MTM-DCL01260MKP1100

DC-Link capacitor bank

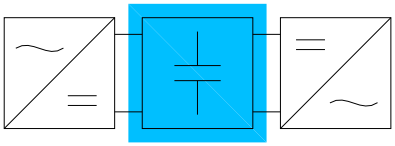
PRELIMINARY TECHNICAL INFORMATION

HIGHLIGHTS

- High reliability
- Ready to use
- Maximum rated nominal voltage 1100 V_{DC}
- 3000 V_{RMS}/1 min busbar insulation
- Modular concept



non-contractual image

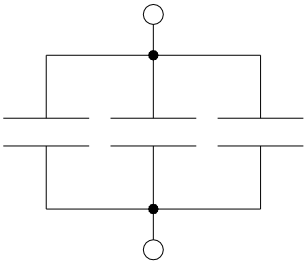


RECTIFICADORES GUASCH offers the most modular way for designing AC-AC or DC-AC power stages by connecting rectifier block, DC-link block and IGBT power stack. This way, the customer (and not the builder) decides the whole configuration of the entire power system.
The customer can obtain in a short delivery time a wide range of highly customized power assemblies in a very compact size.

MT series is suitable to implement power converters, choppers, half, full or three phase bridge inverters for motor control, welding, renewable energies, UPS, etc.
Other configurations and custom design assemblies can be made under request.

CAPACITORS GENERAL CHARACTERISTICS	
Standards:	IEC 61071, IEC 60664-1
Can:	aluminium/plastic
Mounting position:	optional
Filling material:	polyurethane resin, non-PCB
Internal proteccion:	none
C_N tolerance:	±10%
tanδ_0:	$3x10^{-4}$
Operating temperatures (min/max):	-40ºC / +85ºC
Operating temperatures (hotspot):	≤85ºC
Storing temperature:	-40 to 85ºC
service life (hotspot ≤70ºC):	100,000 h.

BASIC CIRCUIT:



