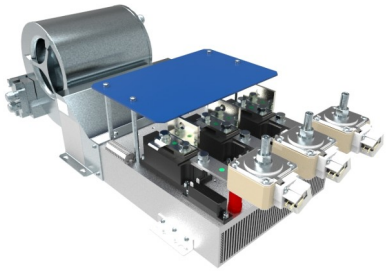
MF-W3C1480F16RCVTF

Three phase fully controlled AC regulator

HIGHLIGHTS

- High performance PWM radial fan
- High reliability
- Ultra-fast fuses included
- Thermostat, snubbers and varistors included
- Working voltage up to 480 V_{RMS}
- Insulation 3000 V_{RMS} /1 min



non-contractual photo

GENERAL SPECIFICATIONS

Nominal line to line input voltage (V_{RMS})	480 V_{AC} ±10%
Repetitive peak reverse voltage (V_{RRM})	1600 V_P
Maximum working current (I_{RMS}) (1)	1480 A_{RMS} @ T_A = 35ºC
Maximum nominal working current (I_{RMS}) (2)	1200 A_{RMS} @ T_A = 35ºC
Cooling (3)	Forced air, radial fan, EBM-PAPST D3G160-HA04-02

(1): The maximum non continuous working current
(2): The maximum continuous working current without thermal protection activation
(3): Please refer to technical datasheet from ebmpapst for additional technical specification

SEMICONDUCTOR SPECIFICATIONS

Peak non-repetitive surge current (I_{TSM})	24.8 kA @ T_P=10 ms, T_{vj}=25ºC 20.1 kA @ T_P=10 ms, T_{vj}= T_{vjmax}
I^2t capacity for fusing	2020 kA^2s @ T_P=10 ms, T_{vj}= T_{vjmax}
Critical rate of rise of on-state current (di_T/dt)	200 A/µs @ f=50Hz, i_{GM}=1 A, di_G/dt=1 A/µs
Critical rate of rise of off-state voltage (dv_D/dt)	1000 V/µs @ V_D=0.67 V_{DRM}, T_{vj}= T_{vjmax}
Maximum peak on-state voltage (V_{TM})	1.27 V @ I_{TM}=1500 A, T_{vj}= T_{vjmax}
Gate trigger voltage (V_{GT})	Max. 2.0 V @ T_{vj}=25ºC, V_D=12 V
Gate trigger current (I_{GT})	Max. 250 mA @ T_{vj}=25ºC, V_D=12 V, I_T=3 A
Holding current (I_H)	Max. 300 mA @ T_{vj}=25ºC; V_D=12 V, R_A=1 Ω

PROTECTION

dv/dt protection (RC)	RC network 0.22 µF/56 Ω
Peak voltage protection (VDR)	550 V_{RMS} MOV
Current protection (Semiconductor fuses) (1)	PSR033FL1250
Microswitch (fuse indicators)	3 x MS 3V1-5N
Thermal protection (Thermostats)	75ºC NC

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

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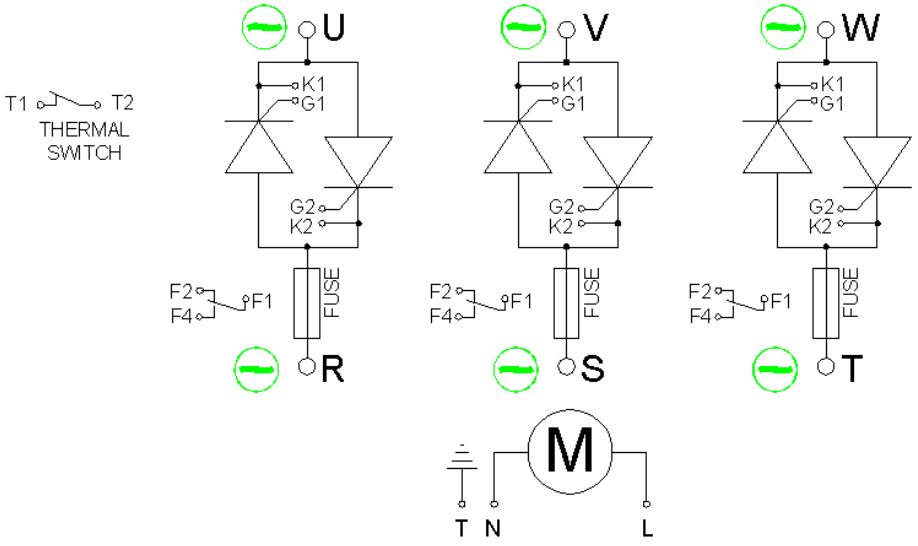
TERMINAL SPECIFICATIONS	
Input power terminals (AC terminals)	(M12) 13 to 15 Nm
Output power terminals	1xØ13 (M12) 13 to 15 Nm (1)
Control & auxiliary terminals	WAGO series 260 terminal blocks 1,5 mm^2 / AWG 16

(1):Tightening should be performed with two wrenches, avoiding to apply lateral forces to the connection terminal which could damage the semiconductor.

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

MECHANICAL SPECIFICATIONS	
Mounting position	Any
Storage temperature	-25 to 80ºC
Width	350 mm
Depth	265 mm
Height	804 mm
Weight	25 kg (approx.)

