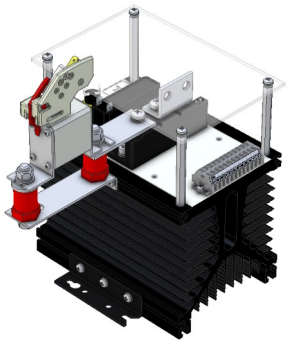
MF-W1C0156N12RCVTF

Single phase AC regulator standard assembly

HIGHLIGHTS

- Reliability.
- Short delivery time.
- Ultrafast fuse included.
- Thermostat, snubber and varistor included.
- Ready to use.
- Working voltage up to 400 V_{RMS}.
- Insulation 3000 V_{RMS}/1 min.



non-contractual image

GENERAL SPECIFICATIONS

Nominal line to line input voltage (V_{RMS})	400 V_{AC} ±10%
Repetitive peak reverse voltage (V_{RRM})	1200 V_P
Maximum working current (I_{RMS}) (1)	156 A_{RMS} @ 45ºC TA
Maximum nominal working current (I_{RMS}) (2)	106 A_{RMS} @ 45ºC TA
Cooling	Natural air

(1): The maximum non continuous working current

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

SEMICONDUCTOR SPECIFICATIONS

Peak non-repetitive surge current (I_{TSM})	6000 A @ T_P=10ms, Tj=45ºC, (50Hz), sine 5250 A @ T_P=10ms, Tj=125ºC, (50Hz), sine
I^2t capacity for fusing	180 kA^2s @ T_P=10ms, Tj=45ºC, (50Hz), sine 137 kA^2s @ T_P=10ms, Tj=125ºC, (50Hz), sine
Maximum rate of rise of on-state current (repetitive) (di_T/dt)	150 A/µs
Maximum rate of rise of on-state current (non-repetitive) (di_T/dt)	500 A/µs
Maximum peak on-state voltage (V_{TM})	1.25 V @ I_{TM}=300A
Critical rate of rise of off-state voltage (dv/dt)	Min. 1000 V/µs @ Tj=125ºC, V_D=2/3 V_{RRM}
Gate trigger voltage (V_{GT})	max. 2.5 V @ Tj=25ºC, V_D=6V max. 2.6 V @ Tj=-40ºC, V_D=6V
Gate trigger current (I_{GT})	max. 150 mA @ Tj=25ºC, V_D=6V max. 200 mA @ Tj=-40ºC, V_D=6V
Latching current (I_L)	300 mA @ Tj=25ºC, t_P=30µs; V_D=6V
Holding current (I_H)	200 mA @ Tj=25ºC; V_D=6V

PROTECTION

dv/dt protection (RC)	RC network 0,068µF/150 Ohms
Peak voltage protection (VDR)	460 V_{RMS} varistor
Current protection (Semiconductor fuses) (1)	069GUDA0200F(or direct alternative)
Microswitch (fuse indicators)	MS4L 2-5 B6
Thermal protection (Thermostats)	90ºC NC

(1): 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)	(M8) 8 to 12 Nm
Module power terminals	(M6) 4.5 to 5.5 Nm
Output power terminals	2xØ8.5 (M8) 11 to 13 Nm (1)
Control & auxiliary terminals	WAGO series 260 terminal blocks 1.5 mm^2 / AWG 16

