

# 1000 Watt Enclosed AC-DC Switchers for Extreme Environments

## FEATURES

- Power Factor Correction
- Fully compliant with MIL-STD 461D, CE101, CE102
- Meets MIL-S-901 (High Impact shock)
- Meets MIL-STD-810F
- FCC 20780 class A EMI compliance
- Fully sealed to meet IP65  
(Optional waterproof connectors available to meet IP67, consult factory)



## SPECIFICATIONS

### AC INPUT:

95-260 VAC 47-880 Hz single phase. Power factor corrected. Meets MIL-STD-1399, Section 300, type I requirements (spike voltage test).

### EFFICIENCY:

80% minimum or greater.

### LINE REGULATION:

±1% of nominal over the full range of line input voltage.

### LOAD REGULATION:

± 1% for change from no load to full load.

### RIPPLE AND NOISE:

Peak-to-peak combines ripple and noise does not exceed 2% of nominal on the output measured with a 20 MHz bandwidth.

### OPERATING TEMPERATURE RANGE:

Storage, transportation and handling: - 50° to +85°C.  
Ambient temperature: -40°C to +80°C baseplate with no power derating.

### ISOLATION:

Input to Output: 1500 VDC  
Input to Case: 1500 VDC  
Output to Case: 500 VDC

### SHORT CIRCUIT PROTECTION:

Each unit is completely protected against a short circuit of any duration. The current limit circuit is nominally set at 120% of full load to reduce voltage. The output voltage automatically restores to normal when the short is removed.

### INPUT PROTECTION:

Internal fuse. In-rush current limiting.

**REMOTE ERROR SENSING:** Standard.

### CONTROL FEATURES:

"INHIBIT", "ENABLE" (STANDARD) (TTLLOW = TRUE)

### BUILT-IN-TEST FEATURE:

OUTPUT FAULT ALARM (TTLLOW = FAULT)

### RELIABILITY:

MTBF 40,000 hours calculated per MIL-HDBK-217F in naval sheltered environment.

### ELECTROMAGNETIC COMPATIBILITY:

Meets the following MIL-STD-461D requirements: CE101, CE102.

### OUTLINE DIMENSIONS:

Refer to mechanical drawings.

**WEIGHT:** 10-12 lbs typical.

### ENVIRONMENTAL CONDITIONS:

**Shock test:** Unit meets MIL-S-901 requirements (light weight).

**Vibration test:** Unit meets MIL-STD-167, type I requirements.

**Humidity:** Power supply operates without any evidence of degraded performance in non-condensing relative humidity up to 95%.

## MAXIMUM OUTPUT CURRENT RATINGS

Output Voltage	Output Current
12V	83.33A
13.6V	73.52A
15V	66.67A
24V	41.67A
28V	35.71A
48V	20.83A

### VOLTAGE OUTPUT

12 = 12 VDC  
13.6 = 13.6VDC  
15 = 15 VDC  
24 = 24 VDC  
28 = 28 VDC  
48 = 48 VDC

## MODEL NUMBER SYSTEM

**CM1000 X 28**

MODEL FAMILY  
(1000W OUTPUT)

S - STANDARD CONNECTOR  
(UNIT MEETS IP65)  
M - FULLY SEALED WATERPROOF CONNECTOR  
(UNIT MEETS IP67, Consult factory)



