# Flatpack S 2U Shelves

## High Efficiency DC Power System

### Overview

The Flatpack S 2U DC power system delivers up to 200 A to applications where space is limited. Use of the highly-efficient and reliable Flatpack S rectifier, the advanced Smartpack S controller, and remarkably flexible front-access distribution make for optimal system design and cost-effective deployment.


# FLATPACK S 2U

## HIGH-EFFICIENCY DC POWER SYSTEM

Doc 370039.DS3 Issue 2.1

### APPLICATIONS

The Eltek Flatpack S 2U system is a high-efficiency power solution with an optimal footprint for up to 200A applications where space is limited – both in racks and various cabinet installations.

The Flatpack S 2U is a two rack-unit high system that delivers 24V and 48V DC power to telecom infrastructure that include: 4G/LTE, FTTX, distributed antenna systems (DAS), microwave broadband, cable broadband, telephony servers and switches and fiber-optics.

### PRODUCT DESCRIPTION

The compact size of the system makes it perfect for use in 19″ or 23″ wide racks and cabinets. And at 2U high, there's more room for technicians to connect cables and work inside the system. Horizontal cabling reduces vertical space requirements and connections are all front or rear access. Built as a plug-and-play system, the Flatpack S 2U reduces installation time and enables cost-effective deployment.

Eltek's Flatpack S high-efficiency rectifiers power the Flatpack S 2U, and typically achieve efficiency levels above 95 percent at 48V DC output.

When combined with Eltek's advanced Smartpack S controller, the system provides remote monitoring, maintenance and data collection.

### KEY FEATURES

- COMPACT DESIGN
  Small overall dimensions are ideal for both rack and cabinet applications.
- FRONT/SIDE OR REAR ACCESS CONNECTIONS
  The AC connections, DC loads and controller connections (alarms, communication, etc.) are all front or all rear access. Horizontal cabling reduces vertical space requirements.
- DIGITAL CONTROLLER
  The Smartpack S digital controller system provides comprehensive monitoring and regulation by utilizing a variety of specialized data collection.
- HEAT MANAGEMENT
  Flatpack S 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 Flatpack S 2U system reduces both time-to-install and overall costs.

# FLATPACK S 2U

## INPUT SPECIFICATIONS

| | |
|---|---|
| Input Voltage | 100V – 250V AC or DC (full output power above 185 V) |
| Input Connections | Individual Feed using AMP MATE-N-LOK connectors (optional input cables with a single plug and two MATE-N-LOK connectors, to power two rectifiers per line cord) |

## OUTPUT SPECIFICATIONS

| | 24V | 48V |
|---|---|---|
| Nominal Voltage | 27.00 V DC | 54.00 V DC |
| Operating Voltage Range | 22.00 – 27.00 V DC | 47.00 – 57.7 V DC |
| Maximum Power (Input at >185 V) | 5.4 kW* | 10.8 kW* |
| Maximum Current | 200A | 200A |

## PHYSICAL ATTRIBUTES

| | |
|---|---|
| Shelf Dimensions (H x W x D) | 3.5″ x 19″ x 12″ (“I” systems), 3.5″ x 19″ x 14″ (“K” systems), |
| Rack Requirements | 19″ ANSI/EIA 310-D and 23″ racks with extender brackets (sold separately) |
| Weight | 21 lbs without rectifiers or controller |

## OUTPUT DISTRIBUTION

| | I System | K System |
|---|---|---|
| Breakers | Four (4) bullet-style breaker positions (dry contact breakers, sold separately) | Six (6) bullet-style breaker positions (dry contact breakers, sold separately) |
| Bulk | Two (2) Connections (top access required) | One (1) Connection (rear access required) |
| GMT Fuses | Ten (10) GMT fuses (fuses sold separately) | Ten (10) GMT fuses (fuses sold separately) |
| LVBD | Optional battery low voltage disconnect | Optional battery low voltage disconnect |

## OTHER SPECIFICATIONS

| | |
|---|---|
| Operating temperature | -40°C to 65°C (-40°F to +149°F) full output power below 45°C (113°F) |
| Storage temperature | -40°C to +70°C (-40°F to +158°F) |

## STANDARDS

| | |
|---|---|
| Electrical Safety | UL/CSA 60950-1, 2nd edition<br>IEC 60950-1, 2nd edition |
| EMI/EMC | GR-1089-CORE |
| Environment | GR-63-CORE<br>Directive 2011/65/EU (RoHS2) |

| SHELF PART NUMBERS | Connections | AC Feed | Nominal Output Voltage | Battery LVD (LVBD) | Number of Battery Breakers | Number of Load Breakers | Number of GMT Fuses | Bulk Connection (access required) |
|---|---|---|---|---|---|---|---|---|
| FPSI50I-ANL-VC | Front/side | Individual | -48V | Yes | 0 | 4 | 10 | Battery (top) |
| FPSI50I-ANS-VC | Front/side | Individual | -48V | No | 0 | 4 | 10 | Battery (top) |
| FPSI50I-BPL-VC | Front/side | Individual | +24V | Yes | 0 | 4 | 10 | Battery (top) |
| FPSI50I-BPS-VC | Front/side | Individual | +24V | No | 0 | 4 | 10 | Battery (top) |
| FPSI56I-ANL-VC | Front/side | Individual | -48V | Yes | 2 | 2 | 10 | Load (top) |
| FPSI56I-ANS-VC | Front/side | Individual | -48V | No | 2 | 2 | 10 | Load (top) |
| FPSI56I-BPL-VC | Front/side | Individual | +24V | Yes | 2 | 2 | 10 | Load (top) |
| FPSI56I-BPS-VC | Front/side | Individual | +24V | No | 2 | 2 | 10 | Load (top) |
| FPSK59I-ANL-VC | Rear | Individual | -48V | Yes | 2 | 4 | 10 | Load (rear) |
| FPSK59I-ANS-VC | Rear | Individual | -48V | No | 2 | 4 | 10 | Load (rear) |

## CONTROLLER PART NUMBERS (SOLD SEPARATELY)

| | |
|---|---|
| SPS-FPS200-A01-VV | -48V shelves with LVBD |
| SPS-FPS200-B01-VV | +24V shelves with LVBD |

## RECTIFIER PART NUMBERS (SOLD SEPARATELY)

| | |
|---|---|
| 241122.105.VC | Flatpack S 48/1000 HE with CLEI |
| 241122.125.VC | Flatpack S 48/1800 HE with CLEI |
| 241122.205 | Flatpack S 24/1000 HE |
| 241122.930 | Flatpack S Blind Panel |

Doc 370039.DS3 Issue 2.1

Specifications are subject to change without notice.

* Actual value depends on the rectifiers installed; see rectifier datasheet.