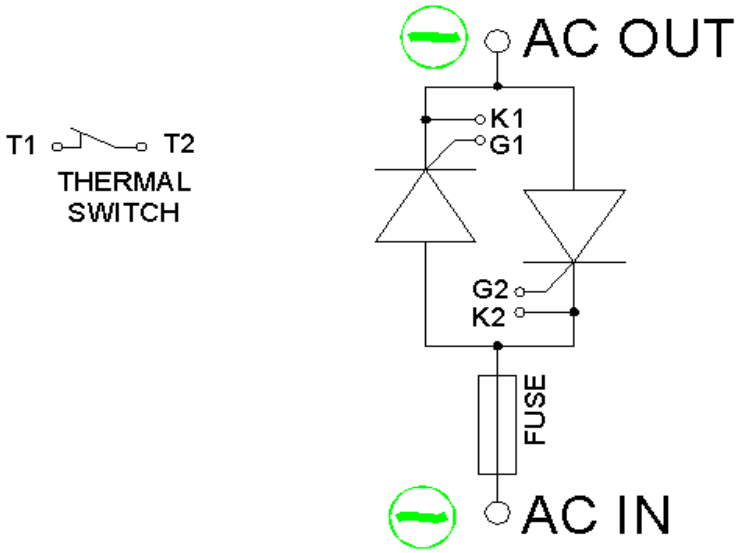
(1):The press should be performed with two keys, avoiding to transmit lateral efforts al terminal of connection, what would be able to produce the deterioration of the element semiconductor.

ENVIRONMENT SPECIFICATIONS	
Protection grade (EN-60529 / CEI529 / UNE-20324)	IP-00
Humidity max.	50% RH @ 35ºC / 90% RH @ 20ºC
Pollution degree	III
Isolation	3000 V_{RMS} / 1 min

LOSSES	
Power dissipation of semiconductors at full charge	Aprox. 122 W
Maximum power dissipation of fuse at full charge	Aprox. 14 W
Maximum total power dissipation at full charge	Aprox. 136 W

MECHANICAL SPECIFICATIONS	
Mounting position	Any
Storage temperature	-25 to 80ºC
Width	250 mm
Depth	267 mm
Height	180 mm
Aprox. Weight	3.6 kg.

