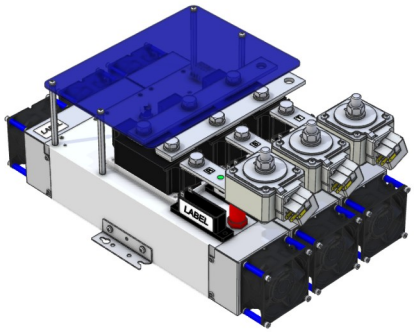
MF-B6U1171F12RCVTF

Three phase uncontrolled bridge rectifier

PRELIMINARY TECHNICAL INFORMATION

HIGHLIGHTS

- Short delivery time.
- High reliability.
- Ultrafast fuses included.
- Thermostat, snubber and varistor included.
- Working voltage up to 400 V_{RMS}.
- Insulation 2500 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_{DC}) (1)	1171 A_{DC} @ T_A = 35ºC
Maximum nominal working current (I_{DC}) (2)	830 A_{DC} @ T_A = 35ºC
Cooling (3)	Forced air, 6x axial fan, 8556N from ebm-papst 72 W @ 230 V_{RMS}, 50 Hz

(1): The maximum non continuous working current.

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

(3): For full technical characteristics please refer to technical data sheet from ebm-papst.

SEMICONDUCTOR SPECIFICATIONS	
Mean forward current ($I_{F(AV)}$)	819 A @ 180º sin, 50 Hz, T_C = 85ºC
Peak non-repetitive surge current (I_{TSM})	19 kA @ T_P= 10 ms, T_{JMAX}
I^2t capacity for fusing	1805 kA^2s @ T_P= 10 ms, T_{JMAX}
Maximum peak on-state voltage (V_{TM})	1.40 V @ I_{TM}= 1978 A
Operation junction temperature (T_J)	-30 to 150ºC

PROTECTION	
dv/dt protection (RC)	RC network 0.22 µF / 56 Ohms
Peak voltage protection (VDR)	460 V_{RMS} MOV
Current protection (Semiconductor fuses) (1)	3 x PSR033FL1000
Microswitch (fuse indicators)	3 x MS 3V1-5N
Thermal protection (Thermostat)	95ºC NC

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

Rectificadores Guasch, S.A.U. reserves the right to change limits, test conditions and dimensions given in this data sheet at any time without previous notice.

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

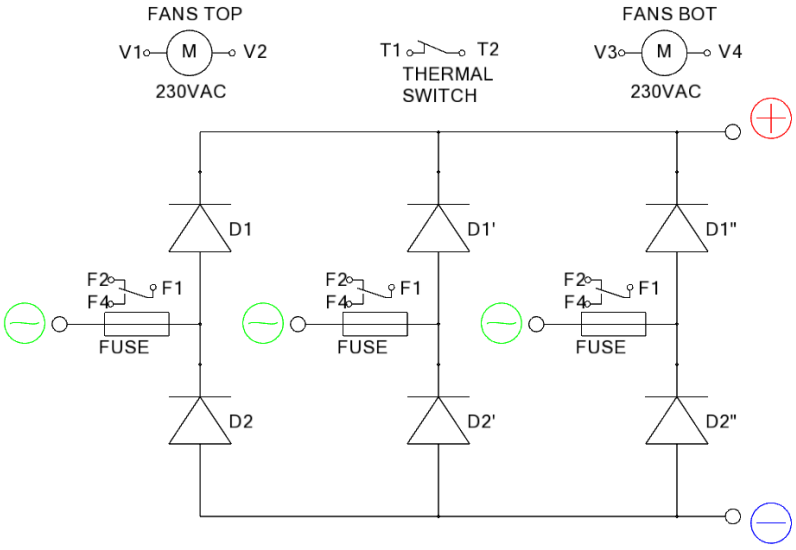
(1):The press should be performed with two keys, avoiding to transmit lateral efforts al terminal of connection, what would be able to produce the deterioration of the element semiconductor.

