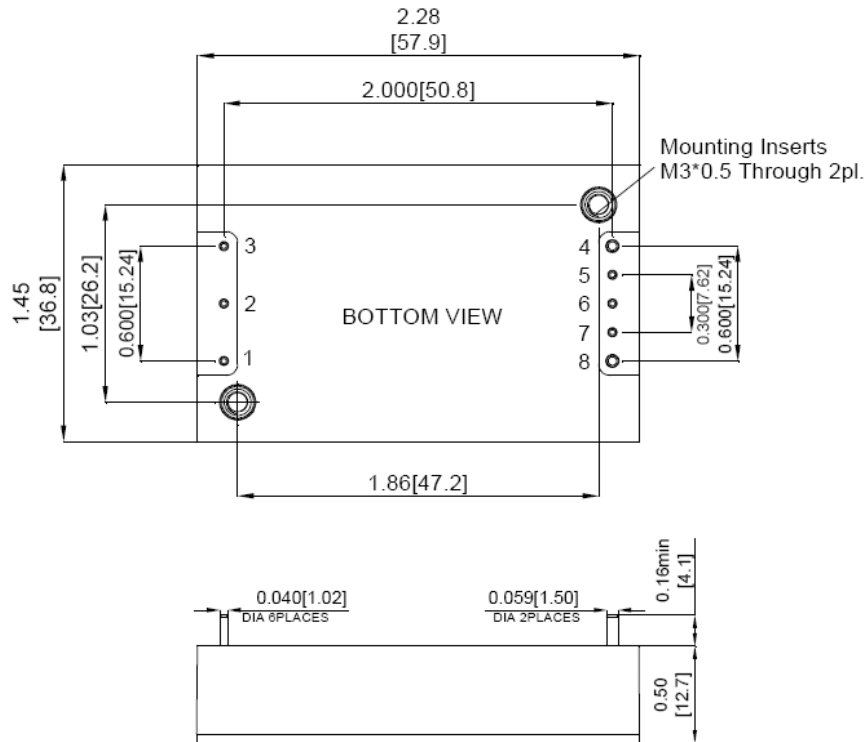
All Specifications Typical at Nominal Line, Full Load and 25°C.

EXTERNAL OUTPUT TRIM



All Dimensions in Inches (mm)

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



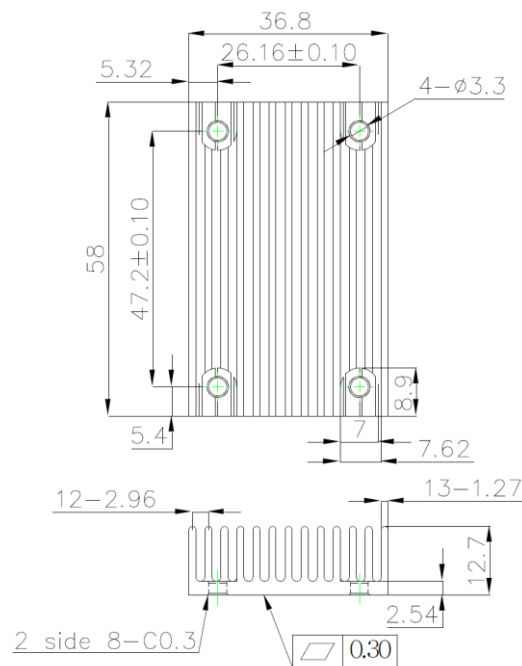
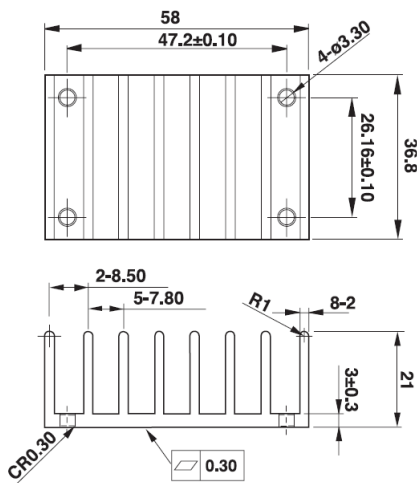
PIN CONNECTION	
Pin	Function
1	+V Input
2	Remote ON/OFF
3	-V Input
4	-V Output
5	-Sense
6	Trim
7	+Sense
8	+V Output

CASE Q: HEAT SINK

Transverse Heat Sink
 Order No. 17.079.206
 Model No. M-C421

Longitudinal Heat Sink
 Order No. 17.079.209
 Model No. M-C488

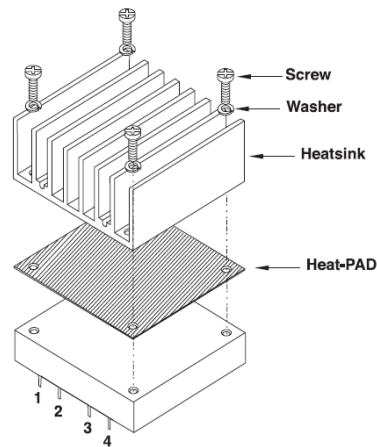
all dimensions in mm



Rca: 4,78°C/W (typ.), At natural convection
 2,44°C/W (typ.), At 100LFM
 2,06°C/W (typ.), At 200LFM
 1,76°C/W (typ.), At 300LFM
 1,58°C/W (typ.), At 400LFM

Rca: 5,61°C/W (typ.), At natural convection
 4,01°C/W (typ.), At 100LFM
 3,39°C/W (typ.), At 200LFM
 2,86°C/W (typ.), At 300LFM
 2,49°C/W (typ.), At 400LFM

Heat Sink Assembly
example



Screw SMP+SW M3x8L

Thermal pad SZ 35,8x56,9x0,25