

 MICROTEC	R&D Department		
MANUAL	Microtec - Inverter 15 kVA – 20 kVA	Date: 19/06/2020	Page 1 of 2
Written by: L. Micheli	Last revision:1.01 (16-04-2021)		

DESCRIPTION OF MODELS

15kVA and 20kVA inverters are available in “Open Version” (without enclosure) and “Box Version”. Open version are suitable to be inserted directly inside a generator box with engine and alternator. Box version are suitable where it is not possible or useful to have a complete generator inside a box. It is possible to connect the output of two inverters in parallel (via an external synchronism cable) to obtain double power.

SPECIFICATIONS

Storage temperature		-20...+55°C	
Operating temperature		-10...+40°C	
Humidity		5...85% without condensation	
Altitude		Max. 2000m	
Sealing protection		IP21	
Dimension L x W x D - Weight	OPEN VERSION	386 x 369 x 130 mm	18.0 kg
	BOX VERSION	502 x 433 x 241 mm	25.0 kg

Model	Continuous Power	Input Voltage (line to line)	Input Frequency	Continuous Output Current	Limited Time Power	Maximum Output Current	Output Voltage	Air Flow Speed @ T ≤ 40°C
15kw open 230V	15kVA	3*260..450 Vrms DC link = 410V	200...500Hz	65Arms	30kVA 1s	185Apk - 250ms 110Apk - 10s	200...240V AC 100...120V AC	8m/s
15kw box 230V	15kVA	3*260..450 Vrms DC link = 410V	200...500Hz	65Arms	30kVA 1s	185Apk - 250ms 110Apk - 10s	200...240V AC 100...120V AC	Internal
20kw open 230V	20kVA	3*260..450 Vrms DC link = 410V	200...500Hz	87Arms	40kVA 1s	250Apk - 250ms 150Apk - 10s	200...240V AC 100...120V AC	8m/s
20kw box 230V	20kVA	3*260..450 Vrms DC link = 410V	200...500Hz	87Arms	40kVA 1s	250Apk - 250ms 150Apk - 10s	200...240V AC 100...120V AC	Internal

DC-LINK and PMG alternator

Voltage generation starts after proper DCbus charging by external voltage source (PMG).

230V – version

Nominal DCbus voltage is 410Vdc and 340Vdc is required to start output generation.

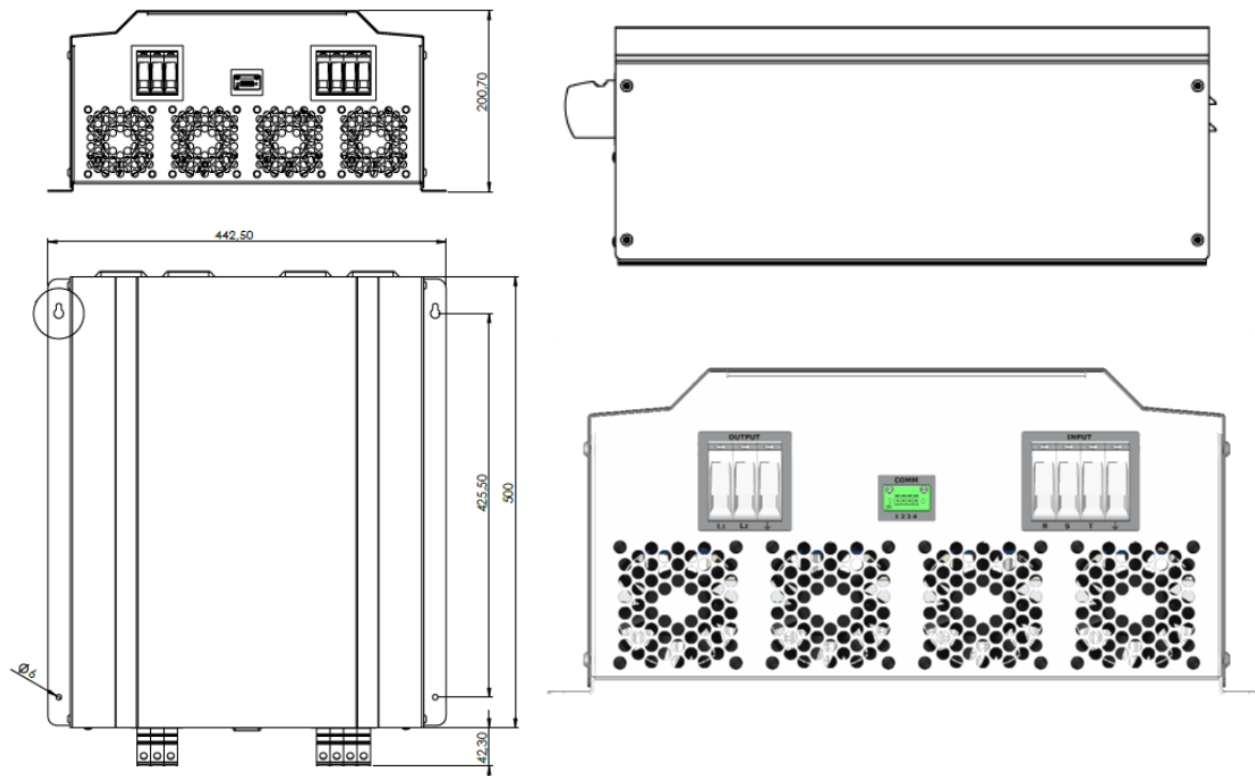
290Vrms line to line are required to guarantee a stable output voltage AC (nominal voltage at full load).

The power limit is set in current; you can adjust the output voltage between 210 – 240 volts or 105 – 120 volts (HALF POWER).

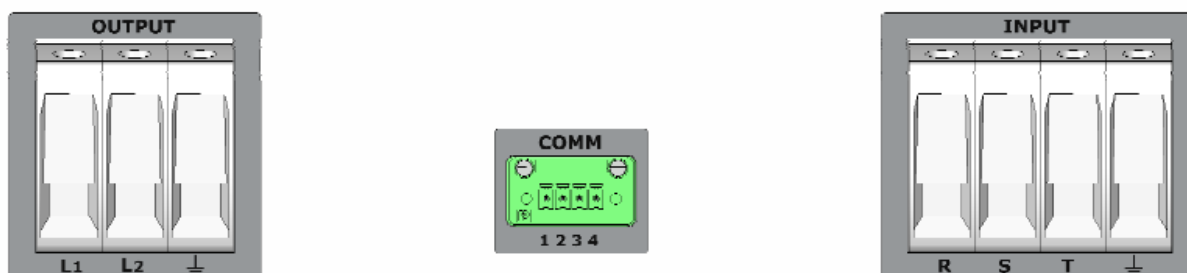
	Not exceed 450Vrms phase to phase for input voltage in any case
	Not exceed 500Hz for input voltage in any case

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15kVA - 20kVA BOX VERSION



15kVA - 20kVA BOX VERSION - CONNECTION



Use input connector to connect generator with the inverter, use cable with cross section min. 10mmq, max.35mmq

Use the enclosed output connector to connect output of the inverter, use cable with cross section min. 10mmq, max.35mmq

Use the enclosed communication connector to connect external motor control board and / or remote display, use cable with cross section min. 0.35mmq, max.1.5mmq (pin1 =+, pin 2 = CAN_H, pin 3 = CAN_L, pin 4 = -)



Connect protective ground cable to the inverter using a cable with cross section minimum 10mmq; you can connect it at the output terminal block, or at the input terminal block or at both of them on the third position of terminals like indicated on the labels of the cabinet.