

Integrated power system

Versatile and powerful solution for any application

The combination of cost-effective design, power density and reliability makes the Flatpack2 a product family that truly stands out and provides unparalleled network availability. The versatility of the Flatpack2 rectifier means that it can be used in a wide variety of 48VDC and 24VDC applications across the globe



Flatpack2, 5U – 8U Integrated power system

DC Power supply system, 150 - 700A

Doc PEDM0000963391_00

APPLICATIONS

TELECOM – MOBILE / WIRELESS

- Radio Base stations/ Cell Sites
- LTE / 4G / WiMAX
- Distributed Antenna Systems
- Microwave
- Broadband



Smartpack R controller

TELECOM – FIXED

- Telephony servers / switches
- Fiber Optics / FTTx
- Microwave
- Cable
- Broadband



Flatpack 2 48/3000 SHE rectifier

KEY FEATURES

- COMPLETE SYSTEM
- SMARTPACK R CONTROLLER
- ADVANCED CONTROL AND MONITORING THROUGH ETHERNET PORT
- USB TYPE A HOST FOR PLUG-IN DEVICES (EG. WIFI; FLASH DRIVES)
- USB TYPE B FOR CONTROL
- SUPER HIGH EFFICIENCY RECTIFIERS
- HOT PLUGGABLE MODULES
- 8X BATTERY BREAKER POSITIONS
- LVBD
- 18X LOAD MCB DISTRIBUTION
- LVLD (OPTIONAL)

Flatpack2, 5U – 8U Integrated

Doc PEDM0000963391_00



MODEL	24VDC	48VDC	48VDC 36KW
Part number (Configured Telecom power system)	CTO2xxxx.nnnn	CTOxxxxx.nnnn	CTO312xx.nnnn
POWER MODULE			
Flatpack2 rectifier ¹⁾	Flatpack2 24/1800 HE	Flatpack2 48/2000 HE / SHE Flatpack2 48/3000 HE / SHE	Flatpack2 48/3000 HE / SHE
INPUT DATA			
Voltage (range) / Frequency	85-300 V _{AC} / 45-66 Hz	85-300 V _{AC} (HE) / 45-66 Hz 85-264 V _{AC} (SHE) / 45-66 Hz	85-300 V _{AC} (HE) / 45-66 Hz 85-264 V _{AC} (SHE) / 45-66 Hz
AC Mains input configuration	Individual ²⁾ / 1p230 V _{AC} TN / 3p400 V _{AC} TN / 1p230 V _{AC} IT / 3p230 V _{AC} IT		3p400 V _{AC} TN
Connection	Terminal blocks, 16 mm ² max		Terminal blocks, 35 mm ² max
OUTPUT DATA			
Voltage	+24 V _{DC}	-48 V _{DC}	-48 V _{DC}
Current (maximum)	600 A	600 A	700 A
BATTERY DISTRIBUTION			
Number of battery breaker pos.	6x 100 A	6x 100 A	8x 100 A
LVBD	Default 300 A / 600 A	Optional 150 A / 300 A / 500 A / 600 A	Default 800 A
LOAD DISTRIBUTION			
Number of load MCB positions	18x 18 mm or 9x 18 mm + 6x 27 mm		16x 18 mm or 4x 18 mm + 8x 27mm
LVLD (Optional)	300 A / 600 A	150 A / 300 A / 500 A / 600 A	
Load breaker type	DIN rail mounted, 18 mm and 27 mm wide (13 mm on request)		
CONTROL AND MONITORING			
Control and Monitoring unit ³⁾	Smartpack R		
Inputs	6x Digital inputs (for monitoring of external equipment)		
Outputs	6x Alarm relays		
OTHER SPECIFICATIONS			
Isolation	3.0 kV _{AC} – input to output 1.5 kV _{AC} – input to earth 0.5 kV _{DC} – output to earth		
Operating temperature	-40 to +60 °C		
Storage temperature	-40 to +85 °C		
Dimensions (W x D x H) ⁴⁾	482 x 380 x H mm, height (H): 5U: 222 mm / 6U: 267 mm	482 x 380 x H mm, height (H): 5U: 222 mm / 6U: 267 mm / 7U: 311 mm / 8U: 356 mm	482 x 380 x 311 mm
Weight range (based on configuration, excluding modules)	14 – 24 kg	14 – 30 kg	23 – 33 kg
DESIGN STANDARDS			
Electrical safety	IEC EN 62368-1		
EMC	ETSI EN 300 386 v2.2.1 EN 61000-6-1 /-2 /-3 ⁵⁾ /-4		
Environment	ETSI EN 300 019-2-1 (Class 1.2) /-2 (Class 2.3) /-3 (Class 3.2) ETSI EN 300 132-2 Normal operating conditions as per IEC 62040-5-3:2016 clause 4.2. Other operating conditions as per IEC 62040-5-3:2016 clause 4.3, must be advised		

1) See Flatpack2 rectifier datasheet for details

2) When system is configured without SPD device option

3) See Smartpack R controller datasheet for details

4) Recommended minimum indoor cabinet depth is 400 mm

5) Depends on system power output, not applicable for systems with ≥24kW power output.