

**PRELIMINARY TECHNICAL INFORMATION**

**HIGHLIGHTS**

- Wide range.
- Reliability.
- Short delivery time.
- Ultrafast fuses included.
- Thermostat, snubber and varistor included.
- Ready to use.
- Working voltage up to 400 V<sub>RMS</sub>.
- Insulation 3000 V<sub>RMS</sub>/1 min.
- With plate for accessories.

Non-contractual photo

<b>GENERAL SPECIFICATIONS</b>	
Nominal line to line input voltage (V <sub>RMS</sub> )	480 V <sub>AC</sub> ±10%
Repetitive peak reverse voltage (V <sub>RRM</sub> )	1600 V <sub>P</sub>
Maximum working current (I <sub>DC</sub> ) (1)	1042 A <sub>DC</sub> @ 35°C TA
Maximum nominal working current (I <sub>DC</sub> ) (2)	819 A <sub>DC</sub> @ 35°C TA
Cooling	Forced convection, 3 fan Ø120

(1): The maximum non continuous working current

(2): The maximum continuous working current without thermal protection activation

<b>SEMICONDUCTOR SPECIFICATIONS</b>	
Peak non-repetitive surge current (I <sub>TSM</sub> ) @ T <sub>JMAX</sub>	18 kA @ T <sub>P</sub> =10ms, V <sub>RM</sub> =60%V <sub>RRM</sub>
	19,8 kA @ T <sub>P</sub> =10ms, V <sub>RM</sub> ≤10V
I <sup>2</sup> t capacity for fusing @ T <sub>JMAX</sub>	1620 kA <sup>2</sup> s @ T <sub>P</sub> =10ms, V <sub>RM</sub> =60%V <sub>RRM</sub>
	1960 kA <sup>2</sup> s @ T <sub>P</sub> =10ms, V <sub>RM</sub> ≤10V
Maximum rate of rise of on-state current (repetitive) (di <sub>T</sub> /dt)	150 A/μs
Maximum rate of rise of on-state current (non-repetitive) (di <sub>T</sub> /dt)	300 A/μs
Maximum peak on-state voltage (V <sub>TM</sub> )	1,3 V @ I <sub>TM</sub> =1700A
Critical rate of rise of off-state voltage (dv/dt)	Min. 1000 V/μs @ T <sub>J</sub> =125°C, V <sub>D</sub> =80% V <sub>DRM</sub>
Gate trigger voltage (V <sub>GT</sub> )	max. 3 V @ T <sub>J</sub> =25°C, V <sub>D</sub> =10V, I <sub>T</sub> =3A
Gate trigger current (I <sub>GT</sub> )	max. 300 mA @ T <sub>J</sub> =25°C, V <sub>D</sub> =10V, I <sub>T</sub> =3A
Holding current (I <sub>H</sub> )	1000 mA @ T <sub>J</sub> =25°C; V <sub>D</sub> =12V

<b>PROTECTION</b>	
dv/dt protection (RC)	RC network 0,22μF/56 Ohms
Peak voltage protection (VDR)	550 V <sub>RMS</sub> varistor
Current protection (Semiconductor fuses) (1)	069UR3S1000B
Microswitch (fuse indicators)	3 x MS 3V1-5N
Thermal protection (Thermostats)	90°C NC

(1): Fuses only for shortcircuit protection. User provide external protection for continuous overloads and cable size.

**RECTIFICADORES GUASCH, S.A.**

Ciutat de Granada, 80  
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SPAIN

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120521 Rev.:1

### TERMINAL SPECIFICATIONS

Input power terminals (AC terminals)	(M12) 13 to 15 Nm
Module power terminals	(M10) 12 to 15 Nm
Output power terminals (DC terminals)	1xØ13 (M12) 13 to 15 Nm (1)
Control & signal terminals	WAGO 260 series terminal block 0,08-1,5mm <sup>2</sup> (28-16 AWG)

(1):The press should be performed with two keys, avoiding to transmit lateral efforts at terminal of connection, what would be able to produce the deterioration of the element semiconductor.

### ENVIRONMENT SPECIFICATIONS

Protection grade (EN-60529 / CEI529 / UNE-20324)	IP-00
Humidity max.	50% RH @ 35°C / 90% RH @ 20°C
Pollution degree	III
Isolation	3000 V <sub>RMS</sub> / 1 min

