

M8657 SERIES

DC/DC POWER SUPPLY



STANDARD CONFIGURATIONS

Model	Output #1	Output #2	Output #3	Output #4	Output #5
M8657100	5V / 5A	3.3V / 3A	15V / 2A	15V / 2A	28V / 1A
M8657101	5V / 5A	3.3V / 3A	12V / 2.5A	12V / 2.5A	28V / 1A
M8657102	5.1V / 8A	5V / 2A	15V / 1.25A	28V / 1.5A	15V / 1.25A

M8657 Series– DC/DC Power Supply

THE MAIN FEATURES OF THE M8657 SERIES ARE:

- Miniature size
- High efficiency
- Wide input range
- Input Output isolation
- Fixed switching frequency (250 kHz)
- External Synchronization capability
- TTL logic enable
- EMI/RFI filters included
- Indefinite short circuit protection with auto-recovery
- Over-voltage shutdown with auto-recovery
- Over-temperature shutdown with auto-recovery

M8657 Series— DC/DC Power Supply

Applications

Military, Ruggedized, Telecom, Industrial

Electrical Specifications

DC INPUT

DC input range: 18 to 70 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: up to 80%

EMI/RFI:

Designed to meet* MIL-STD-461F CE101, CE102, CS101, CS114, CS115, CS116, RE101, RE102, RS101, RS103

Isolation:

200V between Input and Output

200V between Input and Case

DC OUTPUT (floating)

Line/load regulation:

Less than $\pm 1\%$ (no load to full load, -55°C to $+85^{\circ}\text{C}$) Ripple and Noise: 50mVp-p, typical (max. 1%)

Current limiting (Hiccup):

Continuous protection for unlimited time.

Over voltage protection:

Passive transorb on outputs.

Over temperature protection:

Shutdown at baseplate temperature of $+105^{\circ}\text{C}$ ($\pm 5^{\circ}\text{C}$) Automatic recovery at baseplate temperature lower than $+95^{\circ}\text{C}$ ($\pm 5^{\circ}\text{C}$).

Isolation:

200V between Output and Input 100V between Output and case

* Compliance achieved with 5 μH LISN, shielded harness and static resistive load.

Environmental Conditions

Meets or exceeds MIL-STD-810D Temperature:

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

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

Reliability

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

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PIN ASSIGNMENT - Standard Version

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

Pin No.	Pin Function
11	SYN
12	- VIN
13	- VIN
14	+VIN
15	+VIN
16	+ OUT 1
17	- OUT 1
18	+ OUT 5
19	- OUT 5
20	+ OUT 4

Pin No.	Pin Function
21	+ OUT 2
22	- OUT 2
23	+ OUT 3
24	- OUT 3
25	INHIBIT
26	SIGNAL RTN*
27	- VIN
28	- VIN
29	+VIN
30	+VIN

* Signal RTN for the INHIBIT and the SYN signals.

PIN ASSIGNMENT – Optional

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

Pin No.	Pin Function
11	SYN
12	- VIN
13	- VIN
14	+VIN
15	+VIN
16	+ OUT 1
17	+ OUT 1
18	- OUT 1
19	- OUT 1
20	+ OUT 5

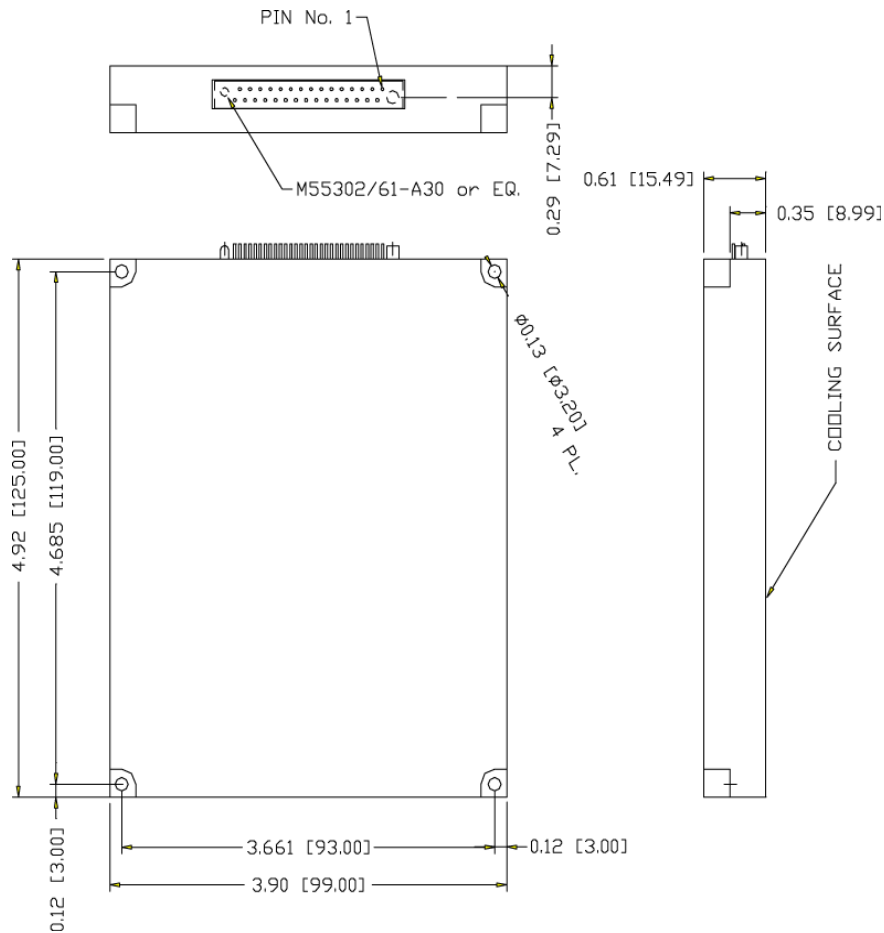
Pin No.	Pin Function
21	- OUT 1
22	+ OUT 3
23	+ OUT 2
24	- OUT 2
25	INHIBIT
26	SIGNAL RTN*
27	- VIN
28	- VIN
29	+VIN
30	+VIN

* Signal RTN for the INHIBIT and the SYN signals.

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OUTLINE DRAWING

Mating connector: M55302/62-A30M or eq



Notes

- Dimensions are in Inches [mm]
- Tolerance is:
 - .XX ±.02 IN
 - .XXX ±.01 IN
- Weight: 14 oz (404g)
- Add suffix SD to specify with guideset per M55302/57-A30X

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