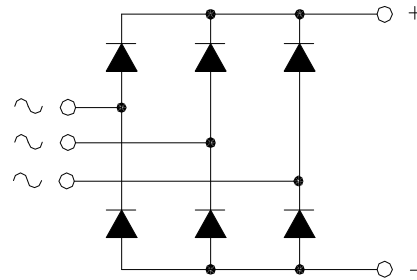


MTS100-HM

POWER RECTIFIER BRIDGE

Output Current **100 A**



V_{RRM}	V_{RSM}	P/N
400	500	MTS100.04
600	700	MTS100.06
800	900	MTS100.08
1200	1300	MTS100.12
1600	1700	MTS100.16

Features

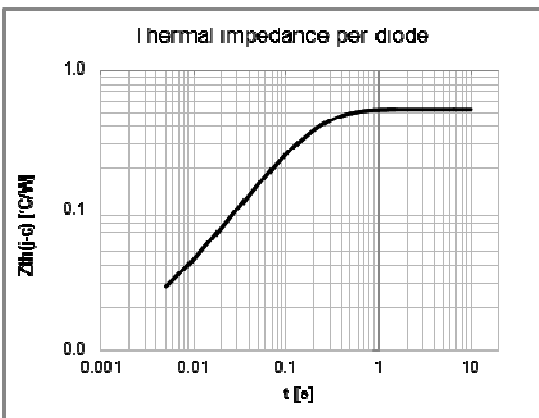
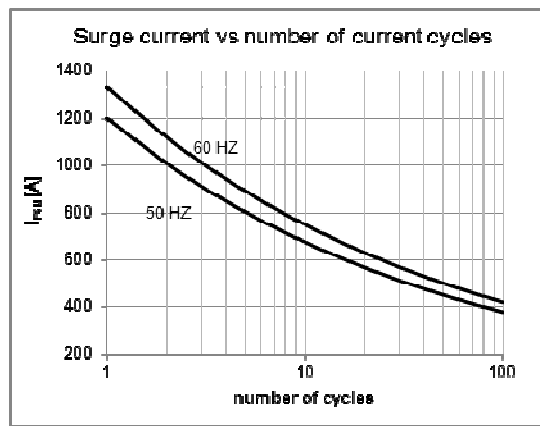
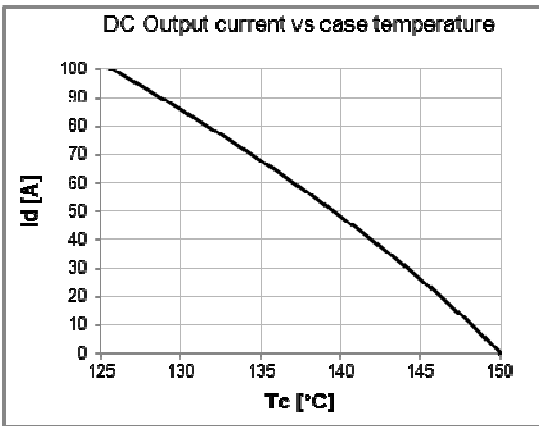
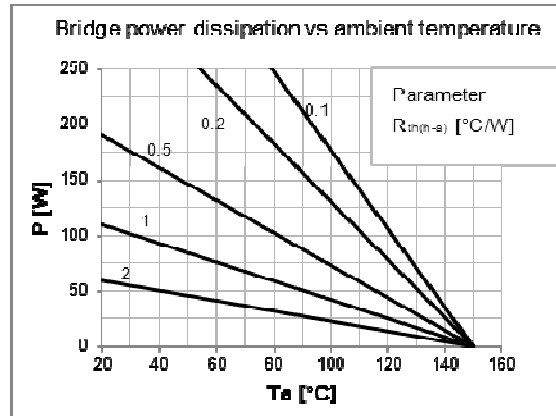
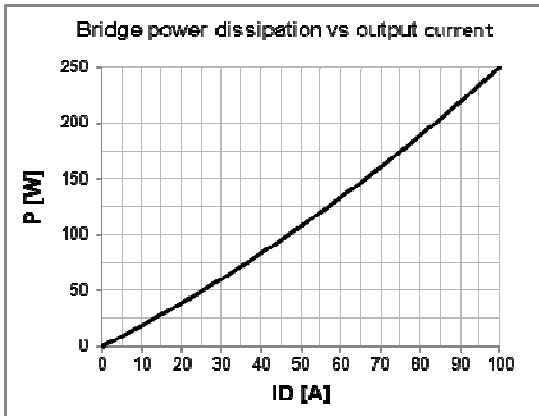
Low forward voltage diodes for high surge capability
Low thermal impedance packaging
Electrically insulated case

