

M8453 SERIES

DC/DC POWER SUPPLY



DESCRIPTION

The M8453 military power supply is a rugged Four output DC to DC converter which accepts an 18 - 48VDC input voltage range and provides DC outputs from 3.3 to 15V at up to 150W. Custom outputs available upon request and the unit is Designed to meet military standards, MIL-STD-704, MIL-STD-1275, MIL-STD-810, MIL-STD-461.

FEATURES

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

HOW TO ORDER

PART NUMBER	Input	Output #1		Output #2		Output #3		Output #4	
	Voltage range	Voltage	Current	Voltage	Current	Voltage	Current	Voltage	Current
CF-02EM8453-1	18 to 48VDC	3.3VDC	20A	5VDC	10A	12VDC	1.25A	12VDC	1.25A
CF-02EM8453-2	18 to 48VDC	3.3VDC	10A	5VDC	15A	8VDC	1.25A	15VDC	1.25A
CF-02EM8453-3	18 to 48VDC	5VDC	16.4A	3.3VDC	15A	12VDC	1A	N.C	N.C

ELECTRICAL SPECIFICATIONS:

DC INPUT:

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

Efficiency:
 up to 87%

Isolation:
 Input to Output: 200V
 Input to Chassis: 200V

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

DC OUTPUT:

Line/Load Regulation:
 Less than 1% (no load to full load, -55°C to +85°C)

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

Over Temperature Protection:
 Shutdown at baseplate temperature of +105°C (±5°C)

Current Limiting:
 Continuous protection for unlimited time

Over Voltage Protection:
 Passive transorb on outputs.

Automatic recovery at baseplate temperature lower than +95°C (±5°C)

Isolation:
 Output to Chassis: 100V

ENVIRONMENTAL (Meets or exceeds MIL-STD-810D):

Temperature:
 Operating -55C to +85°C (baseplate)
 Storage -55C to +125°C

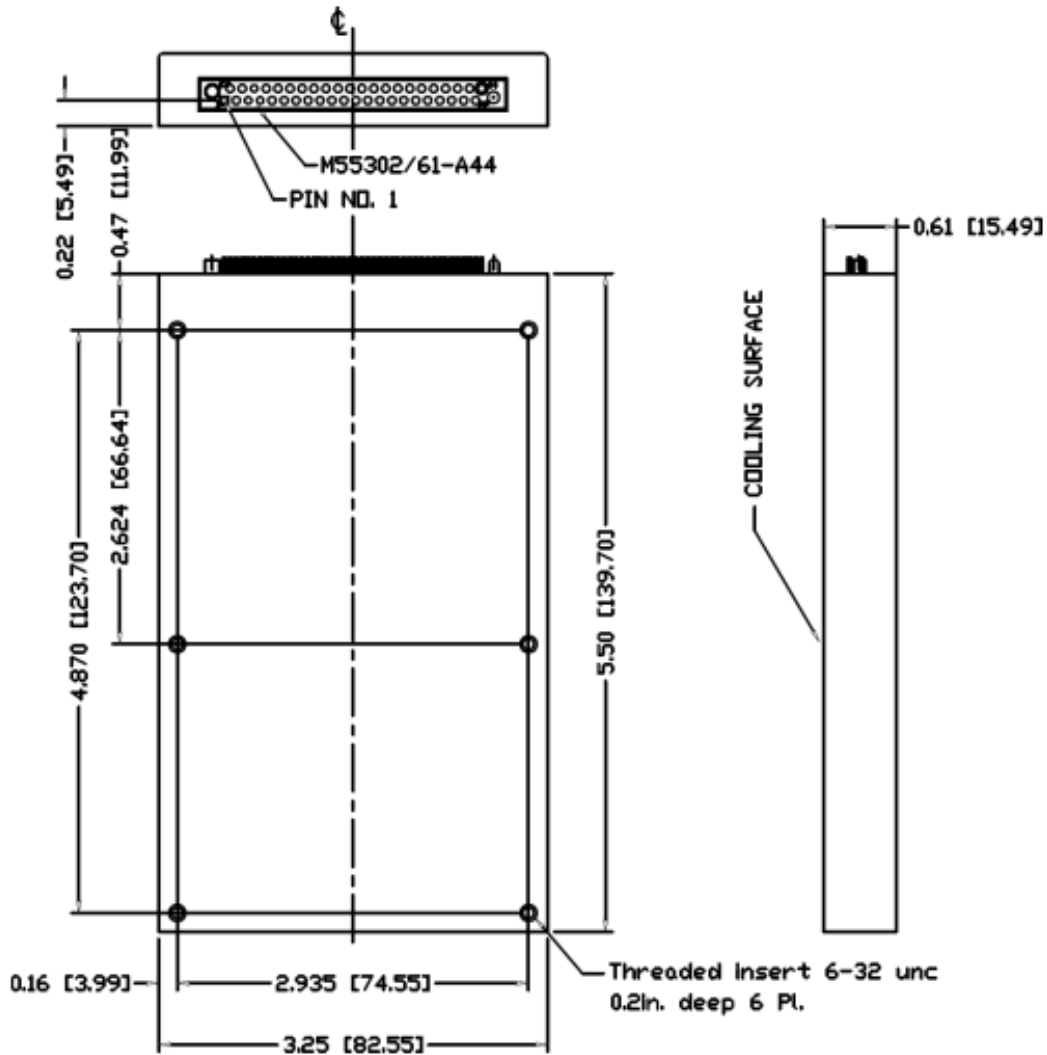
PIN ASSIGNMENT:

Connector Type: M55302/61-A44 or eq.

Mates with: M55302/64-B44X*R54 (straight type) or WTAX44SACJTA (Solder Cups) or eq.

Function	Pin No.
VIN (+)	11, 12, 32, 33
VIN RTN (-)	13, 14, 34, 35
SIGNAL RTN	30
SYNC	31
INHIBIT	9
OUT 1 (+)	18, 19, 20, 40, 41, 42
OUT 1 RTN (-)	15, 16, 17, 37, 38, 39
OUT 1 SENSE (+)	43
OUT 1 SENSE RTN (-)	36
OUT 2 (+)	6, 7, 27, 28, 29
OUT 2 RTN (-)	3, 4, 24, 25, 26
OUT 2 SENSE (+)	8
OUT 2 SENSE RTN (-)	5
OUT 3 (+)	44
OUT 3 RTN (-)	21
OUT 4 (+)	1
OUT 4 RTN (-)	2
CHASSIS	10

OUTLINE DIMENSIONS:



Notes

1. Dimensions are in Inches [mm]
2. Tolerance is:
 - .XX ±.02 IN
 - .XXX ±.01 IN
3. Weight: Approx. 10.5 Oz (300 gr)
4. 3D model available

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PRELIMINARY

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