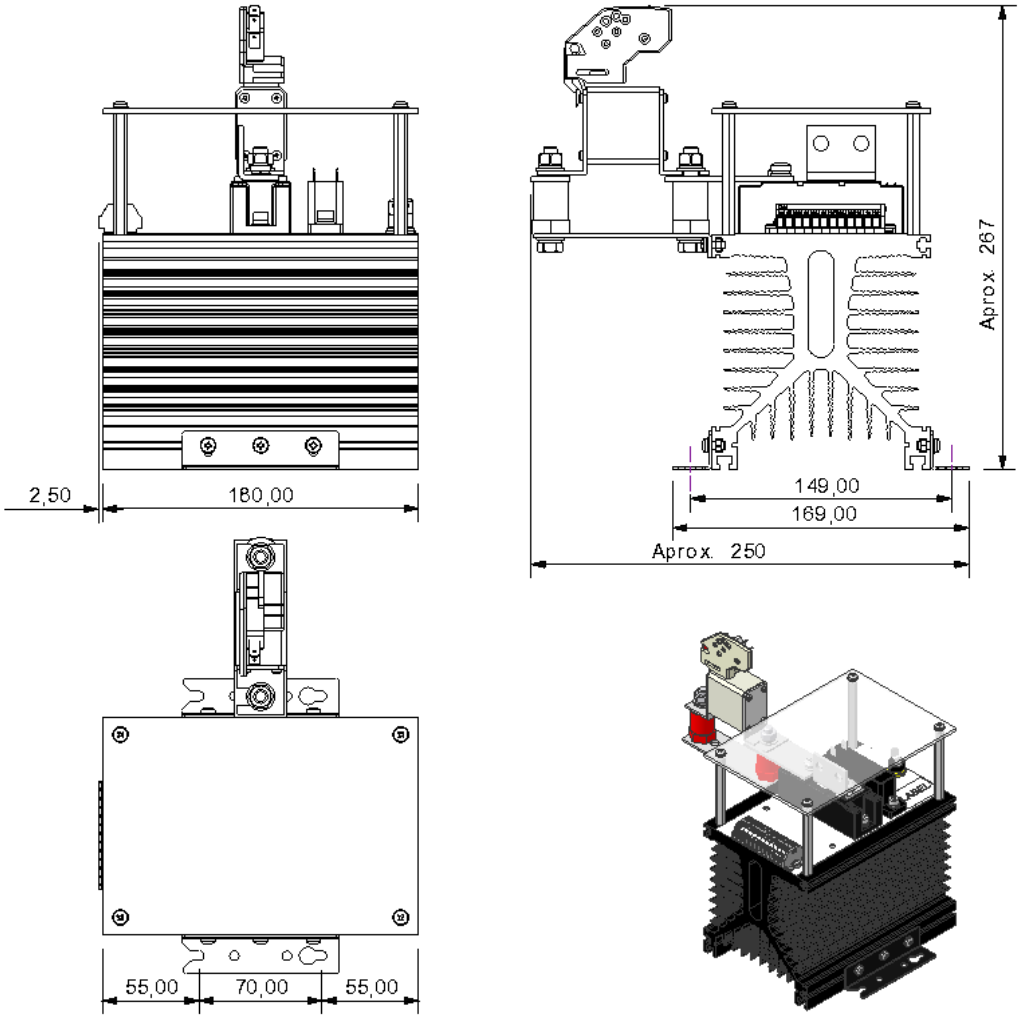
SCHEMATIC CIRCUIT

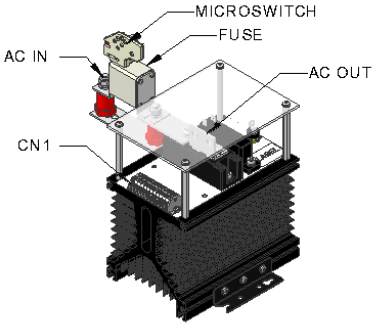


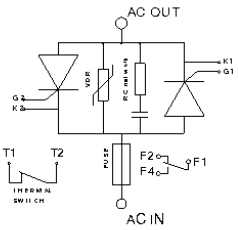
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MECHANICAL DIMENSIONS AND ELECTRICAL CONNECTIONS

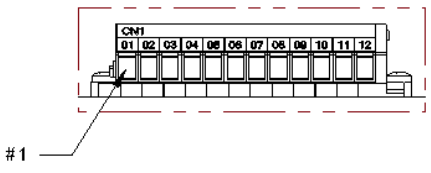






CN1 - PINOUT

#	Reference	#	Reference
01	F1	07	K2
02	F2	08	G2
03	T1	09	NC
04	T2	10	NC
05	K1	11	NC
06	G1	12	NC



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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.