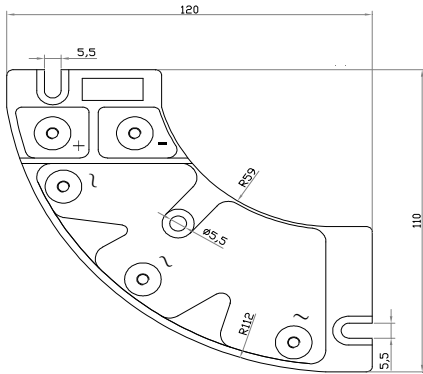
Applications

Input rectifier for variable frequency drives
Battery charger rectifiers
Three phase rectifier for power supplies
Rectifiers for DC motor fields supplies

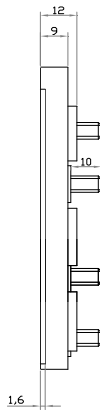
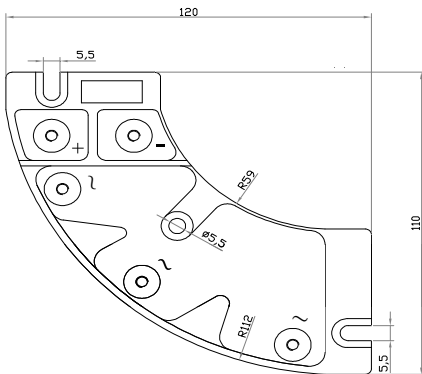
Diodes characteristics		Conditions	T_j [°C]	Value
I_{RRM}	Max repetitive peak reverse current	$V = V_{RRM}$	150	4 mA
$V_{F(TO)}$	Threshold voltage		150	0,9 V
r_F	Forward slope resistance		150	3,5 mΩ
V_{FM}	Peak forward voltage, max	$I_F = 100A$	25	1,2 V
I_{FSM}	Surge forward current	Half sine wave, 10 ms	150	1200 A
I^2t	Max I^2t for fusing		150	7200 A ² s
T_{jmax}	Operating junction temperature			-40 / 150 °C
$R_{th(j-c)}$	Thermal resistance (junction to case)	DC operation		0,52 °C/W
$R_{th(j-c)}$	Thermal resistance (junction to case)	Rectangular wave 120° conduction		0,58 °C/W

Module characteristics		Conditions	Value
I_D	DC output current	$T_c = 125$ °C	100 A
I_D	DC output current	$T_a = 40$ °C ; freely suspended	8 A
V_{INS}	RMS Insulating voltage	50 / 60 Hz $t = 1$ s ($i < 1$ mA)	3600 V
V_{INS}	RMS Insulating voltage	50 / 60 Hz $t = 60$ s ($i < 1$ mA)	3000 V
$R_{th(j-c)}$	Thermal resistance (junction to case)	DC operation	0,087 °C/W
$R_{th(j-c)}$	Thermal resistance (junction to case)	Rect. wave 120° conduction	0,097 °C/W
$R_{th(c-h)}$	Thermal resistance (case to heatsink)	Mounting surface flat, smooth and greased	0,085 °C/W
$R_{th(j-a)}$	Thermal resistance (junction to ambient)	Freely suspended or mounted on an insulator	8,5 °C/W
$R_{th(j-a)}$	Thermal resistance (junction to ambient)	Mounted on a painted metal sheet 250x250x1 mm	3,0 °C/W
T_{stg}	Max storage temperature		150 °C
W	Weight		120 g
M_1	Mounting torque, ± 15 %		3,0 N·m
			26 lb·inch
M_2	Terminal connection torque, ± 15 %		4,5 N·m
			40 lb·inch

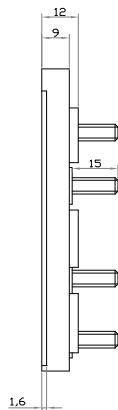
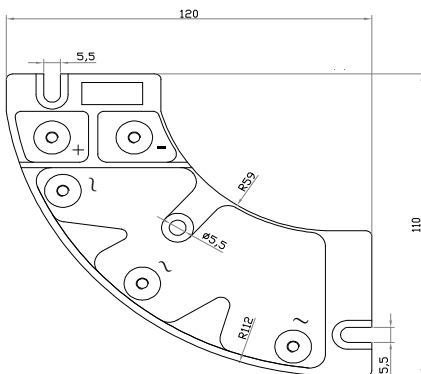



Fig.1

- MTS100.04-SS5-FIX5-LP-TG
Code:970001000012
- MTS100.06-SS5-FIX5-LP-TG
Code:970001000015
- MTS100.08-SS5-FIX5-LP-TG
Code:970001000018
- MTS100.12-SS5-FIX5-LP-TG
Code:970001000021
- MTS100.16-SS5-FIX5-LP-TG
Code:970001000024


