

C&D TECHNOLOGIES

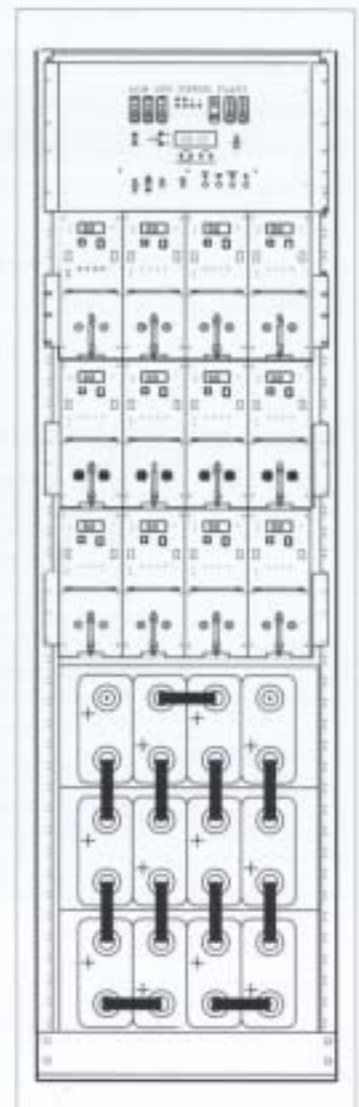
Power Solutions

AGM-600

-48 Volt, 600 Amp Power Plant, PDS 4200

C&D TECHNOLOGIES' NEW AGM-600 POWER PLANT offers compact, reliable power for -48 Volt telecommunication needs. The power plant combines high power factor and highly efficient modular rectifiers, plug-in circuit breaker distribution, plant monitoring and alarm functions all into one system. Its flexible design can accommodate your current and future system needs with up to 180 Amps utilizing 30 Amp rectifiers and up to 600 Amps with 50 Amp rectifiers. This advanced system is the optimal solution for telecommunication sites where space is limited.

- State-of-the-Art Rectifiers:** C&D TECHNOLOGIES' advanced 48-Volt, 50 Amp and 30 Amp modular rectifiers feature high efficiency, near unity power factor, and compact size. These hot-swappable modules can be easily installed without tools and without interrupting system operation.
- Front Accessibility:** All distribution and battery connections are front accessible, making this plant ideal for confined locations. The AGM-600 can be placed against a wall or in a confined area while still maintaining easy access to vital plant connections.
- Distribution Features:** The 48-Volt distribution section will accommodate up to a maximum of 45 plug-in circuit breakers ranging from 5 to 125 Amps. Circuit breakers 50 Amps and less require one breaker position, circuit breakers 60 to 100 Amps require two breaker positions, and 125 Amp circuit breakers require three breaker positions.
- Digital Metering:** A 4½ digital ammeter/voltmeter is provided for fast and accurate system monitoring. An on-line test and calibration circuit utilizes the digital meter to set up and test alarm functions with no service interruptions.
- Power Plant LEDs/Alarms:** Standard power plant LEDs include: Power on, float/equalize status, major-minor alarms, high-low DC Voltage alarms, rectifier failure, LVD status and optional high temperature alarm. Standard alarm form "C" contacts include: major (2 sets), minor, high DC Voltage, low DC Voltage, load circuit breaker trip, LVD status and optional high temperature.
- Optional Low Voltage Disconnect:** The optional Low Voltage Disconnect protects the load from low Voltage and the system batteries from damage due to over discharge.
- Optional Temperature Compensation and High Temperature Alarm:** High temperature can damage and shorten the battery life. This option will automatically monitor and adjust the rectifier output Voltage to compensate for variations in battery temperature.
- Space Saving Design:** The AGM-600 Power Plant can be configured for mounting directly on top of C&D PowerCom Liberty 2000 Series VRLA batteries to save valuable floor space.



