

Flatpack2 | 2U Integrated

Modular Power Supply Unit



POWERFUL TECHNOLOGY

Product Description

The Flatpack2 2U Integrated has been specifically designed to meet the demand for higher density and more compact power solutions. It is suitable for applications needing an expandable, easily serviceable and reliable power supply, fitting within a minimal space.

The Flatpack2 2U Integrated is a compact power system containing a Monitoring and Control Unit (Smartpack), LVD, battery and load MCBs. It can house up to 4 Flatpack2 rectifier modules. Switch mode technology with resonant topology and high switching frequency is used to minimize volume and weight and to obtain high reliability. The system accepts large variations on the input voltage (85-290 VAC) and draws sinusoidal current with a soft start power-up.

Applications

Wireless, fiber and fixed line communication

Today's communications demand state of the art, cost efficient and compact DC power systems. Flatpack2 delivers the industry leading power density of 21W/in³ and superb reliability at lowest lifetime cost.

Broadband and network access

Increasing network speed demands flexible and expandable DC power solutions. Flatpack2 is your key building block for future needs.

Key Features

✓ Highest efficiency in minimum space

Resonant topology makes the module efficiency industry leading and contributes to the rectifier's ultra compact dimensions.

✓ Digital controllers

Primary and secondary controls are digitalized, enabling excellent monitoring and regulation characteristics. Thus, the number of component has been reduced by 40% - for highly reliable, long life, trouble free DC power systems.

✓ Heat management

Front-to-back air flow with chassis-integrated heat sinks gives the module the most suitable working environment and no limitations in the scalability of the desired system solution.

✓ Unique connection

A true plug-and-play connection system: time-to-install and cost-reducing solution.

✓ Global approvals

Flatpack2 is CE marked, UL recognized and NEBS certified for world wide installation.



Flatpack2 | 2U Integrated

Additional Technical Specifications

Maximum number of rectifiers - 4

AC Input	
Voltage	1 phase 230 VAC (single, dual or individual feed)
Frequency	45 to 66Hz
Maximum Current	See Flatpack2 48VDC datasheet
Protection	Soft start Surge protection (varistors) Internal fuses (L & N) Disconnect above 290 VAC

Monitoring	
Monitoring unit	See Smartpack datasheet
Local operation	Menu driven software via keypads and LCD or PC (PowerSuite)
Remote operation	PowerSuite via modem or Monitoring via WebPower (WEB Interface and SNMP protocol)
Alarm relays	6 relays
Visual indications	Green LED – System ON Yellow LED – Minor alarm(s) Red LED – Major alarm(s) LCD – system status
Digital inputs	6 (for monitoring of external equipment)
Current measurements	Battery current Rectifier current
Alarms	Load fuse alarm Battery fuse alarm LVD operated Low output voltage alarms (2 individual alarm levels) High output voltage alarms (2 individual alarm levels) Battery capacity Temperature alarm Symmetry alarm

DC Output	
Voltage	48 VDC
Current	Max 150A

DC Distribution Options	
No. of Load breakers	6 x breakers (2-32A)
No. of Battery fuses	1 or 2 (max. 100A each)
Programmable LVD	Optional: 1 LVBD (150A) Optional: 1 LVLD (150A)

Connections	
Battery connections	Battery cable, M6 bolts
Load MCB connections	Negative distribution from row connector (max 10mm ²).
Alarm connections	Rear access row connector (2,5mm ²)

Other Specifications	
Isolation	3.0 KVAC – input and output 1.5 KVAC – input earth 0.5 KVDC – output earth
Operating temp.	-40 to +65°C (-40 to +145°F)
Storage temp.	-40 to +85°C (-40 to +185°F)
Dimensions	482 x 370 x 89mm (2U) (wxdxh) (19 x 14.6 x 3.5”) recommended cabinet depth is min 400 mm (15.7”)
Weight	Approx. 5kg (11lbs) excl. rectifiers

Applicable Standards	
Electrical safety	IEC 60950-1 UL 60950
EMC	ETSI EN 300 386 V.1.3.1 (telecommunication network) EN 61000-6-3 (emission, light industry) EN 61000-6-2 (immunity, industry)
Environment	ETSI EN 300 019-2 ETSI EN 300 132-2

Specifications are subject to change without notice.

ORDERING INFORMATION

Part no.	Description
241115.001	Flatpack2 48V Rectifier Module
M20402.000	Flatpack2 2U Integrated - 1ph 7,2kW 2x100A Battery Breakers, 150A LVBD, 6 I/O, 1.5m temp probe
900210-xxxxx	Flatpack2 2U Integrated – Sales configured system

Document Rev. No.: 200010.DS3 v.02

Location	Company	Telephone	Fax
Europe	Eltek Energy AS	+47 32 20 32 00	+47 32 20 32 10
Americas	Eltek Energy, LLC	+1 815 459 9100	+1 815 459 9118
Asia/Pacific	Eltek Energy Pte Ltd.	+65 6 7732326	+65 6 7753602
China	Eltek Energy Ltd.	+86 769 22651108	+86 769 22296797
Middle East	Eltek Middle East	+971 4 887 1176	+971 4 887 1175