

BENNING HD600 48 VDC, 56-600 Ampere Rectifier and Distribution System

The BENNING HD600 System is part of the BENNING rectifier/distribution product line. This system has been designed for use in small to mid-power fiber, customer premise, PCS, outside plant, microwave and other communications applications.

The integrated 12.25" high, 19" rack assembly can include up to five (or 6 in 23") Benning 3000 Watt, 56 Ampere rectifier modules. The distribution unit comes standard with 10 (Or 12 in 23" configuration) circuit breaker positions and can be expanded to 20 (Or 24 in 23" configurations). Two rectifier shelf assemblies can be utilized in parallel to provide up to 600 Amps of load current.

The standard distribution panel is arranged for AM1™ plug-in circuit breakers. An optional plug-in assembly can be added to provide four GMT™ fuse positions in place of two of the AM1™ positions. Low Voltage Battery Disconnect is provided as a standard feature with distribution units. Load Shedding, and Local and Remote monitoring via Modem, HTML or SNMP are also available as options.

Key Features

- **Ease of Installation, Maintenance and System Expansion**
- **Hot-Plug Technology**
- **Compact 12.25" x 19" (or 23") relay rack mounting completely assembly with MCU for Local Monitoring and Display Functions**
- **Low Voltage Battery Disconnect Function - Standard**
- **Temperature Compensated Charging - Standard (Probe required)**
- **Power Management Function - Standard**
- **Automatic Battery Test Function - Standard**
- **Automatic Battery Equalization Function - Standard**
- **Optional, Load Shedding Function, Local and Remote Monitoring via modem, HTML or SNMP**
- **Optional, Four (4) GMT™ Fuse Positions (Utilizes two of the AM1™ Positions)**



**HD600 19" Distribution
with Rectifier Shelf**



**HD600 Distribution Unit
With Cover Open**

Technical Specifications

SYSTEM	Rectifier Module Power Output Rating @ Input Voltage	3000 W each @ 175-264VAC, 1440 W @ 120VAC
	Maximum Distribution Unit Capacity	600A / 32.4kW
	Maximum Rectifier Modules Per Shelf	5 with 19" shelf, 6 with 23" shelf
	Remote Alarming	AC Failure, Rectifier Failure, Circuit Breaker Tripped, Urgent, and Non-Urgent (Other Alarms Also Available)
	Metering	Graphic Display and LED's
	Indicators (Rectifier Modules)	Rectifier On, Rectifier Off, and Rectifier Fail
	Alarm Indicators, Metering - MCU (Distribution Unit Mounted)	Output Current, Output Voltage, Float, Boost, Battery Test, Battery Test Fault, Rectifier Fault, Rectifier AC Fail, DC Voltage <48.0V, DC Voltage <46.0V, Load CB Tripped, Load Fuse Open, (Optional)—LV Battery Disconnect Operated, (Optional)—Load LV Disconnect Operated
	Low Voltage Battery Disconnect	Standard, Load Shedding Contactor—Optional (Disconnects left side 10 or 12 load positions, optional Expansion Distribution board required)
DC OUTPUT	Nominal DC Output Volts	54VDC *
	DC Output Current (System Maximum)	600 A @ 54DC
	DC Output Regulation	±1%
	Rectifier Parallel Operation	10 (12 Max) Rectifier modules, load sharing <±5% at >20% load
	Distribution	10, (12 in 23" versions) AM1™ Circuit Breaker positions, 70A Plug-in Circuit Breakers max. Optional, Expansion Distribution board adds 10 (12 in 23" versions) additional AM1™ positions Optional, 4 position GMT™ assembly (Utilizes 2, AM1 positions)
AC INPUT	AC Input Voltage Range	175—264VAC Nominal
	AC Input Frequency Range	47—63 Hz
	Power Factor	0.99 Typical, Full Load
	Efficiency	=>91% @ Full Load
OPERATING CONDITIONS	Operating Temperature Range	Rectifiers: -40 C to + 75° C, (De-rating 2.5%/C°, >60 to 75° C)
	Operating Humidity Range	0-90% non-condensing
	Cooling	Temperature Controlled Fan, Horizontal Airflow
	Heat Output Per Module	1010 BTUs per hour @ 100% load
	Altitude	3,300 ft. (1000m) (De-rating 1-%/100m)
	Audible Noise	< 58 dba
PHYSICAL	Rectifier Shelf Dimensions	5.25" (133mm) x 19" or 23" (483/584mm) x 16" (406mm)
	Rectifier Module Size	5.23" (133mm) x 3.375" (85.725mm) x 12.750" (323.85mm)
	Rectifier Module Weight, ea.	6.4 lbs (2.9 kg)
	Distribution Unit Dimensions	7.0" (178mm) x 19" or 23" (483/584mm) x 15.5" (395)
STANDARDS	Design	Rectifiers; CE, cCSA _{US} , Distribution; cETL _{US} – UL60950
	EMI Emissions	EN62040-2, FCC Class A
	EMI Immunity	EN61000-4-4, EN610004-5
	Electrostatic Discharge Immunity	EN61000-4-2

* Factory Default

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