LINEAGE POWER™

ACE4000

3 Bay / 12 Kilowatt Power Shelf

Features:

- 3U High
- Up to 12,000W 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

RoHS COMPLIANT CE cULus

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

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

SPECIFICATIONS	12,000 Watt Power Shelf for CAR4000 Front End Modules							
Rack Model Number	ACE403		ACE403N		ACE433		ACE433N	
Rectifier Module Part Number	CAR4010L1-1A	CAR4010K1-1A	CAR4010L1N-1A	CAR4010K1N-1A	CAR4030L1-1A	CAR4030K1-1A	CAR4030L1N-1A	CAR4030K1N-1A
Voltage Range	+43.2~52.8 VDC	+21.6~26.4 VDC	-43.2~52.8 VDC	-21.6~26.4 VDC	+43.2~52.8 VDC	+21.6~26.4 VDC	-43.2~52.8 VDC	-21.6~26.4 VDC
Output Current	250A @ +48Vout	500A @ +24Vout	250A @ -48Vout	500A @ -24Vout	250A @ +48Vout	500A @ +24Vout	250A @ -48Vout	500A @ -24Vout
Input Voltage	Single Phase 180-264 VAC / 47-63 Hz				Three Phase 180-264 VAC / 47-63 Hz			
Maximum Input Current (per module)	25A @ Full Load and 180 VAC Operation (per module)				15A per phase @ Full Load and 180 VAC Operation (per module)			
Maximum Output Power	12,000 Total Output Power (8,000 Watts Redundant Output Power)							
AC Input Feeds	Individual Input Feeds for each rectifier for 4mm2 cable							
Input Protection	Each CAR rectifier module is equipped with it's own internal fuse							
Efficiency	90% typical at 230VAC							
Regulation (Line & Load)	+/- 0.5% of V1							
Ripple & Noise	1% of V1 (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 18.00”/457.2mm (depth) x 17.165”/436.0mm (width) x 5.12”/132.1mm (height)							

rev 100506

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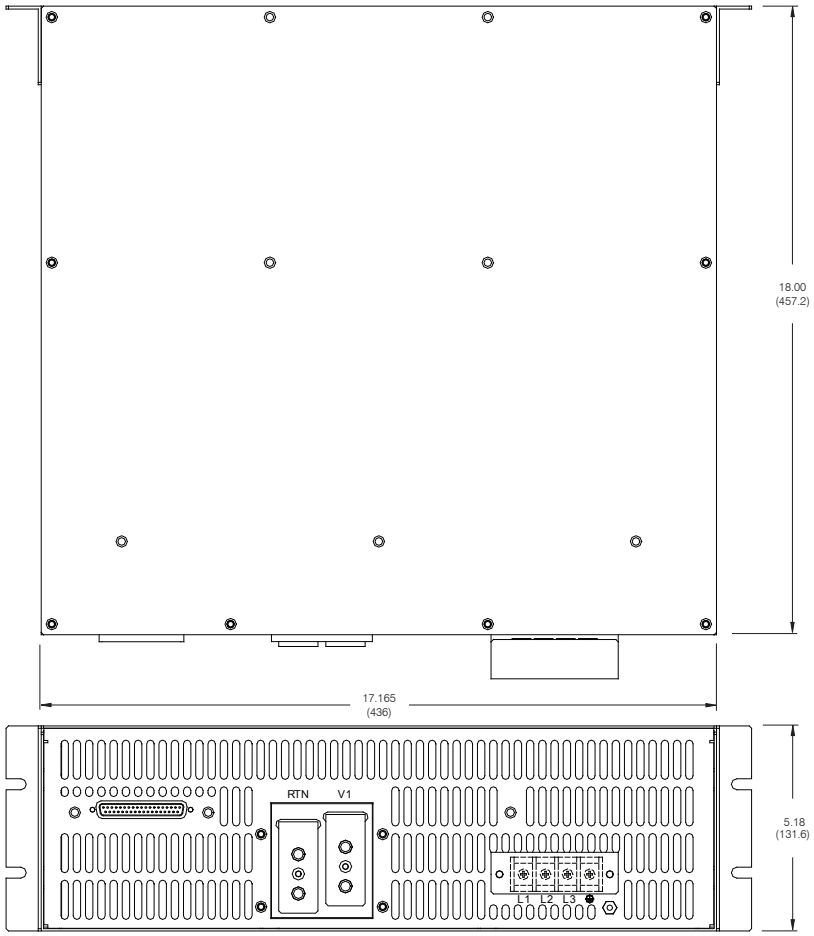
LINEAGE POWER

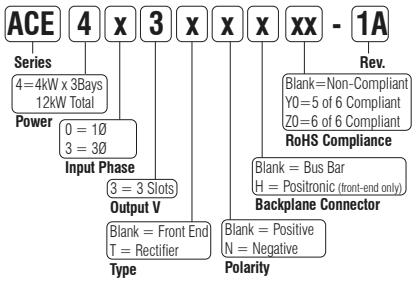
Outline Drawing

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



PART NUMBER DEFINITION GUIDE



Example Part Numbers:

Part #	Type	Phase	Polarity	Backplane Connector
ACE403	Front End	Single	Positive	Bus Bar
ACE433	Front End	Three	Positive	Bus Bar
ACE403N	Front End	Single	Negative	Bus Bar
ACE433N	Front End	Three	Negative	Bus Bar
ACE403H	Front End	Single	Positive	Positronic
ACE433H	Front End	Three	Positive	Positronic
ACE403NH	Front End	Single	Negative	Positronic
ACE433NH	Front End	Three	Negative	Positronic

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