Compact and scalable modular inverter

The Bravo ECI 380V/3000VA Inverter is the next generation of hot-swap inverter modules and provides a pure sine wave VAC output with industry leading high efficiency performance in all conversion modes.

Modular architecture, compact size, innovative design and comprehensive monitoring and control features provide significant benefits over traditional industry standards.

Bravo ECI 380V/3kVA Inverter

380 Vdc 230 Vac 3000 VA/2500 W inverter module

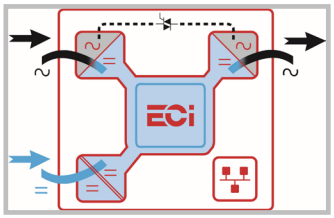
Doc 241560.800.DS3 – rev3.1

DESCRIPTION

INVERTER MODULE

The Bravo ECI is a compact and scalable modular inverter with high power density and low weight, able to be configured in highly flexible system solutions. Up to four inverters can be installed in each 2U 19”-subrack.

The Enhanced Power Conversion mode stabilizes the AC output while providing mains filtering, reduced conversion losses, and zero transfer time between sources, with the ability to utilize both VAC and VDC sources at the same time.



Enhanced Power Conversion

APPLICATIONS

Large modular UPS with record-breaking availability figures can be realized, enabling datacenters to meet future requirements. Long downtime and expensive repairs are replaced by a technician swapping modules on a live system.

DATA CENTER

- Modular UPS

TELECOM

- UPS Replacement
- AC load from 380VDC power systems

Inverter power shelf

KEY FEATURES

- PARALLEL OPERATION OF INPUT SOURCES
- HIGH EFFICIENCY IN ALL CONVERSION MODES
- ZERO TRANSFER TIME
- 125% AC OUTPUT OVERLOAD FOR 15 s
- 10x In SHORT CIRCUIT CURRENT FOR 20 ms*
- HOT PLUGGABLE
- SHORT MTTR
- AC MAINS FILTERING
- 1-PHASE OR 3-PHASE CONFIGURABLE SYSTEMS
- SYSTEM FLEXIBILITY: 2.5 KW TO 795 KW
- PATENTED TECHNOLOGY

* - WITH AC INPUT AVAILABLE

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MODEL	3000 VA/2500 W 380 VDC/230 VAC
Part number	490E00008400
DC INPUT DATA	
Voltage	200 – 400 V_{DC} (derating between 200 – 270 V_{DC})
Current (at 380 V and 2500 W output) / (maximum)	7.07 A / 10.2 A
AC INPUT DATA	
Voltage (nominal)	120 / 208 / 220 / 230 / 240 / 277 V_{AC} (line to neutral)
Voltage (range)	100 – 290 V_{AC} (derating between 100 – 190 V_{AC})
Voltage brownout	1500 VA/1500 W @ 120Vac; 2500 VA/2500 W @ 190Vac; 3000 VA/2500 W @ >205 Vac
Power factor	>0.99
Frequency synchronization range	47 – 53 / 57 – 63 Hz
OUTPUT DATA	
Voltage (nominal)	120 / 208 / 220 / 230 / 240 / 277 V_{AC} (line to neutral)
AC Voltage Regulation	+/-0.5 % from 10 – 100 % load
Frequency	50 Hz or 60 Hz based on input frequency (+/-0.03 %)
Power (maximum)	2500 W / 3000 VA
Power (overload capacity)	125 % for 15 seconds
Current (nominal) / (maximum)	13.0 A (at 230 V_{AC}) / 13.2 A
THD (resistive load)	<1.5 %
Load impact recovery time (10 – 90 %)	0.4 ms
Crest factor at nominal power	3:1 for load p.f. <0.7
Short circuit current clear capacity (20ms)	9.6 x I_n EPC mode / 2.32 x I_n DC mode
Short circuit duration before shutdown	10 – 600 seconds adjustable
OTHER SPECIFICATIONS	
Efficiency	96 % EPC mode / 94.2 % DC input only mode
Signaling and supervision	LED; Dry contact alarm output on shelf; remote on/off via shelf
Cooling	Forced air convection
Operating temperature	-20 to +65 °C / -4 to +149 °F (derating 50 to 65 °C / 122 to 149 °F)
Storage temperature	-40 to +70 °C / -40 to +158 °F
Relative humidity	8-95 %, non-condensing
Altitude	-60 m to +4000 m (>1500 m: -0.8 % power per 100 m)
Dimensions [WxHxD] : Weight	103 x 89 x 435 mm : 4.3 kg / 4.05” x 3.50” x 17.13” : 9.48 lbs
DESIGN STANDARDS	
Electrical safety	UL 1778 issue 5; IEC/EN 62040-1:2008+A1:2013; IEC/EN 60950-1:2013 (only valid for DC only input mode)
EMC	FCC 47 CFR Part 15 1998, Class A; EN 62040-2:2006; EN 61000-4-2:2009; EN 61000-4-3:2006+A2:2010; EN 61000-4-4:2012; EN 61000-4-5:2014; EN 61000-4-6:2014; ETSI EN 300 386 v1.6.1:2012
Environment	ETSI EN 300 132-3-2 v1.2.2:2012; 2011/65/EU (RoHS) & 2008/98/EC (WEEE) 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 300 019-2-3 v2.4.1:2015 (Class 3.2); Normal operating conditions as per IEC 62040-3:2011 clause 4.2 Other conditions per IEC 62040-3:2011 clause 4.3, must be advised

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