

# **Bravo ECI 48/230**

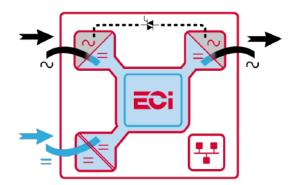


# The most efficient modular inverter with an extra AC input to prevent unnecessary watt loss!



#### Description

BRAVO is a compact and scalable **modular inverter** providing a pure sine wave AC supply. In conjunction with a DC Power system, it provides an excellent **AC backup solution**. It uses the latest inverter technology, providing superior **energy efficiency** in a **compact** size.



The ECI technology eliminates all single points of failure with full scalability; up to 32 modules in parallel and high efficiency of up to 96% in AC to AC conversion, and above 93.5% in DC/AC conversion, hence reducing operating costs. We can build the systems up to 2.7 MVA.

### **Applications**

All business critical applications and all types of AC loads. The design is modular and scalable with hot- swappable inverter modules which ensures **low Mean Time to Repair** (MTTR), reduction in service costs and meets the changing needs for future expansion.

#### **Main Features**

- Extra AC input for increased efficiency
- · Compact design
- Up to 2.7 MVA
- 1P or 3P infrastructure
- · No disturbances on DC loads & batteries

Illustrations are non-binding and may include customized fittings.

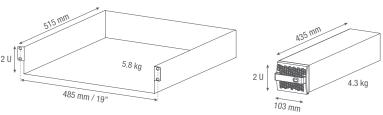


## **Bravo ECI 48/230**

General	
Part number	T521730301
EMC	EN 61000-4-2 / EN 61000-4-3 / EN 61000-4-4 / EN 61000-4-5 / EN 61000-4-6 / EN 61000-4-8 ETSI EN 300386 v1.9.1
Safety	EN62040-1
Cooling	Forced
MTBF	240 000 hrs (MIL-217IF)
Efficiency (Typical): Enhanced power conversion / on line	96% / >93.5%
Dielectric strength DC/AC	4300 Vdc
RoHS	Compliant
Operating T° / Relative Humidity (RH) non-condensing	Tested according ETS300-019-2-3 Class 3.1 -20°C to 65°C, power de-rating from 40°C to 65°C / Max RH 95% for 96 hours per year
Storage T° / Relative Humidity (RH) non-condensing	Tested according ETS300-019-2-1 Class 1.2 -40°C to 70°C / Max RH 95% for 96 hours per year
Public transport T°/Relative Humidity (RH) non-condensing	Tested according ETS300-019-2-2 Class 3.1 -40°C to 70°C / Max RH 95% for 96 hours per year
Material (casing)	Zinc coated steel
Power	
AC Output Power	
Nominal Output power (VA) / (W)	3000 VA / 2400 W
Short time overload capacity	125% (15 seconds)
Admissible load power factor	Full power rating from 0 inductive to 0 capacitive
DC Input Specifications	
DC voltage: Nominal / range	48 VDC / (40-60V)*
Nominal current (at 48 Vdc and 2400 W output)	53.2 A
Maximum input current (for 15 second) / voltage ripple	66.5 A / < 10 mV RMS
AC Input Specifications	
Nominal voltage (AC)	230 V
Voltage range (AC)	150 - 265 V
Brownout	1600 W @ 150 Vac / 2400 W @ 190 Vac linear decreasing
Power factor	> 99%
Frequency range (selectable) / synchronization range	50 Hz (range 47 – 53 Hz) / 60 Hz (range 57 – 63 Hz)
AC Output Specifications	
Nominal voltage (AC**)	Adjustable: 220 VAC - 240 VAC
Frequency / frequency accuracy	50 or 60 Hz / 0.03%
Total harmonic distortion (resistive load)	<3%
Load impact recovery time (10% - 90%)	<= 0.4 ms
Nominal current	13 A @ 230 Vac
Crest factor at nominal power	3 : 1 for load P.F. <=0.7
Short circuit clear up capacity 0-20 ms	100 A for 20 ms - Available while Mains is available at AC input port / 34A RMS in DC/AC
Short circuit current after >20 ms -15 s	18 A RMS
AC output voltage stability	±1% from 10% to 100% load
In Transfer Performance	
Max. voltage interruption / total transient voltage duration (max)	0s/0s
Signaling & Supervision	
	Supertia LED
Display	Synoptic LED  Dry contacts on shalf / Lise optional devices
Alarms output / Supervision Remote on / off	Dry contacts on shelf / Use optional devices On rear terminal of the shelf via T2S ETH

 $<sup>^{\</sup>star}$  Permanent 2400W / derating apply based on internal heatsink T°.

 $<sup>^{\</sup>star\star}$  Operation within lower voltage networks leads to de-rating of power performances.





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