

Flatpack2 Front End System, Battery Charger

The Integrated 19" 2U power supply is built around the Flatpack2 rectifier and designed for applications such as switchgear, telecom, emergency lighting and alarm systems.

Its compact design and simple installation make it a powerful 19" power supply package.

The rectifier's wide DC output range makes it suitable for parallel operation with all types of stationary batteries, including lead acid, or nickel cadmium types.

Note: Since this product is only a recognized component, this system must be used in some type of fire, mechanical and electrical enclosure.



FLATPACK2 INTEGRATED 19" 2U

48 V_{DC}, 60 V_{DC}, 110 V_{DC} & 125 V_{DC} SYSTEMS

Doc 370079.DS3 Issue 1.3

INDUSTRY APPLICATIONS

Telecom/Mobile

- LTE/4G/5G
- Distributed antenna system
- Broadband
- Radio base stations/cell sites

Power Utilities

- Low and High voltage switchgear
- Transformer and substations
- Power generation and distribution
- Control and protection
- SCADA system
- Communication equipment

Offshore and process industry

- Safety and Automation Systems (SAS)

Marine

- Communication onboard ships

Railway infrastructure

- Control and protection
- Signaling



Smartpack2 Touch Controller



Flatpack2 Rectifier Module

KEY FEATURES

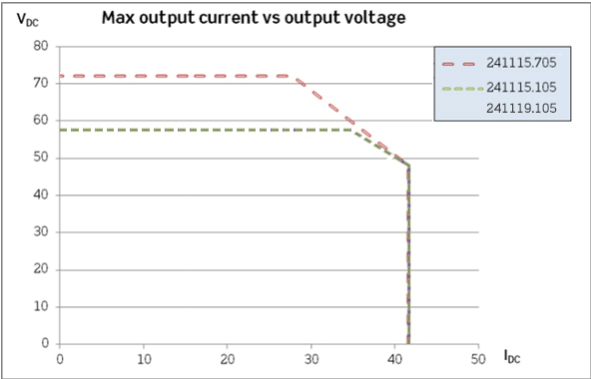
- Compact design and simple installation
- 100-250 VAC Input (depending on model used)
- House up to 4 rectifier modules
- 48-125 VDC systems
- Bulk feed output
- 4.4" high-contrast, high-resolution color touch display for easy navigation in user menu
- Ethernet for remote or local monitoring and control via WEB Browser
- SNMP protocol with TRAP, SET and GET on Ethernet. Email of TRAP alarms
- 6 digital programmable relay outputs
- 6 programmable multipurpose inputs ("digital inputs" or analog signals).

RECTIFIER

48V/60V Systems

Applications

The 48V rectifiers are designed to meet international telecom standards for safe and reliable operation in telecom environments or any industrial communication system.

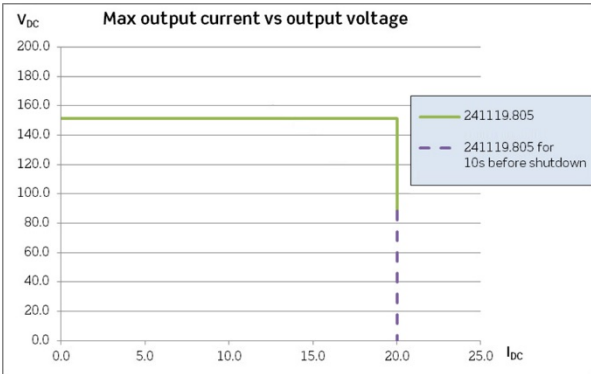


AVAILABLE 48/60V RECTIFIERS							
Part Number	Description	Output Voltage Range	Efficiency	Maximum Output Current			
				1 Module	2 Modules	3 Modules	4 Modules
241115.705	Flatpack2 48-60V/2000W HE	39.9 – 72 V	> 95.5% (25-75% load)	41.6 A	83.2 A	124.8 A	166.4 A
241115.105	Flatpack2 48V/2000W HE	43.5 – 57.6 V	> 96% (30-70% load)	41.7 A	83.4 A	125.1 A	166.8 A
241119.105	Flatpack2 48V/3000W HE	43.5 – 58 V	> 96% (30-50% load)	62.5 A	125 A	187.5 A	250 A

