



8U Distribution with 24V rectifiers and 24V-to-48V converters

# Modular HE DC Power System

## High-efficiency central office solution

Powered by the Flatpack2 HE rectifier, Eltek Valere's Modular Power System (MPS) is a highly-efficient solution for applications that require up to 1200A of DC power. The 24V Flatpack2 HE rectifier can deliver 95% efficiency, and the power system can be configured for both 24V and 48V output using the DCX-series converter. The 48V Flatpack2 HE rectifier can deliver up to 96% efficiency.

## Performance and Applications

### Industry-leading technology

Eltek Valere offers the world's first rectifier line to achieve 95 – 96% efficiency—the *Flatpack2 HE*. An increase from 92% to 96% conversion efficiency effectively reduces power loss by 50%. Released globally and confirmed by third-party agencies, the *Flatpack2 HE* rectifier is the first proven product in a new wave of highly-efficient rectifier technology.

### Applications

The Modular HE Power System—which features flexible distributions and Eltek Valere's industry-leading *Flatpack2 HE* rectifier—is the ideal power system for small to medium control offices, remote switching units, wireless towers, and small data centers.

### More room for revenue-generating equipment

With a footprint that fits within a single 23" telecommunications rack, the Modular HE can reduce space reserved for power equipment by as much as 75%. Highly-efficient rectifiers generate less heat, easing space and thermal demands in confined locations. More room is made available for network equipment, while reducing demand on cooling equipment.

## Design and Features

### Modular building block design

Eltek Valere's Modular HE Power Systems can be customized in a wide variety of combinations to meet the needs of specific applications ranging from 600 to 1200 Amps. DC-to-DC converters supply +24V to -48V conversion for sites with mixed voltages. Flexible distributions can be configured with bullet-style breakers as well as GMT and TPS fuse types.

### Distribution flexibility

Modular distributions can be configured with a variety of distribution modules and as required for specific sites. Distribution design minimizes cable congestion, simplifies wiring, and provides many possibilities for growth and scalability.

### Advanced control and monitoring

The XC2010F controller offers control and monitoring capability through both a local interactive display and an Ethernet connection. The LAN connection provides a powerful interface in a comfortable web browser environment. Configurable SNMP, Form-C relays, and audible alarms allow for robust system monitoring and operation.

See reverse side for specifications  
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## Additional Technical Specifications

- 24V systems with 1200A output and 48V conversion option
- 48V systems with 600 - 1200A output
- Options of 8U of 15U distribution panels

24V/1800W Flatpack2 HE Rectifier	
AC Input	<ul style="list-style-type: none"> <li>○ Optimal voltage: 176 - 275 Vac</li> <li>○ Maximum voltage: 85 - 300 Vac (with power de-rating)</li> <li>○ Maximum current: 11.25 A<sub>RMS</sub> (nominal input and full load)</li> </ul>
DC Output	<ul style="list-style-type: none"> <li>○ Voltage: 21.7 - 28.8 Vdc, adjustable</li> <li>○ Current: 75A (maximum at 24Vdc output)</li> <li>○ Power: 1800W at nominal input</li> </ul>
Efficiency	○ >95% between 30 - 70% load
Modular Plant	<ul style="list-style-type: none"> <li>○ Up to 16 rectifier modules (4 shelves)</li> <li>○ Up to 1200A output current</li> </ul>

24V to 48V DCX1500BA Converter*	
DC Input	<ul style="list-style-type: none"> <li>○ Voltage: 20 - 32 Vdc</li> <li>○ Maximum current: 100A</li> </ul>
DC Output	<ul style="list-style-type: none"> <li>○ Voltage: 40 - 56 Vdc</li> <li>○ Maximum Current: 30A</li> </ul>
Efficiency	○ >88%
Modular Plant	<ul style="list-style-type: none"> <li>○ Up to 4 converter modules (1 shelf)</li> <li>○ Up to 120A output current</li> </ul>

\*Available for 24V Modular Power Systems only

48V/2000W Flatpack2 HE Rectifier	
AC Input	<ul style="list-style-type: none"> <li>○ Optimal voltage: 176 - 275 Vac</li> <li>○ Maximum voltage: 85 - 300 Vac (with power de-rating)</li> <li>○ Maximum current: 11.6 A<sub>RMS</sub> (nominal input and full load)</li> </ul>
DC Output	<ul style="list-style-type: none"> <li>○ Voltage: 43.5 - 57.6 Vdc, adjustable</li> <li>○ Current: 41.7A (maximum at 48Vdc output)</li> <li>○ Power: 2000W at nominal input</li> </ul>
Efficiency	○ >96% between 30 - 70% load
Modular Plant	<ul style="list-style-type: none"> <li>○ Up to 16 rectifier modules (4 shelves)</li> <li>○ Up to 667A output current</li> </ul>

Dimensions and Weight	
8U Distribution	<ul style="list-style-type: none"> <li>○ Width: Standard 23" rack</li> <li>○ Height: 355.2 mm (14.0"/8U)</li> <li>○ Depth: 526.0 mm (20.7")</li> </ul>
15U Distribution	<ul style="list-style-type: none"> <li>○ Width: Standard 23" rack</li> <li>○ Height: 666.9 mm (26.3"/15U)</li> <li>○ Depth: 526.0 mm (20.7")</li> </ul>
Flatpack2 HE Rectifier	<ul style="list-style-type: none"> <li>○ Height: 41.5 mm (1.69")</li> <li>○ Width: 109 mm (4.25")</li> <li>○ Depth: 327 mm (12.87")</li> <li>○ Weight: 1.95 kg (4.30 lbs)</li> </ul>
DCX1500BA Converter	<ul style="list-style-type: none"> <li>○ Height: 81.3 mm (3.2")</li> <li>○ Width: 132.1 mm (5.2")</li> <li>○ Depth: 406.4 mm (16.0")</li> <li>○ Weight: 6.8 kg (15.0 lbs)</li> </ul>

Distribution Devices	
Breakers	<ul style="list-style-type: none"> <li>○ Bullet-style circuit breakers and adapters                             <ul style="list-style-type: none"> <li>- 1-100A single-pole</li> <li>- 125-200A double-pole</li> <li>- 225-250A triple-pole</li> </ul> </li> </ul>
Fuses	<ul style="list-style-type: none"> <li>○ Adapters for 1 - 125A TPS-style fuses</li> <li>○ Fuse blocks for 1/8 - 15A GMT fuses</li> </ul>

Temperature Range	
Storage	-40°C to +85°C
Operating	-40°C to +75°C (Flatpack2 HE)

Agency Approvals	
NEBS	Level 3
CSA/UL	Canada/US 60950-1

Specifications are subject to change without notice



8U Distribution

15U Distribution