

iNORéA

Automatismes & Industrie



TECHNICAL SPECIFICATION SHEET

TECPOWERGEN CONVERTER – TPG3K / TPG1K

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2. WARNING

- * TECPOWERGEN converter supplies a 400V three phase alternative voltage + neutral 50Hz from a 220V single phase source. It is made for the use of a device with a three-phase motor

- * The box and people safety must be insured by 20A single phase circuit breaker ahead, and a distinct circuit breaker 16A 30 mA afterwards in case of use of the 220V in output.

- * Before any use, check correctly the connections and the ground connections

- * The use, the maintenance and the opening of the TECPOWERGEN must be realized by electricians entitled to do this.

- * The use of the 220V in output can cause a dizziness phase that could cause some risks for the electronics components. Then they should be protected individually for fuses and circuit breakers.

- * If the requested output power is higher than 3kW, the inverter reduces the tension. In case of defect, the inverter stops the power and put itself in security mode.

- * Never pull the power supply cord off to unplug it.

- * Keep away the power supply cord from the heat, the oil and the sharp items.

- * The start when the motors are in charge require a peak of current from 5 to 7 times higher than the Nominal current (I_n). This parameter should be considered during the sizing of the TECPOWERGEN. Be careful, this peak of current could cause a brief lowering of the output voltage.

3. TECHNICAL FEATURES

TECPOWERGEN 3K

In box input: 230V 50Hz single phase 20A.

In box output: 400V 50Hz three phase 5A max (3KW).

Output to 3KW: 63%

Low-pass filter in output: 1.5 KVA (3 x 9.3 μ F)

Weight: 29kg.

TECPOWERGEN 1K

In box input: 230V 50Hz single phase 16A.

In box output: 400V 50Hz three phase 3.5 A max (1KW).

Output to 3KW: 65%

Low-pass filter in output: 1.5 KVA (3 x 9.3 μ F)

Weight: 20kg.

