

Product Features

- Leading Edge Power Density, 27W/in³ in 1U Form Factor
- I²C Serial Bus and PMBus Interface
- Full Features Status & Control (Current, Voltage, AC OK, DC OK & Temperature OK)
- Active Current Sharing (Single Wire)
- Remote On/Off, Remote Sense, Voltage Program Circuits
- Microprocessor Based Design Allows for Automatic Fan Speed Control
- Optional Universal / 4-Bay 19" Rack Delivers 10kW of Power



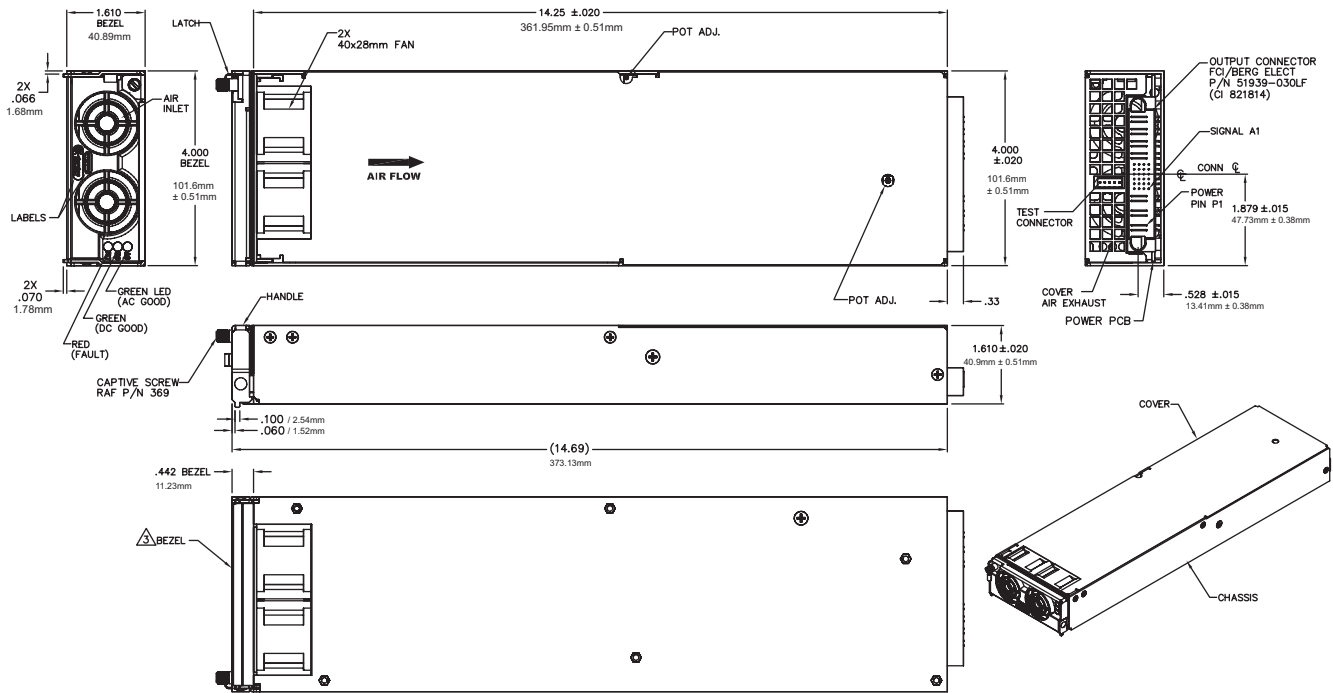
FEATURES	BENEFITS
High Power Density 27W/in ³	More system space for application circuits and hardware
Load Sharing & Fault Tolerant	Excellent reliability in N+1 operation
Automatic Fan Speed Control	Reduces audible noise and increases reliability
System Scalability up to 10,000 Watts	Allows flexibility with minimum investment
Universal Input & International Certifications	Reduces logistical costs

KEY MARKET SEGMENTS & APPLICATIONS	
■ Distributed Power	■ RF Amplifiers
■ High End Servers	■ ATE Equipment
■ High End Routers and Switchgear	
■ Semiconductor Burn-in Equipment	

