Abbott TECHNOLOGIES®

WHEN RELIABILITY IS IMPERATIVE™

# CS500

**500 WATT AC TO DC POWER FOR RUGGED ENVIRONMENTS**

## *HIGH EFFICIENCY, LOW PROFILE.*

**Currently serving in many active programs, the CS500 Series is proven to perform in extreme environments.**

**Featuring full Power Factor Correction in a rugged, compact chassis, the CS500 Series is designed to meet MIL-S-901 High Impact Shock, MIL-STD-810 Environmental Requirements, MIL-STD-1399 Input Requirements, MIL-STD-461 CE101, CE102 EMI Requirements. Factory Configurable.**



## SPECIFICATIONS:

**AC INPUT:**
95-260 VAC, 47-440Hz, single phase. Power factor corrected. Meets MIL-STD-1399, Section 300, type 1 requirements.

**EFFICIENCY:**
85% minimum.(88% typ, 28 VDC Model at 100% load)

**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 combined ripple and noise does not exceed 2% of nominal output measured with a 20 MHz bandwidth.

**ELECTROMAGNETIC COMPATIBILITY:**
MIL-STD-461 requirements: CE101, CE102

**ISOLATION:**
Input to output: 1500 VDC
Input to case: 1500 VDC
Output to case: 500 VDC

**TEMPERATURE RANGE:**
Storage: -50°C to +85°C.
Operating temperature: -40°C to +70°C baseplate with no power derating.

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

**INPUT PROTECTION:**
Internal fuse; In-rush current limiting; Transient protection

**OVER TEMPERATURE PROTECTION:**
Output shut down if maximum case temperature limit is exceeded.

**RELIABILITY:**
MTBF 15,438 hours calculated per MIL-HDBK-217Fn.2/25C/Full Load Naval Sheltered Environment

**WEIGHT:** 4.4 to 5 lbs typical.

**ENVIRONMENTAL CONDITIONS:**
**Shock test:** MIL-S-901 requirements (light weight).
**Vibration test:** MIL-STD-167, type 1 requirements.
**Humidity:** Power supply operates without any evidence of degraded performance in non-condensing relative humidity up to 95%. For condensing-environment requirements, consult ATI for the applicable configuration.

**REMOTE SENSING:**
Standard.

**CONTROL FEATURES:**
"INHIBIT"
(TTL LOW=TRUE).

**BUILT-IN TEST FEATURE:**
OUTPUT FAULT ALARM
(TTL LOW=FAULT).

**PARALLEL OPERATION:**
Two units can be operated in parallel; the LOAD SHARE signal (J3-7) forces equal sharing of output load current. Connect J3-7 (share) and J3-3 (signal return) between units, routed as a twisted pair.

REV 20261111

**Specifications subject to change without notice*

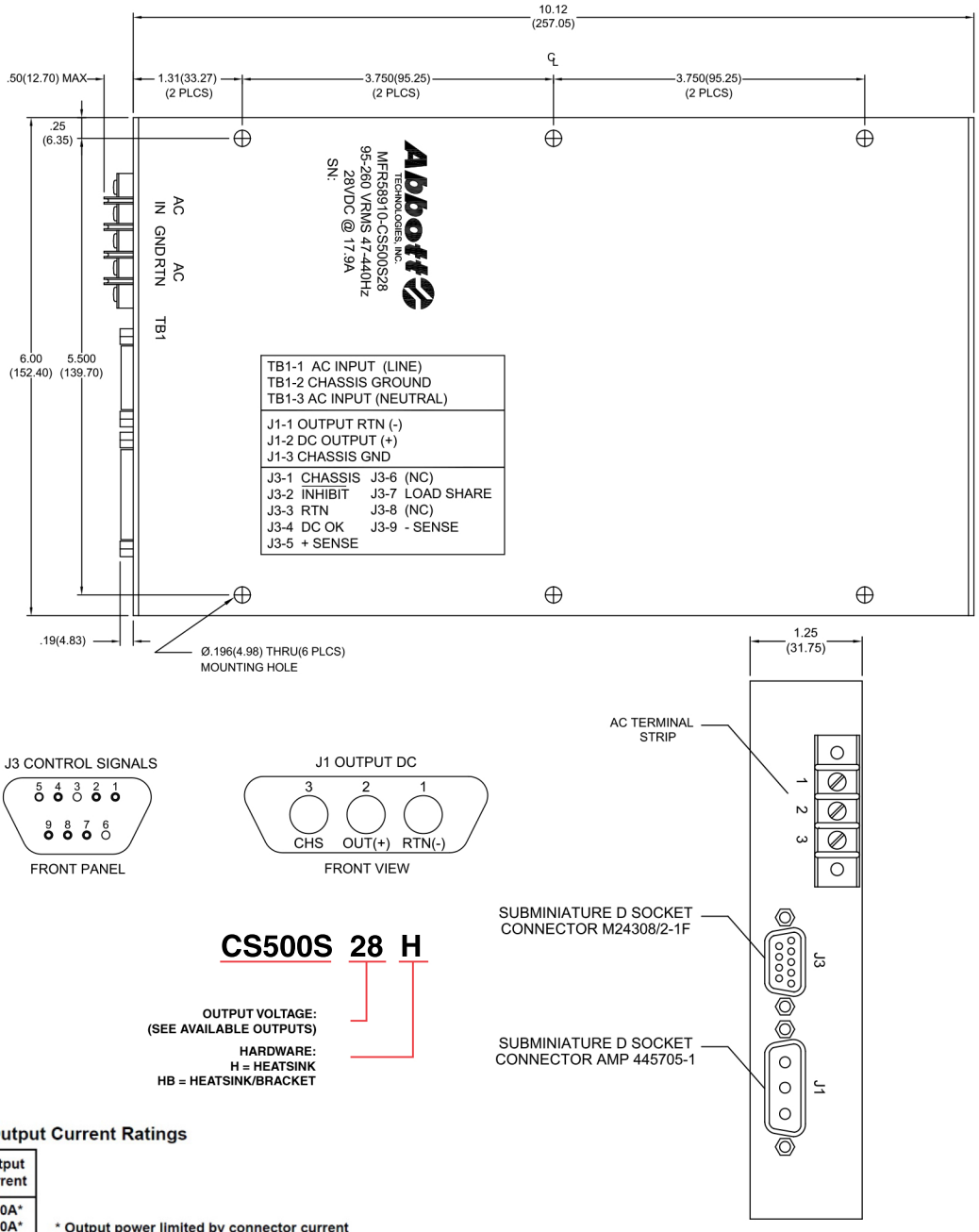


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## MECHANICAL DRAWING:




**CS500S 28 H**

**OUTPUT VOLTAGE:**
**(SEE AVAILABLE OUTPUTS)**

**HARDWARE:**
**H = HEATSINK**
**HB = HEATSINK/BRACKET**

### Maximum Output Current Ratings

| Output Voltage | Output Current |
|---|---|
| 12V | 35.0A* |
| 13.6V | 35.0A* |
| 15V | 33.3A |
| 24V | 20.8A |
| 28V | 17.9A |
| 48V | 10.4A |

*** Output power limited by connector current rating. Please contact factory for alternative connector information.**



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