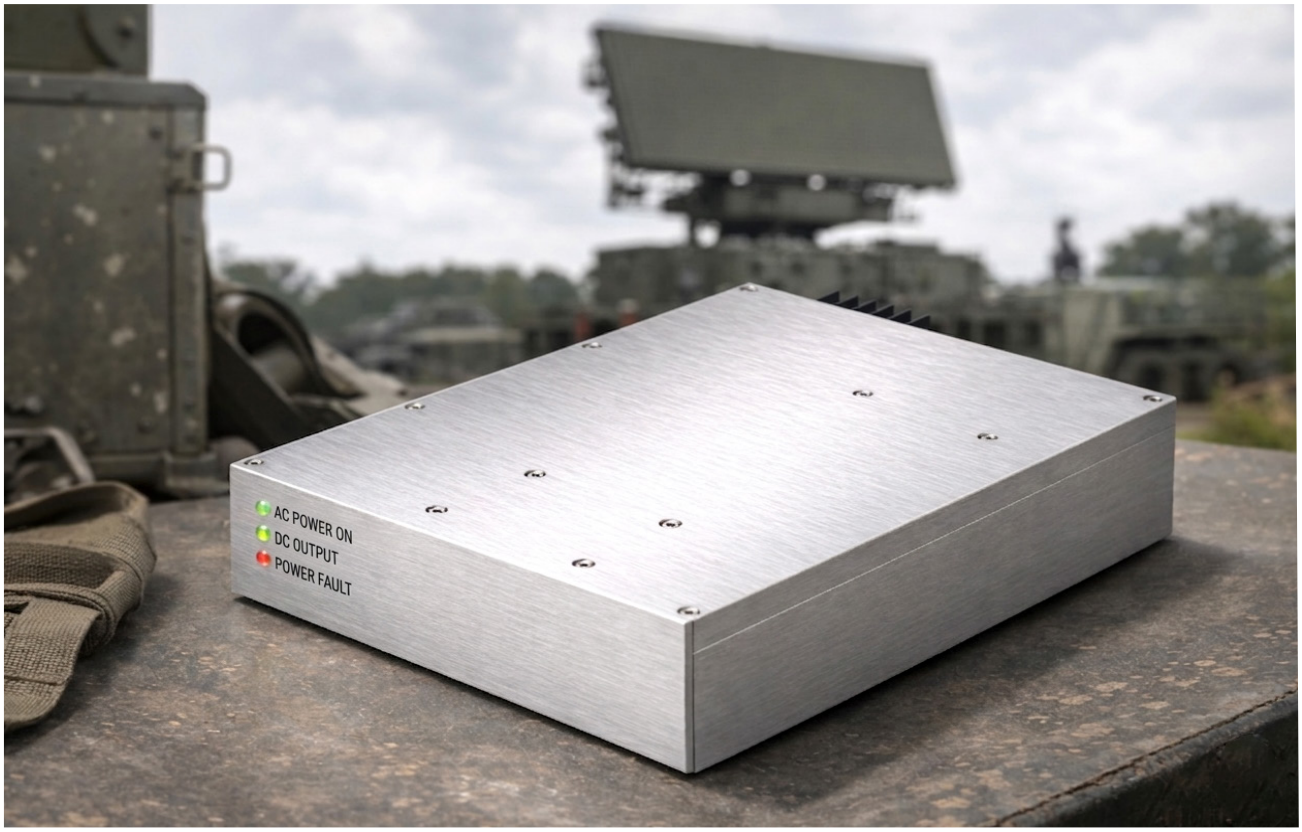
CCX-7500S-3P-20V

7,500 Watts
Conduction Cooled
Designed for High Performance Military Applications



KEY FEATURES:

- Overall Efficiency >92.5%
- 3-Phase 120/208 Vac, 5-Wire Input with Active PFC (>0.99), Bridgeless Totem-Pole Topology (>98% PFC Efficiency)
- 7,500 W Output in 2.43” × 10.85” × 14.20” Package (>20 W/in³ Power Density)
- Full-Bridge ZVS PWM with Synchronous Rectification (>95% Conversion Efficiency); Capable of External Synchronization
- Output Ratings: +20 V / 375 A, +5 Vaux / 1 A
- Output Ripple & Noise <100 mV pk-pk (<0.5%)
- Optimized for Pulse Load Applications; Reliable Startup into Large Capacitive Loads
- Ruggedized Mechanical Design for Harsh Military Environments
- N+1 Redundancy with Internal ORing FETs/Diodes
- Custom Output Configurations Available
- Made in USA

