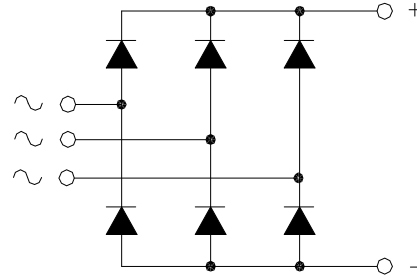


## MTS110

### POWER RECTIFIER BRIDGE

Output Current **110 A**



$V_{RRM}$	$V_{RSM}$	P/N
400	500	MTS110.04
600	700	MTS110.06
800	900	MTS110.08
1200	1300	MTS110.12
1600	1700	MTS110.16

#### Features

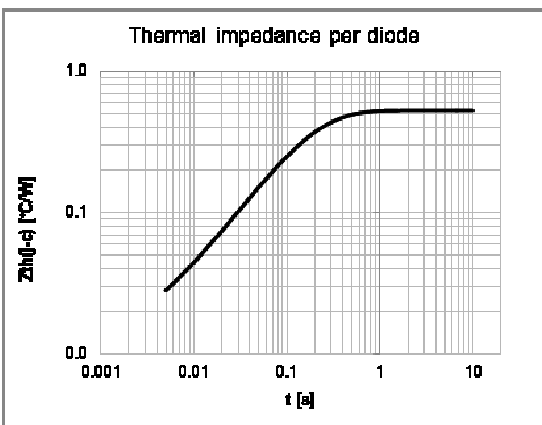
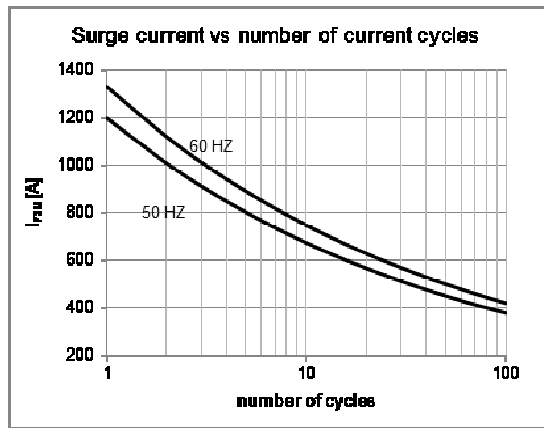
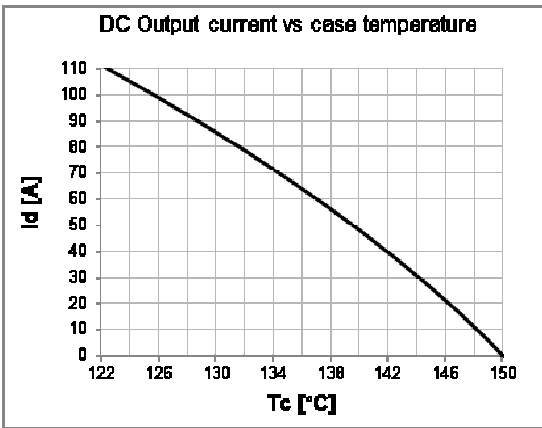
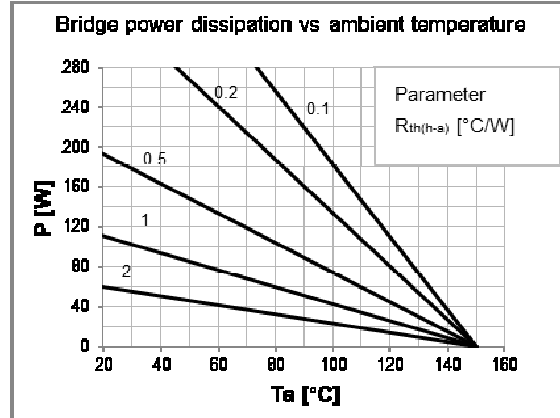
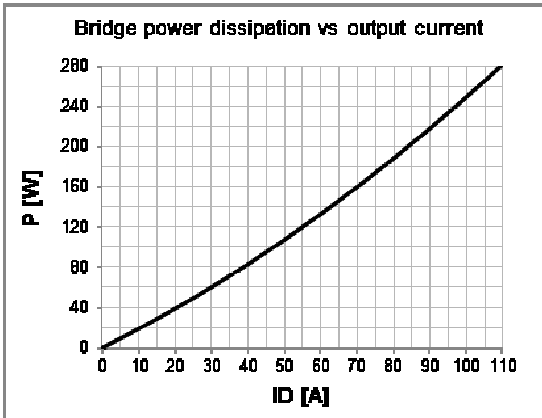
- Low forward voltage diodes for high surge capability
- Low thermal impedance packaging
- Electrically insulated case

