Flatpack | DC/DC 48/190

The Flatpack DC/DC 48/190 is a modular hot plug-in DC-DC converter prepared for stand-alone use, or for working in parallel as part of a DC-DC rack system. The converter is especially designed to provide a high
quality and highly reliable DC output voltage.

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SWITCH MODE DC CONVERTER

Doc 241114.501.DS3 – rev4

KEY FEATURES

Switch mode technology with soft switching and high switching frequency is used to minimise volume and weight, and to obtain fast output voltage regulation.
The module has a soft start power-up. When working in parallel, the converters provide active current sharing.
An internal blocking diode allows hot plug-in and isolates any faults in the converter output from the DCbus.

Several internal protection circuits ensure safe operation, even outside specified limits for normal operation. A module failure alarm is given if the module shuts down due to high/low input voltage, high output voltage (selective), or in case of an internal failure.
Front LEDs show power ON/OFF and alarm status in addition to a LED bar graph for output current indication.
The Flatpack DC/DC 48/190 will operate in ambient temperatures up to +65°C. It delivers maximum output power up to an ambient temperature of +65°C. At higher temperatures, the converter may de-rate the output power until it goes into an over-temperature shutdown.

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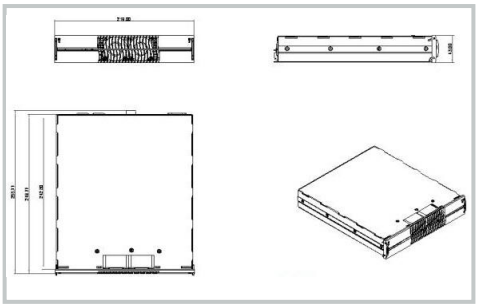

FLATPACK DC/DC 48/190

INPUT DATA

Input voltage range	40-60 VDC
Maximum Current	34.7A at 40Vdc Input
Input Protection	Soft start Internal fuses (L&N) Under voltage lock out

OUTPUT DATA

Output voltage	190 VDC
Output Power	1250W
Maximum Current	6,6A
Current Share	± 5% from true average
Static Voltage Regulation	±0.5% from 0 to full load
Dynamic Voltage Regulation	±1.0% for 10-90% or 90-10% load variation
Ripple and Noise	< 100 mV peak to peak, 30 MHz bandwidth < 0.96mV rms psophometric
Output Protection	○ Over voltage shutdown ○ Blocking diode ○ Short circuit proof ○ High temperature protection

OTHER SPECIFICATIONS

Efficiency	> 90%	
Isolation	3.0 KVAC – input and output 1.0 KVDC – input earth 1.5 KVAC – output earth	
Rectifier Alarm	○ Internal Alarm relay ○ Module failure	○ Over voltage shutdown ○ Fan Failure
Visual Indications	Green LED: ON, no faults Red LED: OFF, converter failure Green + Yellow LED: ON, converter warning Green LED bargraph: 10 LEDs showing load current (0-100%)	
Operating temp.	-25 to +65°C (-25 to +149°F)	
Storage temp.	-40 to +85°C (-40 to +185°F)	
Cooling	2 fans, front to back airflow Brushless w/ magnetic bearing Temperature controlled fan speed	
MTBF	> 175,000 hours Telcordia Issue I, method III (a)	
Acoustic Noise	< 60dBA	
Humidity	**Operating:** 5% to 95% RH non-condensing	**Storage:** 0% to 99% RH non-condensing
Dimensions	214 x 41.5 x 243mm (wxhxd) (8.43 x 1.64 x 9.57")	
Weight	2.6kg (5,71lbs)	

APPLICABLE STANDARDS

Electrical safety	IEC 60950-1 UL 60950-1 Telcordia GR-1089-CORE	
EMC	ETSI EN 300 386 V.1.3.2 EN 61000-6-4 (emission)	EN 61000-6-2 (immunity) Telcordia GR-1089-CORE
Environment	ETSI EN 300 019-2 ETSI EN 300 132-2 Telcordia GR-63-CORE	

Part No.	Description
241114.501	Flatpack DC/DC 48/190

Eltek — Gråterudveien 8, PB 2340 Strømsø, 3003 Drammen, Norway Phone: +47 32 20 32 00