

DV2 - 3G Access Power Solutions with Batteries



48V and 24V integrated systems up to 20kW

The Eaton® Data-Voice-Video Access Power Solutions

range of DC power systems is designed to provide small to medium network applications with compact, efficient, flexible and secure DC power.

These DC power systems can accommodate either the 24V or 48V rectifier modules, including Eaton's Energy Saver Rectifiers, and up to eight 24V or four 48V strings of high capacity VRLA batteries. All systems include an integral AC and DC distribution with flexible combinations of fuses and MCBs, and an SC200 or SC100 system controller. Low Voltage Disconnect (LVD) options are also available.

The advanced SC200 system controller offers high-level communications capability for real time information. It also has built-in intelligence for optimizing system efficiency, and comprehensive alarm and system status notifications,

which are all designed to minimize operational expenses.

A comprehensive range of other controller features ensures maximum battery life and optimum system performance under a wide range of environmental conditions.

Systems are pre-configured for fast installation and set-up and fully adjustable and transferable for repeatable one-step system set-up.

Typical applications are providing secure power for cellular base transceiver stations, WiMAX nodes, base station controllers, long-distance transmission systems, local office switches and other telecommunication switch installations requiring distributed power.

Typical Applications:

- Wireless BTS sites (CDMA GSM/3G/UMTS)
- Transmission terminals
- Access nodes
- Local and central office switching

Features

- Intelligent system management features
- Pre-configured software
- High power density
- Fast on-line expansion of rectifiers (hot-swap)
- High efficiency and unity power factor
- Range of DC distribution configurations
- Integrated batteries and battery condition monitoring
- Wide AC input voltage range
- Seismic rated cabinet
- Remote monitoring and control
- Full length security door (optional)
- Compatible with Eaton Energy Saver (ES) Rectifiers

Technical Specifications

Input

AC Supply†	3P+N+PE, 3P+PE, 2P+PE, 1P+N+PE 50/60Hz (nominal)
Power Factor†	>0.99 (20 – 100% Maximum System Current)
Efficiency†	>96% peak >95% (20% to 100% load, 230Vac)

Output

DC Output Voltage Range	20 – 57.5V
Typical DC Output Power†*	APR24-3G : 14.4kW (500A @ 28.8V) † or APR48-3G : 18 kW (375A @ 48V) APR48-ES : 20kW (416A @ 48V) * Ratings are stated without LVD's fitted. In some cases lower ratings may result when LVDs are used.

Environmental

Operating Temperature Range*	-25°C to +50°C * Output current is derated above 50°C [122°F] Refer to rectifier data sheet for more information.
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Mechanical

Dimensions H,W,D	2000mm [78.7"], 600mm [23.6"], 600mm [23.6"]
Weight	870kg [1914lb] Typical maximum with 10 rectifier modules and 4 x 48V/150Ah battery strings.

System

Rectifiers	APR24-3G APR48-3G APR48-ES
System Controller	SC100/SC200
Communications Features	USB direct* 10BaseT Ethernet*, TCP/IP*, SNMP*, Modbus-TCP*, Modbus-RTU* and on board web server* RS232 to external PSTN or GSM modem (modem not included) *SC200 only
Batteries	Typically up to 4 strings @ 48V, or 8 strings @ 24V, 600Ah total capacity. Other battery configurations available.

† Power factor, efficiency, AC voltage range and output power is dependant on rectifier module fitted. Refer to the rectifier data sheet for more information.

Options

AC Distribution	Coordinated transient protection up to 40kA, 8/20 µs Incoming isolator Individual rectifier MCBs
DC Distribution	Up to 4 groups of MCBs or fuses. Each group comprises up to: 9 x 18mm MCBs (1-63A), or 6 x 27mm MCBs (10-125A), or 4 x DIN00 HRC fuses (20-160A) Custom options available on request.
Low Voltage Disconnect (LVD)	Single or dual LVD configured as battery disconnect.
Rectifier Blank Panels	For unused rectifier positions
SiteSure	Input/output modules to monitor and control external equipment
CellSure	Comprehensive battery monitoring and fault diagnosis system with patented state-of-health algorithms.

Software

PowerManagerII	Remote control and monitoring software
DCTools	Configuration Software. Free download from www.powerware.com/downloads

Certifications

All products comply with International Standards. Contact your local Eaton DC representative for details on the specific product versions available with these safety and EMC approvals:

Europe	CE
Australia / New Zealand	C-tick, Seismic rating to NZS4203

In the interests of continual product improvement all specifications are subject to change without notice.



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