AGM-600

ORDERING INFORMATION

Refer to the ordering guide for part numbers and descriptions.

STANDARD FEATURES

- 600 Amp rated distribution module with positions for 24 plug-in circuit breakers
- Digital meter and alarm
- One 180/200 Amp power shelf
- Front accessible power plant
- 4½ digit ammeter/voltmeter
- Compatible with all C&D PowerCom Liberty 1000 and 2000 Series VRLA or flooded batteries

Note: The switchmode rectifiers, relay racks and circuit breakers are not included in the plant and must be ordered separately.

OPTIONAL FEATURES

- Various relay racks, both floor mounted and battery mounting
- Low Voltage disconnect (List 2 or 4)
- Battery temperature compensation and high temperature alarm
- Additional power shelves
- Front access AC power wiring options
- Distribution option to add 21 breaker positions, 5-125 Amps

PLANT SPECIFICATIONS

Temperature:	-40° to 65°F (0° to 50°C with 30 Amp rectifier)	
Humidity:	0 to 95% non-condensing	
Height:	w/one 200A shelf (50 Amp rectifiers)	24½" (62.23 cm)
	w/two 200A shelves (50 Amp rectifiers)	36½" (93.3 cm)
	w/three 200A shelves (50 Amp rectifiers)	49" (124.5 cm)
	w/one 180A shelf (30 Amp rectifiers)	21" (53.3 cm)
Depth:	16.9 inches (42.93 cm)	
Width:	23" rack mounting (58.4 cm)	
Weight:	Approximately 225 lbs (102 kgs) with four 50 Amp rectifiers mounted in a 7' rack	
	Approximately 220 lbs (99.8 kgs) with six 30 Amp rectifiers mounted in a 7' rack	
Heat dissipation, full load:	4,576 Btu/hr e/w four 50 Amp rectifiers	
	4,116 Btu/hr e/w six 30 Amp rectifiers	
Audible Noise:	Less than 55 dBA as measured 5 feet up and 2 feet from rectifier	

ORDERING GUIDE

Part Number	Description	Comments
110-4200-L1	Basic power plant with one 200 Amp power shelf for 50 Amp rectifier system, 24 breaker positions, without LVD	For up to four 50 Amp rectifiers. Rectifiers, relay racks and circuit breakers must be ordered separately.
110-4200-L2	Basic power plant with one 200 Amp power shelf for 50 Amp rectifier system, 24 breaker positions, with LVD	For up to four 50 Amp rectifiers. Rectifiers, relay racks and circuit breakers must be ordered separately.
110-4200-L3	Basic power plant with one 180 Amp power shelf for 30 Amp rectifier system, 24 breaker positions, without LVD	For up to six 30 Amp rectifiers. Rectifiers, relay racks and circuit breakers must be ordered separately.
110-4200-L4	Basic power plant with one 180 Amp power shelf for 30 Amp rectifier system, 24 breaker positions, with LVD	For up to six 30 Amp rectifiers. Rectifiers, relay racks and circuit breakers must be ordered separately.
100-7500-00	HFM48AC50, 50 Amp rectifiers	Up to four per shelf
100-7530-48	HFM48AC30, 30 Amp rectifiers	Up to six per shelf
385-5685-00	One additional 200 Amp rectifier shelf (50 Amp rectifiers)	Load upgrade to 400 Amp for p/n 110-4200-L1/L2
385-5686-00	Two additional 200 Amp rectifier shelves (50 Amp rectifiers)	Load upgrade to 600 Amp for p/n 110-4200-L1/L2
Future Release	One additional 180 Amp rectifier shelf (30 Amp rectifiers)	Load upgrade to 360 Amp for p/n 110-4200-L3/L4
385-5684-00	Additional 21 position DC distribution circuit breaker	Maximum one distribution option per system
385-5687-00	Battery temperature compensation and high temperature alarm kit	Includes one ambient and three battery temperature sensors and one high temp alarm relay
385-5688-00	Front access AC wiring option kit for one — 50 Amp rectifier shelf	For basic 110-4200-L1/L2 plant
385-5689-00	Front access AC wiring option kit for two — 50 Amp rectifier shelves	For basic 110-4200-L1/L2 plant
385-5690-00	Front access AC wiring option kit for three — 50 Amp rectifier shelves	For basic 110-4200-L1/L2 plant
271-0161-00	5 Amp load circuit breaker	Takes one breaker position
271-0162-00	10 Amp load circuit breaker	Takes one breaker position
271-0163-00	20 Amp load circuit breaker	Takes one breaker position
271-0160-00	25 Amp load circuit breaker	Takes one breaker position
271-0164-00	30 Amp load circuit breaker	Takes one breaker position
271-0165-00	40 Amp load circuit breaker	Takes one breaker position
271-0166-00	50 Amp load circuit breaker	Takes one breaker position
274-3796-60	60 Amp load circuit breaker	Takes two breaker positions
274-3796-70	70 Amp load circuit breaker	Takes two breaker positions
274-3796-80	80 Amp load circuit breaker	Takes two breaker positions
274-3796-90	90 Amp load circuit breaker	Takes two breaker positions
274-3796-100	100 Amp load circuit breaker	Takes two breaker positions
274-3796-125	125 Amp load circuit breaker	Takes three breaker positions

