

Flatpack2 DC-DC Converter Shelf

Overview

Eliminate the need for two battery systems to support sites with multiple voltage equipment by adding an Eltek Flatpack2 DC-DC Converter Shelf. The easy-to-install Flatpack2 DC-DC Converter Shelf (available in 24V or 48V output voltages) is designed to convert a wide input voltage range to standard telecom voltages. The system features Eltek's High Efficiency technology that makes it ideal for supporting sites with dual voltage requirements, such as +24V legacy and newer microwave or LTE -48V telecom equipment.



FLATPACK2 DC-DC CONVERTER SYSTEMS

Doc 370025.DS3 Issue 1.3

APPLICATIONS

The Eltek Flatpack2 DC-DC Converter System is a high-efficiency power solution with an optimal footprint where space is limited – both in typical racks and some cabinet installations.

The Flatpack2 DC-DC system delivers DC power solutions to telecommunications infrastructures where dual voltage 24/48V or 48/24V are required to power new and legacy equipment from a primary DC voltage source.

PRODUCT DESCRIPTION

At 18.5" deep, the Flatpack2 DC-DC system is designed for use in 19" ANSI/EIA 310-D racks and cabinets. Extender brackets are included for use in 23" racks.

Powered by Flatpack2 HE DC-DC converter modules, efficiency exceeds 93% at 48V DC output.

Optional Configurations:

- Converter system without controller
- Converter system with Compact controller

KEY FEATURES

- **COMPACT DESIGN**
Small overall dimensions are ideal for rack applications.
- **REAR ACCESS CONNECTIONS**
DC loads are rear access. All cabling is horizontal to reduce vertical space.
- **HEAT MANAGEMENT**
Flatpack2 converter module features front-to-back airflow and chassis-integrated heat-sinks, supplementing high-efficiency energy conversion with excellent heat management.
- **COST-EFFICIENCY**
A true plug-and-play system, the Flatpack2 DC-DC Converter reduces both time-to-install and overall costs.

INPUT DATA	24V OUTPUT SYSTEM		48V OUTPUT SYSTEM			
	1U SHELF	2U SHELF	1U SHELF	2U SHELF		
Nominal Voltage	48V DC	48 V DC	24 V DC	24 V DC		
Voltage Range	20 – 75V DC	20 – 75V DC	20 – 75V DC	20 – 75V DC		
Current (@ Input Voltage)	143A DC (@ 42V DC)*	286A DC (@ 42V DC)*	228A DC (@ 21 V DC)*	456A DC (@ 21V DC)*		
Current (@ Input Voltage)	240A DC (@ 20V DC)*	480A DC (@ 20V DC)*	240A DC (@ 20V DC)*	480A DC (@ 20V DC)*		
OUTPUT DATA	1U SHELF	2U SHELF	1U SHELF	2U SHELF		
Nominal Voltage	27V DC	27V DC	54V DC	54V DC		
Adjustable Range	24 – 28V DC	24 – 28V DC	48 – 58.5V DC	48 – 58.5V DC		
Power (25V _{in} – 75V _{in})	5.4 kW*	10.8 kW*	5.4 kW*	10.8 kW*		
Current (at Nominal Output Voltage)	200A*	400A*	100A*	200A*		
DIMENSIONS	1U SHELF	2U SHELF	1U SHELF	2U SHELF		
Dimensions (H x W x D)	1.75” X 19” x 18.8”	3.5” X 19” x 18.8”	1.75” X 19” x 18.8”	3.5” X 19” x 18.8”		
Rack Requirements	19” ANSI/EIA 310-D or 23” Rack with Extender Brackets (Provided)					
Input/output Connections	Input: 3/8”-16 Studs Output: 3/8”-16 Studs	Inputs: 2x 3/8”-16 Studs Outputs: 2x 3/8”-16 Studs	Input: 3/8”-16 Studs Output: 3/8”-16 Studs	Inputs: 2x 3/8”-16 Studs Outputs: 2x 3/8”-16 Studs		
ENVIRONMENTAL	1U SHELF	2U SHELF	1U SHELF	2U SHELF		
Operating Temperature	-40°C to +65°C (-40°F to +149°F)					
Temperature Derating	Linear Derating above 55°C per Converter Datasheet					
Storage Temperature	-40°C to +70°C (-40°F to +158°F)					
Weight	12 lbs	24 lbs	12 lbs	24 lbs		
ALARM						
Output Alarm	All shelves have a CAN connector to communicate with an Eltek controller in a rectifier system. In addition, the shelf may be ordered with a Compack controller for full controller functionality.					
SHELF PART NUMBER	INPUT RANGE	OUTPUT (NOMINAL)	RACK HEIGHT	NUMBER OF MODULES	POWER (W)	COMPACT CONTROLLER
323000	20 – 75V DC	27V DC	1u	4	5400 W	No
323001	20 – 75V DC	54V DC	1u	4	5400 W	No
323002	20 – 75V DC	27V DC	2u	8	10,800 W	No
323003	20 – 75V DC	54V DC	2u	8	10,800 W	No
342097	20 – 75V DC	27V DC	1u	3	4050 W	Yes
342098	20 – 75V DC	54V DC	1u	3	4050 W	Yes
342099	20 – 75V DC	27V DC	2u	7	9450 W	Yes
342100	20 – 75V DC	54V DC	2u	7	9450 W	Yes
MODULE	INPUT	OUTPUT	OUTPUT WATTS (25V _{IN} – 75V _{IN})		OUTPUT CURRENT (@ NOMINAL V _{OUT})	
241115.600.VC	20 – 75V DC	27.00V DC	1350 W		50A	
241115.602.VC	20 – 75V DC	54.00V DC	1350 W		25A	
APPLICABLE STANDARDS						
Electrical Safety	UL/CSA 60950-1, 2 nd edition; IEC 60950-1, 2 nd edition					
EMI/EMC	GR-1089-CORE					
Environment	GR-63-CORE					

*Depends on number of modules installed.

Doc. No. 370025.DS3 Issue 1.3

Specifications are subject to change without notice