

Ingecon[®] Hybrid Three-phase

Inverter for stand-alone electric grids.

PRODUCT TECHNICAL INFORMATION

Main features

- Power range: 30 to 120 kW.
- Three-phase pure sinewave generation.
- Able to short circuit the output to manage an engine start-up or reactive loads.
- Battery charge status monitoring.
- Battery charge at constant current, bulk or normal charge, float or finishing charge, and equalizing charge.
- Suitable for any battery technology (Pb, VRLA, AGM, GEL, Ni-Cd). Charging parameters set by the installer.
- Wide PV input voltage range (150 – 700 Vdc).
- Maximum Power Point Tracking on PV arrays.
- Earth-fault surveillance on PV arrays.
- Easy connection to wind-turbines, whether synchronous or asynchronous type.
- Automatic management of an auxiliary generator.
- Easy to install. Regulation system included.
- Possibility of manual switch-off.
- Free of maintenance.
- LCD screen and keyboard for data monitoring and programming.
- Robust and reliable design.

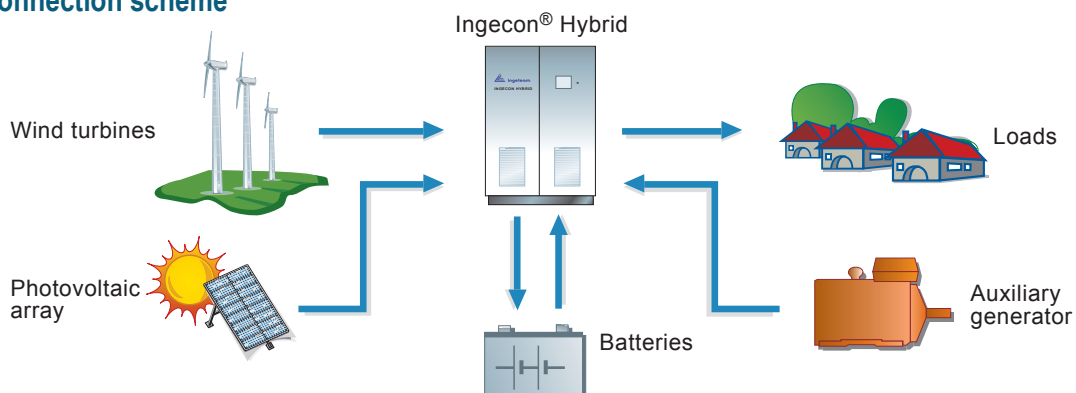


- CE Mark.
- Power range: 30 to 120 kW.
- Auxiliary generator.
- High efficiency, 96%.
- PC monitoring.

Options

- PC Software Ingecon[®] Hybrid Monitor for data viewing (on-line and recorded data), data-logging, making graphics, changing parameters, creating Excel[®] sheets, etc.
- RS-485 communication. GSM or Cable Modem for remote communication.
- Analog inputs card to read environmental variables such as solar radiation, wind speed, ambient temperature, etc....
- Galvanic insulation transformer. Surge protections.
- Earth-fault protections on PV array.

Connection scheme



Technical features

Photovoltaic input

Voltage range	150 to 700 Vdc
Maximum voltage	700 Vdc
Admits up to 12 PV arrays	
Maximum current per array	30 Amp

Wind turbines input

Voltage range	100 to 700 Vdc
Maximum voltage	700 Vdc
Admits up to 12 wind turbines	
Maximum current per wind turbine	40 Amp

Batteries

Input voltage range	240 to 500 Vdc
Battery charge mode:	constant current, bulk, float and equalizing
Battery charge status monitoring	
Prevent battery overdischarge	
Admits up to 4 battery banks	
Maximum current per bank	100 Amp

Output (AC)

Rated power	30 kW
(with 4 inverters)	120 kW
Rated voltage	400 Vac three-phase
Output frequency	50 - 60 Hz
Harmonic distortion	THD < 4%
Phi Cosine	-1 to 1
Short circuit allowed	

Auxiliary generator

Automatic management of an electric generator
Battery charge from this input

General

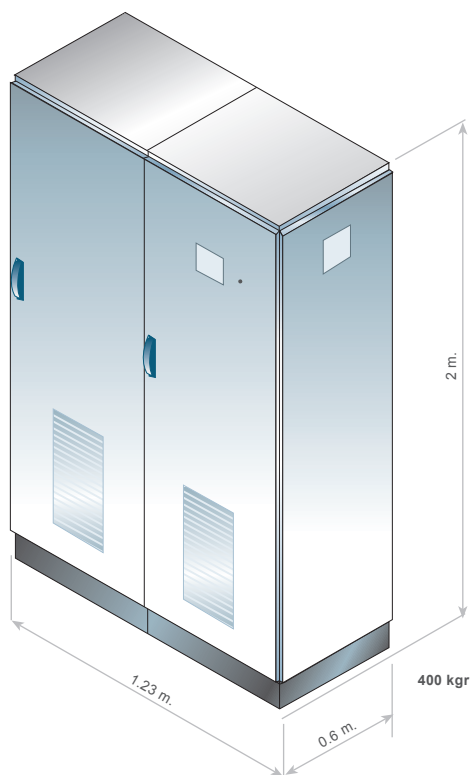
Maximum efficiency	96%
Ambient temperature	-10°C to 40°C
Air humidity	0 - 90%
Interface with end user	through display

Protections

Transient small overvoltage at input by thermally guarded varistors
Inverse polarisation and earth-fault at PV array
Short circuits and overloads at output

Casing

Ingress protection level IP23 (indoor)



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DIN EN ISO 9001:2000
Certificado Nº 01 100 018016

