

## 481

2500 Watt -54V Rectifier Module

### Features:

FEATURES

tions

- Leading Edge Power Density, 27W/in<sup>3</sup> in 1U Form Factor
- Constant Power Characteristic

High Power Density 27W/in<sup>3</sup>

Load Sharing & Fault Tolerant

Universal Input & International Certifica-

**Constant Output Power** 

**Voltage Programming** 

- I<sup>2</sup>C Serial Bus and PMBus Interface
- Active Current Sharing (Single Wire)
- Microprocessor Based Design Allows for Automatic Fan Speed Control

BENEFITS

architectures

More system space for application circuits and hardware

Ideally suited for battery back-up and distributed power

Allows flexibility with minimum investment

Support VRLA battery requirements

Reduces logistical costs

- Optional Universal / 4-Bay 19" Rack Delivers 10kW of Power
- NEBS Shock and Vibration, Seismic Zone 4



#### RoHS

#### **KEY MARKET SEGMENTS & APPLICATIONS**

- Distributed Power
  - RF Amplifiers

Cellular Base Stations

- Satellite Hubs Broadband Switchers ATE Equipment
- Telecom Access Nodes
- Wireless Communication

SPECIFICATIONS	2500 Watt -54V Rectifier Module					
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 Operation (including OR'ing Mosfets)					
Output Power	2500W at High Line Operation (180-264 VAC), 1200W at Low Line Operation (90-132 VAC); 1300W (140-179 VAC)					
Output Voltage Range	-42 $\sim$ -58 VDC with remote programming (factory set at -54V)					
Output Current	46.3A @ -54 VDC for High Line Operation (230 VAC)					
Standby Bias Voltage	5VSB@1A, reference to Vout Return					
Voltage Regulation	$\pm 2\%$ 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 $0.1\mu$ F ceramic and $10\mu$ F electrolytic caps at the output					
Transient Response	5% max deviation Recovery time 300 $\mu$ s @ 50% load step and di/dt < 1A/ $\mu$ s					
Switching Frequency	200kHz (primary) / 400kHz (secondary)					
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 lout 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),					
Analog Status & Control	Over temperature (Temp Warning), Fault, PS Present, Module Enable					
Digital Status & Control	I <sup>2</sup> 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 <sup>2</sup> 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 within this specification to ice.

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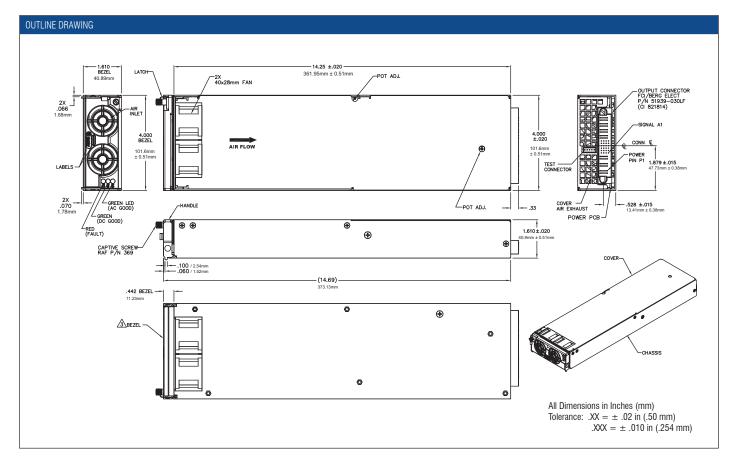
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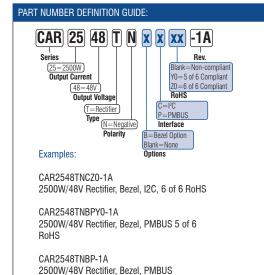




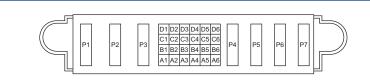
# AR2548TN SERIES

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#### 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	I2C Address (A0)	P1	Line				
B2	I Monitor	C5	I2C Address (A1)	P2	Neutral				
B3	Module Enable	C6	I2C Address (A2)	P3	Chassis				

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