

Wide input DC/DC converters

The Flatpack2 DC/DC converters add new flexibility to the Flatpack2 power systems. Secondary 24V_{DC} or 48V_{DC} outputs can be provided from the main voltage battery. Application requiring galvanic isolation between the loads can now also be addressed.

The galvanic isolated CAN bus can be connected to a supplying Eltek power system's control system allowing monitor and control of the DC/DC converters without adding a separate controller.



FLATPACK2 DC/DC 1350W

18-75V/24V & 18-75V/48V

Doc 241115.60x.DS3 – v2.2

APPLICATIONS

TELECOM – MOBILE / WIRELESS

- RADIO BASE STATIONS/ CELL SITES
- LTE / 4G / WIMAX
- MICROWAVE

TELECOM – FIXED

- TELEPHONY SERVERS / SWITCHES
- FIBER OPTICS
- MICROWAVE
- CABLE
- BROADBAND

POWER UTILITIES

- CONTROL & PROTECTION
- PLC AND ALARM SYSTEMS
- SIGNALING

RAILWAY & METRO

- CONTROL & PROTECTION
- SIGNALING SYSTEMS
- SAFETY SYSTEM



6U SYSTEM



FLATPACK2 DC/DC POWER RACK (PN: 273820)



MONITORING USING COMPACT INTERFACE KIT (PN: 242100.900)

KEY FEATURES

- WIDE INPUT RANGE
- OR-ING PROTECTION ON OUTPUT
- BOOST MODE
- QUICK TRIP PULSE
- HIGH EFFICIENCY
- MODULE KEYING
- SEAMLESSLY INTEGRATED IN CONTROL SYSTEM



STATUS OF DC/DC CONVERTERS IN SMARTPACK2 WEB

FLATPACK2 DC/DC 1350W

18-75V/24V & 18-75V/48V

Model	1350W 18-75/24V	1350W 18-75/48V
Part number	241115.600	241115.602
INPUT DATA		
Voltage range	20 - 75 V _{DC} (shutdown < 16.5V _{DC})	
Current (maximum)	70 A _{DC} (85 A _{DC} during boost)	
Protection	Fuse and reversed polarity protection	
OUTPUT DATA		
Voltage (default)	26 V _{DC}	53 V _{DC}
Voltage (adjustable range)	24 - 28 V _{DC}	48 - 58.5 V _{DC}
Power (maximum) @ V _{IN} > 26 V _{DC} / V _{IN} = 18 V _{DC} Power boost 15s / 10min recovery (V _{IN} > 25V _{DC})	1350 W / 910 W 2000W	
Current (maximum)	56 A	28 A
Current boost 15s / 10min recovery (V _{IN} > 25V _{DC})	84 A	42 A
Static Voltage regulation (0 - 100% load)	±1%	±0.5%
Dynamic Voltage regulation	±5.0% for 10-90% or 90-10% load variation, regulation time < 30ms	
Ripple, 20MHz bandwidth	< 200 mV _{pp}	
Protection	Short circuit proof , OR-ing diode, High temperature protection, Hot plug-in inrush current limiting, Over voltage Shutdown	
OTHER SPECIFICATIONS		
Efficiency	Up to 91.7 %	Up to 93.8 %
Isolation	1.2 kV _{DC} - input to chassis 1.9 kV _{DC} - input to output 1.0 kV _{DC} - output to chassis	1.9 kV _{DC} - CAN to chassis 1.9 kV _{DC} - CAN to input 1.9 kV _{DC} - CAN to output
Alarms: Red LED 'on'	Low and high input voltage shutdown, High and low temperature shutdown, Converter Failure, Overvoltage shutdown on output, Fan failure, Low output voltage alarm	
Warnings: Yellow LED 'on'	Converter in power de-rate mode, Remote output current limit activated, Input voltage out of range, flashing at overvoltage, Loss of CAN communication with controller	
Normal (module running): Green LED 'on'		
MTBF (Telcordia SR-332 Issue I method III (a))	>315 000 (@ T _{ambient} : 25 °C)	>315 000 (@ T _{ambient} : 25 °C)
Operating temperature	-40 to +75°C (-40 to +185°F), humidity 5 - 95% RH non-condensing	
Temperature de-rating above 55°C (131°F)	1350W to 1250W @ 65°C (149°F) and 800W @ 75°C (167°F)	
Storage temperature	-40 to +85°C (-40 to +185°F), humidity 0 - 99% RH non-condensing	
Dimensions[WxHxD] / Weight	109 x 41.5 x 327mm (4.25 x 1.69 x 13") / < 1.95 kg (4.3 lbs)	
DESIGN STANDARDS		
Electrical safety	UL 60950-1, EN 60950-1	
EMC	EN 61000-6-1 / -2 / -3 / -4 ETSI EN 300 386 V.1.4.1	
Environment	ETSI EN 300 019: 2-1 (Class 1.2), 2-2 (Class 2.3) & 2-3 (Class 3.2) RoHS (2011/65/EU) and WEEE (2002/96/EC) compliant	