

Flatpack | 700

Switch Mode Power Supply 48 VDC



POWERFUL TECHNOLOGY



The Flatpack 700 48V is a battery charger and rectifier for stand-alone use, or for working in parallel as part of a power rack system controlled by the Flatpack MCU Monitoring & Control Unit. When connected in parallel, the rectifiers provide active current sharing, with or without the Monitoring & Control Unit.

Switch mode technology with soft switching and high switching frequency is used to minimize volume and weight, and to obtain fast output voltage regulation. The module accepts large variations on the input voltage and draws sinusoidal current with a soft start power-up.

The Flatpack 700 48V will operate in ambient temperatures up to +70°C (+158°F). At higher temperatures, the rectifier will derate the output power and deliver the maximum possible power until it goes into an over-temperature shutdown.

The rectifier provides 700 W power for universal input voltage range



FLATPACK 700 48 V		OTHER SPECIFICATIONS	
SPECIFICATIONS		Efficiency	> 88% at 110VAC > 90% at 230VAC
INPUT		Isolation	3.0 KVAC – input and output 1.5 KVAC – input earth 1.0 KVDC – input earth
Input voltage	85-300 VAC*	Rectifier Alarms	Mains failure Module failure Overvoltage shutdown Fan failure
Frequency	45 to 66Hz	Visual indications	Green LED: ON, no faults Red LED: Rectifier failure Yellow LED bargraph: 10 LEDs showing load current (0-15A)
Maximum Current	7.5 Arms maximum at 110VAC 3.6 Arms maximum at 230VAC	Operating temp	-40 to +70°C (-40 to +158°F)
Power factor	> 0.99 at 50% load or more	Storage temp	-40 to +85°C (-40 to +185°F)
Input protection	Soft start Surge protection (varistors) Internal fuses (L & N) Disconnect above 312VAC	Cooling	2 fans (front to back airflow) Brushless w/ magnetic bearing
OUTPUT		Fan Speed	Temperature regulated
Voltage	48 VDC (range: 44-59 VDC)	MTBF	> 210,000 hours Telcordia Issue I, method III (a)
Output power	600 W at 85-99 VAC 700 W at 99-312 VAC	Acoustic Noise	< 55dBA (sound pressure)
Maximum current	15 Amps at 48 VDC	Humidity	Operating: 5% to 95% RH non-condensing Storage: 0% to 99% RH non-condensing
Current share	±1.2 Amp from true average current between modules	Dimensions	214 x 41.5 x 243mm (wxhxd) (8.43 x 1.64 x 9.57")
Static voltage regulation	±0.5% from 0 to full load	Weight	2.8kg (6,17lbs)
Dynamic voltage regulation	±4% for 10-90% or 90-10% load variation, regulation time < 10ms	APPLICABLE STANDARDS	
Hold up time	20ms; output voltage > 44 VDC	Electrical safety	EN 60950 UL 60950
Ripple and Noise	< 100 mV peak to peak, 30 MHz bandwidth < 0.96mV rms psophometric	EMC	ETSI EN 300 386 V.1.3.1 (telecommunication network) EN 61000-6-3 (emission, light industry) EN 61000-6-2 (immunity, industry) Telcordia GR1089 CORE
Output Protection	Overvoltage shutdown Reverse current blocking Short circuit proof High temperature protection	Harmonics	EN 61000-3-2
		Environment	ETSI EN 300 019-2 ETSI EN 300 132-2 Telcordia GR63 CORE Zone 4

* The module will disconnect itself from the mains for voltages above 300Vac. For voltages between 275 and 300Vac, the module will operate with reduced power factor.

Specifications are subject to change without notice.

ORDERING INFORMATION

Part no.	Description
241114.400	FLATPACK 700 48V rectifier module

241114.400.DS3 v.03

Location	Company	Telephone	Fax
Europe	Eltek Energy AS	+47 32 20 32 00	+47 32 20 32 10
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Asia/Pacific	Eltek Energy Pte Ltd.	+65 6 7732326	+65 6 7753602
China	Eltek Energy Ltd.	+852 28982689	+852 28983189
Middle East	Eltek Middle East	+971 4 887 1176	+971 4 887 1175