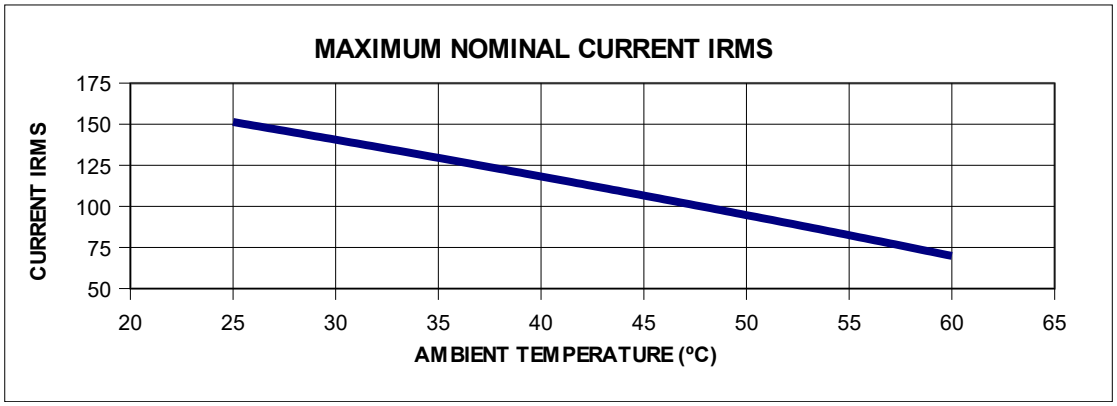
ORDER CODES & OPTIONS

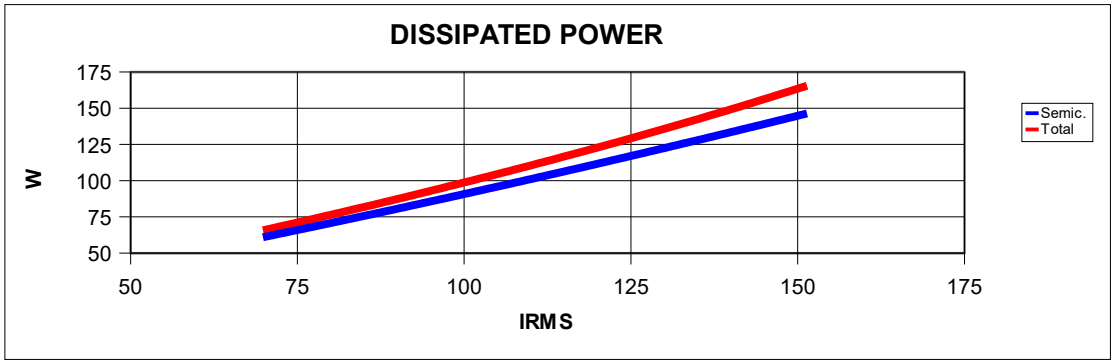
MF-	W1C	0156	N	12	RCVTF
(1)	(2)	(3)	(4)	(5)	(6)

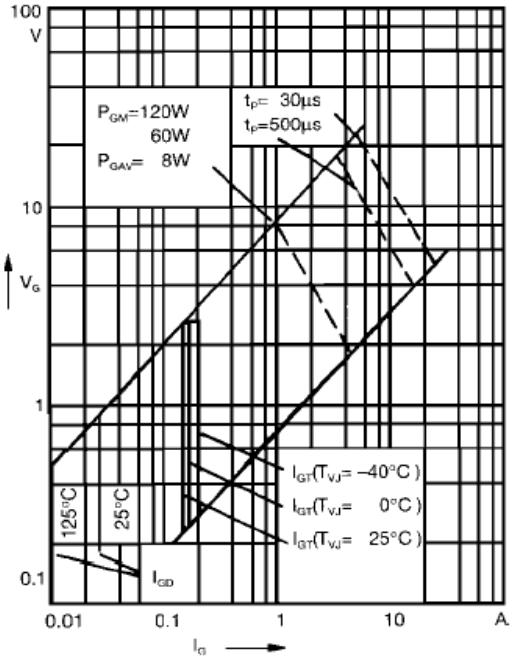
1- MF, Series identifier
2- W1C, Circuit identifier
3- 0156; Maximum current identifier
4- N, Refrigeration identifier (N:Natural; F: Forced)
5- 12; V_{RRM}/10 identifier
6- Accesories:
   RC: Resistance-capacitor (snubber) included
   V: Varistor included
   T. Thermal switch included
   F: Semiconductor fuse protection included. (fuse also includes microswitch)

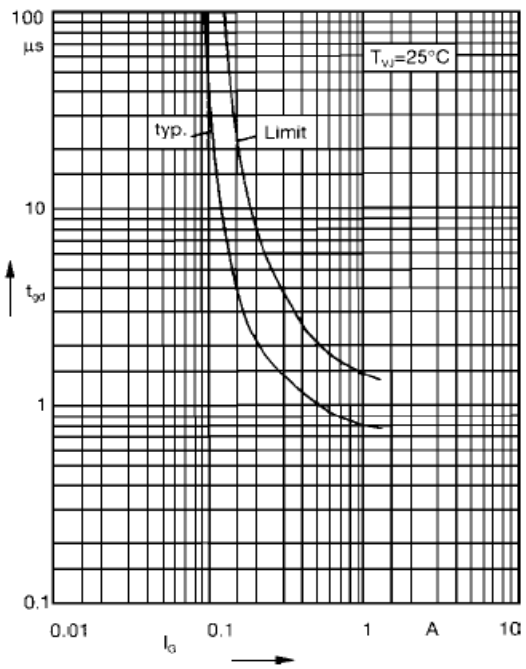
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GRAPHICAL INFORMATION









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