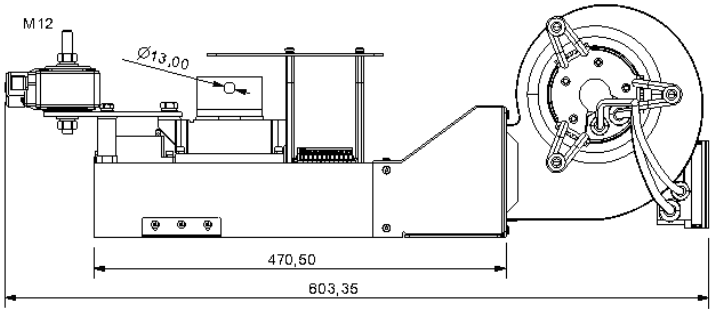
CIRCUIT & CONTROL / AUXILIARY TERMINALS

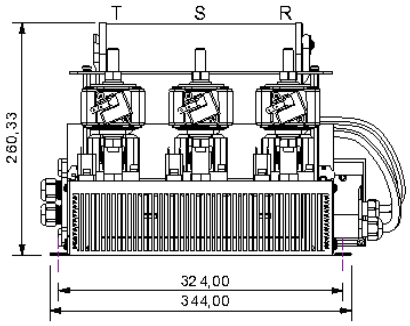


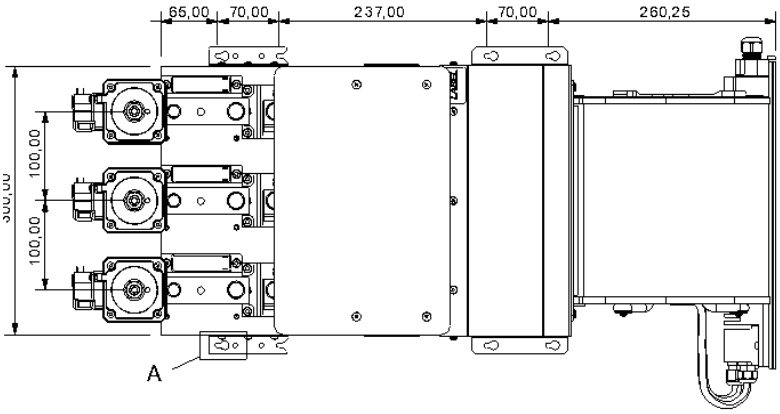
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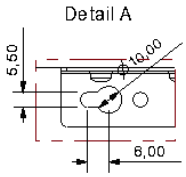
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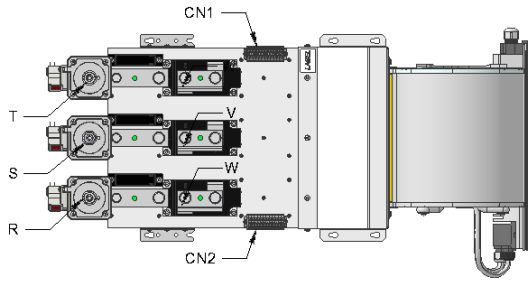
MECHANICAL DIMENSIONS AND PINOUT











CN1 - PINOUT

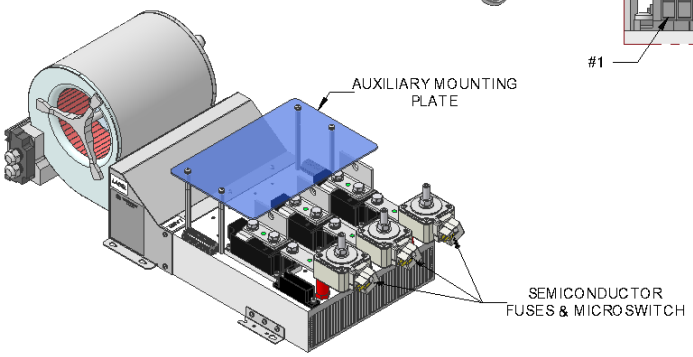
#	Reference	#	Reference
01	NC	07	F4 (S)
02	F1 (R)	08	F1 (T)
03	F2 (R)	09	F2 (T)
04	F4 (R)	10	F4 (T)
05	F1 (S)	11	T1
06	F2 (S)	12	T2

CN2 - PINOUT

#	Reference	#	Reference
01	G1 (R)	07	G2 (S)
02	K1 (R)	08	K2 (S)
03	G2 (R)	09	G1 (T)
04	K2 (R)	10	K1 (T)
05	G1 (S)	11	G2 (T)
06	K1 (S)	12	K2 (T)







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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 heat sources nearby the assembly.

In the real applications it is important to consider a safety margin with regards 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-	W3C	1480	F	16	RCVTF
(1)	(2)	(3)	(4)	(5)	(6)

1- MF, Series identifier
2- W3C, Circuit identifier
3- 1480; Maximum current identifier
4-F, Refrigeration identifier (F: Forced)
5-16; V_{RRM}/100 identifier
6-Accesories:

RC: Resistance-capacitor (snubber) included
V: Varistor included
T. Thermal switch included
F: Semiconductor fuse protection included. (fuse also includes microswitch)

SPECIFIC INFORMATION

The information provided is of a general type to facilitate the selection of the most appropriate product for each need. If necessary, you can request specific product support information within reasonable limits.

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No Annotation: The product parameters are fixed and the product is available to data sheet specification.

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