



Trilogy

DC Power System

Scalable power, flexible distribution

Eltek Valere's *Trilogy* DC power system is powered by the *Flatpack2* line of power modules. With a maximum depth of 15 inches, the *Trilogy* system brings the *Flatpack2* modules to applications where space is limited. Use of established components—including the efficient and reliable *Flatpack2* rectifier, the robust *Smartpack* controller, and remarkably flexible distribution—make for optimal system design and cost-effective deployment.

Components

Flatpack2 Rectifier

Eltek Valere's 48V *Flatpack2 HE* rectifier provides reliable DC power at an unparalleled typical efficiency of 96%. It is a hot-plug, digital switched-mode power supply module that operates on a wide range of input voltages (85 to 300V_{AC}) and provides 2000W. The power shelf holds up to four rectifiers and mounts into standard 19" and 23" telecommunications racks.

Smartpack Controller

Eltek Valere's *Smartpack* controller provides powerful, cost-effective control and monitoring for *Flatpack2* power systems. A simple front display and sophisticated computer interface deliver comprehensive information and in-depth system management.

Distribution

The new *Trilogy* DC power system distribution panel features several improvements from previous designs. First, the panel is only 15 inches (381 mm) deep. Second, an AC junction box is now included in the panel, eliminating the need to wire each power shelf. Third, the *Smartpack* input/output alarm board is accessible from the front of the panel. And finally, cable landings for the breakers (both output and return) are vertical. The distribution also features both breaker-protected and bulk output landings; a low-voltage disconnect (LVD) option; and a two-bus system for discrete output (like batteries and load).

Features

Systems

- Power output options of 300A, 400A, or 600A
- Low-cost, reliable solutions with standardized components

Rectifiers and Shelves

- Surge and short circuit protection
- Temperature monitoring and over-temperature protection
- Status LEDs on each rectifier
- Autonomous, active current sharing between rectifiers
- Typical rectifier efficiency of 96% (48V *Flatpack2 HE* at nominal load)

Controller

- USB port and *PowerSuite* software for computer interface
- Ethernet port for Web/SNMP interface
- Advanced battery monitoring and control features

Distribution

- Configurable two-bus breaker panel with 20 or 24 breaker positions (19" or 23" width, respectively)
- 15" (381 mm) depth
- 600A rating
- Breaker puller
- LVD options
- Rear-access bulk landings
- Additional distribution panel option

See reverse side for specifications

Technical Specifications

Rectifier Module	
Flatpack2 HE 48V/2000W	Input voltage: 85-300 V _{AC} (Nominal 185-275 V _{AC}) Maximum input current: 11.6 A _{RMS} (@ nominal input and full load) Output voltage: 43.5-57.6 V _{DC} Maximum output current: 41.7 A (@ 48 V _{DC} and nominal input) Typical efficiency: >96%

Temperature Range	
Storage	-40°C to +85°C (-40° to +185°F)
Operating	-40°C to +75°C (-40° to +167°F) Derating above +45°C (+113°F)

Control and Alarm Options	
Smartpack	Ethernet port for Web/SNMP Six digital alarm inputs Six user-defined form C output relays Symmetry monitoring for battery string

Standard Configurations*				
Designation	Power Shelves	Rectifier Slots	Distribution Panel	Total Height
48V/300A, 19"	2	7	19" width 20-position, two-bus breaker panel Optional second distribution panel Option of 1 LVBD or LVLD	6U
48V/300A, 23"	2	7	23" width 24-position, two-bus breaker panel Optional second distribution panel Option of 1 LVBD or LVLD	6U
48V/400A, 19"	3	11	19" width 20-position, two-bus breaker panel Optional second distribution panel Option of 1 LVBD or LVLD	7U
48V/400A, 23"	3	11	23" width 24-position, two-bus breaker panel Optional second distribution panel Option of 1 LVBD or LVLD	7U
48V/600A, 19"	4	15	19" width 20-position, two-bus breaker panel Optional second distribution panel Option of 1 LVBD or LVLD	8U
48V/600A, 23"	4	15	23" width 24-position, two-bus breaker panel Optional second distribution panel Option of 1 LVBD or LVLD	8U

*Please consult with a sales representative for other available configurations

Agency Standards (PENDING)			
NEBS	Level 3 (GR-63-CORE, GR-1089-CORE)	EN 61000-4-2	Electrostatic discharge (ESD) immunity test
IEC 60950-1	Electrical safety	EN 61000-4-3	Electromagnetic field immunity test
UL 60950-1		EN 61000-4-4	Electrical fast transient/burst immunity test
EN 55022 (CISPER 22)	Radiated disturbance at enclosure port Conducted emission at DC output ports Conducted emission at AC mains ports	EN 61000-4-5	Surge immunity test
		EN 61000-4-6	Conducted radio-frequency (RF) immunity test
		EN 61000-4-8 EN 61000-4-9	Power frequency magnetic field/pulse magnetic field
EN 61000-3-2 EN 61000-3-3 20	Harmonic current emissions	EN 61000-4-11	Voltage dips, short interruptions and voltage variations

Specifications subject to change without notice.

