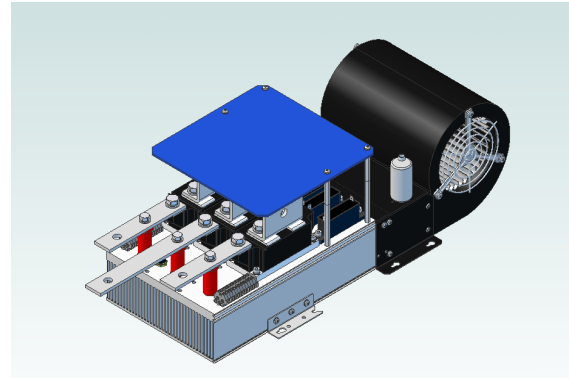


**HIGHLIGHTS**

- Radial fan.
- High reliability
- Thermostat, snubber and varistor included
- Working voltage up to 690V<sub>RMS</sub>.
- Insulation 3000 V<sub>RMS</sub> /1 min.
- Accessories support plate (p.e.:control cards)



non-contractual image

**GENERAL SPECIFICATIONS**

Nominal line to line input voltage ( $V_{RMS}$ )	690 V <sub>AC</sub> ±10%
Repetitive peak reverse voltage ( $V_{RRM}$ )	2400 V <sub>P</sub>
Maximum working current ( $I_{RMS}$ ) (1)	742 A <sub>RMS</sub> @ 35°C TA
Maximum nominal working current ( $I_{RMS}$ ) (2)	700 A <sub>RMS</sub> @ 35°C TA
Cooling (3)	Forced air, radial fan, 230V <sub>RMS</sub> 50Hz 207W

(1): The maximum non continuous working current

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

(3): Performance for 60Hz working conditions is different from 50Hz, for 60Hz applications please consult the factory.

**SEMICONDUCTOR SPECIFICATIONS**

Peak non-repetitive surge current ( $I_{TSM}$ ) @ $T_{JMAX}$	10.9 kA @ $T_P=10ms$ , $V_{RM}=60\%V_{RRM}$
	12 kA @ $T_P=10ms$ , $V_{RM} \leq 10V$
I <sup>2</sup> t capacity for fusing @ $T_{JMAX}$	594 kA <sup>2</sup> s @ $T_P=10ms$ , $V_{RM}=60\%V_{RRM}$
	720 kA <sup>2</sup> s @ $T_P=10ms$ , $V_{RM} \leq 10V$
Maximum rate of rise of on-state current (repetitive) ( $di_T/dt$ )	200 A/μs
Maximum rate of rise of on-state current (non-repetitive) ( $di_T/dt$ )	400 A/μs
Maximum peak on-state voltage ( $V_{TM}$ )	1,5 V @ $I_{TM}=1256A$
Critical rate of rise of off-state voltage ( $dv/dt$ )	Min. 1000 V/μs @ $T_J=125^\circ C$ , $V_D=80\% V_{DRM}$
Gate trigger voltage ( $V_{GT}$ )	Max. 2.5 V @ $T_J=25^\circ C$ , $V_D=12V$ , $I_T=3A$
Gate trigger current ( $I_{GT}$ )	Max. 250 mA @ $T_J=25^\circ C$ , $V_D=12V$ , $I_T=3A$
Holding current ( $I_H$ )	300 mA @ $T_J=25^\circ C$ ; $V_D=12V$

**PROTECTION**

dv/dt protection (RC)	RC network 0,07μF/150 Ohms
Peak voltage protection (VDR)	750 V <sub>RMS</sub> varistor
Current protection (Semiconductor fuses) (1)	125UR3S0800B (not included)
Microswitch (fuse indicators)	3 x MS 7V 1-5N (not included)
Thermal protection (Thermostats)	90°C NC

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

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### TERMINAL SPECIFICATIONS

Input power terminals (AC terminals)	(M12) 13 to 15 Nm
Module power terminals	(M10) 12 to 15 Nm
Output power terminals	1xØ13 (M12) 13 to 15 Nm (1)
Control & auxiliary terminals	WAGO series 260 terminal blocks 1,5 mm <sup>2</sup> / AWG 16

