

R4500 TLI R5000 TLI

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R6000 TL

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MAXIMUM EFFICIENCY

98.9 %

OUTPUT VOLTAGE

270 V_{AC} ± 10%

MPPT VOLTAGE RANGE

485 - 820V_{DC}

Advantage

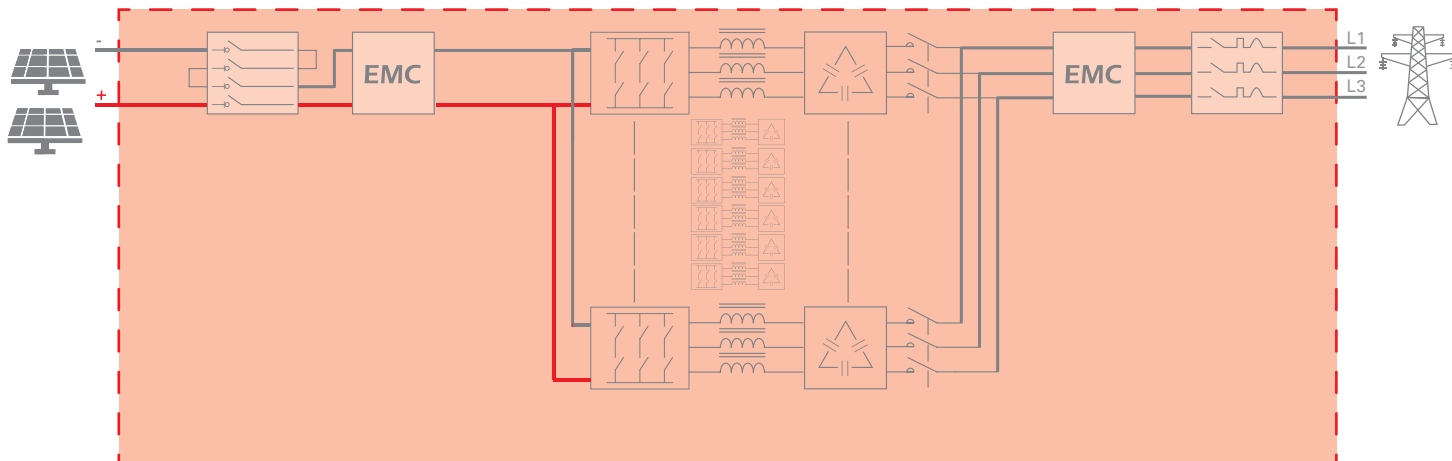
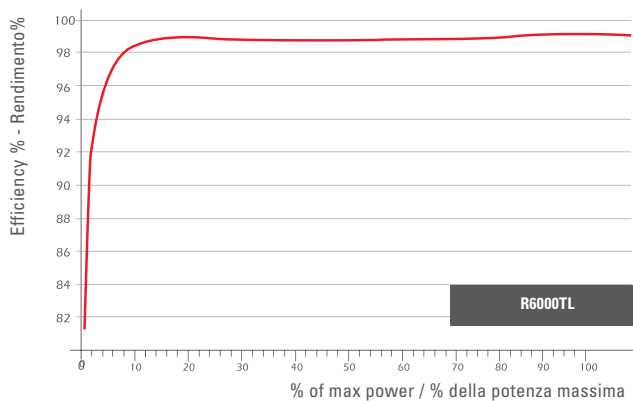
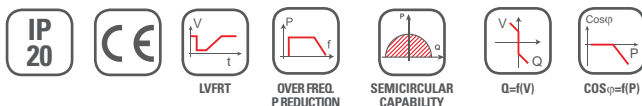
- > High efficiency, up to 99%.
- > Modular inverter (MPS system).
- > Elevato rendimento, fino a 99%.
- > Modularità dell'inverter (MPS system).

Features

- > Use of a single magnetic component each module.
- > Advance modulation (according to IPCCM algorithm).
- > Continuous monitoring of the system and integrated datalogger.
- > Outbound communication.
- > Monitoring of the photovoltaic plant.
- > Impiego di un singolo componente magnetico per ciascun modulo.
- > Modulazione all'avanguardia (secondo l'algoritmo IPCCM).
- > Supervisione continua del sistema e datalogger integrato.
- > Comunicazione verso il mondo esterno.
- > Monitoraggio dell'impianto fotovoltaico.

Accessories

- > Accessories references - page 31
- > Vedi accessori - pagina 31

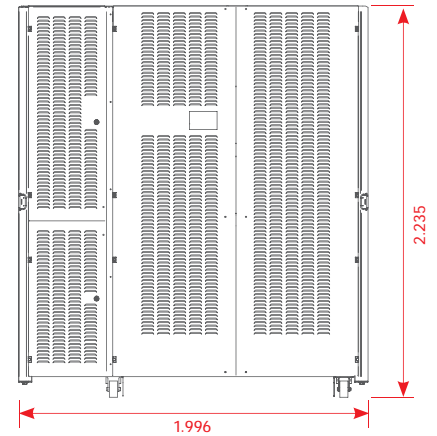
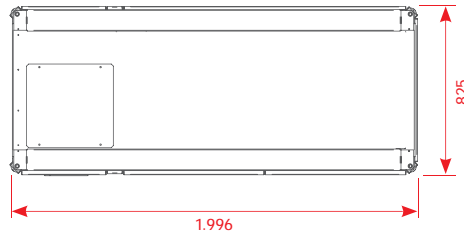
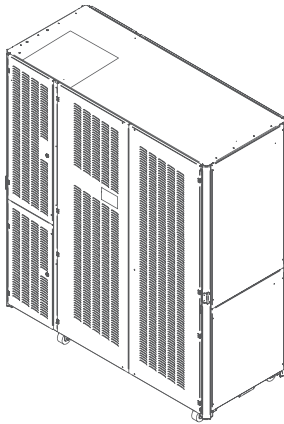


