

## Complementing the total green telecom site!

The Flatpack2 48/3000 HE WIND brings another renewable energy source into the Flatpack2 family of DC power system for telecom applications.

Configurable loading of the wind turbine allows for maximum utilization of most 2-10kW wind turbines in all conditions. This galvanic isolated wind charger's high efficiency, up to 95%, reassures as much as possible of the renewable energy is transferred to the telecom load and batteries.

Eltek provides Return-on-Investment (ROI) and total cost of ownership simulations using professional tools and wind measurements at site.



# FLATPACK2 48/3000 HE WIND

## WIND CHARGER

Doc 241119.550.DS3 – v1

### APPLICATIONS

#### TELECOM – MOBILE / WIRELESS

- **MOBILE / WIRELESS**
- **RADIO BASE STATIONS/ CELL SITES**
- **BACKHAUL**
- **MICROWAVE**
- **BROADBAND**

#### TELECOM – FIXED

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



WINDCHARGER IN 1U WIND SHELF (P/N 285762)



FLATPACK2 SYSTEM IN TYPE3 OUTDOOR CABINET

### KEY FEATURES

- HIGH EFFICIENCY
- MAXIMUM UTILIZATION FOR MOST WIND TURBINES
- TELECOM SPECIFICATION
- FULLY INTEGRATED IN ELTEK CONTROL SYSTEM
- LOGS WITH WIND ENERGY PRODUCED
- GLOBAL COMPLIANCE
- PATENTED HE TECHNOLOGY



SMARTPACK2 AND FLATPACK2 HYBRID POWER CORE

# FLATPACK2 48/3000 HE WIND



## WIND CHARGER

Model	48/3000 HE WIND
Part number	241119.550
<b>INPUT DATA</b>	
Voltage (nominal)	125 - 212 V <sub>AC</sub> (3ph line to line) / 176 - 300 V <sub>DC</sub>
Voltage (range)	60 - 212 V <sub>AC</sub> (3ph line to line) / 85 - 300 V <sub>DC</sub>
Frequency	45 <sup>1)</sup> - 66 <sup>1)</sup> Hz / 0Hz
Current (maximum) @ nominal input, full load	16 A <sub>RMS</sub> line
Protection	Fuse
<b>OUTPUT DATA</b>	
Voltage (default)	53.5 V <sub>DC</sub>
Voltage (adjustable range)	43.5 - 57.6 V <sub>DC</sub>
Power (maximum)	3000 W
Power @ 60 V <sub>AC</sub> / 85 V <sub>DC</sub>	1380 W
Current (maximum) @ nominal input, full load	62.5 A
Static Voltage regulation (10 - 100% load)	±0.5%
Dynamic Voltage regulation	±5.0% for 10-90% or 90-10% load variation, regulation time < 50ms
Ripple	< 200 mV peak to peak, 30 MHz bandwidth
Protection	Fuse Short circuit proof High temperature protection
<b>OTHER SPECIFICATIONS</b>	
Efficiency	Up to 95.5%
Isolation	3.0 kV <sub>AC</sub> - input to output 1.5 kV <sub>AC</sub> - input to earth 500 V <sub>DC</sub> - output to earth
Alarms: Red LED 'on'	Low input voltage shutdown, High and low temperature shutdown, Converter Failure, Overvoltage shutdown on output, Fan failure, Low voltage alarm, CAN bus failure
Warnings: Yellow LED 'on'	Converter in power tracking mode, Control system current limit activated, Input voltage out of range, flashing at overvoltage
Normal (module running): Green LED 'on'	
Acoustic noise	< 46dBA at nominal input and full load
Operating temperature	-40 to +75°C (-40 to +185°F), humidity 5 - 95% RH non-condensing Output power de-rates linear from 3000W @ 45°C (113°F) to 2100W @ 75°C (167°F)
Storage temperature	-40 to +85°C (-40 to +185°F), humidity 0 - 99% RH non-condensing
Dimensions[WxHxD] / Weight	230 x 41.5 x 327mm (9.06 x 1.69 x 13") / < 5 kg (11 lbs)
<b>DESIGN STANDARDS</b>	
Electrical safety	EN 60950-1
EMC	ETSI EN 300 386 V.1.6.1 EN 61000-6-1 / -2 / -3 / -4
Environment	ETSI EN 300 019: 2-1 (Class 1.2), 2-2 (Class 2.3) & 2-3 (Class 3.2) ROHS compliant
1) The converter does support a wider frequency range, but may have de-rated maximum power for lower frequencies. Each wind mill model must be approved by Eltek before deployment.	

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Specifications are subject to change without notice