

ACE3000

3 Bay / 9 Kilowatt Power Shelf



FEATURES

- 3U High
- Up to 9,000W in a 19" Rack
- Single & Three Phase Input Models
- Fits 3 Hot-Plug / N+1 Redundant Rectifiers
- Current Sharing and Remote Sensing
- World-wide safety approvals
- Optional 1U Controller Available

KEY MARKETS & APPLICATIONS

- Central Office
- Telecom Access Nodes
- Satellite Hubs
- Broadband Switchers
- XDSL Access Networks
- Cellular Base Stations
- Wireless
- RF Amplifiers
- PCS Installations
- Factory Automation

FEATURES	BENEFITS
Single wire current sharing	Provide system stress balancing and increases reliability
Constant power characteristic	Better suited for battery charging applications
No Minimum Load	Eliminates need for pre-load resistors. Reduces cost of ownership.
Optional 1U High Controller	Addresses telecom application requirements for redundant operation

Technical Specifications

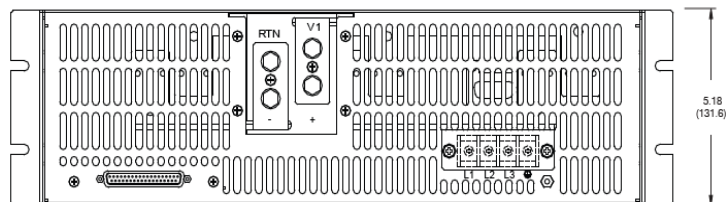
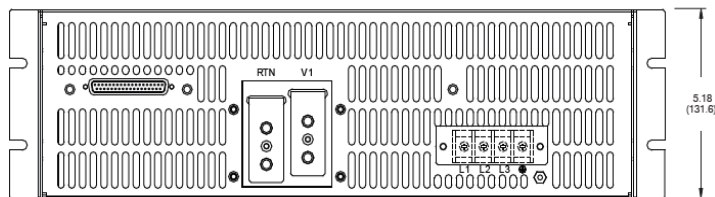
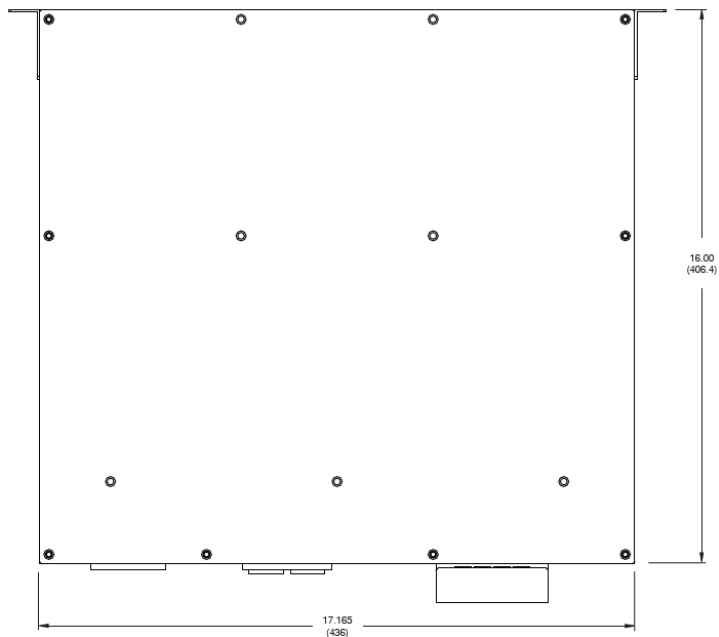
SPECIFICATIONS		9,000 Watt Power Shelf for CAR3000 Front End Modules							
Rack Model Number	ACE303	ACE303N		ACE333		ACE333N			
Rectifier Module Part Number	CAR3010L1-1A	CAR3010K1-1A	CAR3010L1N-1A	CAR3010K1N-1A	CAR3030L1-1A	CAR3030K1-1A	CAR3030L1N-1A	CAR3030K1N-1A	
Voltage Range	+43.2~52.8 V _{DC}	+21.6~26.4 V _{DC}	-43.2~52.8 V _{DC}	-21.6~26.4 V _{DC}	+43.2~52.8 V _{DC}	+21.6~26.4 V _{DC}	-43.2~52.8 V _{DC}	-21.6~26.4 V _{DC}	
Output Current	187.5A @ +48V _{out}	375A @ +24V _{out}	187.5A @ -48V _{out}	375A @ -24V _{out}	187.5A @ +48V _{out}	375A @ +24V _{out}	187.5A @ -48V _{out}	375A @ -24V _{out}	
Input Voltage	Single Phase 180-264 V _{AC} / 47-63 Hz				Three Phase 180-264 V _{AC} / 47-63 Hz				
Maximum Input Current (per module)	19A @ Full Load and 180 V _{AC} Operation (per module)				11A per phase @ Full Load and 180 V _{AC} Operation (per module)				
Maximum Output Power	9,000 Total Output Power (6,000 Watts Redundant Output Power)								
AC Input Feeds	Individual Input Feeds for each rectifier for 4mm ² cable								
Input Protection	Each CAR rectifier module is equipped with it's own internal fuse								
Efficiency	90% typical at 230V _{AC}								
Regulation (Line & Load)	+/- 0.5% of V ₁								
Ripple & Noise	1% of V ₁ (pk-pk) - using 10µF tantalum cap. and 0.1µF ceramic cap.								
Load Sharing	Single wire. +/- 5% of nominal current								
DC Bus	Rectifiers connected in parallel. Floating bus with common "+". Maximum current is 250A								
Status Indicators	DC Good and Temperature OK (Green), AC Good (Amber)								
Alarm Signals	Over Temperature, Over/Under Voltage, No Power, Module not present								
Battery Interface	RJ45 signal connector per rectifier. RS232 for programming via laptop (with Controller).								
Temperature Range	0 to 50°C at rated output power. Derates linearly to 60°C at 2.2% per °C								
Shock & Vibration	Per MIL STD-810F, NEBS Compliant to GR 63 Core								
EMI / EMC	Meets EN61000-3-2, -3 CISPR22 and FCC Part 15 Class A, Bellcore GR-1089-Core								
Safety Approvals	UL: 478, 1012, 1950; CSA 22.2 No. 650; IEC: 380, 435, 950; VDE: 0804, 0806; & CE Mark (LVD)								
Dimensions	Chassis Measures 16.00"/406.4mm (depth) x 17.165"/436.0mm (width) x 5.12"/132.1mm (height)								

