



1500W POWER SUPPLY
Rugged Environment, 3KW Surge
PART NUMBER 56WS1-01



Description:
INPUT VOLTAGE: 115 VAC L-N 3-Phase 400 Hz per Mil-std-704 A

INPUT LEAKAGE CURRENT : 3.5 mA per phase.

Power Factor: 0.90

OUTPUT:
 + 28 VDC @ 54 Amps Steady State; 105 Amps Peak for 1 second

EFFICIENCY:
 80% minimum.

LINE REGULATION:
 Within 0.1% for input change from low line to high line at constant load.

LOAD REGULATION:
 Within 0.1% for 0-100% of rated load at nominal input line.

INRUSH CURRENT: Limited to 75 amps on any phase.

REMOTE ERROR SENSING:
 Sensing pins compensates for up to 2.0 volt drop on output leads.

PARD (Noise and Ripple): (Output 1) 200 mV p-p max. Measurements are made with a 20 Mhz bandwidth instrument connected on the load wires < 5 inches from the power supply and terminated with 1 uF capacitor.

POWER CMD: Application of 28vdc per MIL-STD 704A steady state limits will activate the output.

BIT STATUS: Visual indication of built-in-test pass/fail status. Indicator self tests at power up. Failure indicated by mechanically latching visual device.

ETM: 4-Digit time totalizing meter.

PHYSICAL/ENVIRONMENTAL:

TEMPERATURE RANGE:
 Operating: -40C to +80°C baseplate. Requires approximately 44CFM of 55°C max forced air at ambient pressure
 Storage: -55°C to +100°C.

EMI/RFI CHARACTERISTICS:
 MIL-STD-461E – CE101, CE102, CS101, RE101, RE102 (10Khz to 18Ghz), RS101, RS103 (2Mhz to 18Ghz).

SHOCK:
 30 g's, each axis, 11 mS, Half sine.

VIBRATION:
 20-1000Hz 0.04 g²/Hz (Flat), 1000-2000 Hz 0.4 g²/Hz with -6db/oct Atten. 1 hr each axis.

ISOLATION VOLTAGE:
 1000Vdc Input to Output, Input to Case.
 200 Vdc Output to Case.

INSULATION RESISTANCE to Case (Input and Output):
 50 Megohm at 50 Vdc.

TEMPERATURE COEFFICIENT:
 0.02% per °C.

INPUT TRANSIENT PROTECTION : Per MIL-STD-704A

LOAD TRANSIENT OVER/UNDERSHOOT:
 2 volt peak excursion when the load is switched from 10A to 105A

OVERVOLTAGE PROTECTION:
 Automatic electronic shut down if output exceeds 125%, +/-10%.

SHORT CIRCUIT PROTECTION:
 Protected for continuous short circuit with automatic recovery.

CURRENT LIMITING: (Output 1) Limited to 205% TO 235%

HUMIDITY:
 100%

ALTITUDE:
 Operating To 50,000 ft .

WEIGHT: 17.5 lbs Max



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Connectors:

J13, Input: D38999/24WG16PN

J14, Output: D38999/24WF35SN

Pinout Input and Output Connectors

Connector	Pin	Signal	Description
J13 Input	A	115 VAC PHA A/C	Aircraft AC Power
J13 Input	B	115 VAC PHB A/C	Aircraft AC Power
J13 Input	C	115 VAC PHC A/C	Aircraft AC Power
J13 Input	D	115 VAC NEUT A/C	Aircraft AC Power
J13 Input	E	115 VAC PHA A/C	Aircraft AC Power
J13 Input	F	115 VAC PHB A/C	Aircraft AC Power
J13 Input	G	115 VAC PHC AC	Aircraft AC Power
J13 Input	H	115 VAC NEUT A/C	Aircraft AC Power
J13 Input	J	SAFETY GROUND	
J13 Input	K	N/C	
J13 Input	L	N/C	
J13 Input	M	+28VDC A/C	Aircraft DC Power
J13 Input	N	+28VDC A/C RTN	Aircraft DC Power
J13 Input	P	+28VDC A/C	Aircraft DC Power
J13 Input	R	+28VDC A/C RTN	Aircraft DC Power
J13 Input	S	N/C	
J14 Output	1 through 24	Return	+28Vdc Output Return
J14 Output	25 & 26	Safety Ground	
J14 Output	32 & 33	Return	+28Vdc Output Return
J14 Output	34 & 35	Output	+28vdc Output
J14 Output	36	Output	+28vdc Unswitched
J14 Output	37	Power CMD.	
J14 Output	39	Sense Hi	High Frequency sense Hi
J14 Output	40	Sense Low	High Frequency Sense Low
J14 Output	41	Sense Hi	Low Frequency sense Hi
J14 Output	42	Sense Low	Low Frequency Sense Low
J14 Output	43 through 66	Output	+28vdc output

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Mechanical Outline.