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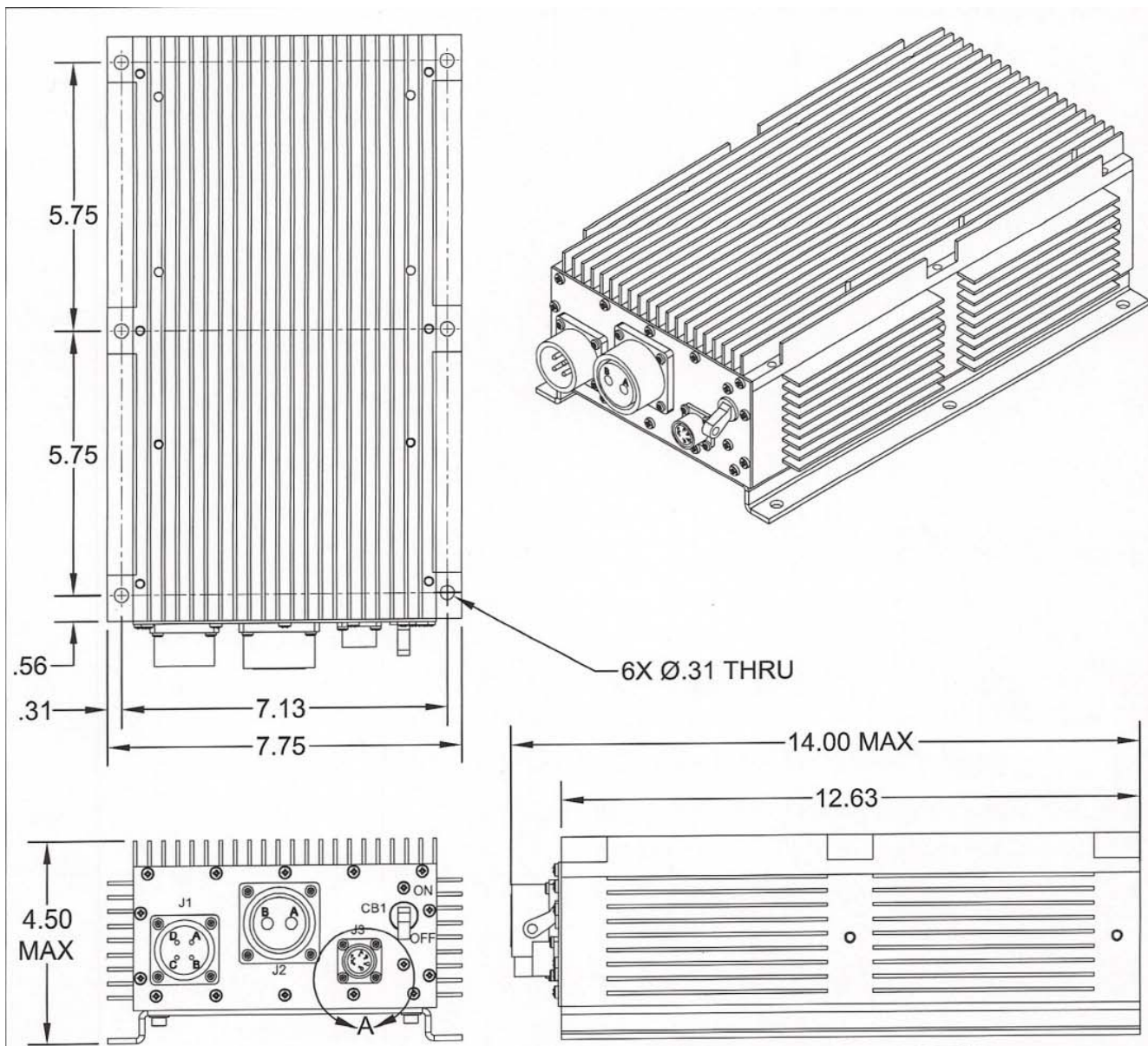
or visit us on-line at: **www.abbott-tech.com**

Specifications are subject to change without notice

# 1000 Watt Enclosed AC-DC Switchers

## MECHANICAL DIMENSIONS

### (Standard Connector)



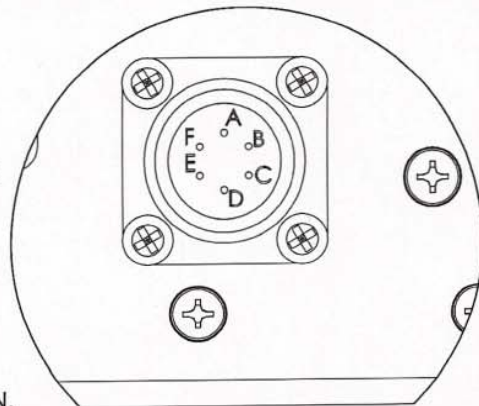
1. INPUT: 90-264 VRMS, 47-880 Hz.  
 OUTPUT: 28VDC 1000W(MAX)

J1: MS3102A20-4P  
 J1-A AC HOT  
 J1-B AC NEUTRAL  
 J1-C CHASSIS GROUND

J2: MS3102A24-9S  
 J2-A +OUTPUT  
 J2-B OUTPUT RETURN

J3: MS3110F10-6S  
 J3-A +SENSE  
 J3-B -SENSE  
 J3-C BATT LOW  
 J3-D ENABLE  
 J3-E TEMP A  
 J3-F TEMP B

2. FINISH: BLACK EPOXY PAINT.  
 3. MARKING: WHITE EPOXY INK, LOCATED APPROXIMATELY AS SHOWN.



DETAIL A