CAPACITOR BANK CHARACTERISTICS

CAPACITOR BANK TECHNICAL SPECIFICATIONS

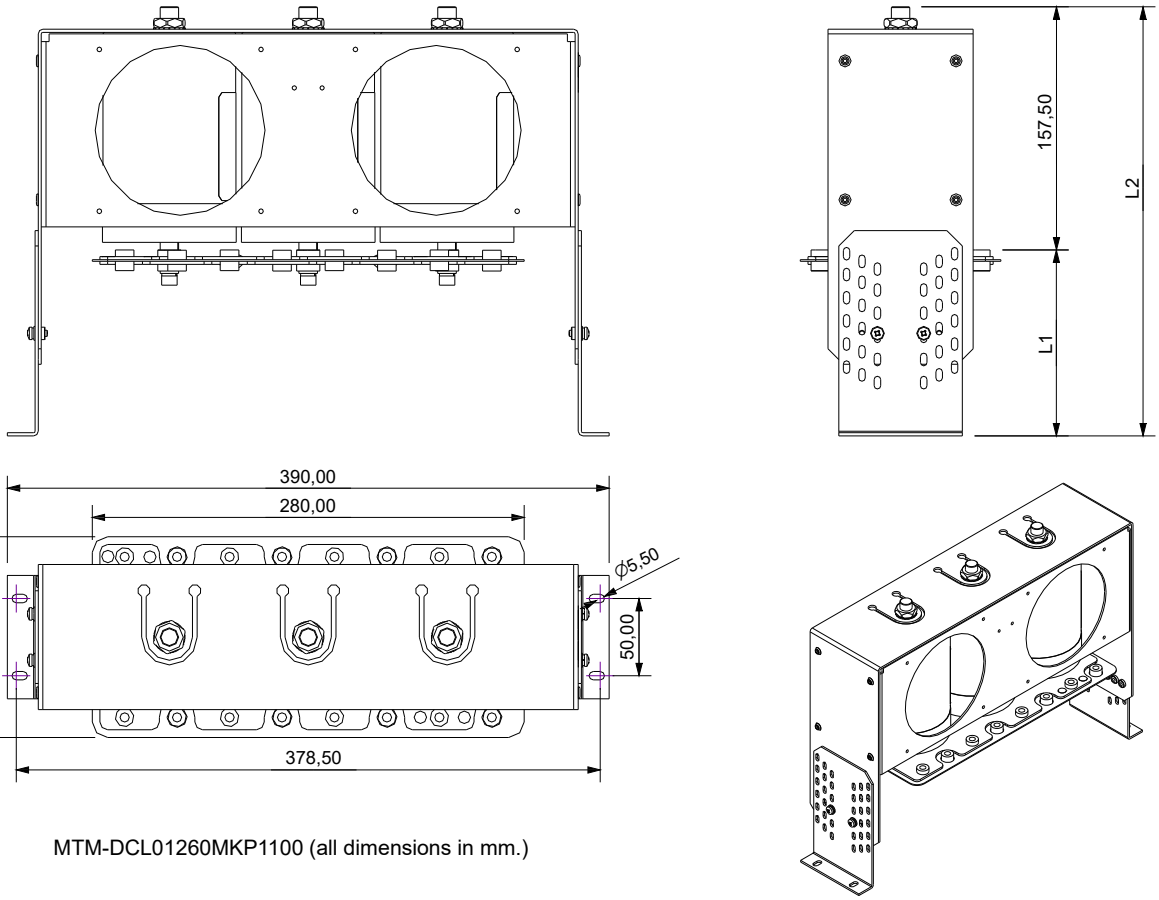
Symbol	Description	Notes / Test conditions	Min	Typ	Max	Units
C_{TOT}	Total bank nominal capacitance	3x capacitors, parallel connection		1260		µF
V_{DC_MAX}	Maximum rated voltage	capacitor bank			1100	V_{DC}
V_S	Non-recurrent surge voltage	capacitor bank			1650	V
ESR	Equivalent series resistance	per capacitor; @1.0 kHz			2.2	mΩ
tan(δ)	Dissipation factor	per capacitor; @100 Hz, T_C=20±5ºC			$3 \cdot 10^{-4}$	
I_{RMS}	Max RMS current	per capacitor; @10 kHz, T_C=45ºC			40	A
	Mounting position	upright or horizontal				
	C_N tolerance				10	%
T_{op}	Operating Temperature	T_C	-40		85	ºC

Table 1: Capacitor bank technical specifications.

