

# 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 400KW

Doc 2205699 Rev2

#### PRODUCT DESCRIPTION

The Eltek Converged Power System is built around the Flatpack2 High Efficiency (HE) power converter modules which are 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 MINUTE MTTR
- SCALABILITY, BUILD AS YOU GROW
- FLEXIBILITY TO MANAGE CHANGING AC AND DC LOAD REQUIREMENTS
- EXTENSIVE ALARM & CONTROL FACILITIES
- REMOTE CONTROL CAPABILITIES
- OPTION FOR SEAMLESS TRANSFER TO GENERATOR
  - NO SWITCHGEAR OR ATS REQUIRED
- INDUSTRY LEADING EFFICIENCY

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#### AC OUTPUT POWER CONVERSION



#### DC OUTPUT POWER CONVERSION

Output	220V <sub>DC</sub> , 380V <sub>DC</sub>
Basic system capacity	15kW
Expandability	Up to 400kW
Modules	Flatpack2 220V HE Flatpack2 380V HE
Monitoring	Full system parameter monitoring & control with Smartpack2
Cabinet dimensions	W600xD600xH2000mm
Optional distribution cabinets on left & right side	

Specifications are subject to change without notice

#### AC OUTPUT POWER CONVERSION

Output	400V <sub>AC</sub> 3-phase Y (wye) and Neutral, 50Hz or 60Hz
Basic system capacity	12kW
Expandability	Up to 400kW
Modules	Bravo 220V <sub>DC</sub> ; Agil
Monitoring	Full system parameter monitoring & control with T2S / T4S
Cabinet dimensions	W600xD600xH2000mm or W600xD800xH2000mm depending upon module used
Optional distribution cabinets on left & right side	

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#### DISTRIBUTION CABINETS





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VDC 1200A	Up to 48x 2-pole positions Up to 7x 160A bulk MCCBs
VAC 500A	Up to 72x 1-phase MCBs (up to 24x 3-phase) 2x 630A 3-phase bulk MCCBs
Expandability	Up to 6x distribution cabinets (V_{DC} and/or V_{AC})
Monitoring	Load monitoring per output Breaker trip
Cabinet dimensions	W600xD600xH2000mm

Specifications are subject to change without notice

#### BATTERY CABINETS

Single string capacity	Up to 178kW for 5 min
Protection	600A Isolator and LVBD
Expandability	As required for load and backup time
Monitoring	Voltage Current Temperature Symmetry monitoring
Cabinet dimensions	W600xD600xH2000mm
Optional paralleling battery cabinets on left & right side	
Ideal operating temperature	25°C

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AC INPUT	
Voltage	380-415 V <sub>AC</sub> , 3-phase Y (wye) + Neutral
Frequency	45 – 66 Hz
OUTPUT	
Voltage	220 V <sub>DC</sub> 380 V <sub>DC</sub> 200-240 V <sub>AC</sub> , single phase, 50Hz or 60Hz 380-415 V <sub>AC</sub> , 3-phase Y (wye) + Neutral, 50Hz or 60Hz
Additional info	See Flatpack2 380V HE datasheet See Flatpack2 220V HE datasheet See TSI BRAVO 2500VA 220V <sub>DC</sub> datasheet See TSI AGIL datasheet
CONTROL AND MONITORING	
Monitoring Unit	Smartpack2
Local Operation	Display and keys, WEB interface via standard browser using WebPower
Remote Operation	WebPower (WEB Interface, 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 75V) Optional expansion up to 272 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 <sup>1)</sup>	
Isolation	3.0 $KV_{AC}$ – input to output 1.5 $KV_{AC}$ – input to earth 1.5 $KV_{DC}$ – output to earth 3.0 $KV_{AC}$ – CAN to input 3.0 $KV_{AC}$ – CAN to output 0.5 $KV_{AC}$ – CAN to earth
Operating temperature	-20 to +60°C (-4 to +140°F) possible power derating above 40°C
Storage temperature	-40 to +85°C (-40 to +185°F)
Humidity	0 to 95% relative humidity, non-condensing
APPLICABLE STANDARDS 1)	
Electrical safety	IEC 60950-1, UL 60950-1, IEC 62040-1
EMC	ETSI EN 300 386 (telecommunication network) EN 61000-6-4 (emission) EN 61000-6-2 (immunity)
Environment	ETS 300 019-2-1 (storage) ETS 300 019-2-2 (transport) ETS 300 019-2-3 (operation) Other environmental solutions are available upon request.

1) Normal service conditions as per IEC / EN 62040-3 section 4.1 to 4.1.4.3

1) All pictures shown with doors removed

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