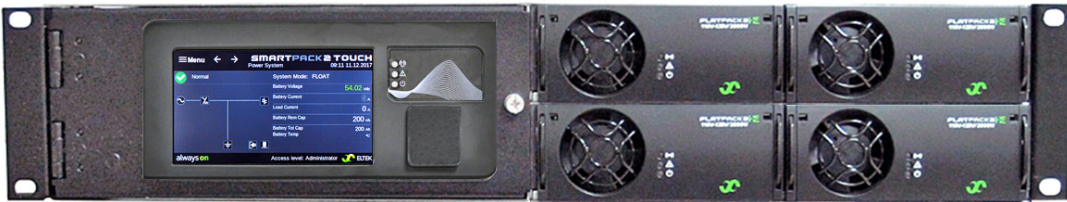
110V/125V Systems

Applications

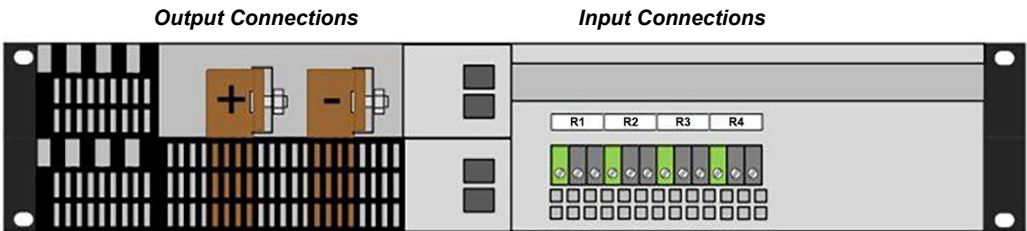
The 110V rectifiers are designed for demanding environments and comply with IEC61000-6.5 (Immunity Power Stations and Substations) for reliable operation in critical applications.



AVAILABLE 110/125V RECTIFIERS							
Part Number	Description	Output Voltage Range	Efficiency	Maximum Output Current			
				1 Module	2 Modules	3 Modules	4 Modules
241119.805	Flatpack2 110-125V/20A HE	90.0 – 151.25 V	> 94% (45-100% load)	20 A	40 A	60 A	80 A



Front View Flatpack2 Integrated 19" 2U



Rear View Flatpack2 Integrated 19" 2U, Output and Input Connections

TECHNICAL SPECIFICATIONS

Model	Bulk Feed 48V/60V	Bulk Feed 110/125V
Part number	297892	297894
INPUT DATA		
Voltage (rated range) – AC	100 – 250	100 – 250
4 Individual AC feed	•	•
4 Individual DC feed	•	•
Protection	Individual input fuses in rectifier modules	
Connection	Individual screw terminal 6 mm ² PE screw terminal, max 6 mm ² and M5 cable lug directly to chassis	
OUTPUT DATA (Refer to previous pages for details)		
Voltage (typical default)	53.5 V _{DC}	110-125 V _{DC}
Power (maximum) @ nominal input	12 kW	8 kW
Current (maximum) @ nominal input	See previous page or applicable Flatpack2 rectifier datasheet	
Unprotected bulk output	Yes	Yes
Protected battery outputs	No	No
Protected load outputs	No	No
Integrated battery shunt and disconnect	No	No
Connection	M8 Bolt	M8 Bolt
Output Protection in rectifiers	Blocking OR-ing FET or fuse, Short circuit and High temperature protection	
CONTROL AND MONITORING		
Monitoring Unit	Smartpack2 Touch Controller	
Local Operation	Display, WEB interface via standard web browser	
Remote Operation	Web browser interface (SNMP protocol and email)	
Alarm Relays (Connection: clamp ≤ 1.5 mm ²)	6 x Potential free change over contacts (NO, NC, C)	
Inputs	6 x Configurable (digital, analog) and 3 temperature	
Current measurements	Rectifier current and if battery shunt is used; battery current and load current	
Alarms	Low & high output voltage alarms (Minor and major levels), Earth fault alarm, Temperature alarm, Mains outage alarm, Battery remaining capacity/low quality alarms, Battery/load breaker tripped alarm and much more	
OTHER SPECIFICATIONS		
Isolation	3.0 kV _{AC} - input to output 1.5 kV _{AC} - input to earth 0.5 kV _{DC} - output to earth	
Operating temperature	–40 to +45°C (–40 to +113°F), humidity 5 - 95% RH non-condensing Output power de-rates at high temperature to 65°C; see datasheet for applicable rectifier details	
Storage temperature	–40 to +70°C (–40 to +158°F), humidity 0 - 99% RH non-condensing	
Dimensions[WxHxD] / Weight	482 x 432 x 89mm (2U) (19 x 17 x 3,5") / 10 kg (1 module) 16 kg (4 module)	
DESIGN STANDARDS		
Electrical safety	UL 60950-1-2 nd edition, EN 60950-1-2 nd edition	
EMC	EN 61000-6-1 / -2 / -3 / -4 / -5 (Depending on module)	