(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

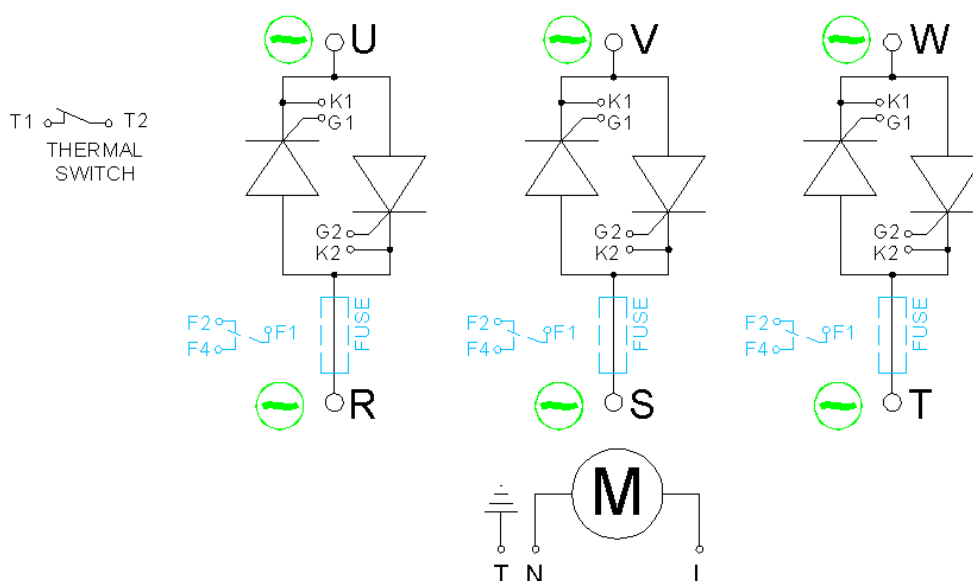
### LOSSES

Power dissipation of semiconductors at full charge	Aprox. 2514 W
Maximum power dissipation of fuse at full charge	Aprox. 284 W
Maximum total power dissipation at full charge	Aprox. 2798 W

### MECHANICAL SPECIFICATIONS

Mounting position	Any
Storage temperature	-25 to 80°C
Width	259 mm
Depth	365 mm
Height	663 mm
Aprox. Weight	18,6 Kg.

### CIRCUIT SCHEME



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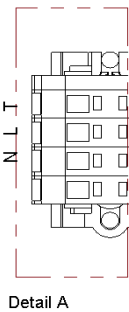
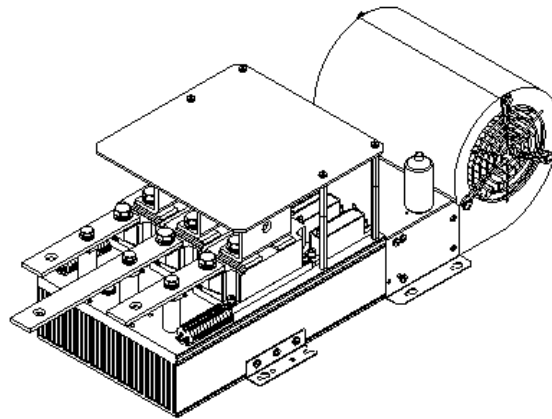
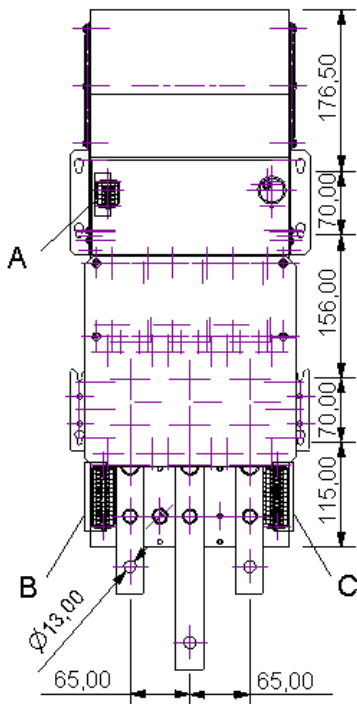
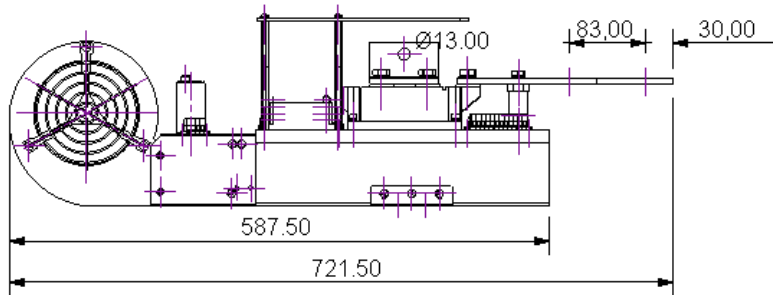
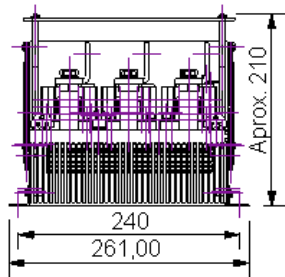
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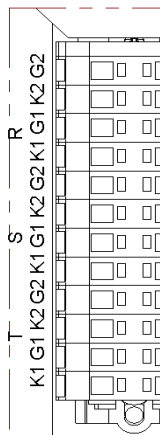
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**DIMENSIONS & CONNECTIONS**