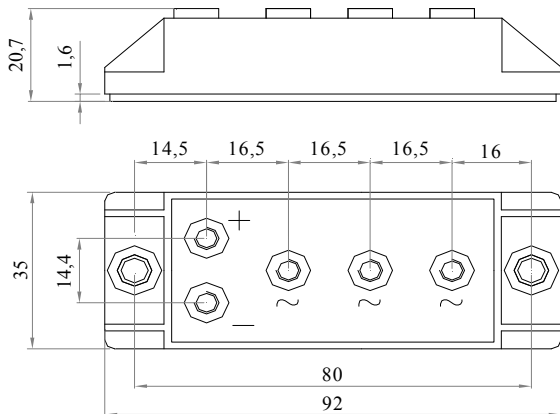
#### Applications

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

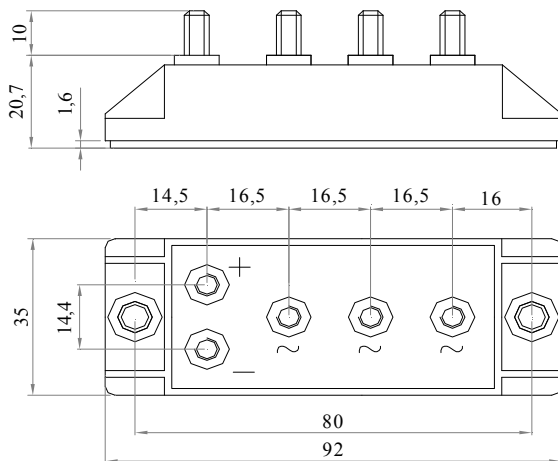
Diodes characteristics		Conditions	$T_j$ [°C]	Value
$I_{RRM}$	Max repetitive peak reverse current	$V = V_{RRM}$	150	4 mA
$V_{F(TO)}$	Threshold voltage		150	0,9 V
$r_F$	Forward slope resistance		150	3,5 mΩ
$V_{FM}$	Peak forward voltage, max	$I_F = 100A$	25	1,2 V
$I_{FSM}$	Surge forward current	Half sine wave, 10 ms	150	1200 A
$I^2t$	Max $I^2t$ for fusing		150	7200 A <sup>2</sup> 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	$T_c = 122$ °C	110 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	0,076 °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
$M_1$	Mounting torque, ± 15 %		4,5 N·m
			40 lb·inch
$M_2$	Terminal connection torque, ± 15 %		3,0 N·m
			26 lb·inch

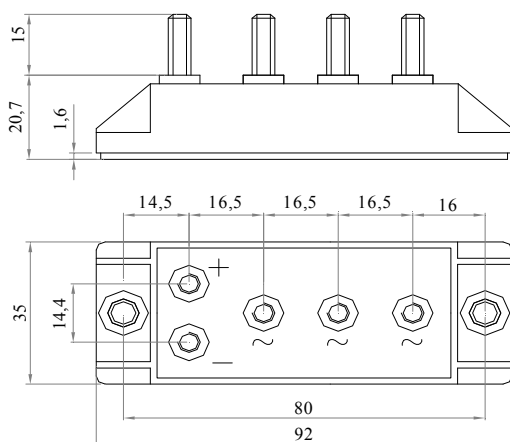



**Fig.1**

MTS110.04-SS5-FIX5-HP-P80-TA  
 Code:970001100005  
 MTS110.06-SS5-FIX5-HP-P80-TA  
 Code:970001100023  
 MTS110.08-SS5-FIX5-HP-P80-TA  
 Code:970001100041  
 MTS110.12-SS5-FIX5-HP-P80-TA  
 Code:970001100059  
 MTS110.16-SS5-FIX5-HP-P80-TA  
 Code:970001100077


