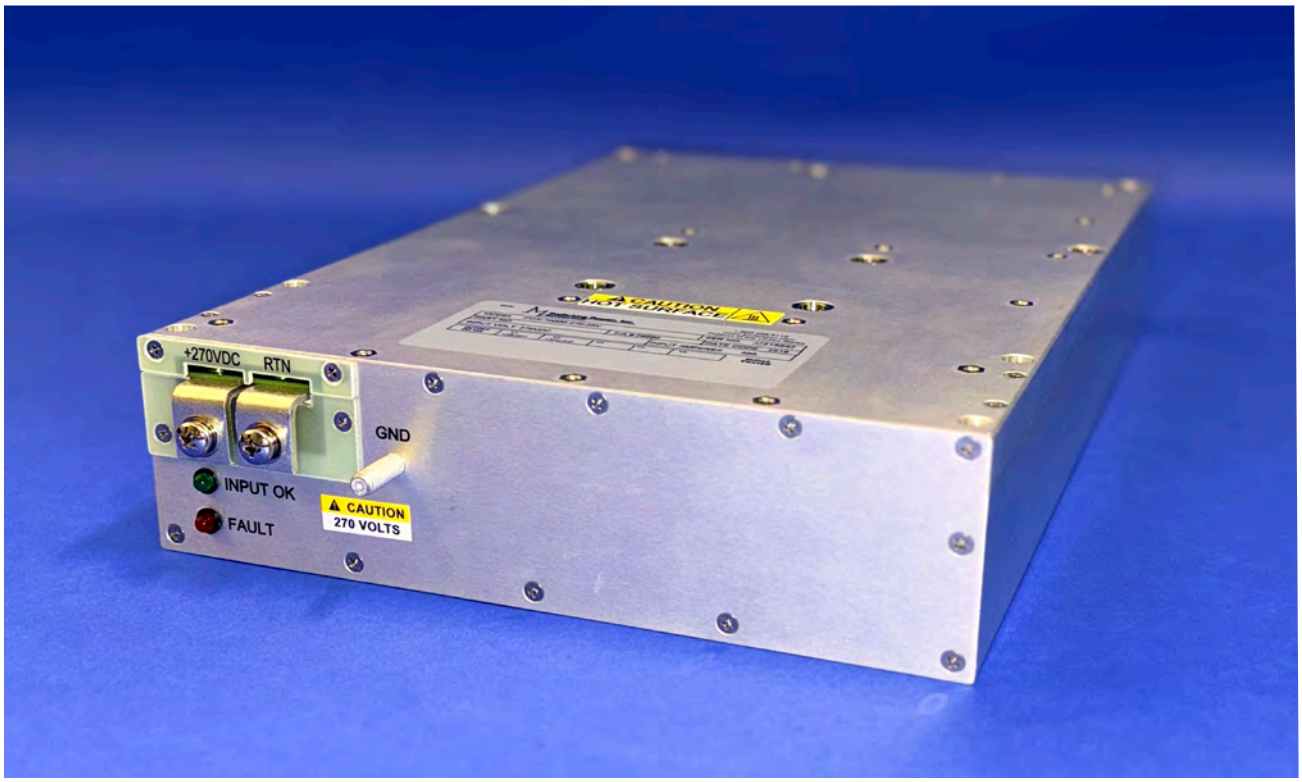
CCX-10000S-270-28V

10,000 Watts
Conduction Cooled
Designed for High Performance Military Applications



KEY FEATURES:

- Efficiency Exceeding 94%
- 10,000 Watts in an 12.960" x 8.640" x 2.340" Package
- 270Vdc Input per Mil-Std-704 Versions E & F
- Outputs Rated +28V/357A, +5V_Aux/2A
- N+1 Redundant with Internal Oring FETs/Diodes
- 38W/in³ Power Density
- Custom Output Configurations Available
- Output Ripple & Noise Less Than 280mV pk-pk (<1.0%)
- 'Zero' Wire Current Share
- Designed for Military Pulse Load Transmit Radar Application
- Ruggedized Mechanical Design
- One Year Warranty
- Greater than 150,000 Hrs MTBF
- Proudly Made in U.S.A.