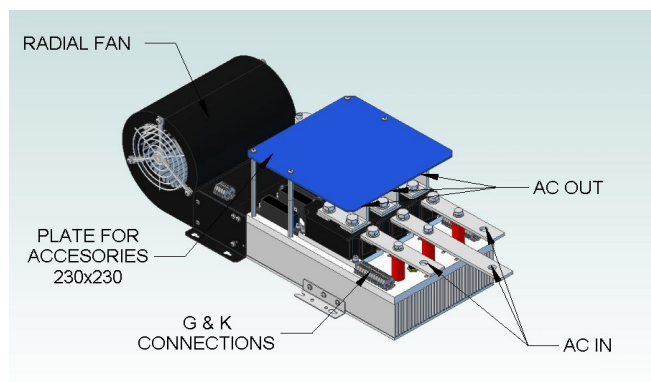
Detail A



Detail B



Detail C



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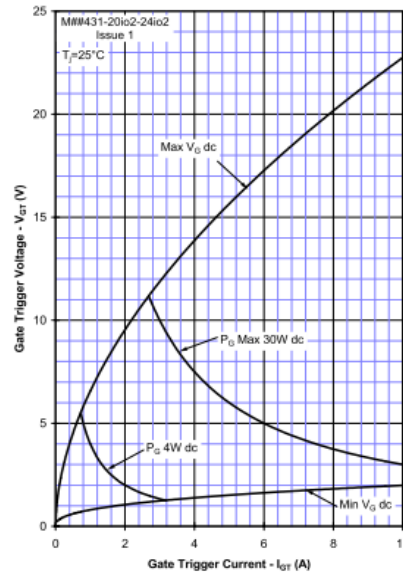
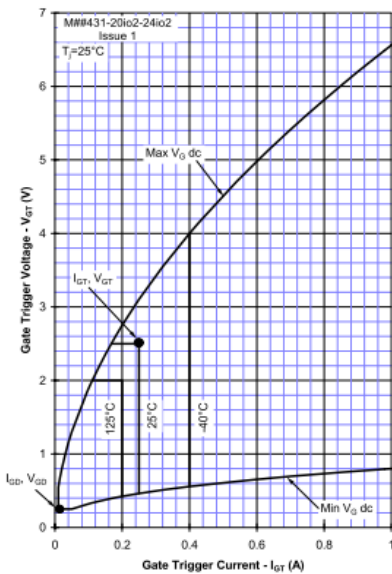
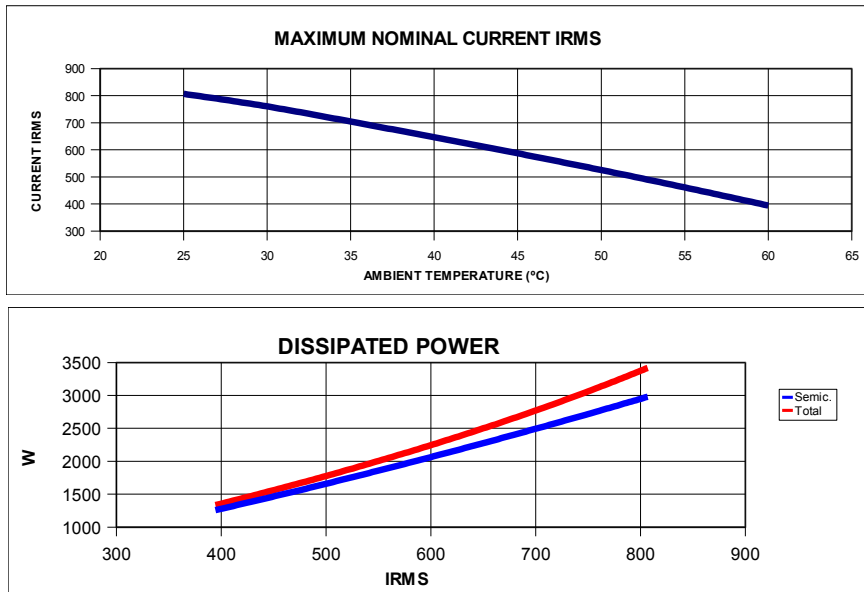
**MOUNTING CONSIDERATIONS**

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.

**GRAPHICAL INFORMATION**



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## ORDER CODES & OPTIONS

MF- W3C 0700 F 24 RCVT  
(1) (2) (3) (4) (5) (6)

- 1- MF, Series identifier
- 2- W3C, Circuit identifier
- 3- 0700; Maximum current identifier
- 4-F, Refrigeration identifier (F: Forced)
- 5-24;  $V_{RRM}/10$  identifier
- 6-Accessories:
  - RC: Resistance-capacitor (snubber) included
  - V: Varistor included
  - T. Thermal switch included

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