Technical Specifications (continued)

Outline Drawing

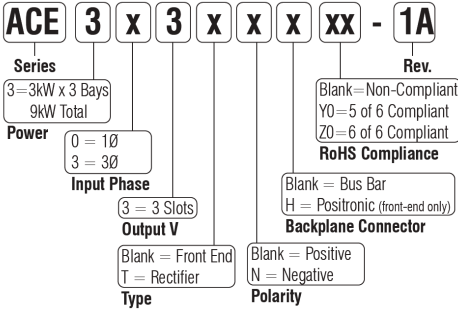
Status / Control Connector
37 Pin D Sub Connector

PIN	FUNCTION
1	5VSBRTN
2	TEMP.OK1
3	PGOOD1
4	ACFAIL1
5	PRESENT1
6	ON/OFF1
7	5VSBRTN
8	TEMP.OK2
9	PGOOD2
10	ACFAIL2
11	PRESENT2
12	ON/OFF2
13	5VSBRTN
14	TEMP.OK3
15	PGOOD3
16	ACFAIL3
17	PRESENT3
18	ON/OFF3
19	N/C
20	N/C
21	N/C
22	N/C
23	N/C
24	N/C
25	V1 SENSE
26	RTN SENSE
27	MARGIN 1
28	MARGIN 2
29	N/C
30	I-SHARE
31	RTN
32	N/C
33	5VSBRTN
34	5VSBRTN
35	5VSB
36	5VSB
37	N/C



Technical Specifications (continued)

PART NUMBER DEFINITION GUIDE



Example Part Numbers:

Part #	Type	Phase	Polarity	Backplane Connector
ACE303	Front End	Single	Positive	Bus Bar
ACE333	Front End	Three	Positive	Bus Bar
ACE303N	Front End	Single	Negative	Bus Bar
ACE333N	Front End	Three	Negative	Bus Bar
ACE303H	Front End	Single	Positive	Positronic
ACE333H	Front End	Three	Positive	Positronic
ACE303NH	Front End	Single	Negative	Positronic
ACE333NH	Front End	Three	Negative	Positronic

Contact Us

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Change History (excludes grammar & clarifications)

Version	Date	Description of the change
1.2	12/21/2021	Updated as per template



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