

Trilogy with Smartpack S

DC Power System

The Eltek Trilogy DC power system, powered by the Flatpack2 line of power modules, brings 250A – 600A to applications where space is limited. Use of the highly-efficient and reliable Flatpack2 rectifier, remarkably flexible distribution, and the advanced Smartpack S controller make for optimal system design and cost-effective deployment.



TRIOLOGY WITH SMARTPACK S

DC POWER SYSTEM

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APPLICATIONS

The Eltek Trilogy system is a high-efficiency power solution with an optimal footprint for 250A to 600A applications where space is limited – both in typical racks and some cabinet installations.

The Trilogy system can power both single-voltage telecommunication infrastructure (such as –48V LTE or +24V legacy TDMA), as well as dual-voltage sites (e.g., where both –48V and +24V equipment coexist). DC-to-DC converters are available for converting 24V to 48V (or vice-versa) within a single Trilogy system.

PRODUCT DESCRIPTION

The Trilogy system is designed for use in rack spaces and cabinets. Both 19" and 23" rack widths are available.

Powered by Flatpack2 HE rectifier modules, typical efficiency exceeds 95% at both 24 VDC and 48 VDC output. Flatpack2 DC-to-DC converters can also be added within the same system footprint.

The distribution section features unique circuit breaker holders that facilitate at-will assignment in the field to one of two output buses. Bulk cable connections are available in the rear of the distribution. All cabling is vertical, further reducing horizontal space demands.

KEY FEATURES

- **COMPACT DESIGN**
Small overall dimensions are ideal for both rack and cabinet solutions.
- **CONFIGURABLE DISTRIBUTION**
Circuit breakers can be assigned at-will to one of two output buses and an LVD contactor can be included.
- **DIGITAL CONTROLLERS**
The Smartpack S digital controller system provides comprehensive monitoring and regulation by utilizing a variety of specialized data collection devices.
- **HEAT MANAGEMENT**
Flatpack2 modules feature front-to-back airflow and chassis-integrated heat-sinks, supplementing high-efficiency energy conversion with excellent heat management.
- **COST-EFFICIENCY**
A true plug-and-play system, the Trilogy system reduces both time-to-install and overall costs.

INPUT SPECIFICATIONS

Rated Input Voltage Range	100 – 277 VAC ¹ ; 80 – 400 VDC ¹ <small>¹ See datasheet for input specifications of specific modules.</small>
Input Connections	Terminal Block ² MATE-N-LOK™ ³ <small>² Default configuration is one rectifier per input; jumper straps are included for powering two rectifiers from one input. ³ Input cables sold separately; options include one cable per rectifier, or one cable with two MATE-N-LOK connectors to power two rectifiers per line cord.</small>

OUTPUT SPECIFICATIONS

Rated Voltage	0 – 56 V
Rated Current	600A

PHYSICAL ATTRIBUTES

Nominal rack sizes	19" / 23"
Depth	19.2"
Height	5 RU to 13 RU, depending on number of distributions, rectifier shelves, and converter shelf.

DC DISTRIBUTION OPTIONS (VARY BY SYSTEM)

Distribution configurations* <small>*For additional details see the Trilogy Product Guide, Doc. No. EDM0000409215.</small>	Top bus options include converter or LVLD. Bottom bus is the primary load bus. Bulk battery bus
Available breaker positions; positions are configurable in the field for top or bottom bus.	19" systems – 20 breaker positions per panel.* 23" systems – 24 breaker positions per panel.* <small>*Up to two panels</small>
Bulk battery connections	Eight (8) 3/8"-16 studs, 1" center-to-center
Low voltage disconnect options	None, battery (LVBD), both LVBD and load (LVLD),
Breaker sizes	Single pole, 0 – 100A Double pole, 125 – 200A Triple pole, 250A

CONTROLLER

Monitoring Unit	Smartpack S Panel Mount
Inputs/Outputs	6 configurable inputs*: 1-3, temperature (battery or ambient); 4, factory-wired for converter breaker/LVLD open alarm; 5, normally open or normally closed; 6, factory-wired for LVBD alarm Additional external battery breaker alarm 6 outputs: dry contact (Normally Open/Normally Closed) <small>* See Smartpack S Panel Mount datasheet for more details (Doc. No. 242100.415.DS3).</small>

MODULES (SOLD SEPARATELY)

241115.105	Flatpack2 48V, 2000W HE Rectifier
241119.105	Flatpack2 48V, 3000W HE Rectifier
241115.205	Flatpack2 24V, 1800W HE Rectifier
241115.600	Flatpack2 24V, 1350W Converter
241115.602	Flatpack2 48V, 1350W Converter
241115.650	Flatpack2 48V, 1500W Solar Charger
241119.650	Flatpack2 48V, 3200W Solar Charger

OTHER SPECIFICATIONS

Operating temperature	-40 to +65°C (-40 to +149°F), de-rates above 45°C (113°F)* <small>* See datasheet for specific module's temperature specifications..</small>
Storage temperature	-40 to +70°C (-40 to +158°F)

APPLICABLE STANDARDS

Electrical Safety	UL/CSA 60950-1, 2 nd edition IEC 60950-1, 2 nd edition
EMI/EMC	GR-1089-CORE
Environment	GR-63-CORE, NEBS LEVEL 3