

Solar extension kit - 2U/3U shelf solution

The Solar extension kit is a compact solution to house up to 4x Solar chargers and to be use for new/existing Eltek power systems.

Specially designed with the MC4 connectors for cables from PV panels, service switches and optionally SPDs. The front and rear MC4 connection mechanism enables easy on-site installation into both outdoor and indoor enclosures.

Typical applications are Solar Autonomous and Hybrid power systems.



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Max PV capacity 6.4kW or 12.8kW

Doc TBD – 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

Flatpack2 48/3200 HE solar



2U Solar ext. kit – Max PV capacity 6.4kW



3U Solar ext. kit – Max PV capacity 2.8kW



KEY FEATURES

- FLATPACK2 HE SOLAR WITH MPPT
- HOT PLUGGABLE MODULES
- EARTH FAULT DETECTION
- MAX PV CAPACITY 6.4KW OR 12.8KW
- PV CONNECTION PANEL
- MC4 CONNECTORS
- SERVICE SWITCHES
- DC SPD (OPTION)

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MODEL	2U SOLAR EXT. KIT	3U SOLAR EXT. KIT
Part number	CTZ00000.1358	CTZ00000.1255
POWER MODULES		
Flatpack2 Solar Charger ¹⁾	Flatpack2 48/3200 HE Solar	
Peak efficiency	97 %	
Max no. of modules	Up to 2pcs	Up to 4pcs
INPUT DATA (SOLAR CHARGER)		
Voltage (operating range)	85-420 V _{DC}	
Voltage (MPPT range) ²⁾	100-380 V _{DC}	
Voltage (start-up)	150 V _{DC}	
Maximum current	20.3 A _{DC}	
Protection	Fuse, varistor for transient protection, reversed polarity, shutdown when V _{IN} is too low, earth fault check during start-up	
PV CONNECTION PANEL		
Service switches for PV arrays	2 pcs 2-pole	4 pcs 2-pole
MC4 connectors	4 pcs (2 pcs per one PV array)	8 pcs (2 pcs per one PV array)
DC SPD (option)	Up to 2 pcs (Type 1+2)	Up to 4 pcs (Type 2)
OUTPUT DATA		
Voltage (default)	53.5 V _{DC}	
Voltage (adjustable range)	42 ³⁾ - 57.6 V _{DC}	
Max power, V _{IN} ≥ 170 V _{DC}	6400 W	12800 W
Max current, @V _{OUT} = 48 V _{DC}	133 A	266 A
Protection	Overvoltage shutdown, short circuit proof, high temperature, hot plug-in inrush current limiting	
OTHER SPECIFICATIONS		
Alarms (Red LED)	High and low temperature shutdown, Converter Failure, Overvoltage shutdown on output, Fan failure, Low voltage alarm, CAN bus failure	
Warnings (Yellow LED)	Low input voltage, Converter in power derate mode, Remote current limit activated, Input voltage out of range, flashing at overvoltage	
Normal (Green LED)	Input and output ok	
Operating temperature	-40 to +75 °C [-40 to +167 °F] ³⁾	
Storage temperature	-40 to +85 °C [-40 to +185 °F]	
Dimensions (W x D x H) ⁵⁾	482 x 384 x 89 (2U) mm [19 x 15.1 x 3.5 inch]	482 x 384 x 133 (3U) mm [19 x 15.1 x 5.3 inch]
Weight (excluding modules)	Approximately 7 kg [15 lbs]	Approximately 10 kg [22 lbs]
DESIGN STANDARDS		
Electrical safety	EN 60950-1:2006/A2:2013, EN 62368-1:2020/A11:2020, EN 62109-1:2010/-2:2011	
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 (Class 1.2) ETSI EN 300 019-2-2 v2.4.1:2017 (Class 2.3) ETSI EN 300 019-2-3 v2.4.1:2015 (Class 3.2) 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) At nominal output voltages. MPPT will operate down to 100V, but the maximum input current limitation will de-rate maximum output power

3) Stand-by / test operation (V_{OUT} < 48 V_{DC}) limited for V_{IN} > 250 V_{DC}

4) +45 to +75 °C [+113 to +167 °F] with de-rated performance

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