R400 I14.022.030

R500 I15.022.030

MAXIMUM EFFICIENCY

96.2 %

OUTPUT VOLTAGE

400 V_{AC}

MPPT VOLTAGE RANGE

430 - 820V_{DC}

IP 20

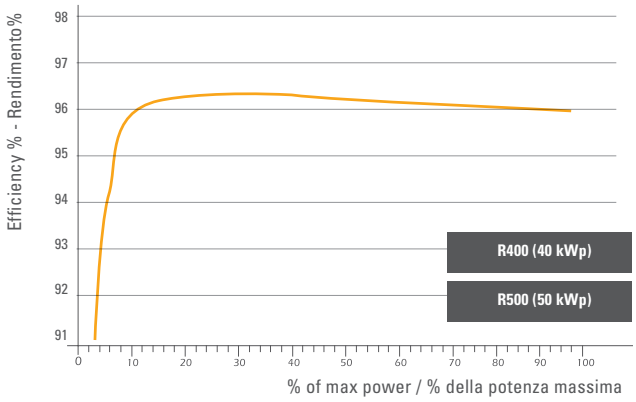
LVFRT

OVER FREQ. P REDUCTION

SEMICIRCULAR CAPABILITY

Q=f(V)

COSφ=f(P)



Advantage

> High efficiency, up to 97%.
> Modular inverter (MPS system).

> Elevato rendimento, quasi 97%.
> Modularità dell'inverter (MPS system).

Features

> Use of a single magnetic component each module.
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> Comunicazione verso il mondo esterno.
> Monitoraggio dell'impianto fotovoltaico.

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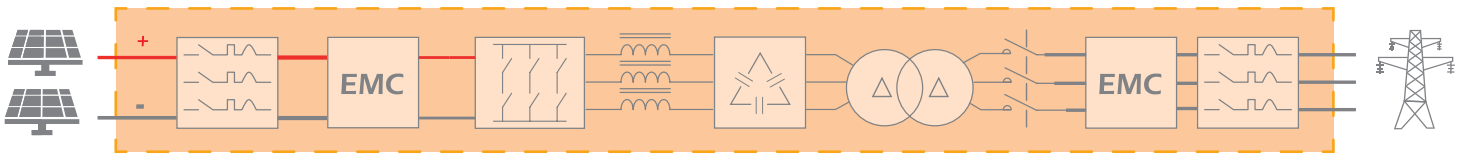
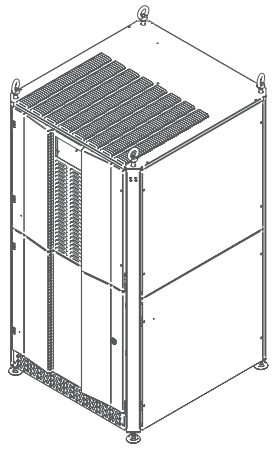
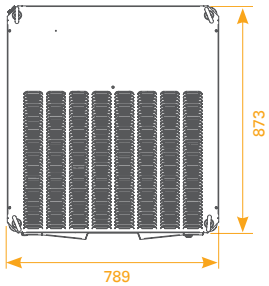
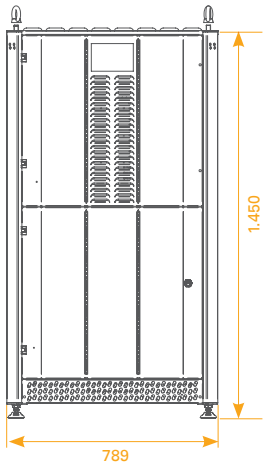


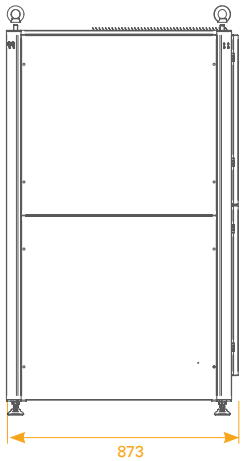
LV Central Inverter

R400
R500









DC Input - PV Module

Models	R 400	R 500
MPPT voltage range(V_{CC})	430 - 820 V	430 - 820 V
Max no-load PV voltage (V_{OC})	900 V	900 V
DC-voltage ripple (%)	< 2%	< 2%
Maximum input current (A_{DC})	85 A	105 A
Number of MPPT	1	1
DC control mode	Rapid and efficient MPPT control	Rapid and efficient MPPT control
DC input connection	Integrated DC Switch	Integrated DC Switch
Reverse polarity protection	•	•
Overvoltage protection	Implemented by the use of varistor's SPD device	Implemented by the use of varistor's SPD device
Overvoltage Category	II	II

