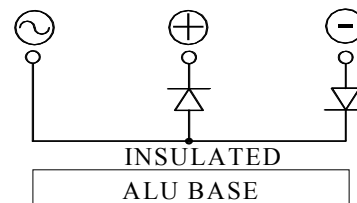


## MRS200.16

### INSULATED DIODE MODULE

**Output Current**            **200 A**

**Blocking Voltage**        **1600 V**



$V_{RRM}$ [V]	$V_{RSM}$ [V]	P/N
1600	1700	MRS200.16

#### Features

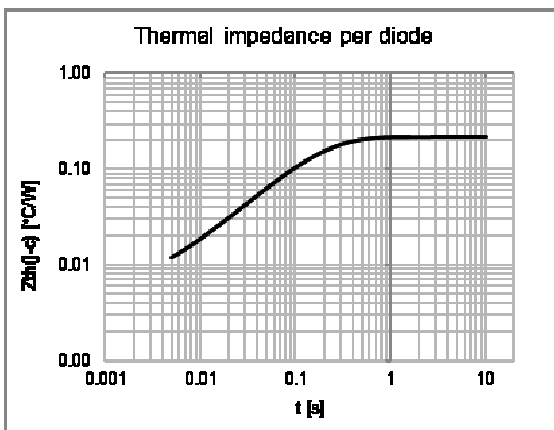
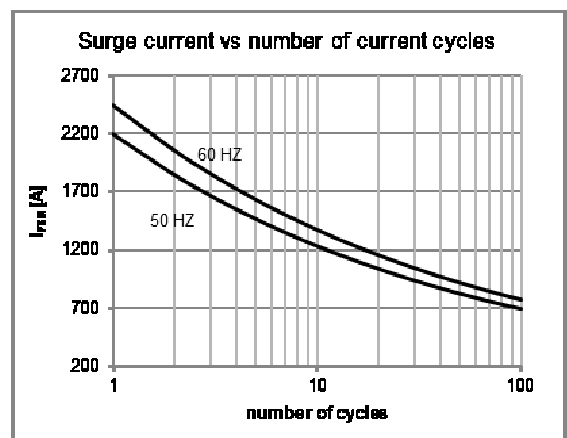
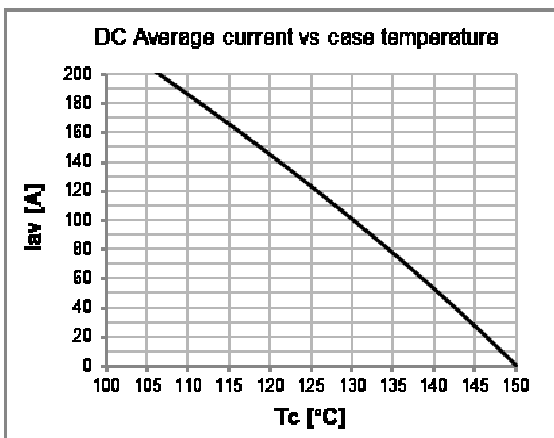
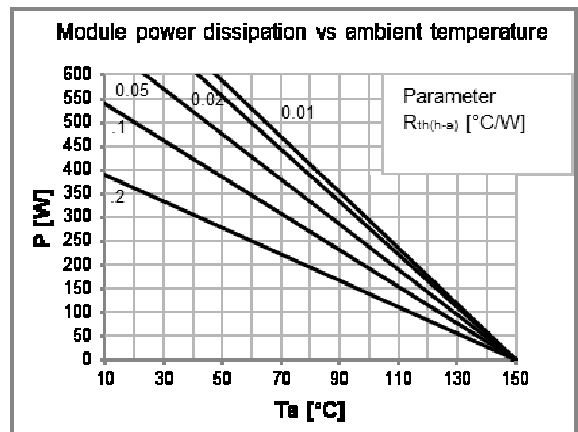
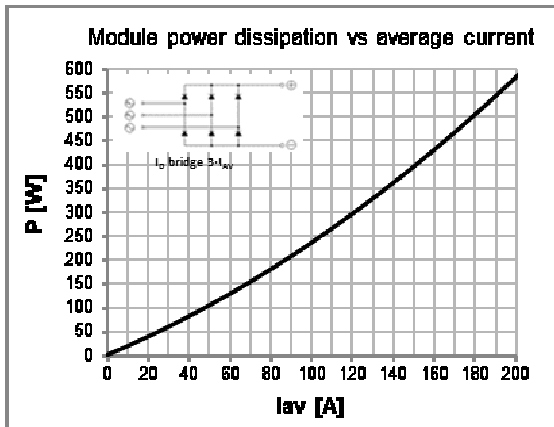
Low forward voltage diodes for high surge capability  
 Low thermal impedance packaging  
 Electrically insulated case

