

# Flatpack2

## Solar Autonomous power core

Eltek's Solar Autonomous power core is based on the Flatpack2 product family, fully integrated into complete and flexible solutions with one single Smartpack2 controller.

The power core has integrated battery distribution, DC load distribution, solar chargers with PV connection panel. The power core is flexible and can easily be upgraded to meet changing demands.

Solar Autonomous site is powered from PV panels and with a combination of cycling batteries supply all required power during the whole day.



# Flatpack2 – Solar Autonomous power core

## DC Power supply system, 300A-500A 4U Distribution

Doc MA0407S.400.DS3 – rev1

### APPLICATIONS

#### TELECOM – MOBILE / WIRELESS

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

#### TELECOM – FIXED

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

Smartpack2 Touch controller



Flatpack2 48/3200 HE solar



### KEY FEATURES

- COMPLETE SYSTEM
- SMARTPACK2 TOUCH CONTROLLER
- ADVANCED CONTROL AND MONITORING THROUGH ETHERNET PORT
- HE FP2 SOLAR WITH MPPT
- MAX PV CAPACITY 24KW
- PV CONNECTION PANEL WITH DC SPD (OPTION)
- HOT PLUGGABLE MODULES
- 19" / 4U DISTRIBUTION CHASSIS
- UP TO 8X BATTERY BREAKER POSITIONS
- LVBD
- UP TO 18X LOAD BREAKERS POSITIONS
- LVLD1
- LVLD2 (OPTIONAL)
- GLOBAL APPROVALS

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MODEL	300A DISTRIBUTION	500A DISTRIBUTION
Part number (configured power systems)	CTOA0407S.4xxx	CTOA0810S.4xxx
<b>POWER MODULES</b>		
Flatpack2 Solar Charger <sup>1)</sup>	Flatpack2 48/3200 HE Solar	
<b>INPUT DATA (SOLAR CHARGER)</b>		
Voltage (range)	85-420 V <sub>DC</sub> (operating range) 100-380 V <sub>DC</sub> (MPPT range)	
Voltage (start-up)	150 V <sub>DC</sub>	
Maximum current	20 A <sub>DC</sub>	
<b>PV CONNECTION PANEL</b>		
Service switches for PV arrays	4 pcs 2-pole	8 pcs 2-pole
DC SPD Type 2 (option)	Up to 4 pcs	Up to 8 pcs
<b>OUTPUT DATA</b>		
Voltage	-48 V <sub>DC</sub>	-48 V <sub>DC</sub>
Current (maximum)	300 A	500 A
<b>BATTERY DISTRIBUTION</b>		
Number of breaker positions	6x (single pole)	8x (single pole)
LVBD	300 A	500 A
Battery breaker type	Plug-in type (D-frame)	
<b>LOAD DISTRIBUTION</b>		
Number of load positions	Up to 18x 18 mm	Up to 16x 18 mm
LVL1	300 A (max 12x 18 mm or 4x 27 mm + 6x 18mm)	300 A (max 10x 18 mm or 4x 27 mm + 4x 18mm)
LVL2 (option)	150 A (max 6x 18 mm or 4x 27 mm)	150 A (max 6x 18 mm or 4x 27 mm)
Load breaker type	DIN rail mounted, 18 mm and 27 mm wide	
<b>CONTROL AND MONITORING</b>		
Control and Monitoring unit <sup>2)</sup>	Smartpack2 Touch + Smartpack2 Basic + I/O Monitor Type2	
Mounting location	Door panel mounted	
Local operation	Menu guided operation via touch-pad and graphical colour display	
Remote operation	Ethernet for remote/local monitoring and control via WEB Browser	
<b>OTHER SPECIFICATIONS</b>		
Operating temperature	-40 to +70 °C [-40 to +158 °F] <sup>3)</sup>	
Storage temperature	-40 to +85 °C [-40 to +185 °F]	
Dimensions (W x D x H) <sup>5)</sup>	482 x 384 x 311 (7U) mm [19 x 15.1 x 12.3 inch]	482 x 384 x 445 (10U) mm [19 x 15.1 x 17.5 inch]
Weight (excluding modules)	Approximately 12 kg [26 lbs]	Approximately 19 kg [42 lbs]
<b>DESIGN STANDARDS</b>		
Electrical safety	EN 60950-1:2006/A2:2013, EN 62368-1:2020/A11:2020	
EMC	ETSI EN 300 386 v1.3.2, EN 61000-6-1:2019, EN 61000-6-2:2019, EN 61000-6-3:2007/A1:2011/AC:2012, EN 61000-6-4:2019	
Environment	ETSI EN 300 019-2-1 v2.3.1:2017, ETSI EN 300 019-2-2 v2.4.1:2017, ETSI EN 300 019-2-3 v2.4.1:2015, ETSI EN 300 132-2 v2.6.1:2019 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 Solar charger datasheet for details

2) See Smartpack2 Touch controller datasheet for details

3) +45 to +70 °C [+113 to +158 °F] with de-rated performance

4) Recommended minimum cabinet depth is 400 mm [15.7 inch]