AC Output grid

Nominal power (kVA) (Note1)	36 kVA	45 kVA
Maximum current (A_{AC}) (Note1)	55 A	61 A
Voltage (V_{AC})	400V_{RMS} (±10%)	400V_{RMS} (±10%)
N° Phase	3 (L1-L2-L3-PE)	3 (L1-L2-L3-PE)
Grid frequency (Hz)	50 Hz	50 Hz
Distortion factor (THD)	< 3%	< 3%
Galvanic insulation	Yes, By LF transformer	Yes, By LF transformer
AC connectors	Magnetothermic AC grid switch	Magnetothermic AC grid switch

General Data

Maximum efficiency	96,20%	96,20%
European efficiency	95,60%	95,60%
Night consumption (W)	< 30 W	< 30 W
Weight (kg)	620 kg	900 kg
Protection degree	IP20 (Opt. IP31)	IP20 (Opt. IP31)
Cooling	By using fans speed controlled by temperature	By using fans speed controlled by temperature
Dimensions (WxDxH mm)	789x873x1.450 mm	789x873x1.450 mm
Noise level (dBA)	< 70 dBA	< 70 dBA
Operating temperature (°C)	-10° C +50° C	-10° C +50° C
Storage temperature (°C)	-20°+60° C	-20°+60° C
Height above the sea (without derating) *(Note 2)	1.000 m	1.000 m
Air Flow	1.200 m^3/h	1.200 m^3/h
Protection class	I	I
Humidity Not condensing	0 ÷ 95%	0 ÷ 95%
Colour	RAL 9006	RAL 9006
Modulation	By using the IPCCM algorithm	By using the IPCCM algorithm

*Note1. Power factor (cosφ)= 1
*Note2. Above 1000m derate the power of 1% pr 100m up to 3000m over the sea level

R800

I18.022.030 (1MPPT)
I18.022.130 (2MPPT)

R1000

I11.032.030 (1MPPT)
I11.032.130 (2MPPT)

MAXIMUM EFFICIENCY

96.2 %

OUTPUT VOLTAGE

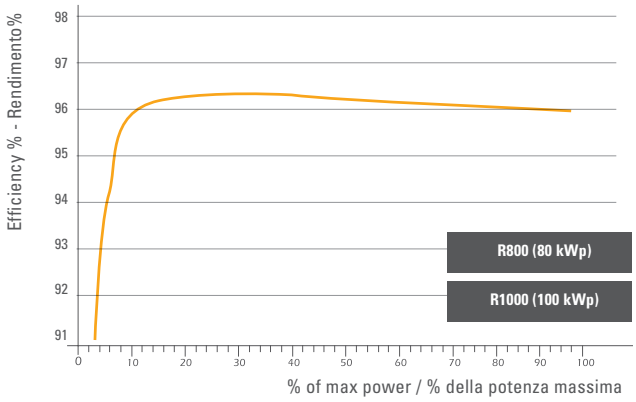
400 V_{AC}

MPPT VOLTAGE RANGE

430 - 820V_{DC}

IP 20

LVFRT | OVER FREQ. P REDUCTION | SEMICIRCULAR CAPABILITY | Q=f(V) | COS φ=f(P)