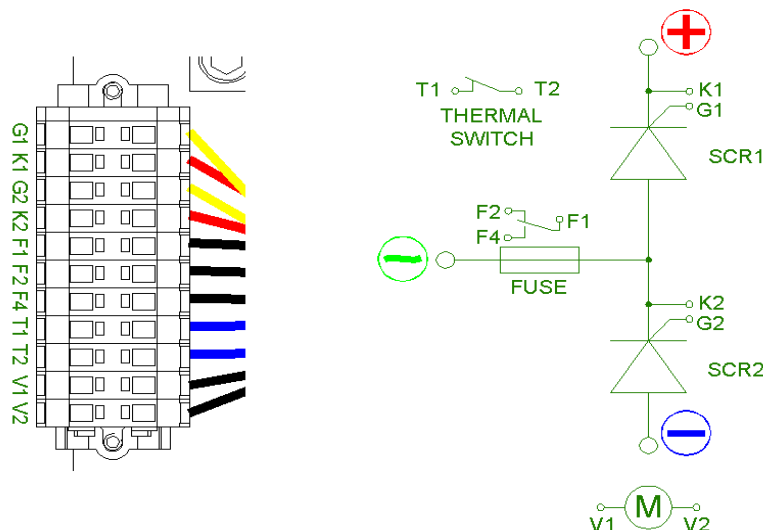
### LOSSES

Power dissipation of semiconductors at full charge	Aprox. 1334 W
Maximum power dissipation of fuses at full charge	Aprox. 107 W
Maximum total power dissipation at full charge	Aprox. 1441 W

### MECHANICAL SPECIFICATIONS

Mounting position	Vertical, fins perpendicular to ground
Storage temperature	-25 to 80°C
Width	489 mm
Depth	426 mm
Height	270 mm
Aprox. Weight	21,7 Kg.

### CONNECTIONS AND DIMENSIONS

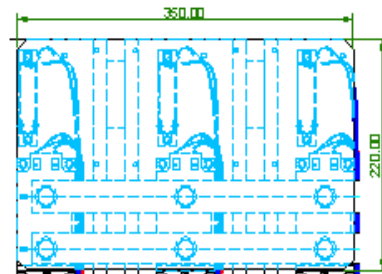
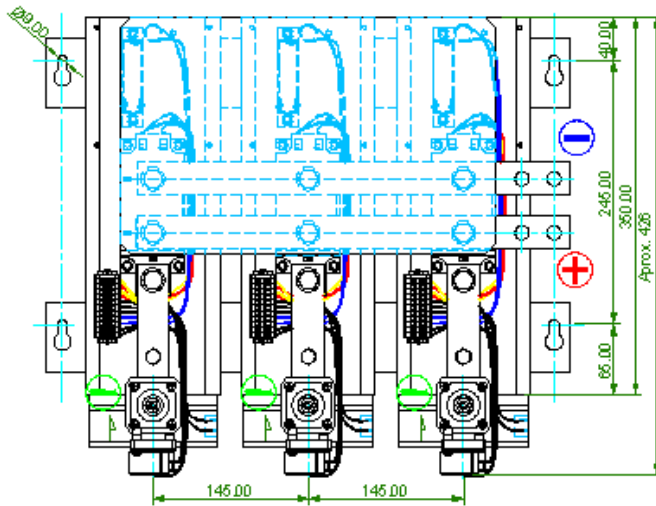
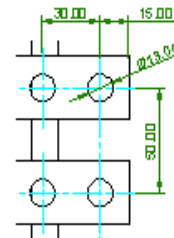
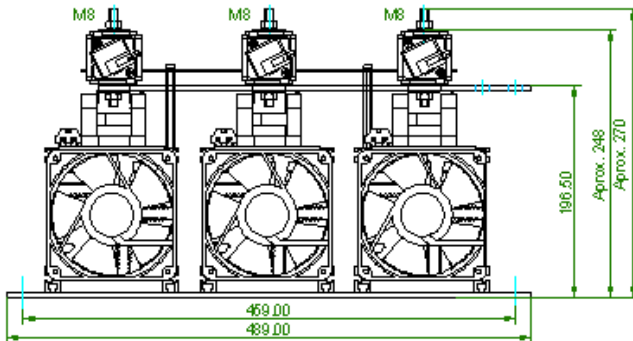
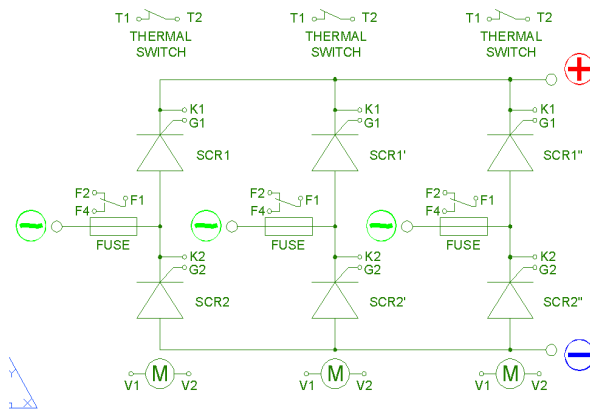


