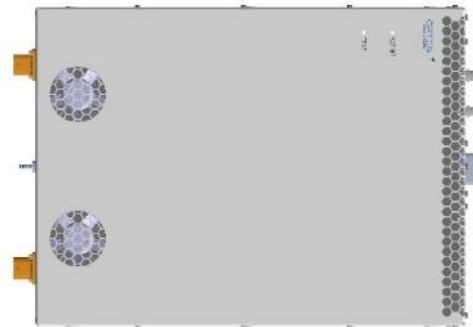




DC-AC Inverter 6 kVA OIM203A

Main Features

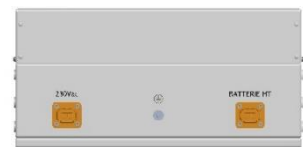
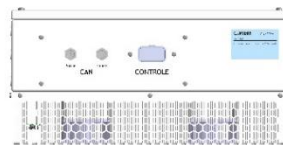
- Dedicated to on board 230 V AC supply from HV battery
- Power rating: 6 KVA
- Input DC Voltage: 300-700 V
- Galvanic insulation
- Air cooled
- High efficiency
- Control & Monitoring:
 - IP54
 - Parallel operation possible
 - CAN 2.0
 - Bootloader for field upgradeable firmware



Embedded Systems

OIM203 is a DC-AC inverter which converts HV voltage from embedded batteries to pure sine 230 V AC for diverse loads up to 6 kVA total power. Its extremely optimized design based on the most efficient power electronics enables low energy losses: the OIM203 equipment is air cooled and therefore easy to install.

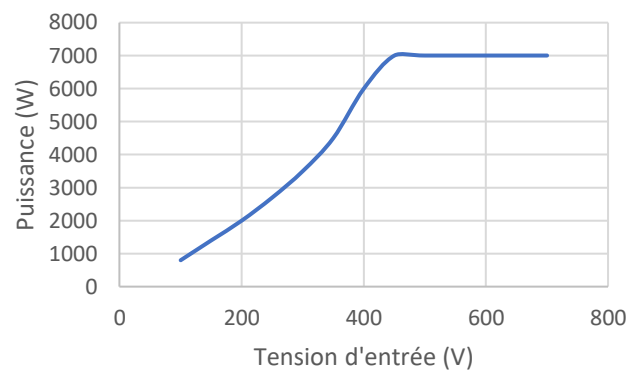
2 OIM203 can be connected in parallel in order to deliver a maximum power of 12 kVA.



Stationary / Mobile Grids

The OIM203 can generate micro grids from HV batteries in containers or shelters.

Puissance de sortie onduleur OIM203 (W)



Technical data

GENERAL	
Weight	35 kg
Volume	444 x 600 x 214 mm - 57 L
Sealing	IP54
Fixing	
Housing	Aluminium
ELECTRICAL CHARACTERISTICS	
Maximum input voltage	700 Vdc
Output Voltage	230 V (+6%/-10%) @ 50 Hz & 240 V (+6%/-10%) @ 60 Hz
Total Harmonic Distortion	8 %
Efficiency	>98% @ 600 V DC
Inrush current	External pre-charging circuit required
Insulation - input to output	2800 V – 50 Hz – 60 s
Earthing mode	TT
Reinjected AC power on DC input	< 1,2 kW
ENVIRONMENTAL AND COOLING FEATURES	
Operating temperature range	-10 to +70°C
Storage temperature range	-40 to +85°C
Coolant	air
Maximum environment temperature	70°C, current derating from 50°C to 70°C

Connections

- 2 TE Connectivity Powerlock HVIL connectors HVA 280 2 poles - with 4 mm² cables to the battery
- 2103124-4 TE Connectivity to be fitted with 4 mm² cables to the 230 V AC grid
- 2 CAN connectors - 1542761 Phoenix contact
- 1 supervisor interface connector AMPSEAL 1-776228-1 from TE Connectivity

Standards

- EMC standards according to ICOMIA guideline 49-13
- Mechanical vibrations & shock according to ASTM D4169 (Standard Practice for Performance Testing of Shipping Containers and Systems) & 60945 (radiocommunication equipment and systems - General requirements)
- Network electrical characteristics according to EN ISO133 (Small craft extra low voltage DC; installations) & EN ISO 13297 (Small craft, Electrical systems, Alternating current installations)
- ROHS, REACH, WEEE

Safety

- Short circuit
- Overcurrent protection (Load and battery)
- Thermal protection (inverter)
- Output Overvoltage
- Reverse polarity protection
- Input voltage min & max threshold
- CAN bus malfunction

At CIRTEM we create, develop and manufacture innovative power converters for optimized electrical systems.

Through our renowned technological research, our high end engineering and our high skill production sized for growing markets, CIRTEM is your OEM partner from the concept to commercial success !



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Electromobility



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Electrical grids



Industry