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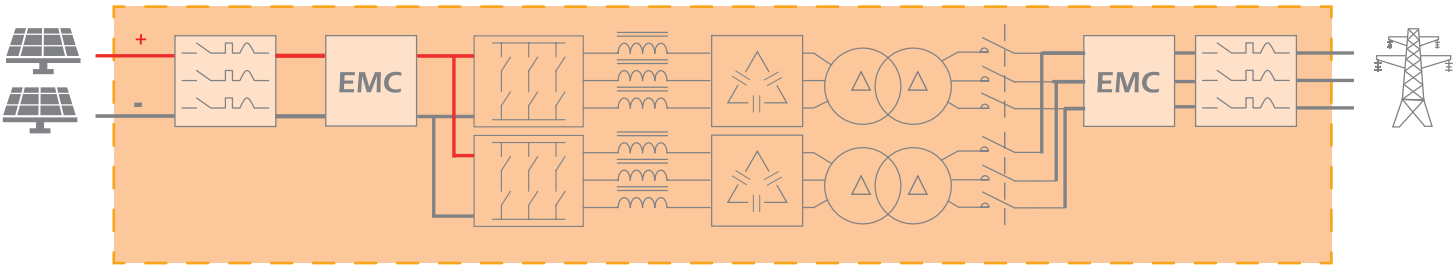
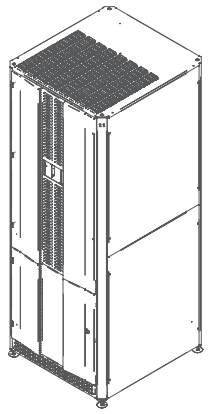
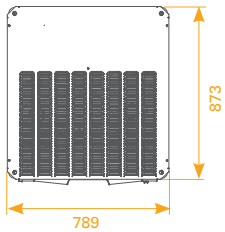


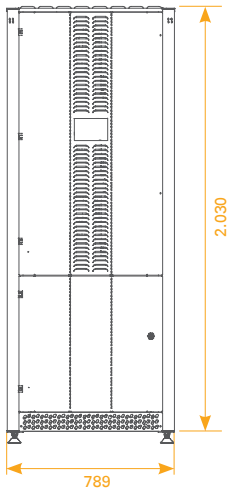
LV Central Inverter

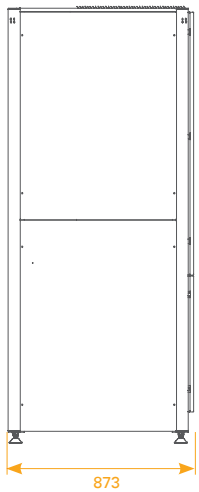
Note: Block diagram refers to the converter 1 MPPT Inverter
Lo schema a blocchi si riferisce al convertitore con 1 MPPT

R800
R1000









DC Input - PV Module

Models	R 800		R 1000	
MPPT voltage range(V_{CC})	430 - 820 V	430 - 820 V	430 - 820 V	430 - 820 V
Max no-load PV voltage (V_{OC})	900 V	900 V	900 V	900 V
DC-voltage ripple (%)	< 2%	< 2%	< 2%	< 2%
Maximum input current (A_{DC})	170 A	85 A (NOTE 3)	210 A	105 A (NOTE 3)
Number of MPPT	1	2	1	1
DC control mode	Rapid and efficient MPPT control	Rapid and efficient MPPT control	Rapid and efficient MPPT control	Rapid and efficient MPPT control
DC input connection	Integrated DC Switch	Integrated DC Switch	Integrated DC Switch	Integrated DC Switch
Reverse polarity protection	•	•	•	•
Overvoltage protection	Implemented by the use of varistor's SPD device	Implemented by the use of varistor's SPD device	Implemented by the use of varistor's SPD device	Implemented by the use of varistor's SPD device
Overvoltage Category	II	II	II	II

AC Output grid

Nominal power (kVA) (Note1)	72 kVA	90 kVA
Maximum current (A_{AC}) (Note1)	110 A	125 A
Voltage (V_{AC})	400V_{RMS} (±10%)	400V_{RMS} (±10%)
N° Phase	3 (L1-L2-L3-PE)	3 (L1-L2-L3-PE)
Grid frequency (Hz)	50 Hz	50 Hz
Distortion factor (THD)	< 3%	< 3%
Galvanic insulation	Yes, By LF transformer	Yes, By LF transformer
AC connectors	Magnetothermic AC grid switch	Magnetothermic AC grid switch