Fig.2

- MTS100.04-MM5x10-FIX5-LP-TG
Code:970001000010
- MTS100.06-MM5x10-FIX5-LP-TG
Code:970001000013
- MTS100.08-MM5x10-FIX5-LP-TG
Code:970001000016
- MTS100.12-MM5x10-FIX5-LP-TG
Code:970001000019
- MTS100.16-MM5x10-FIX5-LP-TG
Code:970001000022


Fig.3

- MTS100.04-MM5x15-FIX5-LP-TG
Code:970001000011
- MTS100.06-MM5x15-FIX5-LP-TG
Code:970001000014
- MTS100.08-MM5x15-FIX5-LP-TG
Code:970001000017
- MTS100.12-MM5x15-FIX5-LP-TG
Code:970001000020
- MTS100.16-MM5x15-FIX5-LP-TG
Code:970001000023

Voltage:04=400V 06=600V 08=800V 12=1200V 16=1600V

Power fix:

SS=Screw (M5)
MM=Bolt (M5)

Mounting fix:

FIX= Ø5,5

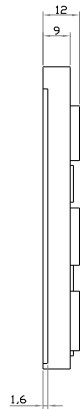
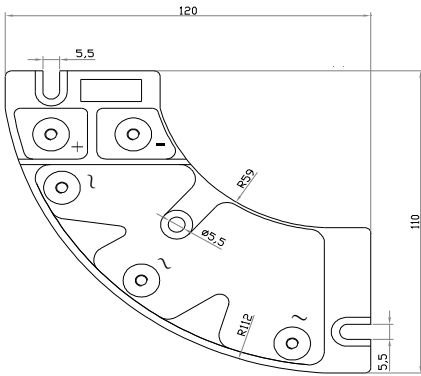


Fig.4

- MTS100.04-SS6-FIX5-LP-TG
Code:970001000027
- MTS100.06-SS6-FIX5-LP-TG
Code:970001000030
- MTS100.08-SS6-FIX5-LP-TG
Code:970001000033
- MTS100.12-SS6-FIX5-LP-TG
Code:970001000036
- MTS100.16-SS6-FIX5-LP-TG
Code:970001000039

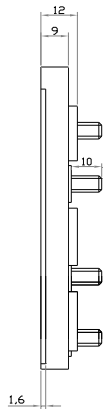
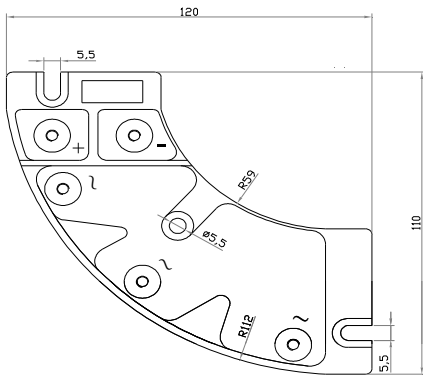


Fig.5

- MTS100.04-MM6x10-FIX5-LP-TG
Code:970001000025
- MTS100.06-MM6x10-FIX5-LP-TG
Code:970001000028
- MTS100.08-MM6x10-FIX5-LP-TG
Code:970001000031
- MTS100.12-MM6x10-FIX5-LP-TG
Code:970001000034
- MTS100.16-MM6x10-FIX5-LP-TG
Code:970001000037

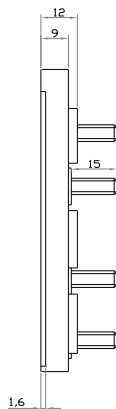
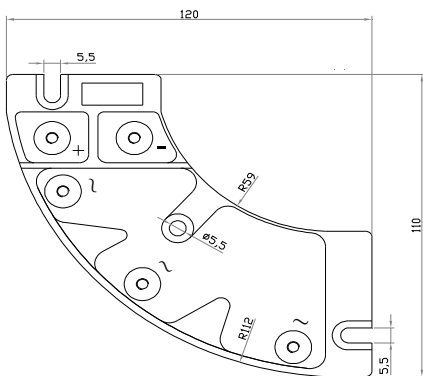


Fig.6

- MTS100.04-MM6x15-FIX5-LP-TG
Code:970001000026
- MTS100.06-MM6x15-FIX5-LP-TG
Code:970001000029
- MTS100.08-MM6x15-FIX5-LP-TG
Code:970001000032
- MTS100.12-MM6x15-FIX5-LP-TG
Code:970001000035
- MTS100.16-MM6x15-FIX5-LP-TG
Code:970001000038

Voltage:04=400V 06=600V 08=800V 12=1200V 16=1600V

Power fix:

SS=Screw (M6)
MM=Bolt (M6)

Mounting fix:

FIX= Ø5,5