

# CHEROKEE INTERNATIONAL

## CRP500 Series

### 500W Hot Swap Fault Tolerant Rectifier

#### CRP500 Series

- Hot-Swap N+1 Redundancy
- Single Wire Current Share
- Remote ON/ OFF
- Thermal Shutdown Protection
- 2U High
- Conducted EMI Level B (FCC & CISPR22 Compliant)
- Power Factor Corrected
- Isolation Diodes
- Over Voltage and Over Current Protection
- Current Monitoring Signal
- Remote Voltage Adjust



#### Features

- No minimum load required
- Active current share
- Hot pluggable
- Isolated Failure Alarm
- Used with ACE104 rack

#### Benefits

- Eliminates additional cost and space for preload on system backplane
- Maximizes life expectancy and provides stress equalization
- Supports zero system downtime
- Easily adaptable to system alarms
- Provides a total 1500W of non-redundant power

#### Key Market Segments & Applications

##### Telecommunications

- Computer Peripherals Communication
- Central Office Switching
- Bulk power
- Distributed power schemes

#### Specifications

#### CRP500 Series - 500W Hot Swap Fault Tolerant Rectifier

Model Number	CRP500L1(N)	CRP500K1(N)	CRP500J1(N)
Input Voltage Range	85-265VAC, 47-63Hz		
Maximum Input Current	7.26A at full load and 85VAC		
Inrush Current	15A maximum		
Power Factor	0.99 typical at full load and nominal line		
Fusing	Internally fused, 10A 250VAC Axial FA Type		
Efficiency	81%	80%	78%
Output Voltage Range	+/- 54 (42V to 60V)	+/- 27 (21V to 30V)	+12/-12 (10.8V to 12.2V)
Regulation (Load/Line)	+/- 0.5% from 0 to full load		
Turn-On Time	Maximum 2 seconds		
Hold-Up Time	At full load, nominal line, output will remain in regulation for a minimum of 20msec after loss of AC input.		
Temperature Coefficient	+/- 0.02% / °C		
Dynamic Response	25% step load; 10 to 90% recovery in 4msec maximum		
Output Ripple & Noise	Maximum 0.5% of V nominal (pk-pk)		
Current Sharing	+/- 5% Single Wire Method, shares as a percent of the maximum output current rating.		
Inhibit/Enable	Short to RTN disables output.		
Remote Sense	Compensates for total line loss of 5%. The output voltage will change by 2% should the sense line open.		
Overshoot/Undershoot	Following turn ON/OFF, the output voltage overshoot or undershoot shall be < 2% Vout nominal.		
LED Indicators	DC Good: Green LED		
Self-Limiting & Self-Protecting	Automatically limits output power to compensate for elevated temperature up to 70°C ambient.		
Current Limit Protection	Constant current at 110% of continuous output current. Automatic recovery.		
Short Circuit Output Protection	Maximum 133% of the output current rating.		
Over Voltage Protection	Output set at 120-128% of nominal. Reset by cycling input power.		
Over Temperature Protection	Automatic shutdown with auto recovery (when fault is removed).		
Operating Temperature	0°C to 50°C at rated output power. De-rate 2.5% / °C to 50% at 70°C.		
Storage Temperature	-40°C to 100°C		
Cooling	Self contained fan with cover provides 23CFM forced air.		
Shock & Vibration	Per MIL STD-810F		
MTBF	200,000 hours per Bellcore TR-NWT-000332		
Weight	5.0 pounds		
Dimensions	12.73" L x 5.77" W x 2.63" H (Including all protruding hardware). Rack - 14.0" L x 19.0" W x 2.66" H		

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## ACE104 Rack

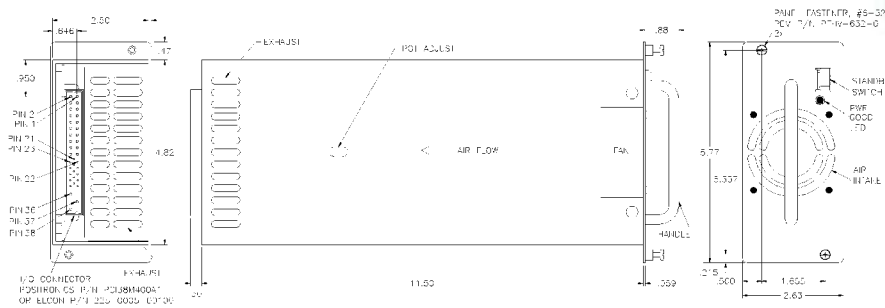
### 1500W Power Shelf for CRP500

#### ACE104 Rack

- 2U High, 19" Rack
- 3 CRP500 Modules
- 1000W N+1 Redundant Power
- True Hot Plug Replacement
- Optional Recessed Mounting Kit (P/N 142005)



