CAR1248FP SERIES

1200 Watt +48V Front End Power Supply

Features:

- 1200 Watts in 1U
- Ultra High Power Density of 19W/in3
- Active Current Sharing (Single Wire)
- Remote on/off, Remote Sense, Voltage Program & Current Share Control Circuits
- Constant Current
- Current, Voltage, AC OK, DC OK & Temperature OK
- Microprocessor based design allows for I²C communication
- Optional Universal / 5-Bay 19" Rack Delivers 6kW of Total Power
- International Safety Approvals - UL, CSA, CE Mark (LVD), TUV

RoHS COMPLIANT

FEATURES	BENEFITS
High Power Density 19W/in3	Leaves plenty of room for your applications
System Scalability up to 6000W	Allows flexibility with minimum investment
1U x 2U High Form Factor	Minimize space required for power needs
Load Sharing & Fault Tolerant	Excellent reliability in N+1 operation
5VSB Standby Voltage	Voltage for external housekeeping and monitoring circuitry
I²C Digital Control & Monitoring	Ideal for monitoring, housekeeping and control

KEY MARKETS & APPLICATIONS

- Distributed Power
- Blade Servers
- Mid-end servers
- Network Equipment
- Automatic Test Equipment
- Storage Area Networks

SPECIFICATIONS	1200 Watt +48V Front End Power Supply
Input Voltage Range	85-264 VAC, 47-63 Hz
Input Current Maximum	12.75A @ 100VAC, 7.9A @ 180 VAC, full load
Inrush Current	40A max. cold start (per ETS 300 132-1 and bellcore specifications)
Input Protection	Dual Fused (Line & Neutral) 20 Amp / 250 VAC Type 3AB Axial
Power Factor	0.99 typical complies with IEC555, EN60555-2, EN61000-3-2
Efficiency	91% typical at 230 VAC Full Load Operation, 85% Typical @ 90 VAC Full Load Operation
Output Power	1200W at High Line Operation (230 VAC), Derate to 1000W at Low Line Operation (90 VAC)
Output Voltage Range	+48 VDC (±10%)
Output Current	25A @ +48 VDC for High Line Operation (230 VAC), reduced to 20.8A at Low Line Operation (90VAC)
Voltage Programming	Vout = 43.2V + 3.3x (Vprog - 0.364)V where 0.364 < Vprog < 3.27V
Standby Bias Voltage	5VSB@500mA, reference to +48VDC Return
Voltage Regulation	±2% of Vnom for any combination of line, load and temperature
Output Ripple & Noise	ETS300 132-2, 32dBnrc. Bandwidth: 25Hz - 20kHz. 2mVrms pk-pk with 0.1μF ceramic and 10μF electrolytic caps
Transient Response	5% max deviation Recovery time 300μs @ 50% load step and di/dt < 1A/μs
Switching Frequency	200kHz (input) / 400kHz (output)
Hold-Up Time	20ms at 1KW (typical) @ 90VAC
Remote On/Off	ON if >3V or open; OFF if <1V (max. sink 1mA) Open collector type
Current Limit Protection	110-130% of Iout Nominal
Short Circuit Protection	Self protected with auto recovery
Over Voltage Protection	+60 VDC max, latched. Reset condition by recycling AC Input or toggling remote on/off
Operating Temperature	-10°C to +70°C. power derating above 55°C at 2.5% per °C
Over Temperature Protection	Non latching; protection active at 110°C internal temperature, restart at 95°C (typical)
EMI	FCC-B & EN55022-B with specified filter or at rack level, GR-1089-CORE
LED Indicators	Green = AC OK & DC OK, Red = Fault
Analog Status & Control	Voltage Programming (V Prog), Load sharing (I Share), Remote ON/OFF, Current Monitor (I Monitor), Over temperature (Temp Warning), Fault, PS Present, Module Enable
Digital Status & Control	I²C Option, see detailed specification for details
Shock & Vibration	IEC68-2-27, MIL-STD-810E, Telcordia GR-63-CORE
Dimensions	11.02 x 3.44 x 1.65" / 284.5 x 87.4 x 41.9mm
Weight	2.8 lbs
Safety Approvals	IEC 950 per EN60950, UL60950, CSA 22.2-950, CE Mark (LVD), TUV
Options	I²C Signals, Bezel

