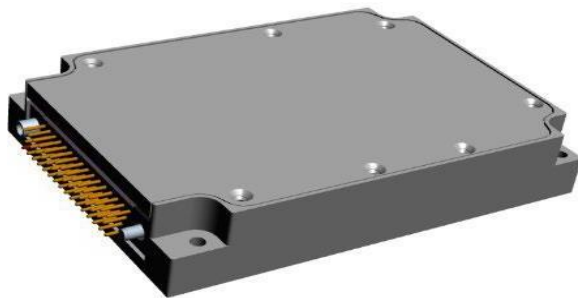


## M8108 SERIES

*DC/DC POWER SUPPLY*



### PRODUCT HIGHLIGHTS

- **MINIATURE**
- **HIGH DENSITY**
- **EIGHT OUTPUTS**
- **DC/DC CONVERTER**
- **UP TO 80W**

## M8108 SERIES DC/DC POWER SUPPLY

### APPLICATIONS

Military, Ruggedized, Telecom, Industrial

### SPECIAL FEATURES

- Miniature size
- High efficiency
- Wide input range
- Up to 80W, higher output available – please contact us.
- Input / Output isolation
- Fixed switching frequency (250 kHz)
- EMI/RFI filters included
- Indefinite short circuit protection with auto-recovery
- Input over-voltage shutdown with auto-recovery
- Over temperature shutdown with auto-recovery

### ENVIRONMENTAL

Temperature:

Operating:  $-55^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$   
(cooling surface)

Storage:  $-55^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$

### RELIABILITY

150,000 hours, calculated per  
MIL-STD-217F at  $+85^{\circ}\text{C}$  cooling surface,  
ground fixed.

\* Specifications are subject to change without  
prior notice by the manufacturer

### ELECTRICAL SPECIFICATIONS

#### DC INPUT

DC Input range:

18 to 48 VDC

Input transient

protection:

All models meet or exceed (no  
damage) MIL-STD-1275A  
(100V for 50 mSec) and MIL-  
STD-704D (80V for 0.1 Sec)

Input over-voltage  
shutdown with auto-  
recovery

Efficiency: Up to 80%

Design to meet or exceed  
MIL-STD-461F (5 $\mu$ H LISN):  
CE102, CS101, CS114,  
CS115, CS116

#### DC OUTPUT (floating)

Line/Load regulation:

Less than  $\pm 1\%$  up to  $\pm 3\%$

According to output level voltage

(no load to full load,  $-55^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$ )

Ripple and Noise:

Typically: less than 50mVp-p (max.1%p).

Measured across a 0.1 $\mu$ F capacitor and  
10 $\mu$ F capacitor on load at Input Voltage  
of 18V-36V, all Temperature Range

Current limiting: Continuous  
protection for unlimited time

Over temperature protection:

Shutdown at cooling surface temperature of  $+95^{\circ}\text{C}$   
( $\pm 5^{\circ}\text{C}$ )

Automatic recovery at baseplate  
temperature lower than  $+80^{\circ}\text{C}$   
( $\pm 5^{\circ}\text{C}$ )

Isolation:

Over 20 M $\Omega$  at test voltage: 200V between Input and  
Output, 200V between Input and Case, 100V between  
Output and Case

## OUTPUTS RANGE

Output #	Voltage Range	Current Range	Power Range
1	2 to 5 V <sub>DC</sub>	0 to 1 A	0 to 2W
2	1 to 5 V <sub>DC</sub>	0 to 3 A	0 to 15 W
3	1 to 5 V <sub>DC</sub>	0 to 3 A	0 to 11 W
4	1 to 5 V <sub>DC</sub>	0 to 3 A	0 to 4 W
5	5 to 15 V <sub>DC</sub>	0 to 0.7 A	0 to 10.5 W
6	-5 to -15 V <sub>DC</sub>	0 to 0.7 A	0 to 10.5 W
7	-2 to -5 V <sub>DC</sub>	0 to 1 A	0 to 5 W
8	5 V <sub>DC</sub>	0 to 4 A	0 to 20 W
<b>Total</b>			0 to 80 W

## PIN ASSIGNMENT

PIN No.	PIN Function
13, 14, 28, 29, 44, 45	+ VIN
15, 16, 30, 31, 46, 47	VIN RTN
7, 17, 23, 33, 34, 35, 36, 37, 38, 39, 40	B_GROUND

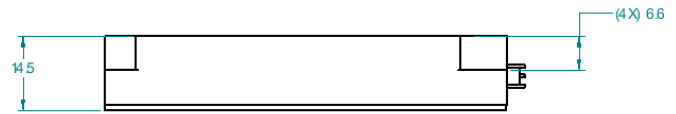
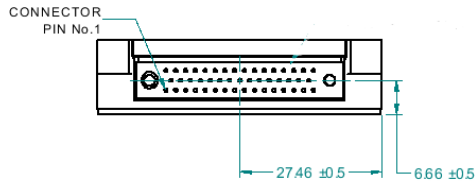
PIN No.	PIN Function
1, 2, 18	+5V/3A (out2)
3, 4, 19, 20	+5V/4A (out8)
8, 24, 41	+3.7V/3A (out3)
9, 25, 42	+1.4V/3A (out4)
10	+2.2V/1A (out1)

PIN No.	PIN Function
11	(-)5V/1A (out7)
26	+15V/0.7A (out5)
32	(-)15V/0.7A (out6)
5, 6, 21, 22	A_GROUND

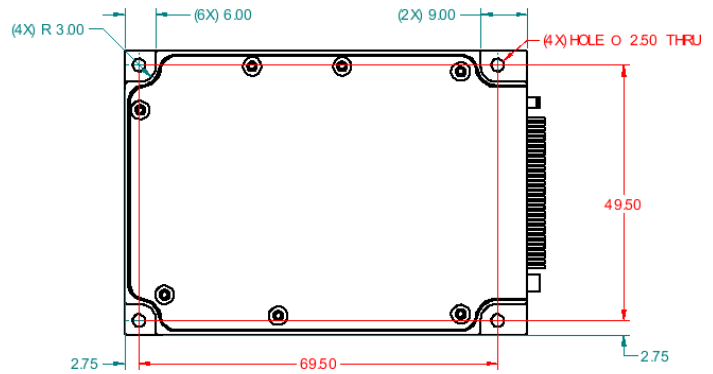
\* Note: A\_GROUND is the return for the +5V/4A (out8) Output. All other outputs are referenced to B\_GROUND

**M8108 SERIES DC/DC POWER SUPPLY**

**OUTLINE DRAWING**



\*Specifications are subject to change without prior notice by the manufacturer Connector is RM372-047-311-2900 or EQ.



**Notes**

1. Dimensions are in millimeters
2. Tolerance is:  
.X ±0.3mm  
.XX ±0.15mm
3. Weight: Approx. 140 gr