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DS1500-3

1500 Watts 12V

Distributed Power System

Distributed Power Bulk Front-End Total Output Power: 1500 Watts +12vdc Main Output; +3.3vdc Stand-by Output Wide Range Input voltage: 90 - 264VAC 180 - 264vac 1500w

Special Features

90 - 264vac 910W

- Active Power Factor Correction
- EN61000-3-2 Harmonic Compliance
- Active AC Inrush Control
- 2U X 3U Form Factor 7.5" long
- 15W/ in³
- +12vdc Output
- +3.3vdc Stand-By
- Hot Plug Operation
- N + 1 Redundant
- Internal OR'ing Main and Standby
- Active Current Sharing
- Internal Cooling Fans (60mm x 38mm)
- I²C Communication Interface Bus
- EERPOM for FRU Data
- Green LED Status, Power OK
- Amber LED Status, Power Failed
- Internal Fan Speed Control
- Fan Fail Output Signal
- INTEL, SSI Std. Logic Timing
- INTEL, SSI Std. FRU Data Format
- AC shutdown <85VAC or 170VAC
- One Year Warranty

Safety

UL/cUL 60950 (UL Recognized)
1st edition (UL)60950-1-03 CSA
NEMKO+ CB Report EN60950
EN60950
CE Mark
China CCC
CB Test Report



Electrical Specifications

ciectifical spec	IIICations
Input	
Input range	90-264 VAC, 910w 180 - 264 vac, 1500w
Frequency	47-63 Hz, single phase AC
Inrush current	35A maximum inrush current
Efficiency	>80% typical at full load, high line
Conducted EMI	FCC Subpart J EN55022 Class A
Radiated EMI	FCC Subpart J EN55022 Class A
Power factor	0.99 typical
Leakage current	0.75mA @ 240VAC
Hold up time	12ms minimum
Output	
Main DC voltage	+12v @ 74A (90VAC) or 123A (180VAC)
Stand-By	+3.3vsb @ 7A
Adjustment range	Factory Set, no pot adjustments
Regulation	+12vdc; ±3%; +3.3vsb; ±3%
Over current	+12vdc; 110 - 130% latches off if overcurrent lasts over 1.5 seconds, otherwise it is auto recovery. +3.3vsb, 7A - 105% - 130%
Over voltage	+12vdc; 13.7v ±7% +3.3vsb; 4.0v ±7%
Under voltage	+12vdc; 11.0 - 11.4vdc
Turn-on delay +12vOutput Rise Time	<3 Second max 5 - <200mS, Monotonic Rise
I Share 12V	15% from 50 - 100% load





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Logic Con	trol
PS_ON	An active low signal that turns on the 12vdc power rail. When this signal High, or left open, the 12vdc output turn off. The 3.3Vsb output remains on.
POK	Is a power good signal to be pulled low by the power supply to indicate that all the outputs are within regulation limits of the power supply. (turn-on delay 100 - 500mS)
PS FAIL	In the event of a power supply failure (OVP at any output, UV at any output, OTP or other electrical failure), this signal shall go to a High state.
AC OK	High when AC is not OK, Low if AC is OK
PRESENT	Low if PSU is Present, High if not Present; Pull high in system.
FAN FAIL	Low if one or both fans have failed
PS_KILL	This pin shall quickly turn off the power supply and prevent arching of the DC output contacts.

