

# Meeting all data center power needs

The Eltek Converged Power System (CPS) is the ultimate combination of flexibility, availability, and sustainability, providing a unique modular architecture that will solve any present and future power need.

Whatever the load requirements, or voltage levels, AC and DC, all can be provided by the same infrastructure.

Using industry leading high efficiency power conversion modules, innovative design and comprehensive monitoring and control features to fully optimize the potential of the power infrastructure.



# Converged Power Solutions

FLEXIBLE POWER SYSTEM UP TO 864 kW

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## PRODUCT DESCRIPTION

The Eltek Converged Power System is built around the Flatpack2 High Efficiency (HE) power converter module which is used in a wide variety of power critical applications, including; Telecoms; Power Generation; Rail; Marine & Offshore; Oil & Gas; and other demanding industries requiring long term, reliable performance.

Using novel designs to reduce the overall power infrastructure costs, while securing availability through innovative modular based power solutions, the converged power platform provides maximum flexibility and scalability to enable a 'build as you grow' philosophy.

The power platform also includes the ability to simply integrate a variety of renewable energy sources to complement traditional utility supplies.



Smartpack2 system controller



Flatpack2 HE converter

## KEY FEATURES

- WORLD'S HIGHEST AVAILABILITY
- FUTURE PROOF COMPACT DESIGN
- MODULAR 'HOT PLUG-IN' DESIGN
- <2 MINUTES MTTR
- SCALABILITY WITH 'BUILD AS YOU GROW'
- MANAGED FLEXIBILITY: VARYING AC & DC LOADS AS REQUIRED
- COMPREHENSIVE ALARM & CONTROL FACILITIES
- REMOTE CONTROL CAPABILITIES
- OPTION FOR SEAMLESS TRANSFER TO GENERATOR
- AT/SWITCHGEAR REMOVED OR REDUCED
- INDUSTRY LEADING EFFICIENCY

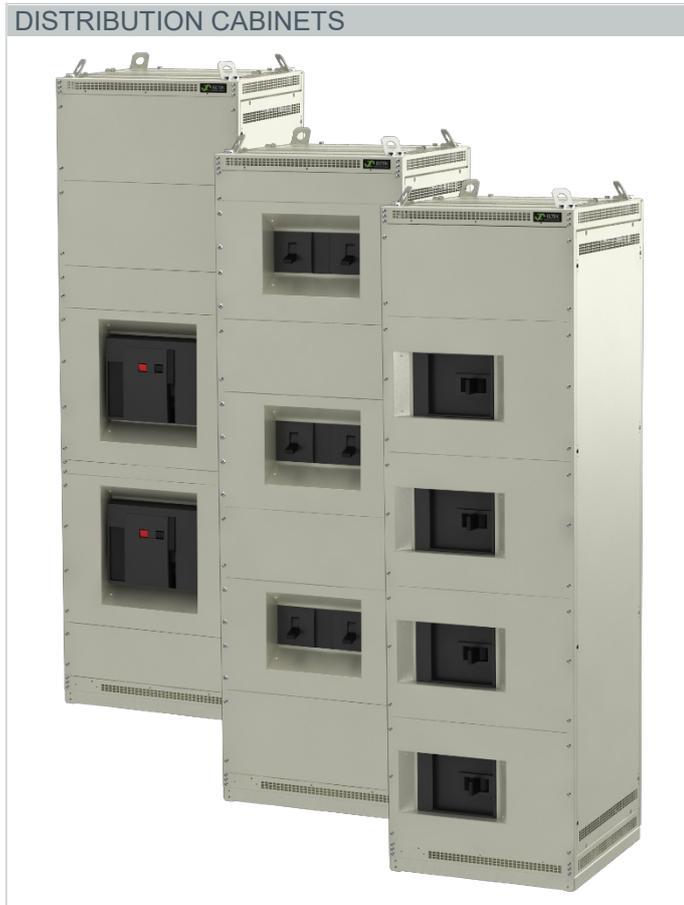


DC OUTPUT POWER CONVERSION	
Output	380 V <sub>DC</sub>
Basic system capacity	72 kW
Expandability	Up to 864 kW
Modules	Flatpack2 380V 3000W HE
Monitoring	Full system parameter monitoring & control with Smartpack2
Cabinet dimensions [WxDxH]	600 x 600 x 2000 mm
Optional distribution cabinets on left & right side	