Shared features

Ventilated metal electrical box IP54

Dimensions (HxWxD) : 600mm x 400mm x 250mm

Temperature for using: 0 à +40°C

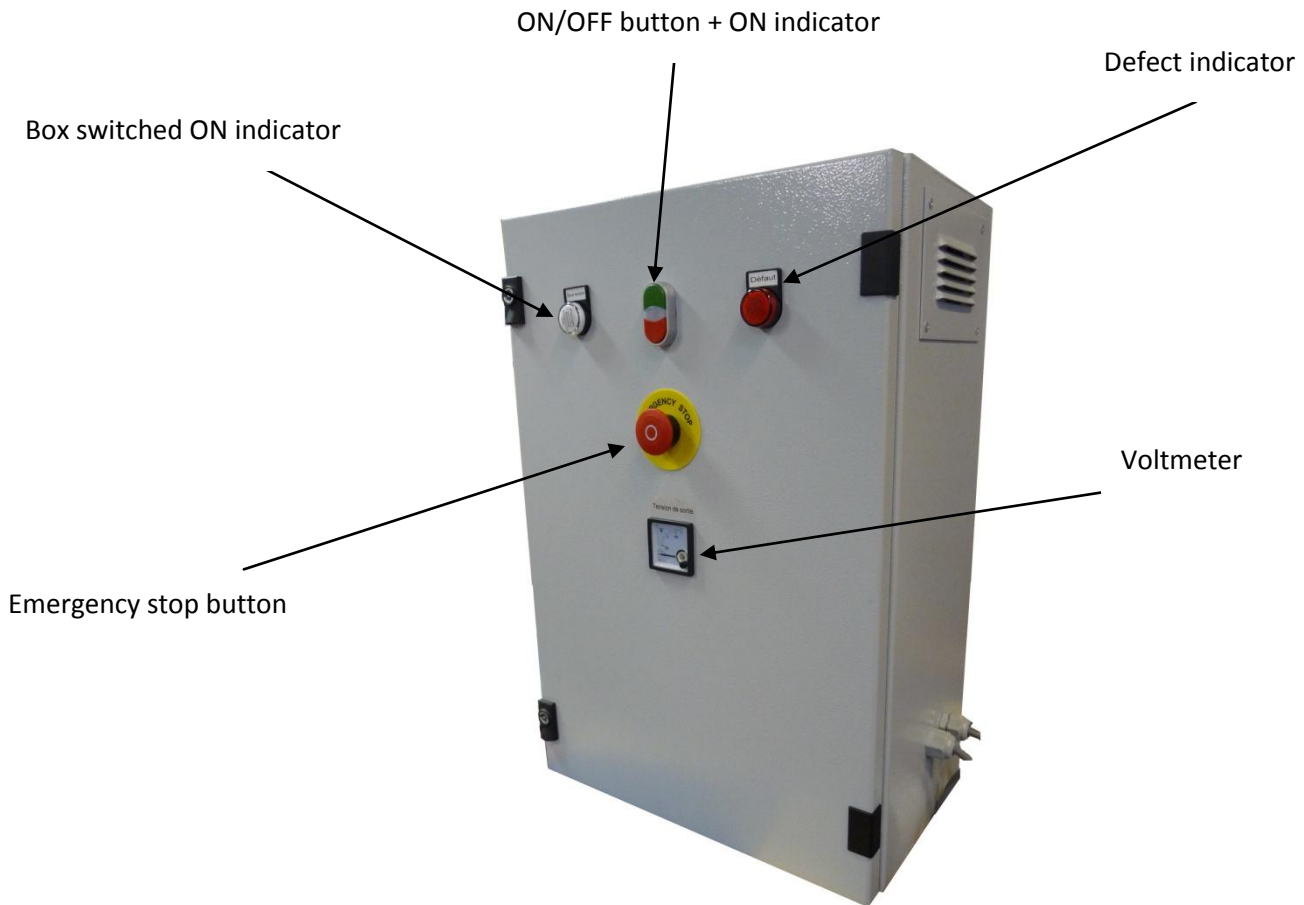
Relative humidity: 5 à 70%

Supplementary material

Three phase plug 3P+N+Ground 16A 400V IP44

Three phase socket 3P+N+Ground 16A 400V IP44

4. BOX DESCRIPTION



TECPOWERGEN is a metal electrical box with two inlets of ventilation.

In front, there are:

- A warning light that indicates the 230V in input of the box.
- A warning light that indicates the 400V in input of the box.
- A warning light that indicates a defect or the security phase of the electrical box.
- A green pushbutton which allows to obtain the 400V in output of the box.
- A green pushbutton which allows to stop the 400V in output of the box.
- An emergency stop button which allows the break of the 400V in output of the box or the reset in case of defect.
- A voltmeter measures the output voltage of the tetrapolar circuit breaker.

5. PUTTING INTO SERVICE

- 1- Before to start the Tecpowergen, it must be fixed on its 4 feet on a flat surface able to support the weight of the box.
- 2- Connect the power supply cable in 230V of the box.
- 3- The white 230V indicator lights up.
- 4- Connect the 400V plug in the socket connected to the box.
- 5- Press the green button, then the 400V indicator lights up and the voltmeter in front indicates the plug output voltage.

NB: Check that the emergency stop button is not pushed. If that is the case, unlock it and press the start button.

6. SWITCHING OFF

Press on the red stop button. The voltmeter subsides to zero and the green 400V indicator turns off.