**Fig.2**

MTS110.04-MM5x10-FIX5-HP-P80-TA  
 Code:970001100001  
 MTS110.06-MM5x10-FIX5-HP-P80-TA  
 Code:970001100019  
 MTS110.08-MM5x10-FIX5-HP-P80-TA  
 Code:970001100037  
 MTS110.12-MM5x10-FIX5-HP-P80-TA  
 Code:970001100055  
 MTS110.16-MM5x10-FIX5-HP-P80-TA  
 Code:970001100073

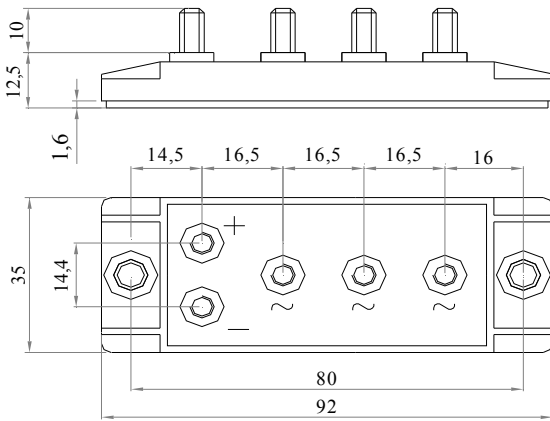

**Fig.3**

MTS110.04-MM5x15-FIX5-HP-P80-TA  
 Code:970001100003  
 MTS110.06-MM5x15-FIX5-HP-P80-TA  
 Code:970001100021  
 MTS110.08-MM5x15-FIX5-HP-P80-TA  
 Code:970001100039  
 MTS110.12-MM5x15-FIX5-HP-P80-TA  
 Code:970001100057  
 MTS110.16-MM5x15-FIX5-HP-P80-TA  
 Code:970001100075

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

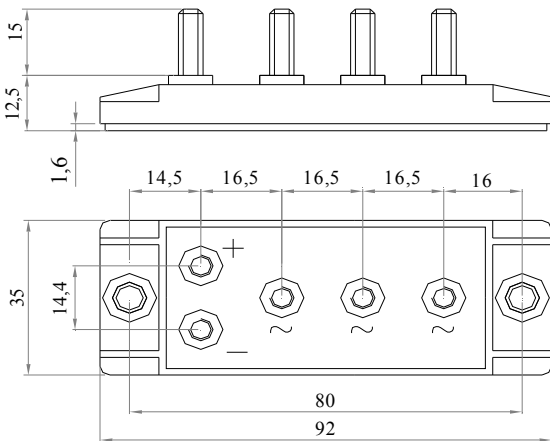
**Power fix:**  
 SS=Screw (M5)  
 MM=Bolt (M5)

**Mounting fix:**  
 FIX=  $\varnothing$ 5,5



**Fig.4**

- MTS110.04-MM5x10-FIX5-LP-P80-TA  
Code:970001100000
- MTS110.06-MM5x10-FIX5-LP-P80-TA  
Code:970001100018
- MTS110.08-MM5x10-FIX5-LP-P80-TA  
Code:970001100036
- MTS110.12-MM5x10-FIX5-LP-P80-TA  
Code:970001100054
- MTS110.16-MM5x10-FIX5-LP-P80-TA  
Code:970001100072



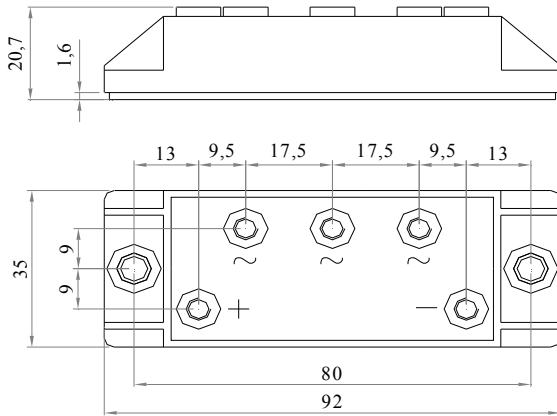
**Fig.5**

- MTS110.04-MM5x15-FIX5-LP-P80-TA  
Code:970001100002
- MTS110.06-MM5x15-FIX5-LP-P80-TA  
Code:970001100020
- MTS110.08-MM5x15-FIX5-LP-P80-TA  
Code:970001100038
- MTS110.12-MM5x15-FIX5-LP-P80-TA  
Code:970001100056
- MTS110.16-MM5x15-FIX5-LP-P80-TA  
Code:970001100074