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Revision: 0808

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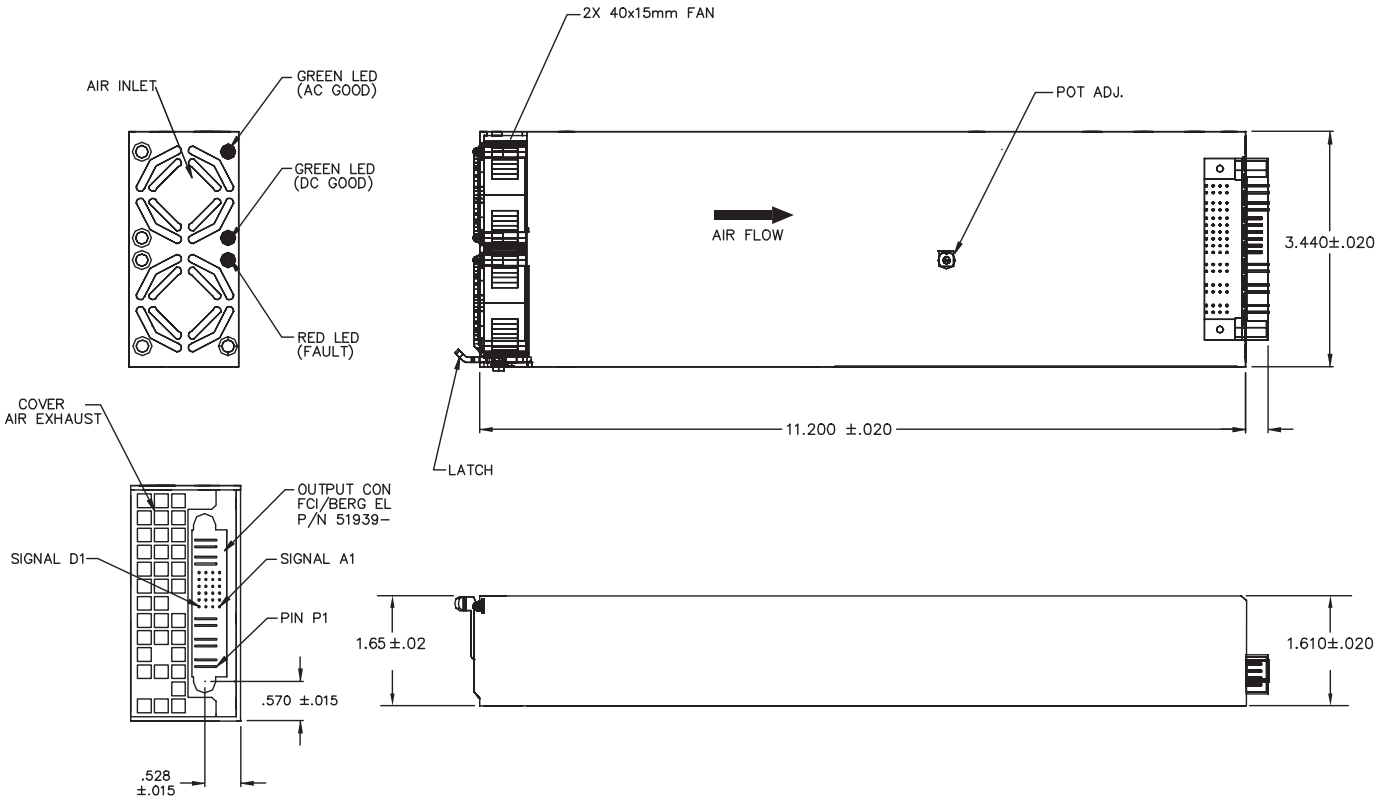
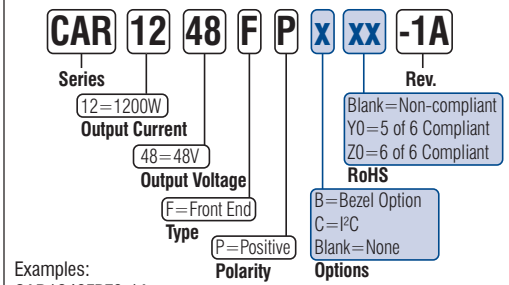
OUTLINE DRAWING



PART NUMBER DEFINITION GUIDE



Examples:

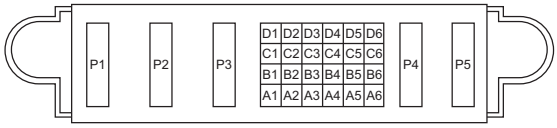
CAR1248FPZ0-1A
1200W/48V Front End, 6 of 6 RoHS

CAR1248FPBY0-1A
1200W/48V Front End, Bezel, 5 of 6 RoHS

CAR1248FPB-1A
1200W/48V Front End, Bezel

PIN OUT INFORMATION

A1	VSB 5V	B4	PS Missing / Return	D1	V Prog	P4	+Vout
A2	VSB 5V Return	B5	Serial Data Line	D2	OVP Test Point	P5	Output Return
A3	Signal RTN	B6	Serial Data Clock	D3	Remote On/Off		
A4	Write Protect	C1	I Share	D4	DC OK		
A5	Remote Sense (+)	C2	N/C	D5	AC OK		
A6	Remote Sense (-)	C3	Temp Warning	D6	Interrupt		
B1	Fault	C4	I²C Address (A0)	P1	Line		
B2	I Monitor	C5	I²C Address (A1)	P2	Neutral		
B3	Module Enable	C6	I²C Address (A2)	P3	Chassis		



Connector is FCI / Berg Part # 51939-070
Mates with FCI / Berg Part # 51915-050

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