General Data

Maximum efficiency	96,20%	96,20%
European efficiency	95,60%	95,60%
Night consumption (W)	< 30 W	< 30 W
Weight (kg)	760 kg	1.140 kg
Protection degree	IP20 (Opt. IP31)	IP20 (Opt. IP31)
Cooling	By using fans speed controlled by temperature	By using fans speed controlled by temperature
Dimensions ((WxDxH mm)	789x873x2.030 mm	789x873x2.030 mm
Noise level (dBA)	< 70 dBA	< 70 dBA
Operating temperature (°C)	-10° C +50° C	-10° C +50° C
Storage temperature (°C)	-20°+60° C	-20°+60° C
Height above the sea (without derating) *(Note 2)	1.000 m	1.000 m
Air Flow	2.000 m^3/h	2.050 m^3/h
Protection class	I	I
Humidity Not condensing	0 ÷ 95%	0 ÷ 95%
Colour	RAL 9006	RAL 9006
Modulation	By using the IPCCM algorithm	By using the IPCCM algorithm

*Note1. Power factor (cosφ)= 1
*Note2. Above 1000m derate the power of 1% pr 100m up to 3000m over the sea level
*Note3. Per each indipendent MPPT input

R1200

I11.232.030 (1MPPT)

I11.232.235 (3MPPT)

MAXIMUM EFFICIENCY

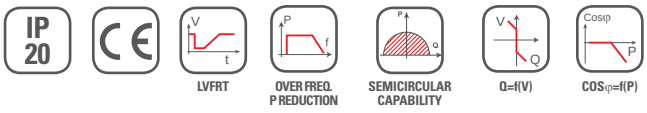
96.2 %

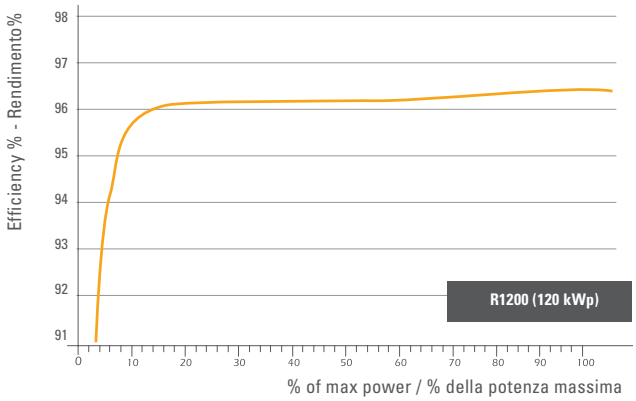
OUTPUT VOLTAGE

400 V_{AC}

MPPT VOLTAGE RANGE

430 - 820V_{DC}





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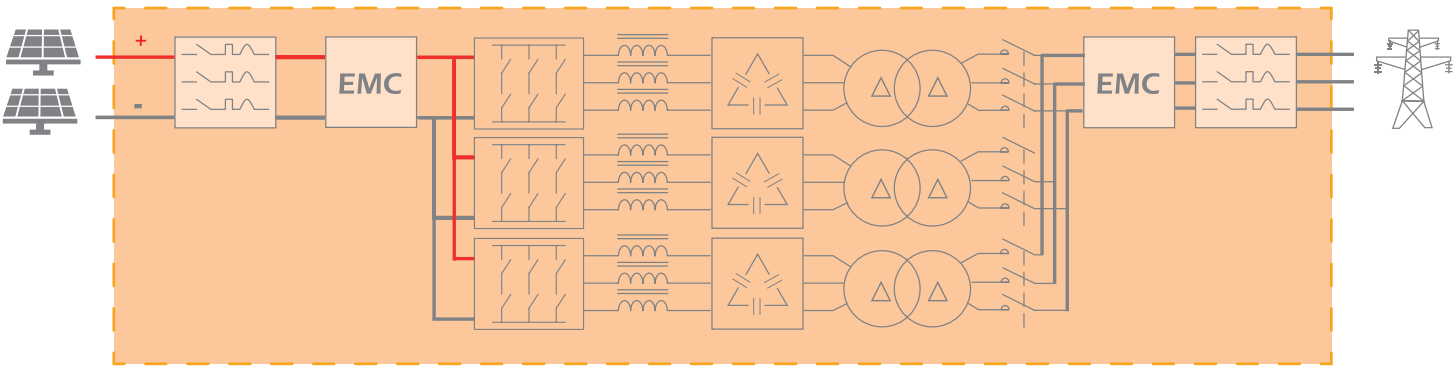
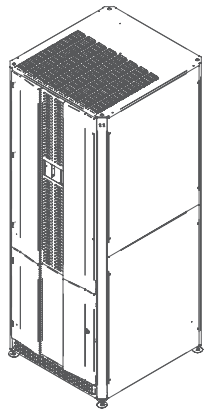
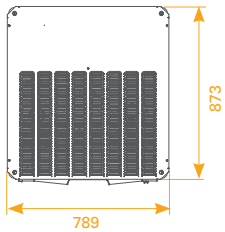
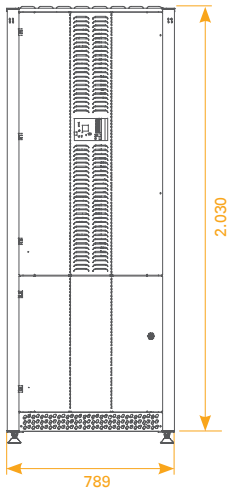


