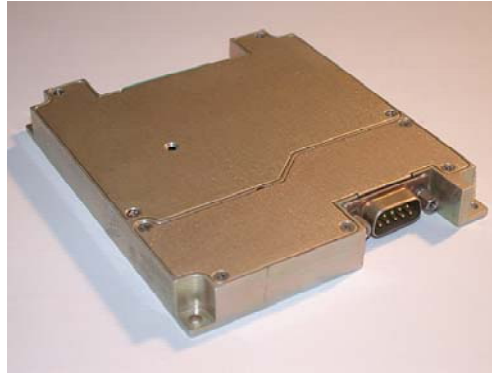


# M485 SERIES

HIGH LOAD ISOLATION POWER SUPPLY  
MINIATURE, HIGH DENSITY,  
TRIPLE OUTPUT,  
DC/DC CONVERTERS

(UP TO 25W FROM ALL THREE OUTPUTS)



## APPLICATIONS

Military, Ruggedized, Telecom, Industrial

## SPECIAL FEATURES

- Miniature size
- Wide input range
- Input / Output isolation
- Fixed switching frequency
- Logic enabled
- EMI/RFI Output Filters included
- Indefinite short circuit protection with auto-recovery
- Over-voltage passive transistor across outputs
- Over temperature shutdown with auto-recovery

## ENVIRONMENTAL

Meets or exceeds MIL-STD-810D

Temperature:

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

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

## RELIABILITY

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

**MPS can customize this product  
to your requirements –  
contact us!**

## ELECTRICAL SPECIFICATIONS

### DC INPUT

DC Input range: 18 to 36 VDC

Input transient protection:

All models meet or exceed (no damage)

MIL-STD-1275A (100V for 50 mSec) and

MIL-STD-704A, MIL-STD-704D (80V for 0.1 Sec)

Efficiency: 70%, typical (at 25W load)

EMI/RFI:

Meets or exceeds MIL-STD-461D

CE101, CE102, CS101, RE101, RE102

Isolation:

200V between Input and Output

200V between Input and Case

### DC OUTPUT (floating)

Line/Load regulation:

Less than 2% (no load to full load,  $-55^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$ )

Ripple and Noise: 50mVp-p, typical (max. 1%)

Current limiting:

Continuous protection for unlimited time

Over voltage protection:

Passive transistor on outputs.

Over temperature protection:

Shutdown at baseplate temperature of  $+95^{\circ}\text{C}$  ( $\pm 10^{\circ}\text{C}$ )

Automatic recovery at baseplate temperature

lower than  $+90^{\circ}\text{C}$  ( $\pm 10^{\circ}\text{C}$ )

Isolation:

200V between Output and Input

100V between Output and Case

Load isolation from any output to input  $\geq 60\text{db}$   
at frequency above 20 KHz

## SELECTION GUIDE

Model	Input	Output #	Output #	Output #	Regulation	Ripple (20 MHz BW)
M485-1	18 to 36 VDC	5V / 3A	3.3V / 5A	28V / 0.1A	± 1%	50 mVp-p

Notes: Other voltages and currents are available, consult factory.  
Maximum Total Output Power (all outputs) - 25W.

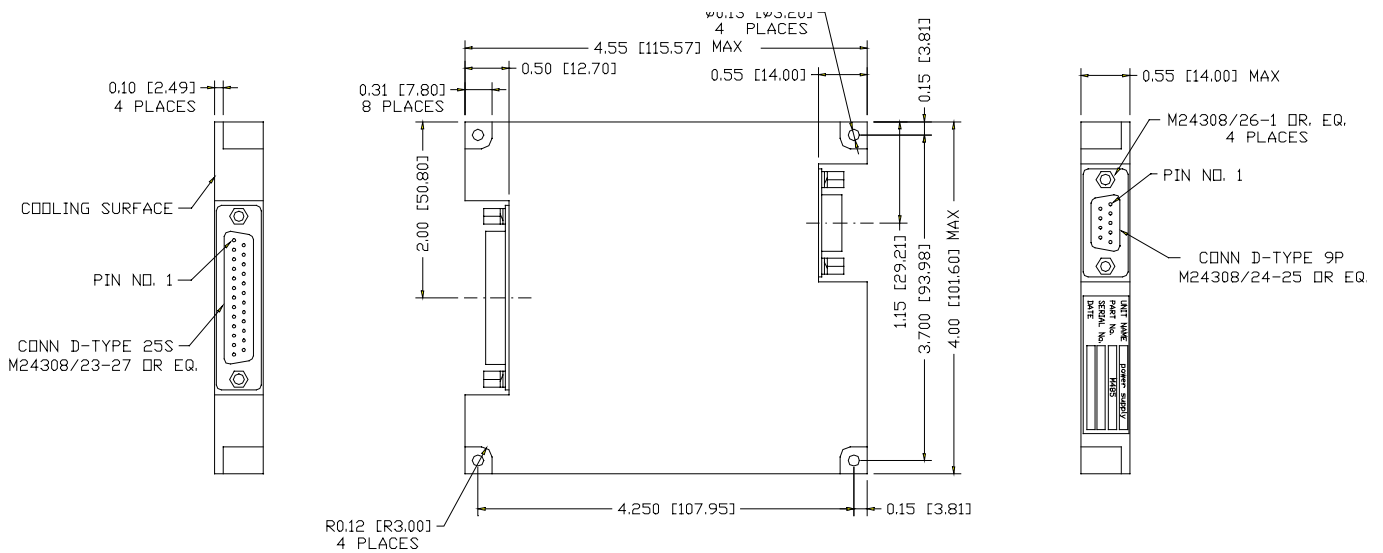
## PIN ASSIGNMENT (INRT)

PIN No.	PIN Function
1	VIN (+28V DC)
2	VIN (+28V DC)
3	N.C.
4	N.C.
5	N.C.
6	N.C.
7	N.C.
8	VIN RTN
9	VIN RTN

## PIN ASSIGNMENT (OUTRT)

PIN No.	PIN Function	PIN No.	PIN Function	PIN No.	PIN Function
1	GND	10	GND	19	N.C.
2	OUT1 RTN	11	OUT3 RTN	20	N.C.
3	OUT1 RTN	12	OUT3	21	N.C.
4	OUT2 RTN	13	ON/OFF	22	N.C.
5	OUT2 RTN	14	OUT1 RTN	23	N.C.
6	OUT2 RTN	15	OUT1	24	N.C.
7	OUT2	16	OUT1	25	N.C.
8	OUT2 RTN	17	N.C.		
9	OUT2	18	OUT2		

## OUTLINE DRAWING



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

### Notes

- Dimensions are in Inches
- Tolerance is:  
.XX ±.02 IN  
.XXX ±.01 IN
- Weight: Approx. 10 Oz (285 gr.)

**MPS MILPOWER SOURCE**

DIVISION OF QUASAR POWER TECHNOLOGIES INC.

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