MV Central Inverter

R4500 TLI R6000 TL

R5000 TLI

Fimer Solar. MV Central Inverters 1.000V



DC Input - PV Module

	R4500TLI	R5000TLI	R6000TLI
MPPT voltage range (V_{DC})	485 - 820 V	485 - 820 V	485 - 820 V
Absolute max DC voltage (V_{DC})	1.000 V	1.000 V	1.000 V
DC-voltage ripple (%)	<2%	<2%	<2%
Maximum input current (I_{DC})	900 A	1.050 A	1.200 A
DC control mode	Rapid and efficient MPPT control	Rapid and efficient MPPT control	Rapid and efficient MPPT control
Number of MPPT	1	1	1
Reverse Polarity Protection	•	•	•
DC input connection	Integrated DC Switch	Integrated DC Switch	Integrated DC Switch
Overvoltage Protection	SPD varistor device Class II (Opt. Class I+II)	SPD varistor device Class II (Opt. Class I+II)	SPD varistor device Class II (Opt. Class I+II)

AC Output grid

	R4500TLI	R5000TLI	R6000TLI
Max Power (kW) (Note 1)	441 kW @ 25°C 414 kW @ 50°C	514 kW @ 25°C 483 kW @ 50°C	588 kW @ 25°C 552 kW @ 50°C
Max Apparent Power Smax (kVA)	441 kVA @ 25°C 414 kVA @ 50°C	514 kVA @ 25°C 483 kVA @ 50°C	588 kVA @ 25°C 552 kVA @ 50°C
Maximum Current (I_{AC}) (Note 1)	945 A @ 25°C 890 A @ 50°C	1.100 A @ 25°C 1.035 A @ 50°C	1.260 kVA @ 25°C 1.185 A @ 50°C
Max unbalance current	< 2%	< 2%	< 2%
AC output Voltage (V_{AC})	270V_{RMS} ±10%	270V_{RMS} ±10%	270V_{RMS} ±10%
Nr. Phase	3-phase (L1 - L2 - L3 - PE)	3-phase (L1 - L2 - L3 - PE)	3-phase (L1 - L2 - L3 - PE)
Frequency (Hz)	50/60 Hz	50/60 Hz	50/60 Hz
Aux. power supply ($V_{AC} - I_{AC}$)	230V ±10% - 16A (L-N)	230V ±10% - 16A (L-N)	230V ±10% - 16A (L-N)
Auxiliary control supply ($V_{AC} - I_{AC}$)	230V ±10% - 10A (L-N)	230V ±10% - 10A (L-N)	230V ±10% - 10A (L-N)
Distortion factor (THDi) (Note 2)	<3%	<3%	<3%
Power Factor (Note 3)	From 0 to 1 inductive or capacitive	From 0 to 1 inductive or capacitive	From 0 to 1 inductive or capacitive
Galvanic insulation	No (transformerless)	No (transformerless)	No (transformerless)
AC input connection	Magnetothermic circuit breaker	Magnetothermic circuit breaker	Magnetothermic circuit breaker

General Data

	R4500TLI	R5000TLI	R6000TLI
Maximum efficiency	98.80%	98.80%	98.80%
European efficiency	98.20%	98.30%	98.30%
Static MPPT efficiency	> 99.9 %	> 99.9 %	> 99.9 %
Dynamic MPPT efficiency	> 99.8 %	> 99.8 %	> 99.8 %
Night consumption (W)	< 60 W	< 60 W	< 60 W
Weight (kg)	1.390 kg	1.430 kg	1.580 kg
Protection degree	IP20 (Opt.31)	IP20 (Opt.31)	IP20 (Opt.31)
Cooling	By using fans speed controlled by temperature	By using fans speed controlled by temperature	By using fans speed controlled by temperature
Dimensions (W x D x H)	1.996x825x2.235 mm	1.996x825x2.235 mm	1.996x825x2.235 mm
Noise level (dBA)	< 70 dBA	< 70 dBA	< 70 dBA
Operating temperature (°C) (Note 4)	-10° C +53° C	-10° C +53° C	-10° C +53° C
Storage temperature (°C)	-20° C +60° C	-20° C +60° C	-20° C +60° C
Humidity (Not condensing) (%)	0 ÷ 95%	0 ÷ 95%	0 ÷ 95%
Height above the sea (without derating) (Note 5)	1.500 m	1.500 m	1.500 m
Air Flow	2.460 m³/h	2.870 m³/h	3.280 m³/h
Overvoltage Category	II	II	II
Color	RAL 9006	RAL 9006	RAL 9006

Note 1: Power factor ($\cos\phi$)= 1 and Vac nominal.
Note 2: THDi is lower than 3% for inverter power greater than 25%.
Note 3: P-Q capability is semicircular with radius equal to Smax for all MPPT range.
Note 4: From 45°C to 53°C derating of power.
Note 5: Above 1.500m a.s.l. derating of the power of 1% per 100m.

Note: Each inverter must be connected separately to its own LV/MV transformer or it has to be connected to a separate LV secondary input of the LV/MV transformer. Two or more inverters cannot be connected in parallel to the same LV secondary input of the LV/MV transformer.