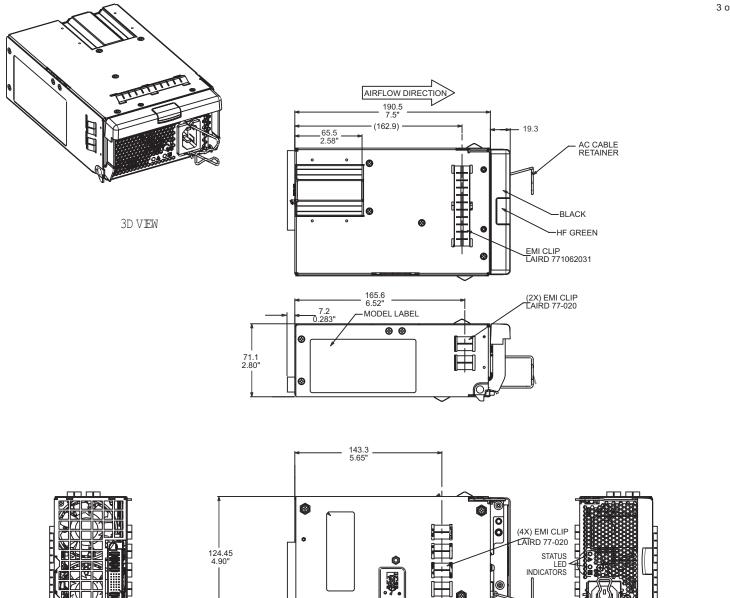
Environmental Specifications

	I		
Operating temperature:	-10° to 50°C ; 50% power derating at 70°C		
Storage temperature:	-40°C to +85°C		
Altitude, operating 10,000ft.			
Electromagnetic	EN61000-3-2, -3-3		
	EN61000-4-2, 4.3, 4-4, -4-5, 4-11 Level		
, ,, ,	EN55024:1998		
	RoHS, RS5		
Humidity:	5 to 95% RH, non-condensing		
Shock and vibration specificatons complies with Astec Std. Specifications, Q3205			
MTBF (Demonstrated)	500K Hrs at full load, 50°C		
Anti-smoke Emission	Due to internal overload or internal failures		
Fan life:	70,000 hrs @ 40°C		

Ordering Informatio	n					
Output	Nominal Output Voltage Set Point	Set Point Tolerance	Total Regulation	Minimum Current	Maximum Current	Output Ripple P/P
Main (>90VAC)	12.00vdc	±0.2%	±3%	0A	74A	120mV
Main (180VAC)	12.00vdc	±0.2%	±3%	1.0A	123A	120mV
Std-By	3.3vdc	±1%	±3%	0.5A	7.0A	50mV

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AC INLET 15A C14



NOTE: Dimensions given in mm and inches.

	Power Supply LED's		
Power Supply Condition	PWR (green)	FAIL (amber)	
No AC power to all PSU	Off	Off	
No AC power to this PSU only (includes No	OFF	On	
output, over voltage, over temperature)			
AC present / Standby Output On	Blinking	Off	
Power supply DC outputs ON and OK	ON	Off	
Power supply failure (over current)	OFF	Blinking	

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POWER POS. PI

Male connector as viewed from the rear of the supply

P1 - Unit	Pin PB P1	Signal Name +12V		
FCI Power blade FCI p/n 51939-055	PB P2 PB P3	+12V +12V RETURN (Pre-mate) +12V		
	PB P4 PB P5	+12V RETURN (Pre-mate) +12V		
	PB P6	+12V RETURN (Pre-mate)		
P1 - Mate	PB P7	+12V		
Mating Connector	PB P8	+12V RETURN (Pre-mate)		
(System side)	A1	+3V3 STAND-BY		
	A2	+3V3SB RETURN		
FCI Power blade	A3	PS_PRESENT (Power Supply Seated) - (short pin)		
Part number 51915-023	A4	POK (Output Power Ok)		
	A5	PS FAIL (Failure Signal)		
	A6	SPARE		
	A7	SPARE		
AC Input Connector	B1	+3V3 STAND-BY		
EN60320 Type C14	B2	+3V3SB RETURN		
71	B3	PSON (Power Enable Signal)		
	B4	PSKILL (Power Supply Fast Shutdown) - (short pin)		
	B5	SDA (I2C Data Signal		
	B6	A2 (I2C Address BIT 2 Signal)		
	B7	FAN FAIL (Fan Fail Signal)		
	C1	+3V3 STAND-BY		
	C2 C3	+3V3SB RETURN		
	C3 C4	AC OK (AC Input Present) +12V RMT SENSE		
	C5	+12V RMT SENSE +12V RMT SENSE RETURN		
	C6	A1 (I2C Address BIT 1 Signal)		
	C7	+3V3 STAND-BY RMT SENSE Return (-)		
	D1	+3V3 STAND-BY		
	D2	+3V3SB RETURN		
	D3	12IS (+12V Current Share)		
	D4	SPARE		
	D5	SCL (I2C Clock Signal)*		
	D6	A0 (I2C Address BIT 0 Signal)		
	D7	+3V3 STAND-BY RMT SENSE (+)		
		` '		

^{*}Supports I²C standard mode (100 kHz) only

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