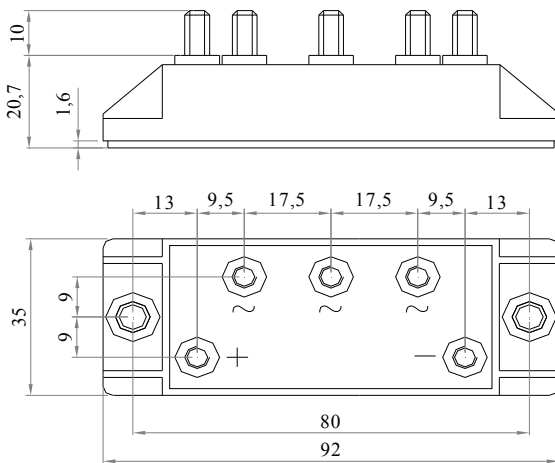
**Voltage:04=400V 06=600V 08=800V 12=1200V 16=1600V**

**Power fix:**  
MM=Bolt (M5)

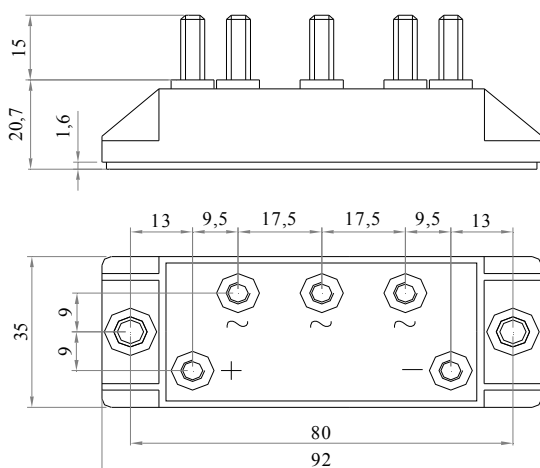
**Mounting fix:**  
FIX=  $\varnothing$ 5,5


**Fig.6**

MTS110.04-SS5-FIX5-HP-P80-TB  
 Code:970001100011  
 MTS110.06-SS5-FIX5-HP-P80-TB  
 Code:970001100029  
 MTS110.08-SS5-FIX5-HP-P80-TB  
 Code:970001100047  
 MTS110.12-SS5-FIX5-HP-P80-TB  
 Code:970001100065  
 MTS110.16-SS5-FIX5-HP-P80-TB  
 Code:970001100083


**Fig.7**

MTS110.04-MM5x10-FIX5-HP-P80-TB  
 Code:970001100007  
 MTS110.06-MM5x10-FIX5-HP-P80-TB  
 Code:970001100025  
 MTS110.08-MM5x10-FIX5-HP-P80-TB  
 Code:970001100043  
 MTS110.12-MM5x10-FIX5-HP-P80-TB  
 Code:970001100061  
 MTS110.16-MM5x10-FIX5-HP-P80-TB  
 Code:970001100079

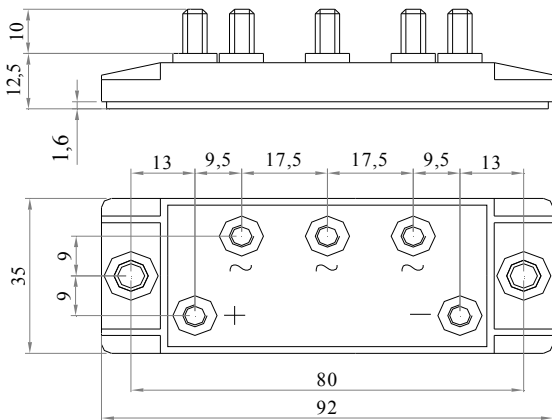

**Fig.8**

MTS110.04-MM5x15-FIX5-HP-P80-TB  
 Code:970001100009  
 MTS110.06-MM5x15-FIX5-HP-P80-TB  
 Code:970001100027  
 MTS110.08-MM5x15-FIX5-HP-P80-TB  
 Code:970001100045  
 MTS110.12-MM5x15-FIX5-HP-P80-TB  
 Code:970001100063  
 MTS110.16-MM5x15-FIX5-HP-P80-TB  
 Code:970001100081