ENVIRONMENT SPECIFICATIONS	
Protection grade (EN-60529 / CEI529 / UNE-20324)	IP-00
Humidity max.	50% RH @ 35ºC / 90% RH @ 20ºC
Pollution degree	III
Isolation	2500 V_{RMS} / 1 min

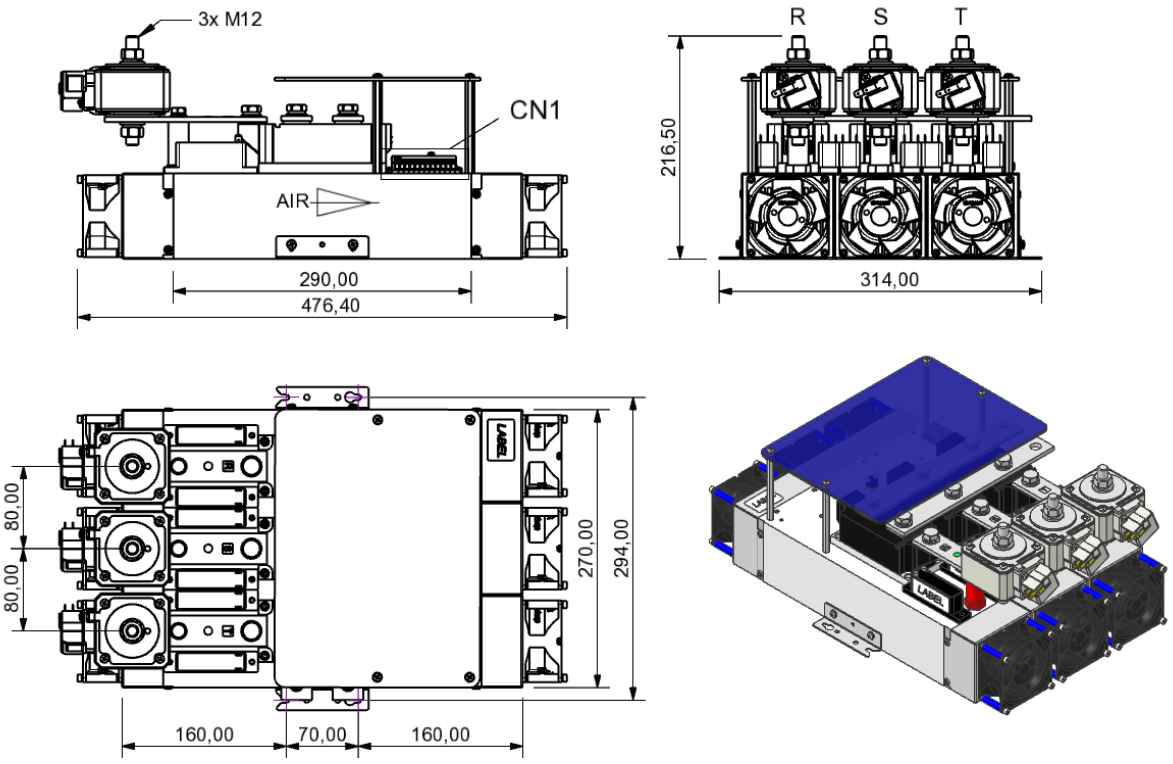
LOSSES	
Power dissipation of semiconductors at full charge	Approx. 1528 W
Maximum power dissipation of fuse at full charge	Approx. 165 W
Maximum total power dissipation at full charge	Approx. 1693 W

MECHANICAL SPECIFICATIONS	
Mounting position	Any
Storage temperature	-25 to 80ºC
Width	314 mm
Depth	495 mm
Height	224 mm
Approx. Weight	24.5 kg

CIRCUIT & CONTROL / AUXILIARY TERMINALS



MECHANICAL DIMENSIONS AND PINOUT



(all dimensions in mm)

Detail CN1



CN1 - PINOUT

#	Reference	#	Reference
01	F1 (T)	07	T1
02	F2 (T)	08	T2
03	F1 (S)	09	V3 (FANS BOT)
04	F2 (S)	10	V4 (FANS BOT)
05	F1 (R)	11	V1 (FANS TOP)
06	F2 (R)	12	V2 (FANS TOP)

MOUNTING CONSIDERATIONS

Maintain a minimum clearance of 100 mm around the unit to ensure unobstructed airflow. Do not install near heat sources.

In practical applications, apply a safety margin to the operating current; we recommend at least 20%.

For critical duty (continuous 24-hour operation, repetitive overloads), use a 30–50% margin.

ORDER CODES & OPTIONS

MF-	B6U	1171	F	12	RCVTF
(1)	(2)	(3)	(4)	(5)	(6)

1- MF, Series identifier.
2- B6U, Circuit identifier.
3- 1171; Maximum current identifier.
4- F, Refrigeration identifier (F: Forced).
5- 12; 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).

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