HFM48BC50, 48 Volt, 50 Amp
(Brochure #10-343)

HFM48AC30, 48 Volt, 30 AMP
(Brochure #10-345)

Rectifier Input Voltage	208/220/240 VAC, single-phase, 50/60 Hz	120/208/220/240 VAC, single-phase, 50/60 Hz
Rectifier Input Current	15 Amps at 208 Volts 14 Amps at 220 Volts 13 Amps at 240 Volts	16 Amps at 120 Volts 9.8 Amps at 208 Volts 9 Amps at 220 Volts 8 Amps at 240 Volts
Rectifier recommended branch AC circuit breaker	30 Amps	30 Amps at 120 Volts 20 Amps at 208/220/240 Volts
Rectifier Heat Dissipation	1,054 Btu/hr @ 54 Volts	686 Btu/hr @ 54 Volts
Power Factor	0.99	0.99
Efficiency	89%	89%
Input Protection	Two pole AC circuit breaker	Dual AC fuses with on-off switch
Output Adjustment	Float/Equalize adjustment 48 to 60 Volts	Float/Equalize adjustment 48 to 60 Volts
Regulation	Output Voltage remains within $\pm 0.5\%$ for any load current (no load to full load) within the specified input Voltage and frequency ranges.	Output Voltage remains within $\pm 0.5\%$ for any load current (no load to full load) within the specified input Voltage and frequency ranges.
Filtering	Voice band: less than 32 dBmC Wide band noise: less than 250 mV, peak-to-peak, with 20 MHz band width	Voice band: less than 32 dBmC Wide band noise: less than 250 mV, peak-to-peak, with 20 MHz band width
Output Protection	DC circuit breaker and electronic current limit	DC fuse and electronic current limit
Turn-on	Soft start	Soft start
Load Share	Rectifiers will share within $\pm 10\%$ from 10 to 100% rectifier capacity	Rectifiers will share within $\pm 10\%$ from 10 to 100% rectifier capacity
EMI	Complies with FCC Part 15, Subpart J for class A equipment VDE-0875, Class N	Complies with FCC Part 15, Subpart J for class A equipment VDE-0875, Class N
Weight	27 lbs (12.3 kg)	15 lbs (6.8 kg)

STANDARD 23" FLOOR MOUNTING RELAY RACK

Rack Part Number	Rack Height
170-0029-10	4'0"
170-0024-10	5'0"
170-0025-10	6'0"
170-0023-10	7'0"
170-0022-10	7'6"



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