R5010 TLI R10000 TLI

I35.132.060 I31.042.060

MAXIMUM EFFICIENCY

98.9 %

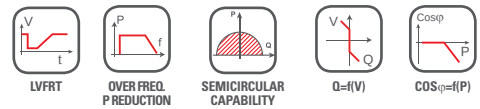
OUTPUT VOLTAGE

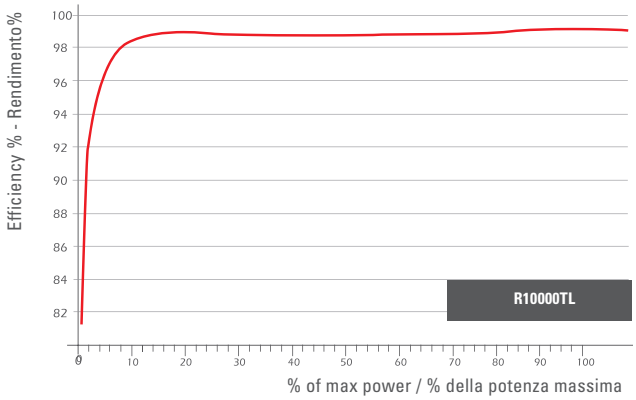
400 V_{AC} ± 10%

MPPT VOLTAGE RANGE

675 - 1.000V_{DC}

IP 20





Advantage

> High efficiency, up to 99%.
> Modular inverter (MPS system).

> Elevato rendimento, fino a 99%.
> Modularità dell'inverter (MPS system).

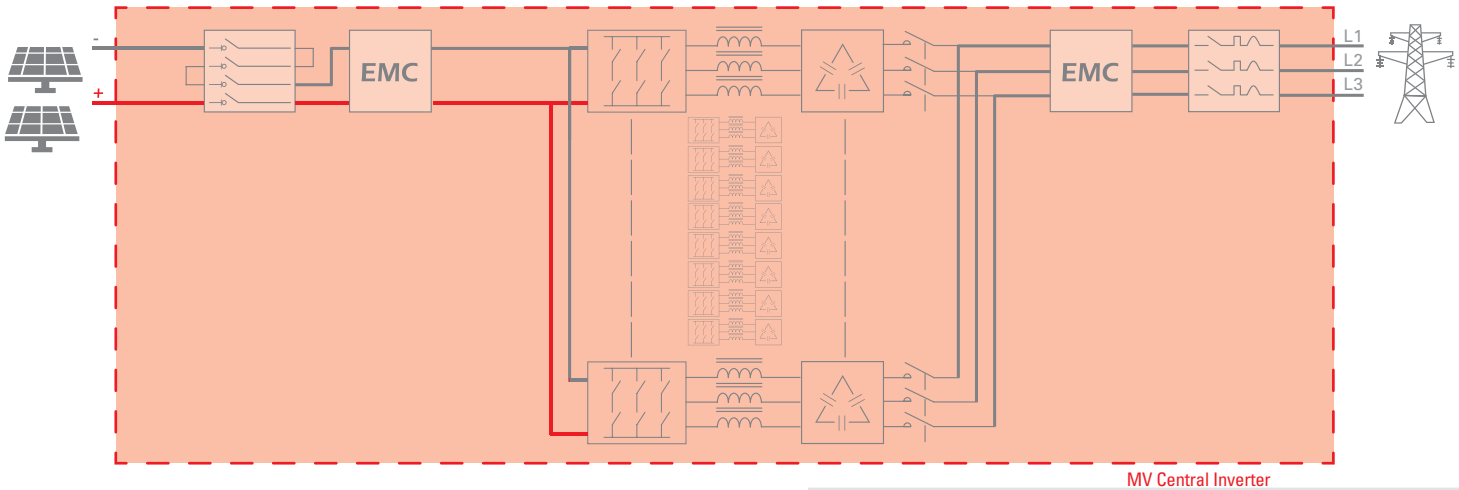
Features

> Use of a single magnetic component each module.
> Advance modulation (according to IPCCM algorithm).
> Continous 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.

