M168 SERIES

THE MOST COMPLETE
MINIATURE, HIGH DENSITY,
HIGH POWER FACTOR,
SINGLE OUTPUT,
AC/DC CONVERTERS

APPLICATIONS

Military, Ruggedized, Telecom, Industrial

SPECIAL FEATURES

- Miniature size
- High efficiency
- Wide input range
- High power factor (0.99)
- Input / Output isolation
- Fixed switching frequency (250 KHz)
- External synchronization capability
- EMI/RFI filters included
- Indefinite short circuit protection with auto-recovery
- Over-voltage shutdown with auto-recovery
- Over temperature shutdown with auto-recovery

ENVIRONMENTAL

Meets or exceeds MIL-STD-810D

Temperature:
Operating –40C to +90°C (baseplate)
Storage –55C to +125°C

RELIABILITY

150,000 hours, calculated per MIL-STD-217F at +85°C baseplate, ground fixed.

ELECTRICAL SPECIFICATIONS

AC INPUT

AC Input range: 90 to 265 VAC, 50/60/400 Hz, single phase

Efficiency: up to 85%

EMI/RFI:
Meets or exceeds MIL-STD-461D
CE101, CE102, CS101, CS114, CS115,
CS116, RE101, RE102, RS101, RS103

Isolation:
1500V between Input and Output
1500V between Input and Case

DC OUTPUT (floating)

Line/Load regulation:
Less than 1% (no load to full load, –40°C to +90°C)

Ripple and Noise: 100÷150mVp-p, typical (max. 1%)

Current limiting (HickUp):
Continuous protection for unlimited time

Electronic over voltage protection.

Passive tranzorb on outputs.

Under voltage protection (HickUp).

Over temperature protection:
Shutdown at baseplate temperature of +105°C (±5°C)
Automatic recovery at baseplate temperature
lower than +95°C (±5°C)

Isolation:
1500V between Output and Input
200V between Output and Case

SELECTION GUIDE

Model	Input	Output	Minimum Load	Maximum Load	Regulation	Ripple (20 MHz BW)
M168-3	90 to 265 VAC	12 VDC	0 A	85 A	± 1%	150 mVp-p
M168-5	90 to 265 VAC	28 VDC	0 A	40 A	± 1%	150 mVp-p
M168-6	90 to 265 VAC	37 VDC	0 A	25 A	± 1%	150 mVp-p
M168-8	90 to 265 VAC	28 VDC	0 A	25 A	± 1%	150 mVp-p

Note: other voltages and currents are available, consult factory.

PIN ASSIGNMENT (INPUT)

Pin No.	PIN Function
1	PHASE
2	PHASE
3	PHASE
4	N.C.
5	NEUTRAL
6	NEUTRAL
7	N.C.
8	CHASSIS

Pin No.	PIN Function
9	PHASE
10	PHASE
11	N.C.
12	NEUTRAL
13	NEUTRAL
14	NEUTRAL
15	N.C.

PIN ASSIGNMENT (OUTPUT)

Pin No.	PIN Function
1	- SENSE
2	+ SENSE
3	+ OUT
4	+ OUT
5	+ OUT
6	+ OUT
7	+ OUT
8	+ OUT
9	+ OUT
10	- OUT

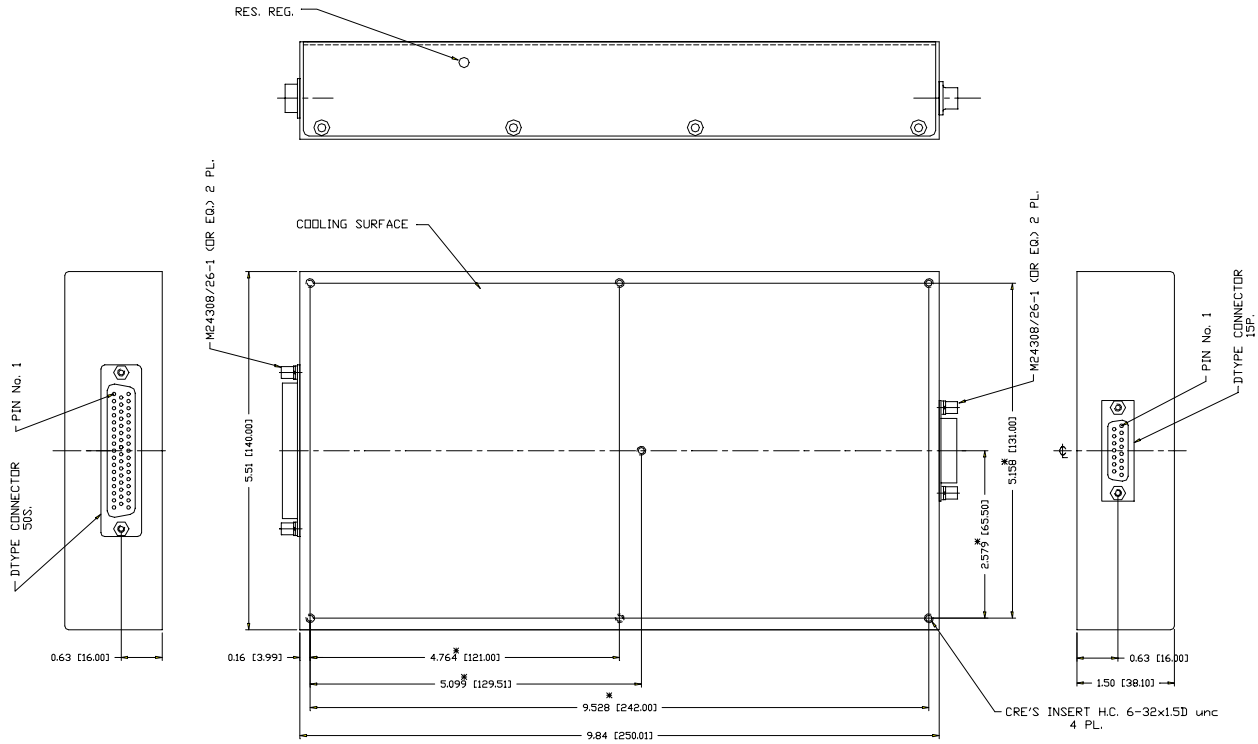
Pin No.	PIN Function
11	- OUT
12	- OUT
13	- OUT
14	- OUT
15	- OUT
16	- OUT
17	- OUT
18	+ SYN OUT
19	+ OUT
20	+ OUT

Pin No.	PIN Function
21	+ OUT
22	+ OUT
23	+ OUT
24	+ OUT
25	+ OUT
26	+ OUT
27	- OUT
28	- OUT
29	- OUT
30	- OUT

Pin No.	PIN Function
31	- OUT
32	- OUT
33	- OUT
34	- SYN OUT
35	+ OUT
36	+ OUT
37	+ OUT
38	+ OUT
39	+ OUT
40	+ OUT

Pin No.	PIN Function
41	+ OUT
42	+ OUT
43	- OUT
44	- OUT
45	- OUT
46	- OUT
47	- OUT
48	- OUT
49	- OUT
50	- OUT

OUTLINE DRAWING



Notes

1. Dimensions are in Inches [mm]
2. Tolerance is:
   .XX ±.02 IN
   .XXX ±.01 IN
3. Weight: 4.25 Oz (1922 gr)

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