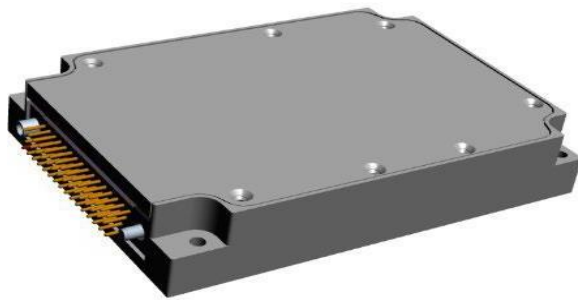


## M8108 SERIES

*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

## M8108 SERIES DC/DC POWER SUPPLY

### 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

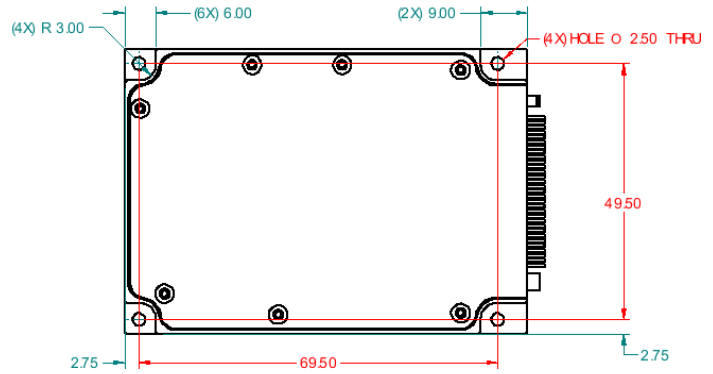
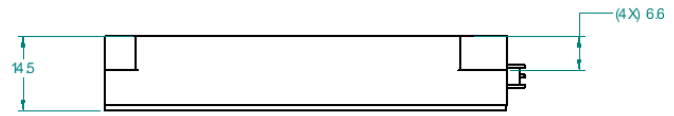
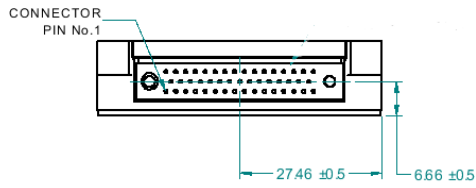
PIN No.	PIN Function
1, 2, 18	+5V/3A (out2)
3, 4, 19, 20	+5V/4A (out8)
8, 24, 41	+3.7V/3A (out3)
9, 25, 42	+1.4V/3A (out4)
10	+2.2V/1A (out1)

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

### OUTLINE DRAWING

## M8108 SERIES DC/DC POWER SUPPLY



\*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  $\pm 0.3\text{mm}$   
 .XX  $\pm 0.15\text{mm}$
3. Weight: Approx. 140 gr