



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**  
120, 230, &  
277 Vac

**DC In**  
380 Vdc

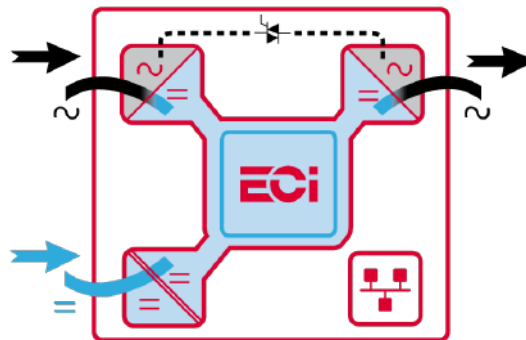
**AC Out**  
120, 208, 230,  
& 277 Vac

**Power**  
3 kVA  
2.5 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 **94.5% 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 >94.5%)
- Compact design
- Dual input sources (AC & DC)
- Transfer time reduced to 0
- Up to 12 kVA in 2 U

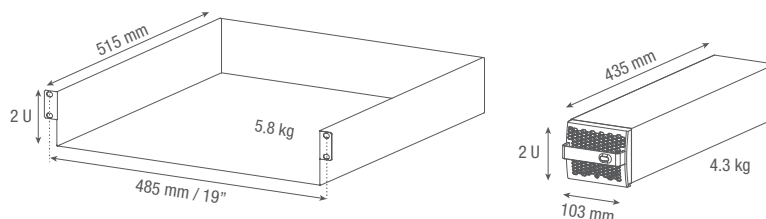
Illustrations are non-binding and may include customized fittings.

# Bravo ECI 380 VDC

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% / >94.5%
Dielectric strength DC/AC	2100 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 de-rating 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 / 2500 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	336 V / 200 V - 400 V*
Nominal input current (at 336 Vdc nominal and 2500 W power)	7.9 A
Maximum input current (for 15 seconds) / voltage ripple	9.9 A / < 250 mV RMS
AC Input Specifications	
Nominal voltage (AC)	120 Vac / 208 Vac / 230 Vac / 277 Vac Line to Neutral
Voltage range (AC)	108 - 290 Vac permanent (295 Vac 60 ms)
Brownout	1500 VA / 1500 W @120 VAC, 2500 VA / 2500 W @190 VAC, 3000 VA / 2500 W from 230 VAC to 277 Vac
Power factor @ Nominal Power	> 99%
Frequency range (selectable) / synchronization range	50 Hz (range 47 – 53 Hz) / 60 Hz (range 57 – 63 Hz)
AC Output Specifications	
Nominal voltage (AC**)	120 Vac / 208 Vac / 230 Vac / 277 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 / 34 A 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

\* De-rating between 200 to 260 VDC.

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



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