

AC-DC 1000W 12V SMPS FOR VIDEO LED DISPLAY Model RHPS190

Special Features

Universal Input Voltage Range, 90 to 264 Vac 1008W Output Power Efficiency \geq 85% Output voltage adjustment Active Current Sharing Capability Redundant, parallel operation mode capability Active Power Factor Correction compliant with EN61000-3-2 Conformal Coating for Outdoor Application Wide Operating Temperature Range: -40 to +65°C Self cooled by 2 built-in temperature controlled speed fans Complies with UL60950-1, IEC 60950-1, EN 60950-1, CSA-C22.2 60950-1 RoHS-6 Compliant (Directive 2002/95/EC)



Applications

Media & Entertainment Equipment Outdoor Video Wall Display Industrial Equipment



Input Specification

Input Voltage Input Frequency Maximum Input Current Maximum Inrush Current

Power Factor Correction Hold Up Time Input Fusing Protection 110 Vac, 230 Vac, 90 to 264 Vac (Full Range), Single Phase 50 Hz, 60 Hz, 47 to 63 Hz 15A

45 A @ 230 Vac, 25 °C ambient (@ no load and full load) 22 A @ 110 Vac, 25 °C ambient (@ no load and full load) Active PFC >0.95 @ full load, >20 ms (@ +12 Vdc nominal output voltage, max load) two T16A/250V fuses





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Output Specification

Maximum Output Power Output Voltage Output Current Overall Voltage Regulation Output Voltage adjustment Ripple Efficiency 1008W continuous 12 Vdc ± 100 mV @ 25 °C ambient 0 to 84 A ±2% -5% to +10% <120 mV pk-pk @ 25 °C ambient ≥85% (230 Vac, full load) ≥80% (115 Vac, full load)

Protection

Output Over Current & Short Circuit	Non-latching shutdown @ 100 A max with a full soft start cycle restart (hiccup)
Output Over Voltage	Non-latching shutdown @ 15 V max with a full soft start cycle restart (hiccup)
Over Temperature	Lockout by an internal thermal switch and automatic restart



Features

Turn-on overshoot < 10% over nominal voltage
requires a low signal to inhibit output <1 V @ 14 mA max
 5% to +10% @ 100 to 240 Vac, max power (1008 W) through accessible trimmer
output signal (TTL compatible) is active high when input AC is present
output signal (TTL compatible) is active high when output DC is present
within 10% of the average current at maximum load. Single- wire connection
Parallel Operation Mode capability. Parallel up to 3 units.
HumiSeal P/N 1B31(MIL-I-46058C and IPC-CC-830 qualified)

Eu and RoW

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Environmental

Operating Temperature Storage Temperature Humidity

Cooling

Reliability

-40 to +65°C ambient (full load), PS is able to start at -40°C -40 to +85°C 10% to 90% (operating), 5% to 95% (storage), Relative Humidity, non-condensing self cooled by 2 Internal fans with temperature controlled speed (lower acoustic noise, extended life performances) MTBF>300000 hours (calculated, TELCORDIA Issue1) @ 50°C ambient, full load

Safety

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Input to chassis (1500 Vac); input to output (2120 Vac);
Output to chassis (500Vdc)
CURUS, CB
Safety Standards IEC 60950-1, UL 60950-1, CSA C22.2 No. 60950-1-03

EMC Compliance

Conducted & Radiated emissions Harmonic Emission Immunity Electrostatic Discharge Radiated RFI Electrical Fast Transients / Bursts Input Line Surges	
Input Line Surges	EN61000-4-5, Level 3, Evaluation Criterion A
Conducted RFI	EN61000-4-6, Level 3, Evaluation Criterion A
Voltage Dips, Interrupts	EN61000-4-11, -30%, -60%, -100%;10/50/100/500 ms, 1 s, 5 s; Evaluation Criterion A/B

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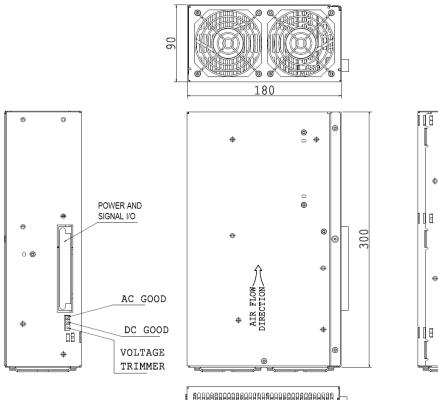
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Physical Specification

Case Dimensions $(H \times W \times D)$ Weight Outline drawing

fully enclosed metal box IP20 conform 3.54 in x 7.08 in x 11.81 in = 90 mm x 180 mm x 300 mm 7.9 lb = 3.6 kg



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