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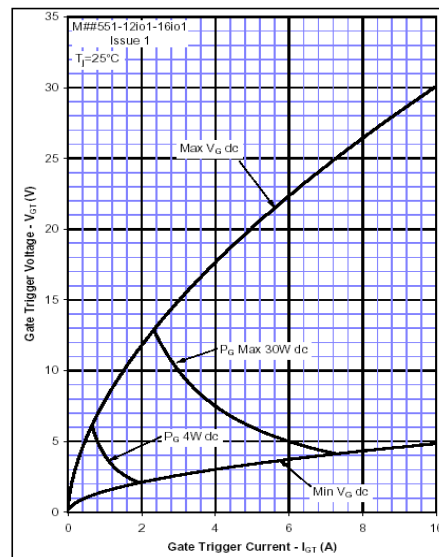
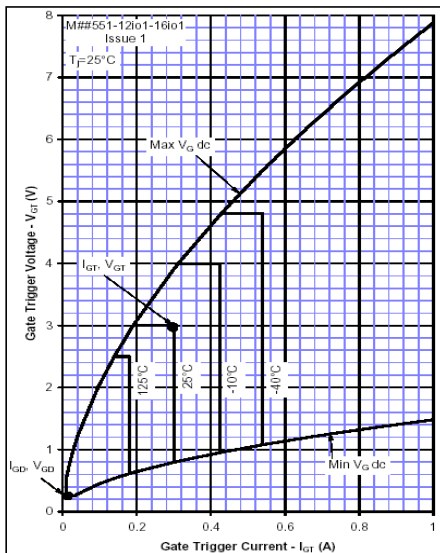
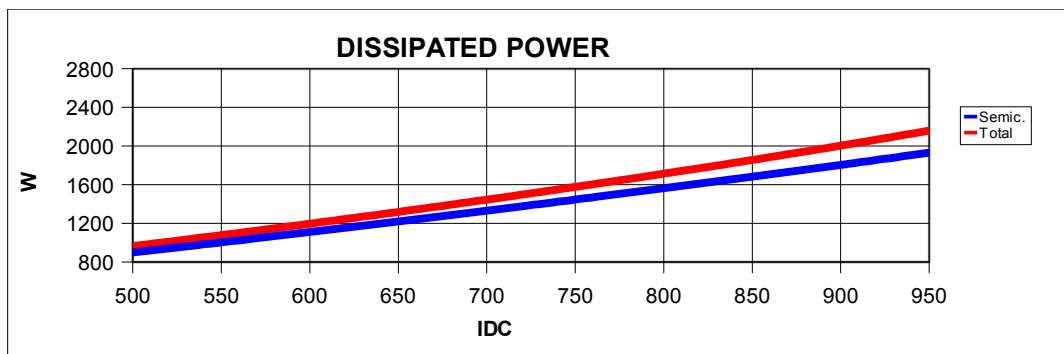
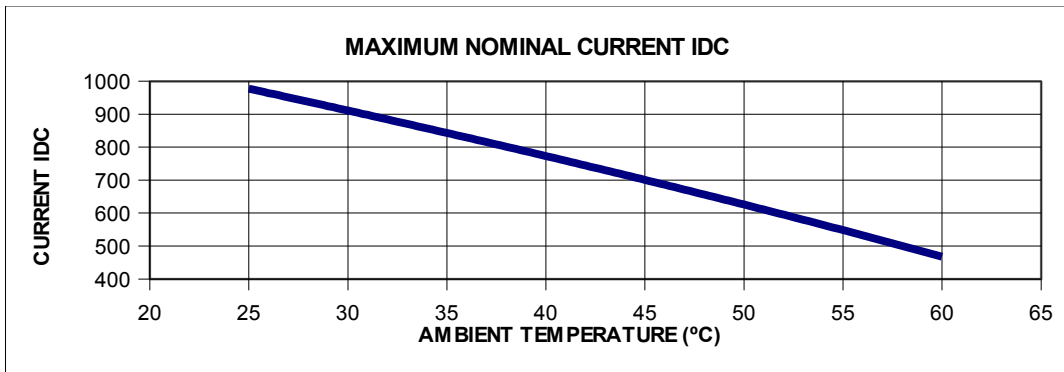
**MOUNTING CONSIDERATIONS**

120521 Rev.:1 It's necessary a minimum distance of 100 mm with regard to the envelope. The free air circulation should be guaranteed. Avoiding the heat sources of nearby to assembly.

In the real applications it is important to consider a safety margin with regarding the working current, we recommend a margin of the 20%.

For critical cases (24 hours work, repetitive overloads...), margins of the 30% to 50% are used.

**POWER AND CHARACTERISTIC CURVES**



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Aammdd Rev.:0

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## ORDER CODES & OPTIONS

MF- B6C 0930 F 12 RCVTF /A  
(1) (2) (3) (4) (5) (6) (7)

1- MF, Series identifier

2- B6C, Circuit identifier

3- 0930; Maximum current identifier

4-F, Refrigeration identifier (N:Natural; F: Forced)

5-12;  $V_{RRM}/10$  identifier

6-Accessories:

RC: Resistance-capacitor (snubber) included

V: Varistor included

T. Thermal switch included

F: Semiconductor fuse protection included. (fuse also includes microswitch)

7-Options:

/A or without indication: Power output terminals on right side (standard type)

/B: Power output terminal on left side.

/C: Positive output on right side & negative output on left side

/D: Positive output on left side & negative output on right side

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PRODUCIDO EN ESPAÑA, PRODUCED IN SPAIN, PRODUIT EN ESPAGNA

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# Your Needs, Our Solutions

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