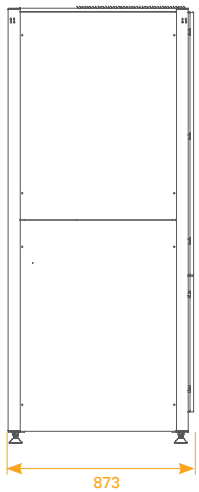
LV Central Inverter

R1200









DC Input - PV Module

Models / Modello	R 1200	
MPPT voltage range(V_{DC})	430 - 820 V	430 - 820 V
Max no-load PV voltage (V_{OC})	900 V	900 V
DC-voltage ripple (%)	< 2%	< 2%
Maximum input current (A_{DC})	250 A	85 A (NOTE 3)
Number of MPPT	1	3
DC control mode	Rapid and efficient MPPT control	Rapid and efficient MPPT control
DC input connection	Integrated DC Switch	Integrated DC Switch
Reverse polarity protection	•	•
Overvoltage protection	Implemented by the use of varistor's SPD device	Implemented by the use of varistor's SPD device
Overvoltage Category	II	II

AC Output grid

Nominal power (kVA) (Note1)	110 kVA	110 kVA
Maximum current (A_{AC}) (Note1)	165 A	165 A
Voltage (V_{AC})	400V_{RMS} (±10%)	400V_{RMS} (±10%)
N° Phase	3 (L1-L2-L3-PE)	3 (L1-L2-L3-PE)
Grid frequency (Hz)	50 Hz	50 Hz
Distortion factor (THD)	< 3%	< 3%
Galvanic insulation	Yes, By LF transformer	Yes, By LF transformer
AC connectors	Magnetothermic AC grid switch	Magnetothermic AC grid switch

General Data

Maximum efficiency	96,20%	96,20%
European efficiency	95,60%	95,60%
Night consumption (W)	< 30 W	< 30 W
Weight (kg)	1.050 kg	1.050 kg
Protection degree	IP20 (Opt. IP31)	IP20 (Opt. IP31)
Cooling	By using fans speed controlled by temperature	By using fans speed controlled by temperature
Dimensions (WxDxH mm)	789x873x2.030 mm	789x873x2.030 mm
Noise level (dBA)	< 70 dBA	< 70 dBA
Operating temperature (°C)	-10° C +50° C	-10° C +50° C
Storage temperature (°C)	-20°+60° C	-20°+60° C
Height above the sea (without derating) *(Note 2)	1.000 m	1.000 m
Maximum power dissipated in overload condition	5.100 W - 4.360 KCal/h	5.100 W - 4.360 KCal/h
Air Flow	3.000 m^3/h	3.000 m^3/h
Protection class	I	I
Humidity Not condensing	0 ÷ 95%	0 ÷ 95%
Colour	RAL 9006	RAL 9006
Modulation	By using the IPCCM algorithm	By using the IPCCM algorithm

*Note1. Power factor (cosφ)= 1
*Note2. Above 1000m derate the power of 1% pr 100m up to 3000m over the sea level
*Note3. Per each indipendent MPPT input