SPECIFICATIONS	2500 Watt +48V Front End Power Supply
Input Voltage Range	90-264 VAC, 47-63 Hz
Input Current Maximum	16A @ 180VAC, Full Load (max)
Inrush Current	50A 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	92% typical at 230 VAC Full Load Operatio (including OR'ing Mosfets)
Output Power	2500W at High Line Operation (180-264 VAC), 1200W at Low Line Operation (90-132 VAC)
Output Voltage Range	+48 VDC (±10% with remote programming)
Output Current	52A @48V
Standby Bias Voltage	3.3VSB@1A, reference to Vout Return
Voltage Regulation	±2% of Vnom for any combination of line, load and temperature
Output Ripple & Noise	Complies with ETS300 132-2, 32dBnrc. Bandwidth: 25Hz - 20kHz. 2mVrms pk-pk with 0.1μF ceramic and 10μF electrolytics caps at the output
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	16.8msec (230 VAC Full Load)
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 50°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	I ² C Option and PMBus Option, see detailed specification for details
Shock & Vibration	IEC68-2-27, MIL-STD-810E, Telcordia GR-63-CORE
Dimensions	14.25 x 4.00 x 1.65" / 362 x 102 x 41.9mm
Weight	4.73lbs / 2.15kg
Safety Approvals	IEC/UL/CSA/EN60950-1, CE Mark (LVD), TUV
Options	I ² C Interface, PMBus, Bezel, 5VSB Output

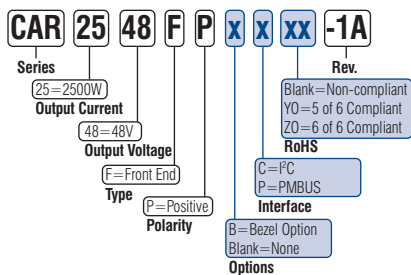
Specifications listed assume 25°C Ambient Operating Temperature and Full Load Operation unless otherwise specified. This product is qualified for use in OEM equipment and is not appropriate for stand-alone operation. The information contained within this specification is believed to be true and correct at the time of publication, however, Cherokee International accepts no responsibility for consequences arising from printing errors or inaccuracies. The information and specifications contained herein are subject to change without notice.

OUTLINE DRAWING



All Dimensions in Inches (mm)
Tolerance: .XX = ± .02 in (.50 mm)
.XXX = ± .010 in (.254 mm)

PART NUMBER DEFINITION GUIDE



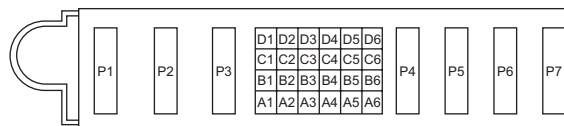
Examples:

CAR2548FPBCZO-1A
2500W/48V Front End, Bezel, I²C, 6 of 6 RoHS

CAR2548FPBPYO-1A
2500W/48V Front End, Bezel, PMBUS 5 of 6 RoHS

CAR2548FPBP-1A
2500W/48V Front End, Bezel, PMBUS

CONNECTOR DRAWING



Connector FCI Berg P/N 51939-030
Mating connector FCI Berg P/N 51915-051

PIN OUT INFORMATION

A1	VSB 3.3V	B4	PS Present	D1	V Prog	P4	Vout
A2	VSB 3.3V Return	B5	Serial Data Line	D2	OVP Test Point	P5	Vout
A3	Signal RTN	B6	Serial Data Clock	D3	Remote On/Off	P6	Vout Return
A4	Write Protect	C1	I Share	D4	DC OK	P7	Vout Return
A5	Remote Sense (+)	C2	Protocol Select	D5	AC OK		
A6	Remote Sense (-)	C3	Temp Warning	D6	Interrupt		
B1	Fault	C4	I ² C Address (A0)	P1	Line		
B2	I Monitor	C5	I ² C Address (A1)	P2	Neutral		
B3	Module Enable	C6	I ² C Address (A2)	P3	Chassis		

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