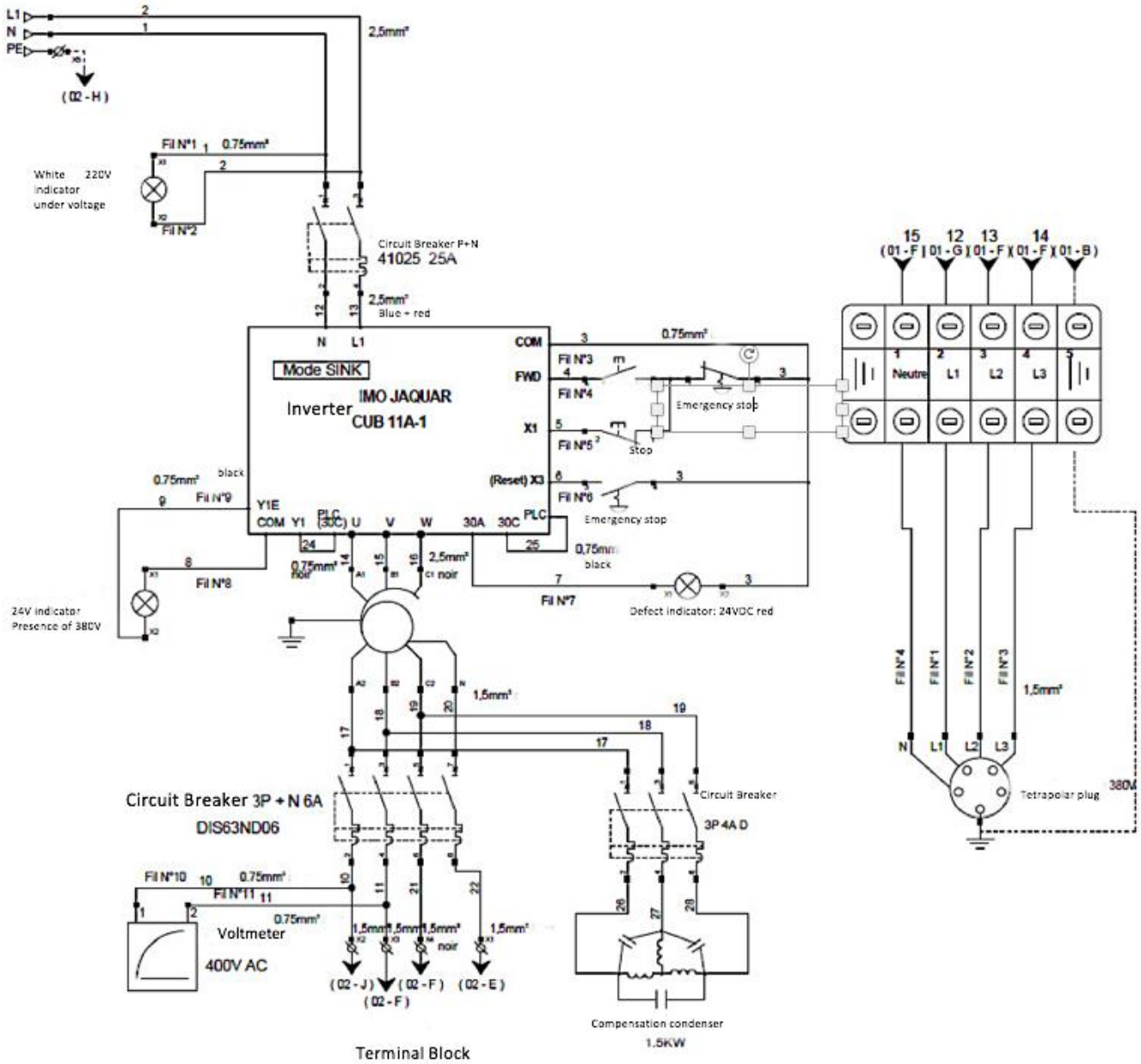
7. IN CASE OF DEFECT

The defect indicator is turned on. To delete the defect, press then unlock the emergency stop button and press on ON. Le

Possible causes of the defect:

- The required output power supply is higher than the generator capacity. La puissance demandée à la sortie du coffret est supérieure à la capacité du générateur.
- Presence of a short circuit between the electrical box and the connected device.

8. ELECTRICAL DIAGRAM TPG3K



9. CE COMPLIANCE DECLARATION

CE Compliance Declaration

The society...

INORÉA Automation & Industry

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...Proclaim that the products that we assemble...

TECPOWERGEN30

TECPOWERGEN10

...Are in keeping with the fundamental conditions stipulated in the following European directives.

2006/95/CE – Low Voltage Electrical Equipment Directive

2004/108/CE – Electromagnetic Compatibility Directive

Standard and technical specification referred to:

EN 61000-6-3 :2007



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