



## Bravo ECI 48

Telecom

Datacom

Mass Transit

Industrial

Power Utilities

Renewable



ECI Module

### Product Description

The Bravo ECI 48 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.



### Product Features

- High efficiency (DC to AC >93.5%)
- Compact design
- Dual input sources (AC & DC) with wide AC input range 150VAC to 265VAC
- Transfer time reduced to 0 ms
- Up to 12kVA in 2U

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.

### 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.

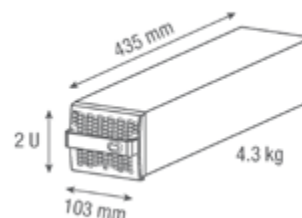
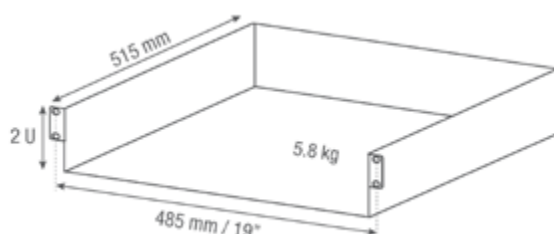
### General Specifications

<b>Ratings</b>	AC In: 230VAC   DC In: 48VDC   AC Out: 230VAC Power: 3kVA, 2.4kW, 3-450kVA
<b>EMC</b>	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
<b>Safety</b>	EN62040-1
<b>Cooling</b>	Forced
<b>MTBF</b>	240,000 hrs (MIL-217IF)
<b>Efficiency (Typical): Enhanced power conversion on line</b>	96% / >93.5%
<b>Dielectric strength DC/AC</b>	4,300VDC
<b>RoHS</b>	Compliant
<b>Environment</b>	ETSI EN 300019 / ETSI EN 300132.2
<b>Altitude above sea without de-rating of power</b>	<1500m / derating > 1500m – 0.8 % per 100m / max 4000m
<b>Ambient temperature</b>	-20 to 40°C derating from 40 to 65°C
<b>Storage temperature / relative humidity</b>	-40 to 70°C / 95%, non-condensing
<b>Material (casing)</b>	Zinc coated steel

Power Specifications	
AC Output Power	
Nominal Output power (VA) / (W)	3000VA / 2400W
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	48VDC / (40-60V)*
Nominal current (at 48 Vdc and 2400 W output)	53.2A
Maximum input current (for 15 second) / voltage ripple	66.5A / < 10mV RMS
AC Input Specifications	
Nominal voltage (AC)	230V
Voltage range (AC)	150 - 265V
Brownout	1600W @ 150VAC / 2400W @ 190 VAC linear decreasing
Power factor	>99%
Frequency range (selectable) / synchronization range	50Hz (range 47 – 53Hz) / 60Hz (range 57 – 63Hz)
AC Output Specifications	
Nominal voltage (AC**)	Adjustable: 220 – 240VAC
Frequency / frequency accuracy	50 or 60Hz / 0.03%
Total harmonic distortion (resistive load)	<3%
Load impact recovery time (10% - 90%)	<= 0.4ms
Nominal current	13A @ 230VAC
Crest factor at nominal power	3:1 for load P.F. <=0.7
Short circuit clear up capacity 0-20 ms	100A for 20ms - Available while Mains is available at AC input port / 34A RMS in DC/AC
Short circuit current after >20 ms -15 s	18A 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	
Display	Synoptic LED
Alarms output / supervision	Dry contacts on shelf / Use optional devices
Remote on / off	On rear terminal of the shelf via T2S ETH

\* Permanent 2400W / derating apply based on internal heatsink T°.

\*\* Operation within lower voltage networks leads to de-rating of power performances.



## Ordering Information

Model No.	Description
Bravo ECI 48	48VDC Bravo ECI Inverter System