Specifications are subject to change without notice

AC OUTPUT POWER CONVERSION	
Output	380/400/415/480 V <sub>AC</sub> 3-phase Y (wye) + Neutral
Frequency	50 Hz or 60 Hz
Basic system capacity	30 kW
Expandability	Up to 795 kW
Modules	BRAVO ECI 3kVA 380V 230V
Monitoring	Full system parameter monitoring & control with T2S
Cabinet dimensions [WxDxH]	600 x 600 x 2000 mm
Optional distribution cabinets on left & right side	

Specifications are subject to change without notice



DISTRIBUTION CABINETS	
VDC Output	Up to 24x 125 A 4p MCBs; Up to 6x 630 A 4p MCCBs; Up to 2x 2500 A 4p MCCBs
VAC Output	Up to 72x 1-phase MCBs (up to 24x 3-phase); Up to 4x 800 A MCCBs; Up to 2x 1600 A MCCBs
Expandability	Up to 6x distribution cabinets ( $V_{DC}$ and/or $V_{AC}$ )
Monitoring	Breaker trip; Load monitoring per output (option)
Cabinet dimensions [WxDxH]	600 x 600 x 2000 mm

Specifications are subject to change without notice

BATTERY CABINETS	
Single string capacity	Approx 175 kW for 5 min (depending upon battery)
Protection	630 A Isolator and LVBD
Expandability	As required for load and backup time. A maximum of 8x is recommended.
Monitoring	Voltage Current Temperature Symmetry monitoring
Ideal operating temperature	25 °C
Dimensions [WxDxH]	1200 x 600 x 2000 mm (per cabinetized string)
Optional paralleling battery cabinets on left & right side	

Specifications are subject to change without notice

## AC INPUT

Voltage	380 / 400 / 415 / 480 V <sub>AC</sub> , 3-phase Y (wye) + Neutral (TN network)
Frequency	45 – 66 Hz

## OUTPUT

Voltage (nominal)	380 V <sub>DC</sub> 120 / 220 / 230 / 240 / 277 V <sub>AC</sub> , single phase L-N, 50 Hz or 60 Hz 208 / 380 / 400 / 415 / 480 V <sub>AC</sub> , 3-phase Y (wye) + Neutral, 50 Hz or 60 Hz
Additional info	See Flatpack2 380V 3000W HE datasheet See BRAVO ECI 3kVA 380V 230V datasheet

## CONTROL AND MONITORING

Monitoring Unit	Smartpack2 T2S ETH
Local Operation	Display and keys, WEB interface via standard browser
Remote Operation	WEB Interface, MODBUS, SNMP protocol and email
Alarm Relays (Connection: clamp ≤ 1.5 mm <sup>2</sup> )	6 x Potential free change over contacts as standard. Optional expansion up to 160 changeover contacts
Inputs	6 x Configurable (digital, analog max 75 V) Optional expansion up to 224 inputs
Alarms	Low & high output voltage alarms (Minor and major levels), Earth fault alarm, Temperature alarm, Mains outage alarm, Battery remaining capacity/low quality alarms, Battery/load breaker tripped alarm and much more. See datasheet for Smartpack2 for further information

## OTHER SPECIFICATIONS

Isolation	3.0 KV <sub>AC</sub> – input to output 1.5 KV <sub>AC</sub> – input to earth 1.5 KV <sub>DC</sub> – output to earth
Operating temperature	-20 to +45 °C (-4 to +113 °F) possible power derating above 40 °C (104 °F)
Storage temperature	-40 to +85 °C (-40 to +185 °F)
Humidity	5 to 95 % relative humidity, non-condensing

## APPLICABLE STANDARDS

Electrical safety	IEC/EN 60950-1:2013; IEC/EN 62040-1:2008+A1:2013
EMC	IEC/EN 61000-6-2:2005 (immunity), IEC/EN 62040-2:2006
Environment	Tested in accordance with: ETSI EN 300 019-2-1 v2.2.1:2014 (Class 1.2); ETSI EN 300 019-2-2 v2.3.1:2013 (Class 2.3); ETSI EN 300 132-3-1 v2.1.1 V <sub>DC</sub> output 2011/65/EU (RoHS) & 2008/98/EC (WEEE) Normal operating conditions as per IEC/EN 62040-3:2011 clause 4.2, other operating conditions as per clause 4.3 must be advised.

1) All pictures shown with doors removed

2) Not all combinations and configurations are available, please contact your Eltek representative