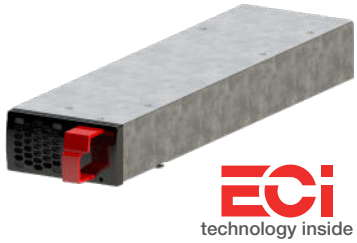
Leading Conversion Technology for Power Resilience

Bravo 10 - 48/230



ECI technology inside

Modular inverter to efficiently secure critical applications from 1.25 kVA!

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

AC In 230 Vac

DC In 48 Vdc

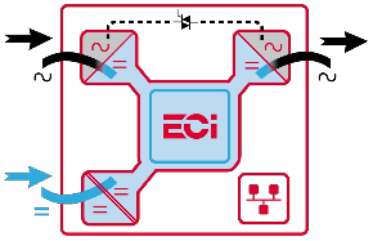
AC Out 230 Vac

Power 1.25 kVA 1 kW

up to 40 kVA

Description

Bravo 10 is a **small modular inverter** offering many opportunities **to design a solution** that perfectly fits your needs. The ECI technology offers both **AC and DC inputs** to provide a **perfect AC power** while reducing the number of power conversion (the module operates under normal condition with the AC input delivering a **96% efficiency**)! In conjunction with the DC input, it provides an excellent **AC backup solution**.



From **1 to 32 modules**, with several **options** available (manual external by-pass and AC distribution), the Bravo 10 modular inverter is also **hot-swappable** meaning a very easy and cheap maintenance. The modules are delivered with our new monitoring solution.

Bravo 10 can be used with the **Inview S** (DIN or panel mounting) and **Inview S Slot** monitoring. One shelf can accommodate 5 modules (6.25 kVA) or 4 modules (5 kVA) with Inview S Slot monitoring included.

Applications

An ideal solution for securing small but critical AC loads, from 1.25 kVA to 40 kVA, such as telecom small cells (4G and 5G), access control, traffic lights, security, etc. The module can be integrated into shelves for single-phase (230 Vac) or three-phase (3x400 Vac) installation with different output powers. We have already designed 3 shelves configurations: 5 modules (6.25 kVA, single-phase), 4 modules (5 kVA, single-phase) and 9 modules (11.25 kVA, single-phase).

Key features:

- AC and DC input sources (highest efficiency topology)
- 1 to 32 modules and 1 or 3 phases configuration
- Customization (manual by-pass and AC distribution)
- Transfer time reduced to 0 ms
- Compact design

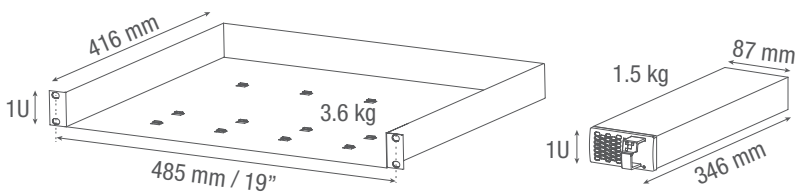
Illustrations are non-binding and may include customized fittings.

Bravo 10 - 48/230

General	
Part Number	T611730201
Cooling / Audible noise	Fan forced cooling / < 65 dBA at 1 meter
MTBF	240 000 hrs (MIL-217IF)
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 Input Data	
AC voltage: Nominal / range	230 V (150 - 265 V)
Brownout	800 W @ 150 Vac / 1000 W @ >190 Vac linear decreasing
Power factor / THD	> 99% / < 3%
Frequency range (selectable) / synchronization range	50 Hz (range 47 – 53 Hz) / 60 Hz (range 57 – 63 Hz)
DC Input Data	
DC voltage: Nominal / range	48 VDC / (40-60V)*
Nominal current (at 48 Vdc and 1000 W output)	22.3 A
Maximum input current (at 48 Vdc for 15 second) / voltage ripple	34 A / < 10 mV RMS
AC Output Data	
Efficiency (Typical): Enhanced power conversion / on line	96% / >92.5%
Nominal voltage AC** Adjustable)	230 V (200 - 240 VAC)
Frequency / frequency accuracy	50 or 60 Hz / 0.03%
Nominal Output power	1250 VA / 1000 W
Short time overload capacity	150% (15 seconds)
Admissible load power factor	Full power rating from 0 inductive to 0 capacitive
Total harmonic distortion (resistive load)	< 3%
Load impact recovery time (10% - 90%)	≤ 0.4 ms
Nominal current	5.4 A @ 230 Vac
Crest factor at nominal power	3 : 1 for load P.F. ≤ 0.7
Short circuit clear up capacity 0 - 20 ms	21.7 A for 20 ms
Short circuit current after 20 ms	9.9 A (20 ms to 15 s) , 7.4 A (15 s to 60 s), > 60 s - manual reset is required
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
Supervision	Inview ranges / Inview S - T302004100, Inview S Slot - T602004110, Inview GW - T602004000
Remote on / off	On rear terminal of the shelf
Alarms output	2 dry contacts and 2 digital inputs
Safety & EMC	
Safety	EN62040-1
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

* Permanent 1000 W / derating apply based on internal heatsink T°.

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



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