

FIMER



MV Central inverters

R15615TL-R16615TL

R18615TL

833kW - 1000V

Technical data

Type code	R15615TL	R16615TL	R18615TL
MPPT voltage range (V _{DC})	900 - 1.320 V	900 - 1.320 V	900 - 1.320 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})	1.320 A	1.485 A	up to 2.000 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	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) 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 S _{max} (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}) 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})	570 V _{RMS} ±10%	570 V _{RMS} ±10%	570 V _{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) ²⁾	<3%	<3%	<3%
Power Factor 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) 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) 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

1) Power factor (cosφ)= 1 and Vac nominal.

2) THDi is lower than 3% for inverter power greater than 25%.

3) P-Q capability is semicircular with radius equal to S_{max} for all MPPT range.

4) From 45°C to 53°C derating of power.

5) Above 1.000m a.s.l. derating of the power of 1% per 100 m.

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.

Remark. Features not specifically listed in the present data sheet are not included in the product



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