HELIOS
POWER SOLUTIONS

Modular Inverters
Bravo ECI 48 Vdc 3kVA

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

Telecom | Datacom | Mass transport | Industry | Power Utilities | Renewable

AC In 230 Vac

DC In 48 Vdc

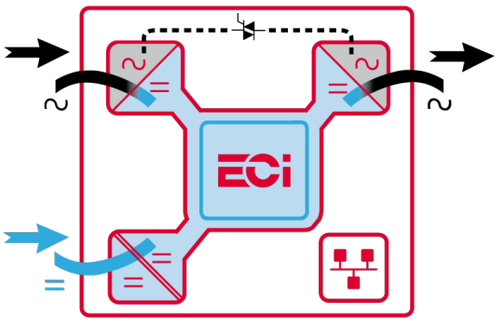
AC Out 230 Vac

Power 3 kVA 2.4 kW

3-450 kVA

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.

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

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

Illustrations are non-binding and may include customized fittings.

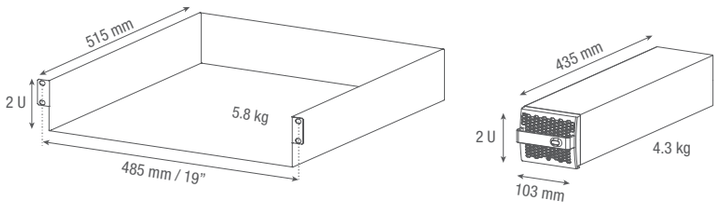
Bravo ECI 48VDC / 230VAC

HELIOS POWER SOLUTIONS

General	
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
Environment	ETSI EN 300019 / ETSI EN 300132.2
Altitude above sea without de-rating of power	< 1500 m / derating > 1500 m – 0.8 % per 100 m / max 4000 m
Ambient temperature	-20 to 40° C derating from 40°C to 65°C
Storage temperature / relative humidity	-40 to 70°C / 95%, non-condensing
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)	0 s / 0 s
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.



 Specifications can change without notice. New data will be updated on our website.