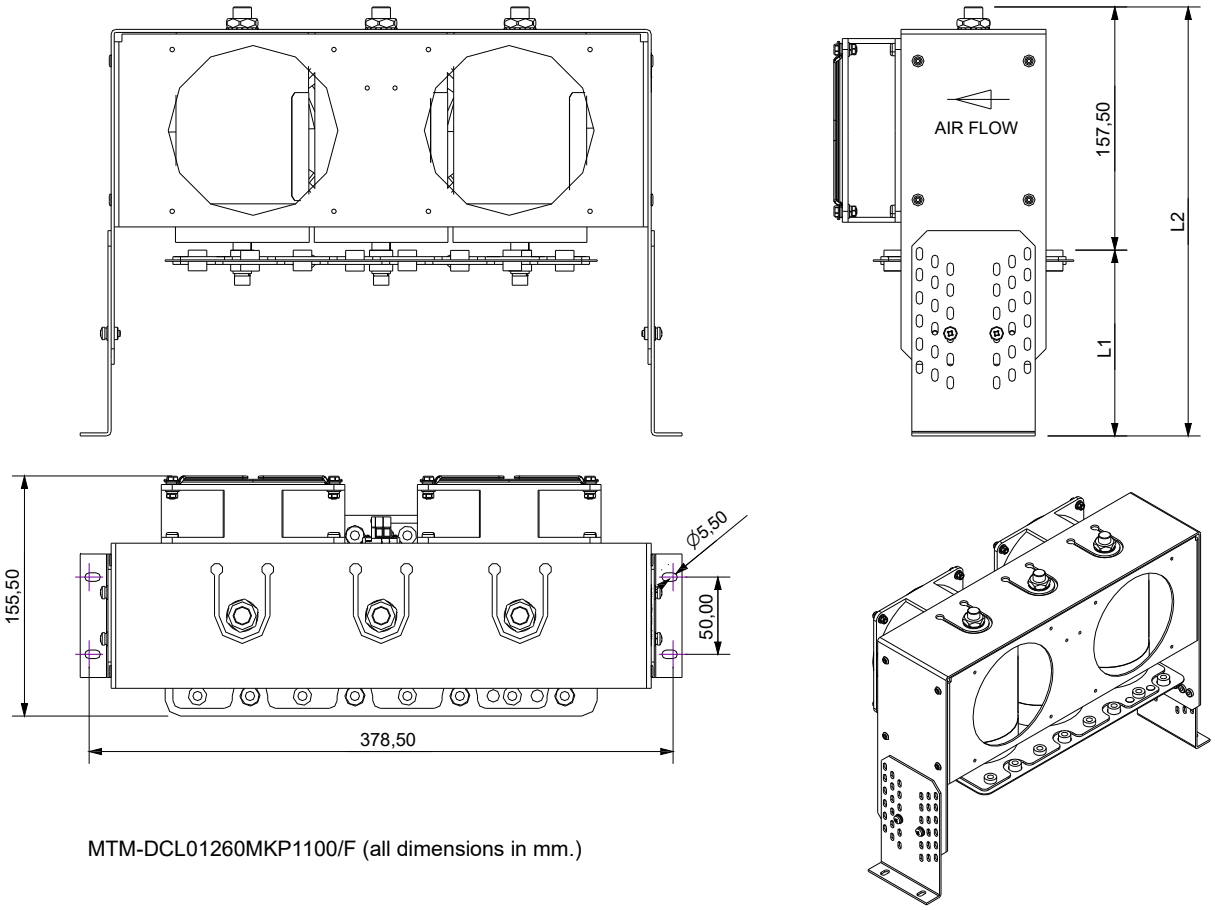
PRODUCT VERSIONS

Reference	*L1 [mm]*	*L2 [mm]*	*Forced air cooling*	*Weight aprox.*
MTM-DCL01260MKP1100	90 to 170	248 to 328	No	3.4 kg
MTM-DCL01260MKP1100/F	90 to 170	248 to 328	2x 120mm fan	4.5 kg

MECHANICAL DIMENSIONS



MTM-DCL01260MKP1100 (all dimensions in mm.)



MTM-DCL01260MKP1100/F (all dimensions in mm.)

FORCED AIR FAN ESPECIFICATIONS

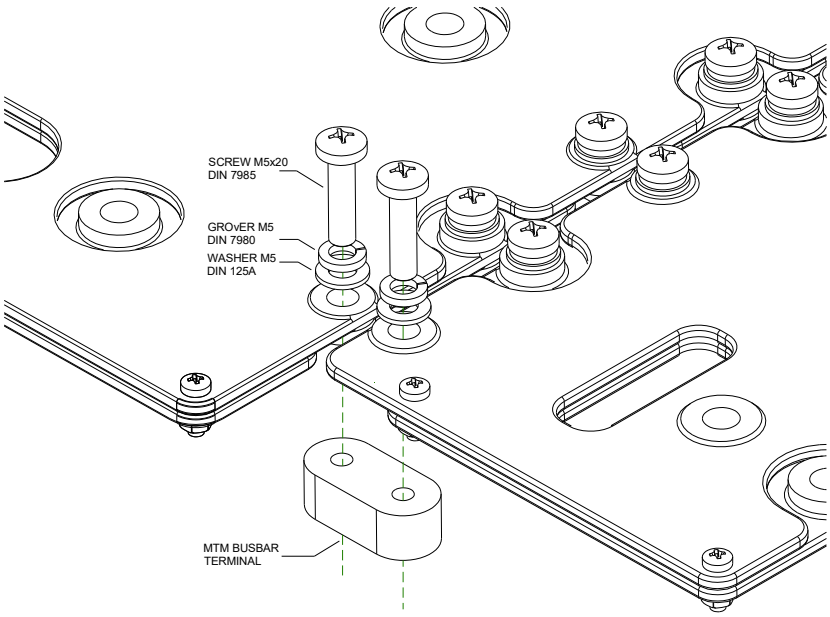
Description	*symbol*	*notes/test conditions*	*Min*	*Typ*	*Max*	*Units*
Supply voltage	V_{AC_IN}			230		V
Mains frequency	f_{AC_IN}			50	60	Hz
Power	P_{FANS}	*230V @ 50 Hz*		42		W

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.