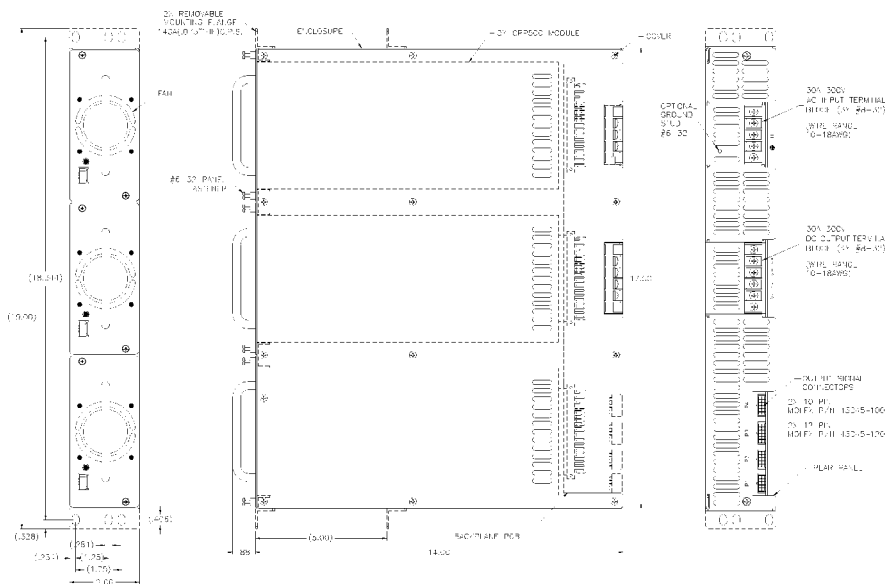
#### CRP500 Outline Drawing



#### CRP500 Pin Out

Pin No.	Signal	Pin No.	Signal
1, 3, 5, 7, 9, 11, 13, 15, 17, 19	V-	27	FA/2 Normally Open
2, 4, 6, 8, 10, 12, 14, 16, 18	Output RTN	28	FA/3 Normally Closed
20	OVP test	29	Enable
21	IShare-IN	30	TH+
22	-RS	31	TH-
23	+RS	32	Signal RTN
24	Current Monitor	33	Power Fail
25	Tied to Pin 34	34	ON/OFF
26	FA/1 Alarm Control	35	RVA
		36	Ground
		37	Neutral
		38	Line

#### ACE 104 Outline Drawing



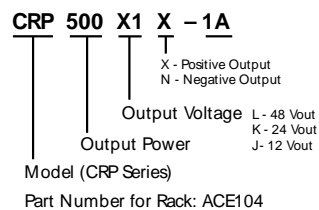
#### ACE 104 Pin Out for Connectors

Pin No.	Signal	Pin No.	Signal
P1-1	I-Share	P3-3	Current Monitor 3
P1-2	RS-	P3-4	Enable 1
P1-3	RS+	P3-5	Enable 2
P1-4	TH-	P3-6	Enable 3
P1-5	TH+	P3-7	Power Fail 1
P1-6	Signal RTN	P3-8	Power Fail 2
P1-7	RVA	P3-9	Power Fail 3
P1-8	N/C	P3-10	N/C
P1-9	N/C	P3-11	N/C
P1-10	N/C	P3-12	N/C
P2-1	I-Share	P4-1	FA1-Common-1
P2-2	RS-	P4-2	FA2-NC-1
P2-3	RS+	P4-3	FA3-NO-1
P2-4	TH-	P4-4	FA1-Common-2
P2-5	TH+	P4-5	FA2-NC-2
P2-6	Signal RTN	P4-6	FA3-NO-2
P2-7	RVA	P4-7	FA1-Common-3
P2-8	N/C	P4-8	FA2-NC-3
P2-9	N/C	P4-9	FA3-NO-3
P2-10	N/C	P4-10	N/C
P3-1	Current Monitor 1	P4-11	N/C
P3-2	Current Monitor 2	P4-12	N/C

#### Mating Connectors

CRP500	
Positronics	P/N: PCIH38F Series
ELCON	P/N: 226-0005-00100
ACE104	
P1/P2 MOLEX	P/N: 43025-1000
P3/P4 MOLEX	P/N: 43025-1200
Use 43030 Series Terminals with MOLEX connector	

#### CRP500 Model Selection Guide



Cherokee reserves the right to make changes to the product described without notice. No liability is assumed as a result of its use nor for any infringement on the rights of others.

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