

# 380 V<sub>DC</sub> to 230/400 V<sub>AC</sub> DC-AC inverter system

The next generation Bravo ECI 380 V<sub>DC</sub> 230 V<sub>AC</sub> 3000 VA inverter modules provide pure sine wave AC from a 380 V<sub>DC</sub> central power plant, and enables users to gain the advantages of modular architecture, innovative design, and comprehensive monitoring to power any AC loads in 380 V<sub>DC</sub> based Data Centers or Telecom installations.



## BRAVO ECI 380V 144kVA 400V+N SA

Up to 144 kVA / 120 kW capacity inc. distribution

Doc CDEZ4846.100.DS3 – rev1.1

### DESCRIPTION

#### INVERTER SYSTEM

Integrating state-of-the-art, high efficiency inverter modules allows, for the first time, to build AC power systems and remove any possible "Single Point of Failure" with full scalability and high efficiency. Based on one multifunctional module it leads to truly redundant parallel architectures. It can be used in DC-AC applications across the globe.

Enable the advantages of DC power systems, such as: reliability; modularity; redundancy; and higher end-to-end efficiencies to be fully utilized, and ensure optimal power availability in sites traditionally using UPS based power.

For Telecom expansion sites, greater site flexibility, and distances, can be achieved between the central power system and the load, while using substantially less cabling infrastructure.

### APPLICATIONS

#### TELECOM

- Telecom central office expansions
- High power site upgrades
- Remote or End-of-Suite power feeds

#### DATA CENTERS

- Conversion from 380 V<sub>DC</sub> (260-400 V<sub>DC</sub>) to 230/400 V<sub>AC</sub>
- Colocation facilities
- UPS+VDC plant replacement
- Remote or End-of-Suite power feeds

### KEY FEATURES

- INPUT PROTECTION
- NO SINGLE POINT OF FAILURE
- MODULAR – BUILD AS YOUR LOAD GROWS
- HIGH EFFICIENCY
- SHORT MTTR
- HOT PLUGGABLE
- 1-PHASE AND 3-PHASE OUTPUTS
- PATENTED TECHNOLOGY
- DUAL INPUT



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<b>Model</b>	144 kVA / 120 kW Standalone System
<b>Part number</b>	CDEZ4846.100
<b>DC INPUT DATA</b>	
Voltage (nominal)	260 – 400 V
Voltage (operating range) <sup>1)</sup>	200 - 410 V
Maximum current (steady state)	489.6 A
<b>AC INPUT DATA (optional EPC mode)</b>	
Voltage (nominal) <sup>2)</sup>	120 / 220 / 230 / 240 / 277 V (Line to neutral); 208 / 380 / 400 / 415 / 480 V (Line to Line) 3ph Y (wye) + Neutral
Voltage (range) <sup>2)</sup>	108 - 300 V (Line to neutral); 187 - 520 V (Line to Line)
Power factor	> 0.99
Frequency range	47 - 53 / 57 - 63 Hz
<b>AC OUTPUT DATA</b>	
Voltage (nominal) <sup>2)</sup>	120 / 220 / 230 / 240 / 277 V (Line to neutral); 208 / 380 / 400 / 415 / 480 V (Line to Line) 3ph Y (wye) + Neutral
Frequency / accuracy	50 / 60 Hz (47 - 53 / 57 - 63 Hz tracking with AC input) / 0.03 %
Power (maximum)	120 kW / 144 kVA
Current per phase (nominal) / (maximum)	198.56 A (at 230 V) / 212.8 A
Admissible load power factor	Full power from 0.8 inductive to 0.8 capacitive
THD (linear resistive load)	< 1.5 %
AC Outputs	Up to 24 ways ≤32A 1-pole MCBs
<b>CONTROL AND MONITORING</b>	
Monitoring unit	T2S ETH
Local Operation	WEB interface via standard browser
Remote Operation	WEB interface
Alarm relays (Connection: clamp ≤ 1.5mm <sup>2</sup> )	3 x potential free change over contacts
Inputs	3 x configurable inputs (digital; analog)
Alarms	Low & high voltage alarms (VAC and VDC + Minor and major levels); Low & High frequency alarms; Temperature alarm; Overload alarm; Module alarms; and much more.
<b>OTHER SPECIFICATIONS</b>	
Peak Efficiency	>96 % EPC mode / > 94 % DC input only mode
Operating temperature	-20 to +45 °C (-4 to +113 °F) possible power derating above 40 °C
Storage temperature	-40 to +70 °C (-40 to +158 °F)
Humidity	8 – 95 % RH, non-condensing
Dimensions [WxHxD]	600 x 2200 x 600 mm (23.62 x 86.61 x 23.62")
<b>DESIGN STANDARDS</b>	
Electrical safety	IEC/EN 62040-1:2008+A1:2013; IEC/EN 60950-1:2013 (only valid for DC only input mode)
EMC	FCC 47CFR Part 15 1998, Class A; IEC/EN 61000-6-2:2005 (immunity), IEC/EN 62040-2:2006;
Environment	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 300 019-2-3 v2.4.1:2015 (Class 3.2); ETSI EN 300 132-3-2 v1.2.2:2012 2011/65/EU (RoHS) & 2008/98/EC (WEEE) Normal operating conditions as per IEC/EN 62040-3:2011 clause 4.1 Other environmental solutions are available upon request

1) 200-260 V<sub>DC</sub> voltage levels will lead to derating of output power performance

2) 108-195 V<sub>AC</sub> voltage levels will lead to derating of output power performance

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Specifications are subject to change without notice