Switching Power, Inc.
Regulated Power

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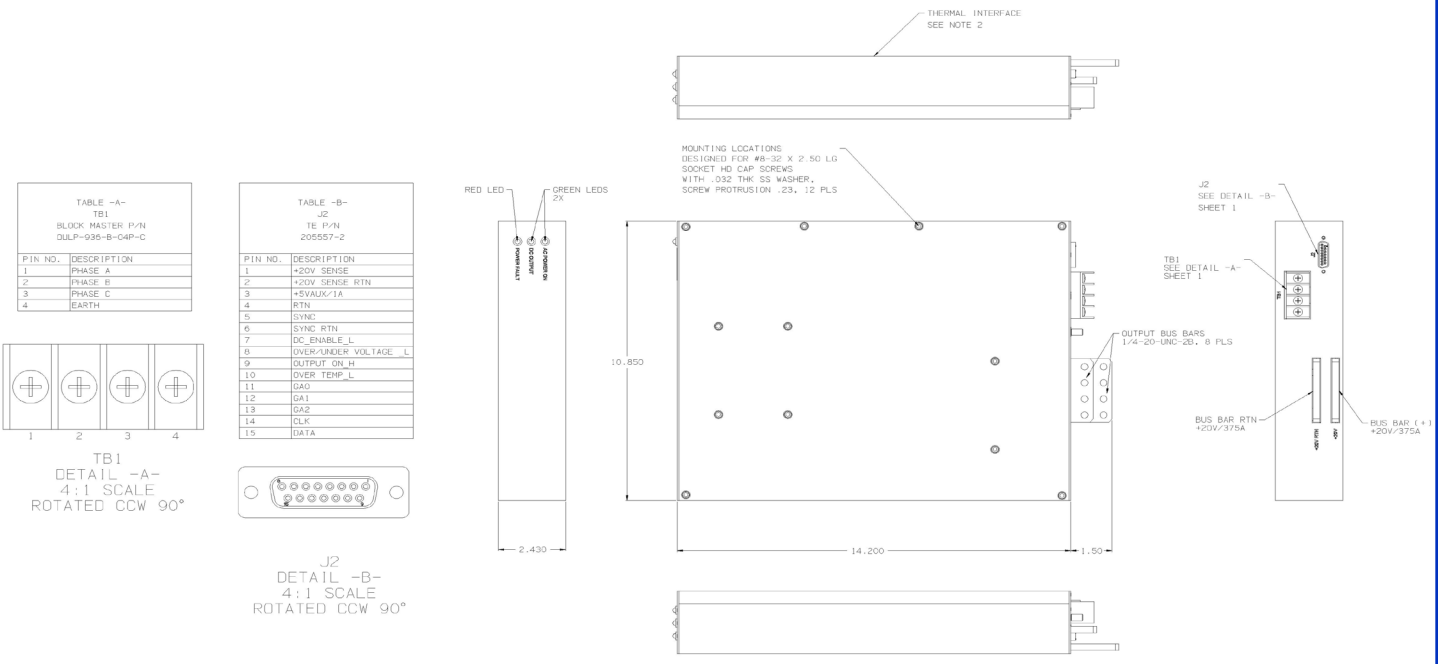

Nominal Input Voltage	120/208 Vac, 5 wire, 3-phase power at 50/60Hz.
Operational Input Voltage Range	Per MIL-STD 1399-300-1.
Frequency	60Hz ±5%; 50Hz ±5%
Power Factor	Greater than 0.99 from half load to full load.
Input Current Distortion	All harmonics <3% from 50% load to full load.
Input Load Balance	Current loading for any phase is within 5% of the average of the currents in all three phases.
Inrush Current	Less than 20 msec, 35Apk @ 230Vac input.
Fusing	(3 x 35 Ampere) 250 Vac fast acting fuses.
Efficiency	Minimum 92.5% 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 0.5% 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 ±5% of each other.
Remote Sense	Compensates for up to 0.3V total distribution voltage drop on the +20V output.

Signals:

- OUTPUT OVER/UNDER VOLTAGE_L
- OUTPUT ON_H
- DC_ENABLE_L
- SYNC (Freq. range from 125KHz to 150KHz)
- SYNC_RTN
- 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	20V output 0.1% for 8 hrs. after 30 minute warm-up.
Storage Temperature	-55°C to +105°C.
Connectors	Reference outline drawing.
Size	14.200" x 10.850" x 2.430
Weight:	25 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, TA27950, or equivalent)
- CE101
- 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.