Switching Power, Inc.
Regulated Power

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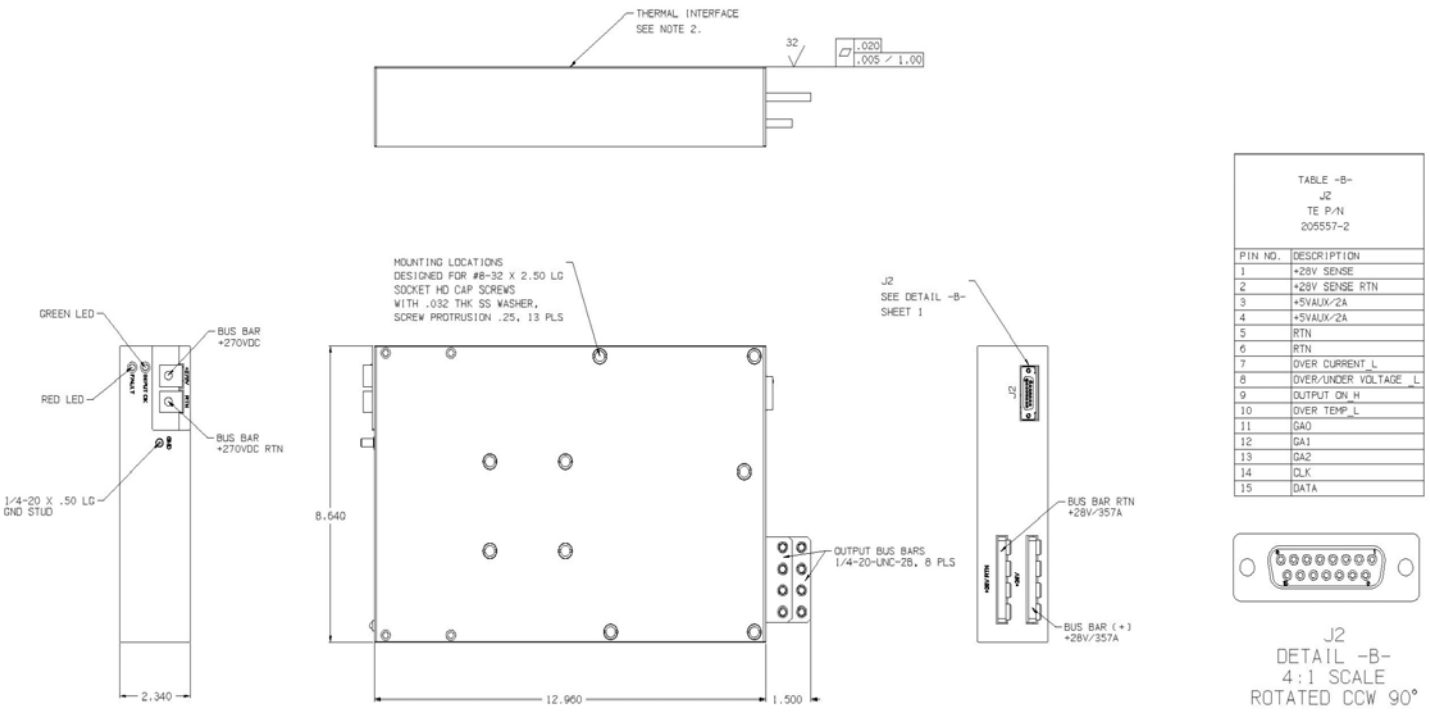

Nominal Input Voltage	270 Vdc, 40A.
Operational Input Voltage Range	230-290 Vdc, with input transient protection to 200 & 350 Vdc for 50 ms exceeding limits per MIL-STD-704E/F. During 50msec transient to 200VDC the output voltage exceeds 26.0V at full load.
Inrush Current	Less than 50 msec, 50 amperes @ 270 Vdc.
Reverse Input Protection	Reverse input protection to rated DC voltage.
Fusing	63 Ampere, 500 Vdc, Fast Acting fuse.
Hold up time	1msec minimum after loss of DC input at 10,000W load.
Efficiency	Minimum 94% at full load through operational input voltage range.
Turn on time	1 sec max. from power up.
Line and Load Regulation	±1% over DC input range and 0 to 100% load change.
Minimum Load	No minimum load required.
Ripple & Noise	Through 20MHz less than 1% pk-pk.
Transient Response	Output maximum excursion of ± 5% for 25% load step. Recovery less than 250 µsec.
Overshoot	No turn-on or turn-off overshoot.
Output Isolation	Isolated from chassis ground, 100 Vdc.
Input/Output Isolation	1500 Vdc from input to both chassis/outputs. SELV construction.
Reverse Output Voltage Protection	Protected against reverse voltage to supply current rating.
Overvoltage Protection	Shutdown at 115% ±5% of nominal Vout. Recycle input power to reset.
Overtemperature Protection	Unit shuts down if overheated. Recycle input.
Current Limiting	Output protected with current limit. Automatic recovery when overload or short is removed.
Paralleling	Two or more supplies can be operated in parallel and will share load current within ±10% of each other.
Remote Sense	Compensates for up to 0.3V total distribution voltage drop on the +28V output.

Signals:

- OVER/UNDER VOLTAGE_L
- OVER CURRENT_L
- OUTPUT ON_H
- OVER TEMP_L
- Optional I2C (reference application note)

Consult factory for more details.

Cooling	Conduction cooled.
Operating Temperature	-40°C to +71°C at thermal interface.
Stability	28V output 0.1% for 8 hrs. after 30 minute warm-up.
Storage Temperature	-55°C to 105°C.
Connectors	Reference outline drawing.
Size	12.960" x 8.640" x 2.340
Weight:	20.5 lbs. max.

Environmental Design to Meet:

- High Temperature per MIL-STD-810G, Method 501.6 Procedure I & II
- Low Temperature per MIL-STD-810G, Method 502.6 Procedure I & II
- Humidity per MIL-STD-810G, Method 507.6 Procedure I & II
- Pressure Altitude per MIL-STD-810G, Method 500.6 Procedure I up to 40,000ft Non-operational
- Pressure Altitude per MIL-STD-810G, Method 500.6 Procedure I up to 10,000ft operational
- Fungus per MIL-STD-810G, Method 508.7
- Sand & Dust per MIL-STD-810G, Method510.6 Procedures I & II.
- Salt Fog per MIL-STD-810G, Method 509.6
- Vibration per MIL-STD-810G, Method 514.7 Category 24, Procedure I
- Shock per MIL-STD-810G, Method 516.7

EMI Designed to Meet (MIL-STD-461E):

- RS103 (Army Ground, 30MHz - 18GHz)
- RE102 & CE102 (with SPI's external filter, TA27070, or equivalent)
- CS101
- CS114 (Army Ground)
- CS115
- CS116 (10 Amps)

Common Options	Special output configurations. Consult factory for more details on a tailored solution which meets your requirements.