R15615 TL R16615 TL R18615 TL

I31.348.050 I31.548.050 I31.748.050

MAXIMUM EFFICIENCY

98.9 %

OUTPUT VOLTAGE

570 V_{AC} ± 10%

MPPT VOLTAGE RANGE

900 - 1.320 V_{DC}

Advantage

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

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

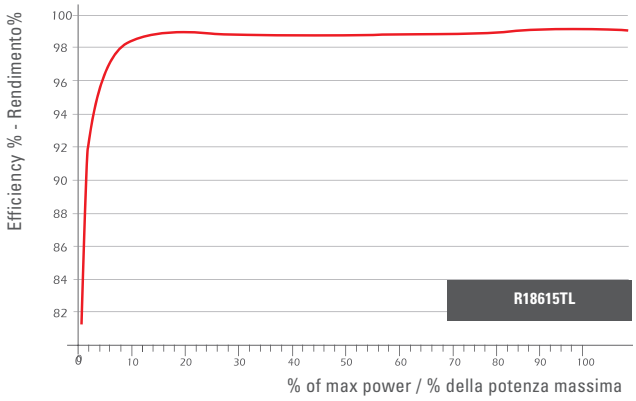
Features

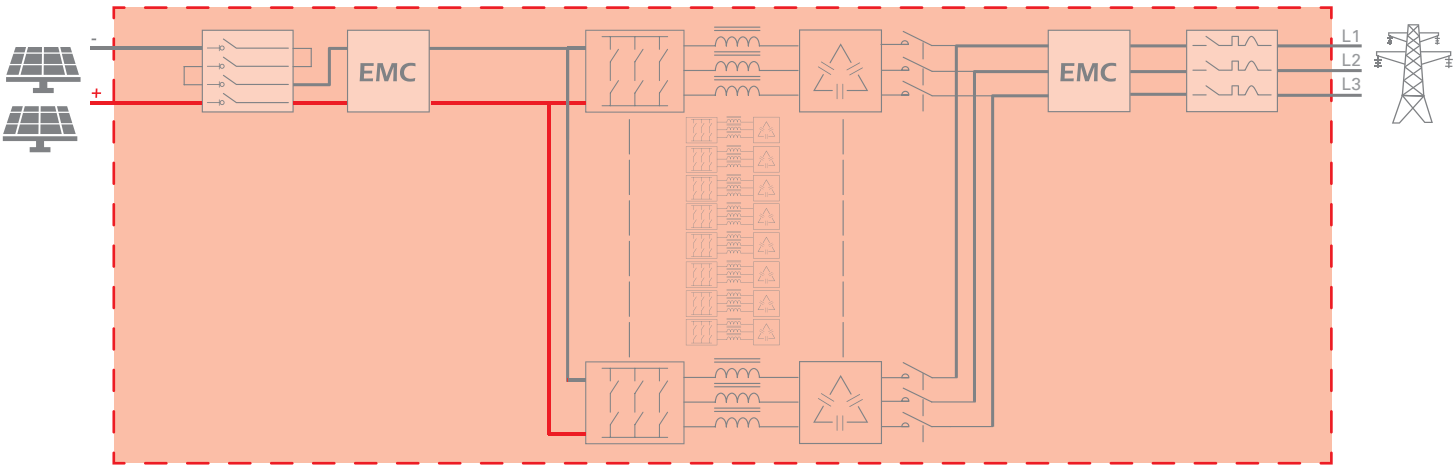
> Use of a single magnetic component each module.
> Advance modulation (according to IPCCM algorithm).
> Continous monitoring of the system and integrated datalogger.
> Outbound communication.
> Monitoring of the photovoltaic plant.

> 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 81
> Vedi accessori - pagina 81





MV Central Inverter

Note: Block diagram refers to the converter R18615TL
Lo schema a blocchi si riferisce al convertitore R18615TL

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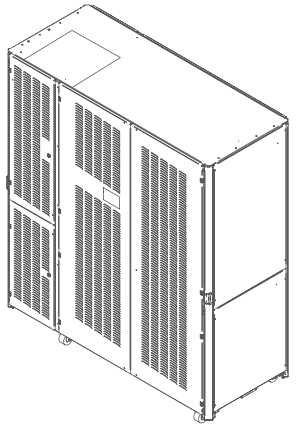

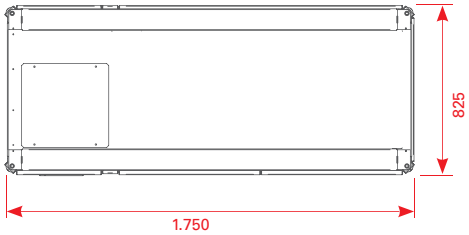

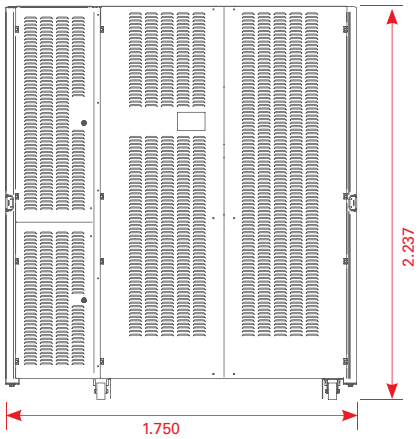

DC Input - PV Module

	R15615TL	R16615TL	R18615TL
MPPT voltage range(V_{DC})	900 – 1320 V	900 – 1320 V	900 – 1320 V
Absolute max DC voltage (V_{DC})	**1.500 V**	**1.500 V**	**1.500 V**
DC-voltage ripple (%)	<2%	<2%	<2%
Maximum input current (A_{DC})	1.320A	1.485A	1.650A
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	up to 2 DC Switches	up to 2 DC Switches	up to 2 DC Switches
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)
DC Input - PV Module	Rapid and efficient MPPT control	Rapid and efficient MPPT control	Rapid and efficient MPPT control

AC Output grid

Max Power (kW) (Note 1)	**1.244 kW @ 25°C** **1.172 kW @ 50°C**	**1.400 kW @ 25°C** **1.318 kW @ 50°C**	**1.555 kW @ 25°C** **1.465 kW @ 50°C**
Max Apparent Power Smax (kVA)	1.244 kVA @ 25°C 1.172 kVA @ 50°C	1.400 kVA @ 25°C 1.318 kVA @ 50°C	1.555 kVA @ 25°C 1.465 kVA @ 50°C
Maximum Current (A_{AC}) (Note 1)	1.260 A @ 25°C 1.188 A @ 50°C	1.418 A @ 25°C 1.336 A @ 50°C	1.575 A @ 25°C 1.485 A @ 50°C
Max unbalance current	< 2%	< 2%	< 2%
AC output Voltage (V_{AC})	**570V_{RMS} ±10%**	**570V_{RMS} ±10%**	**570V_{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

Maximum efficiency	**98.90%**	**98.90%**	**98.90%**
European efficiency	98.62%	98.62%	98.62%
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)	1.410 kg	1.540 kg	1.600 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)	1.750x825x2.237 mm	1.750x825x2.237 mm	1.750x825x2.237 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	3.880 m^3/h	4.365 m^3/h	4.850 m^3/h
Overvoltage Category	II	II	II
Color	RAL 9006	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.