



Scalable DC Power System

Highly reliable and fully configurable system

The Eltek Valere Scalable DC Power System is a highly reliable and fully configurable system designed specifically for wire line and wireless applications that require large capacity power plants. The Scalable DC Power System can be configured for capacities ranging from 1000 amps to 10,000 amps utilizing our innovative architecture, which enables flexible, practical, and simple expansion in the field.

Applications/Features

Power to support switch applications

The Scalable DC Power System is ideal for applications such as Central Offices, MTSOs, and other Switching centers that are planned for an ultimate, large power capacity - typically in the range of 1000 to 10,000 amps.

Modular building block design

The two basic building blocks of the Scalable DC Power System are the rectifier bay and the load distribution bay, each of which is rated for 3000 amps capacity along with an integral modular system bus that expands to your ultimate planned capacity. These building blocks can be configured in a wide variety of combinations to meet the capacity needs and growth profile of any network.

High density rectifier bay

Eltek Valere's proprietary power conversion technology allows the deployment of 3000 amps of rectifiers in a 12 inch wide bay

Flexible and efficient distribution bay

An innovative physical design allows the installation of GJ, GS and bullet-style breakers, as well as TPL fuses, while also providing ample space for bending and terminating large cables.

The Eltek Valere Difference

The flexibility to adapt

Highly configurable system, designed for easy expansion to satisfy the changing needs of each particular site

Simplified installation, turn-up and operations

Plug and play architecture, distribution designed to minimize cable congestion, a modular battery and return bus bar, a user-friendly controller, and thorough monitoring and diagnostics capability reduce the cost and interval for installing and maintaining the system.

More productive workforce

A powerful remote management interface over a variety of communications media and protocols – including SNMP over an Ethernet link – can improve the productivity of any workforce.

Better quality of service

92% efficiency and Advanced Monitoring and Management all result in reliable, cost-effective, and trouble free networks

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Additional Technical Specifications

- o 48 V systems with flexible distribution modular, expandable battery and return bus bar up to 10,000 amps
- o Advanced digital control & communication
- o Rectifier cabinet with high power density

Modular Power System Components

X series rectifiers	48V Single Phase: 100A, 150A 48V Three Phase: 100A
Scalable rectifier cabinet	<ul style="list-style-type: none"> o Up to twelve dual slot single phase rectifier shelves o Up to fifteen single slot three phase rectifier shelves o Supports 48V rectifiers o Up to 3000A per bay o Equipped with XC2100 controller and door mounted display o Front access AC termination panel with single or three phase AC input terminations o Stand alone operation for upgrades and retrofits
Scalable distribution cabinet	<ul style="list-style-type: none"> o 30000A internal bus with 48 module attachment positions o Numerous fuse/circuit breaker modules <ul style="list-style-type: none"> o 1-70A TPS style fuses o 70-800A TPL style fuses with shunt o 1-100A bullet style pluggable circuit breakers o 100-600A GJ style circuit breakers (shunt optional) o Fused low voltage disconnect contactor o Integral hot and return bus bars with double hole pattern o Second return bus equipped with 4000A shunt
Modular bus bar system	<ul style="list-style-type: none"> o Integral hot and return bus capacity up to 3000A o Optional overhead hot and return bus up to 10,000A o Ample battery connection points o Integrated and isolated return bus bars o Double 3/8" holes, 1" on centers

Control and Communications

Control and communications	<ul style="list-style-type: none"> o Full graphic, multi language front panel display o Full plant & battery management features o Auto battery discharge test, and auto battery boost/equalize mode o Thermal Compensation Feature o Event History Log o Full battery float / boost / equalize control o Battery recharge and system current limit o Six programmable form-C relays o Ethernet, RS232, Modem communications o SNMP, SMTP, Telnet
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AC Input Voltage Range

Single phase AC	180 to 305 Vac
Three phase AC	208, 480 Vac nominal
Power factor	>.98 for loads above 60% full load
THD	Line Harmonics meet EN61000-3-2

Output Specifications

Noise	40mV RMS, 10 Hz -20 MHz bandwidth
Regulation	+/- 1% over line, load, and temperature
Efficiency	92% typical
Polarity	May be configured for positive or negative polarity

Temperature Range

Storage	-40°C to +85°C
Operating	-40°C to +65°C

Dimensions and Weight

Rectifier cabinet dimensions	<ul style="list-style-type: none"> o Height: 2133.6mm (7') o Width: 304.8mm (12") o Depth: 599.4mm (23.6")
Distribution cabinet dimensions	<ul style="list-style-type: none"> o Height: 2133.6mm (7'-00") o Width: 901.7mm (35.5") o Depth: 599.4mm (23.6")
Weight	<ul style="list-style-type: none"> o Actual weight depends on installed components o Rectifier cabinet: 41kg (90lbs) o Distribution cabinet: 64kg (141lbs) o Single phase rectifier: 6.8kg (15lbs) o Three phase rectifier: 10kg (22lbs)

Agency Approvals

TELCORDIA	NEBS Level 3, NRTL Certification
UL	Canada/US ULEN60950 / UL1801
EMI/EMC	CISPR Class B conducted and radiated 10V/M radiated susceptibility

Specifications are subject to change without notice

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