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

**Power fix:**  
 SS=Screw (M5)  
 MM=Bolt (M5)

**Mounting fix:**  
 FIX=  $\varnothing$ 5,5


**Fig.9**

MTS110.04-MM5x10-FIX5-LP-P80-TB

Code:970001100006

MTS110.06-MM5x10-FIX5-LP-P80-TB

Code:970001100024

MTS110.08-MM5x10-FIX5-LP-P80-TB

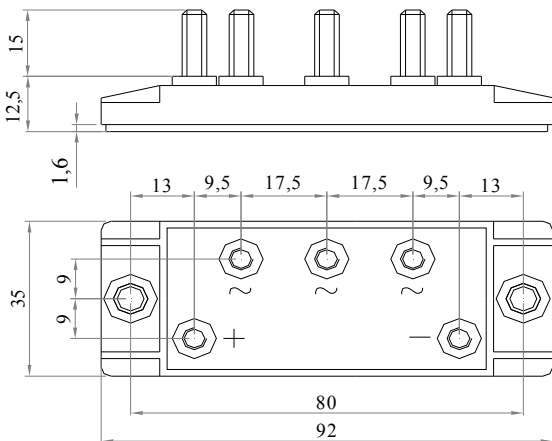
Code:970001100042

MTS110.12-MM5x10-FIX5-LP-P80-TB

Code:970001100060

MTS110.16-MM5x10-FIX5-LP-P80-TB

Code:970001100078


**Fig.10**

MTS110.04-MM5x15-FIX5-LP-P80-TB

Code:970001100008

MTS110.06-MM5x15-FIX5-LP-P80-TB

Code:970001100026

MTS110.08-MM5x15-FIX5-LP-P80-TB

Code:970001100044

MTS110.12-MM5x15-FIX5-LP-P80-TB

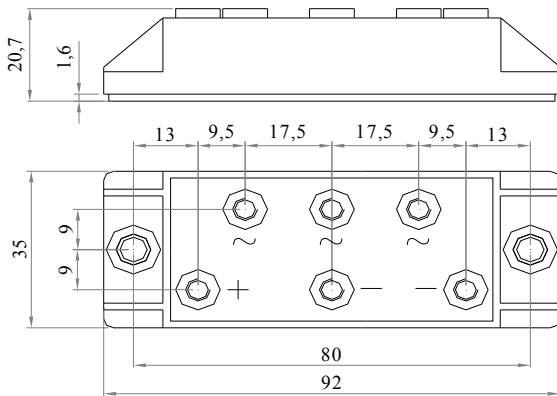
Code:970001100062

MTS110.16-MM5x15-FIX5-LP-P80-TB

Code:970001100080

**Voltage:04=400V 06=600V 08=800V 12=1200V 16=1600V**
**Power fix:**  
 MM=Bolt (M5)

**Mounting fix:**  
 FIX= Ø5,5


**Fig.11**

MTS110.04-SS5-FIX5-HP-P80-TC

Code:970001100017

MTS110.06-SS5-FIX5-HP-P80-TC

Code:970001100035

MTS110.08-SS5-FIX5-HP-P80-TC

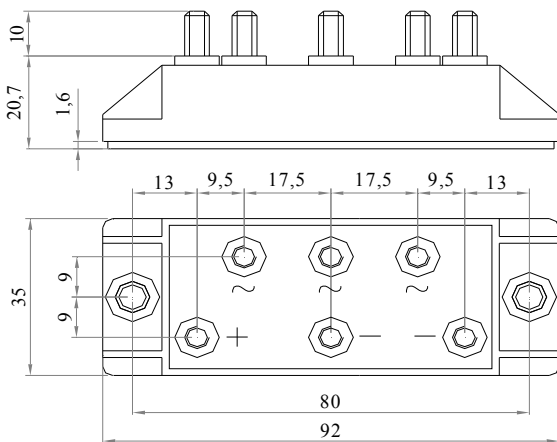
Code:970001100053

MTS110.12-SS5-FIX5-HP-P80-TC

Code:970001100071

MTS110.16-SS5-FIX5-HP-P80-TC

Code:970001100089


**Fig.12**

MTS110.04-MM5x10-FIX5-HP-P80-TC

Code:970001100013

MTS110.06-MM5x10-FIX5-HP-P80-TC

Code:970001100031

MTS110.08-MM5x10-FIX5-HP-P80-TC

