

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 transzorb across outputs
- Over temperature shutdown with auto-recovery

ENVIRONMENTAL

Meets or exceeds MIL-STD-810D

Temperature:

Operating -55°C to +85°C (baseplate)

Storage -55°C to +125°C

RELIABILITY

150'000 hours, calculated per
MIL-STD-217F at +85°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 50mSec) and

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

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

EMI/RFI:

Design to meet or exceed 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°C to +85°C)

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

Current limiting:

Continuous protection for unlimited time.

Over voltage protection:

Passive transzorb on outputs.

Over temperature protection:

Shutdown at baseplate temperature of +95°C (±10°C)

Automatic recovery at baseplate temperature
lower than +90°C (±10°C)

Isolation:

200V between Output and Input

100V between Output and Case

Load isolation from any output to input ≥60db at frequency
above 20KHz.

SELECTION GUIDE

Model	Input	Out#1	Out#2	Out#3	Regulation	Ripple (20MHzBW)
M485-1	18 to 36 VDC	5V/3A	3.3V/5A	28V/0.1A	± 1%	50 mVp-p
M485-3	18 to 36 VDC	5V/4.5A	3.5V/3A	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

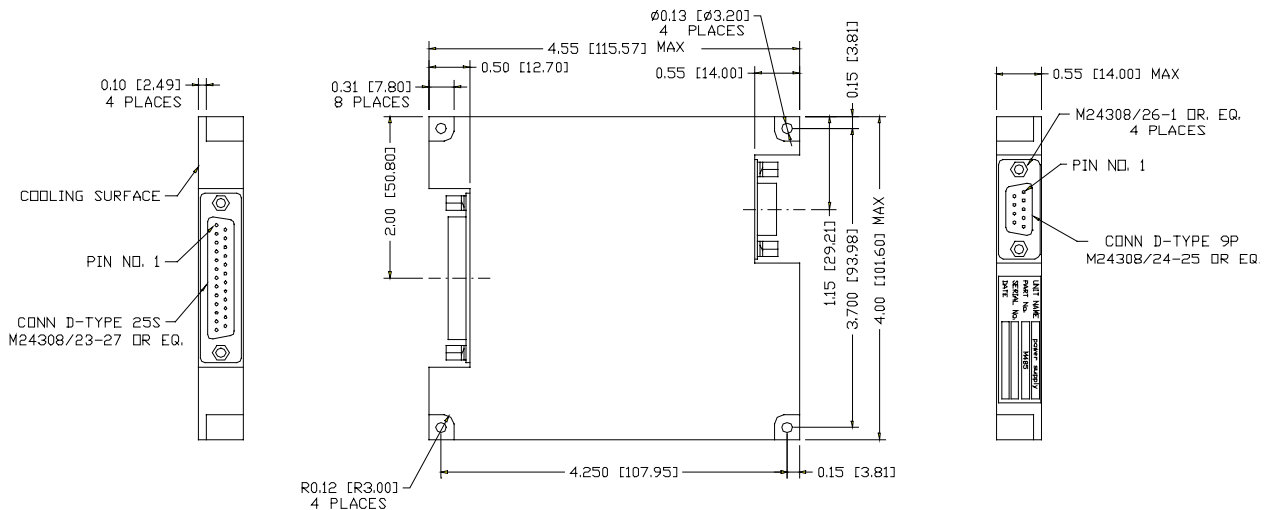
(INPUT)

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

(OUTPUT)

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

OUTLINE DRAWING



Notes

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

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