PARALLEL STACKING AND ASSEMBLY

In order to obtain greater capacity or current range the capacitor banks are designed to make easy a parallel assembly. Please refer to PARALLEL CONNECTION table for the paralleled bank specifications.

The connection system of the busbars allows an easy and neat way to connect them using our threaded terminal connectors.



DC-Link busbar connection assembly example.

All the necessary hardware to make the connection between DC-Link capacitor bank and an MTM inverter stack is included.

PARALLEL CONNECTION SPECIFICATIONS

Qty.	Total capacity	I_{RMSmax}	I_{pmax}	ESR	Lo
1	1,260 µF	120 A	6 kA	0.73 mΩ	
2	2,520 µF	240 A	12 kA	0.36 mΩ	
3	3,780 µF	360 A	18 kA	0.24 mΩ	50 nH
4	5,040 µF	480 A	24 kA	0.18 mΩ	
5	6,300 µF	600 A	30 kA	0.15 mΩ	

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.

ANOTACIONES EN LA HOJA DE ESPECIFICACIONES:

RECTIFICADORES GUASCH, S.A. utiliza la siguiente anotación para identificar el estado del producto, en el lado izquierdo de la primera página:

PRELIMINARY TECHNICAL INFORMATION: El producto se encuentra en proceso de diseño y desarrollo. La información presenta los datos del producto pero algunas características pueden cambiar.
ADVANCED TECHNICAL INFORMATION: El producto se encuentra totalmente diseñado y las características se refieren a la fabricación en serie.
Sin anotación: Los parámetros del producto están fijados y se suministra de acuerdo con las especificaciones publicadas.

Los datos indicados en esta publicación corresponden a especificaciones de producto, queda exlcuida cualquier garantía expresa o implícita sobre sus propiedades o su aplicación, así como cualquier responsabilidad sobre daños directos o indirectos producidos por los materiales o resultantes de su aplicación. La empresa se reserva el derecho de realizar cambios en las especificaciones de los productos sin previo aviso. La información respecto a métodos de uso y aplicaciones se indica sólo como guía y no constituye garantía alguna de funcionamiento satisfactorio en un determinado equipo o aplicación. Es responsabilidad del usuario determinar la idoneidad del producto para su aplicación utilizando la información disponible y asegurarse de que la misma esta actualizada.
Cualquier nombre de producto o marca usada en esta publicación corresponde a marcas depositadas, marcas registradas o nombres protegidos por sus respectivos propietarios.

DATASHEET ANNOTATIONS:

RECTIFICADORES GUASCH, S.A. annotate datasheets in the left corner of the front page, to indicate product status:

PRELIMINARY TECHNICAL INFORMATION: The product is in design and development. The datasheet represents the product as it is understood but details may change.
ADVANCED TECHNICAL INFORMATION: The product design is complete and final characterisation for volume production is well in hand.
No Annotation: The product parameters are fixed and the product is available to datasheet specification.

The technical data are to specify components, not to guarantee their properties.No warranty or guarantee expressed or implied is made regarding delivery or performance. The Company reserves the right to alter without prior notice the specification of any product. Information concerning possible methods of use is provided as a guide only and does not constitute any guarantee that such methods of use will be satisfactory in a specific piece of equipment. It is the user's responsibility to fully determine the performance and suitability of any equipment using such information and to ensure that any publication or data used is up to date.
All brand names and product names used in this publication are trademarks, registered trademarks or trade names of their respective owners.

© RECTIFICADORES GUASCH, S.A.U.
DOCUMENTACION TECNICA, TECHNICAL DOCUMENTATION
PRODUCIDO EN ESPAÑA, PRODUCED IN SPAIN
PROHIBIDA SU VENTA, NOT FOR SALE

Your Needs, Our Solutions