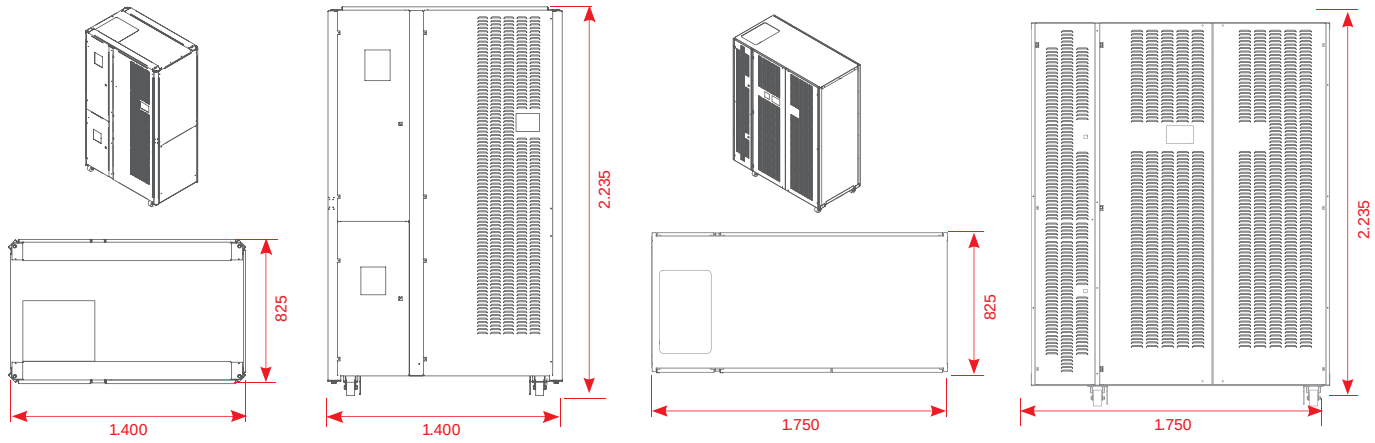
Accessories

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



Note: Block diagram refers to the converter R1.0000TL
Lo schema a blocchi si riferisce al convertitore R1.0000TL

R5010 TL
R10000 TL



DC Input - PV Module

	R5010TL	R10000TL
MPPT voltage range(V_{DC})	675 - 1.000 V	675 - 1.000 V
Absolute max DC voltage (V_{DC})	**1.100 V**	**1.100 V**
DC-voltage ripple (%)	<2%	<2%
Maximum input current (A_{DC})	1.250 A	1.600 A
DC control mode	Rapid and efficient MPPT control	Rapid and efficient MPPT control
Number of MPPT	1	1
Reverse Polarity Protection	•	•
DC input connection	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)

AC Output grid

Max Power (kW) (Note 1)	**512 kW @ 25°C** **500 kW @ 50°C**	**1.025 kW @ 25°C** **1.000 kW @ 50°C**
Max Apparent Power Smax (kVA)	512 kVA @ 25°C 500 kVA @ 50°C	1.025 kVA @ 25°C 1.000 kVA @ 50°C
Maximum Current (A_{AC}) (Note 1)	787 A @ 25°C 740 A @ 50°C	1.575 A @ 25°C 1.480 A @ 50°C
Max unbalance current	< 2%	< 2%
AC output Voltage (V_{AC})	**400V_{RMS} ±10%**	**400V_{RMS} ±10%**
Nr. Phase	3-phase (L1 – L2 – L3 – PE)	3-phase (L1 – L2 – L3 – PE)
Frequency (Hz)	50/60 Hz	50/60 Hz
Aux. power supply (V_{AC} - I_{AC})	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)
Distortion factor (THDi) (Note 2)	<3%	<3%
Power Factor (Note 3)	From 0 to 1 inductive or capacitive	From 0 to 1 inductive or capacitive
Galvanic insulation	No (transformerless)	No (transformerless)
AC input connection	Magnetothermic circuit breaker	Magnetothermic circuit breaker

General Data

Maximum efficiency	**98.80%**	**98.80%**
European efficiency	98.20%	98.30%
Static MPPT efficiency	> 99.9 %	> 99.9 %
Dynamic MPPT efficiency	> 99.8 %	> 99.8 %
Night consumption (W)	< 60 W	< 60 W
Weight (kg)	1.300 kg	1.670 kg
Protection degree	IP20 (Opt.31)	IP20 (Opt.31)
Cooling	By using fans speed controlled by temperature	By using fans speed controlled by temperature
Dimensions (W x D x H)	1.400x825x2.235 mm	1.750x825x2.235 mm
Noise level (dBA)	< 70 dBA	< 70 dBA
Operating temperature (°C) (Note 4)	-10° C +53° C	-10° C +53° C
Storage temperature (°C)	-20° C +60° C	-20° C +60° C
Humidity (Not condensing) (%)	0 ÷ 95%	0 ÷ 95%
Height above the sea (without derating) (Note 5)	1.500 m	1.500 m
Air Flow	2.400 m^3/h	4.850 m^3/h
Overvoltage Category	II	II
Color	RAL 9006	RAL 9006

Note 1: Power factor (cosφ)= 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.