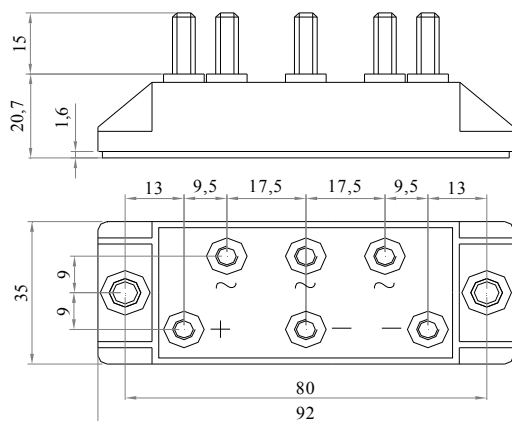
Code:970001100049

MTS110.12-MM5x10-FIX5-HP-P80-TC

Code:970001100067

MTS110.16-MM5x10-FIX5-HP-P80-TC

Code:970001100085


**Fig.13**

MTS110.04-MM5x15-FIX5-HP-P80-TC

Code:970001100015

MTS110.06-MM5x15-FIX5-HP-P80-TC

Code:970001100033

MTS110.08-MM5x15-FIX5-HP-P80-TC

Code:970001100051

MTS110.12-MM5x15-FIX5-HP-P80-TC

Code:970001100069

MTS110.16-MM5x15-FIX5-HP-P80-TC

Code:970001100087

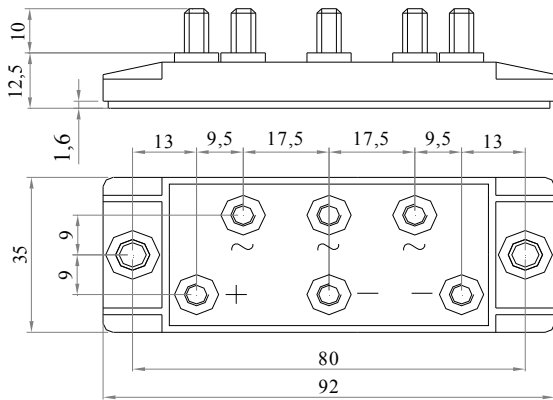
**Voltage:04=400V 06=600V 08=800V 12=1200V 16=1600V**
**Power fix:**

SS=Screw (M5)

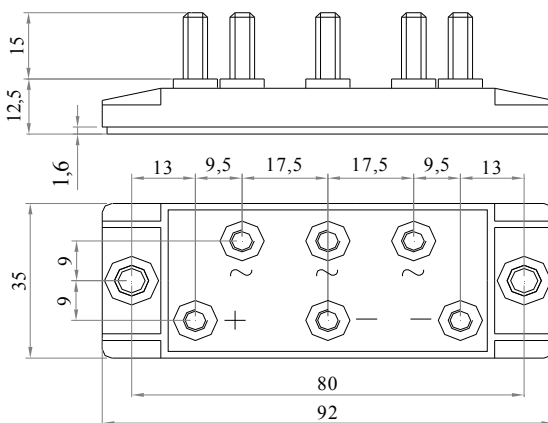
MM=Bolt (M5)

**Mounting fix:**

FIX= Ø5,5



**Fig.15** MTS110.04-MM5x10-FIX5-LP-P80-TC  
Code:970001100012  
MTS110.06-MM5x10-FIX5-LP-P80-TC  
Code:970001100030  
MTS110.08-MM5x10-FIX5-LP-P80-TC  
Code:970001100048  
MTS110.12-MM5x10-FIX5-LP-P80-TC  
Code:970001100066  
MTS110.16-MM5x10-FIX5-LP-P80-TC  
Code:970001100084



**Fig.16** MTS110.04-MM5x15-FIX5-LP-P80-TC  
Code:970001100014  
MTS110.06-MM5x15-FIX5-LP-P80-TC  
Code:970001100032  
MTS110.08-MM5x15-FIX5-LP-P80-TC  
Code:970001100050  
MTS110.12-MM5x15-FIX5-LP-P80-TC  
Code:970001100068  
MTS110.16-MM5x15-FIX5-LP-P80-TC  
Code:970001100086

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

**Power fix:**  
MM=Bolt (M5)

**Mounting fix:**  
FIX= Ø5,5