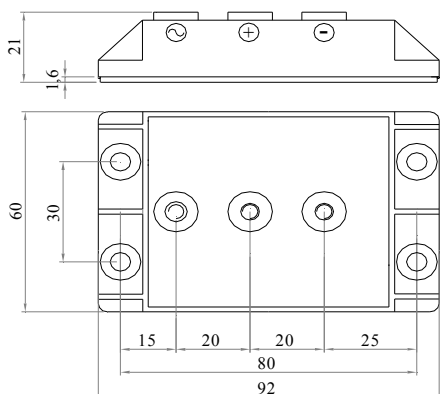
#### Applications

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

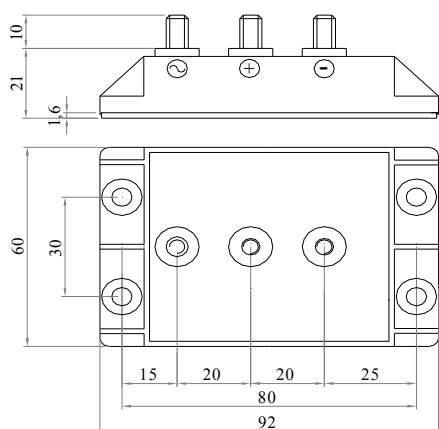
Diodes characteristics		Conditions	T <sub>j</sub> [°C]	Value
I <sub>RRM</sub>	Max repetitive peak reverse current	V = V <sub>RRM</sub>	150	8 mA
V <sub>F(TO)</sub>	Threshold voltage		150	0,9 V
r <sub>F</sub>	Forward slope resistance		150	0,93 mΩ
V <sub>FM</sub>	Peak forward voltage, max	I <sub>F</sub> = 200A	25	1 V
I <sub>FSM</sub>	Surge forward current	Half sine wave, 10 ms	150	2200 A
I <sup>2</sup> t	Max I <sup>2</sup> t for fusing		150	24200 A <sup>2</sup> s
I <sub>F(AV)</sub>	Average forward current	T <sub>c</sub> = 107 °C - DC		200 A
I <sub>F(AV)</sub>	Average forward current	T <sub>c</sub> = 110 °C - in three phase bridge configuration		140 A
I <sub>F(AV)</sub>	Average forward current	T <sub>c</sub> = 110 °C - in single phase bridge configuration		146 A
T <sub>jmax</sub>	Operating junction temperature			150 °C
R <sub>th(j-c)</sub>	Thermal resistance (junction to case)	DC operation		0,20 °C/W
R <sub>th(j-c)</sub>	Thermal resistance (junction to case)	Rectangular wave 120° conduction		0,22 °C/W

Module characteristics		Conditions	Value
V <sub>INS</sub>	RMS Insulating voltage	50 / 60 Hz t = 1 s (i < 1 mA)	3600 V
V <sub>INS</sub>	RMS Insulating voltage	50 / 60 Hz t = 60 s (i < 1 mA)	3000 V
R <sub>th(j-c)</sub>	Thermal resistance (junction to case)	DC operation	0,100 °C/W
R <sub>th(j-c)</sub>	Thermal resistance (junction to case)	Rect. wave 120° conduction	0,110 °C/W
R <sub>th(c-h)</sub>	Thermal resistance (case to heatsink)	Mounting surface flat, smooth and greased	0,050 °C/W
R <sub>th(j-a)</sub>	Thermal resistance (junction to ambient)	Freely suspended or mounted on an insulator	7,0 °C/W
R <sub>th(j-a)</sub>	Thermal resistance (junction to ambient)	Mounted on a painted metal sheet 250x250x1 mm	2,5 °C/W
T <sub>stg</sub>	Max storage temperature		150 °C
M1	Mounting torque, ± 15 %		4,5 N·m
			40 lb·inch
M2	Terminal connection torque, ± 15 %		3,0 N·m
			26 lb·inch

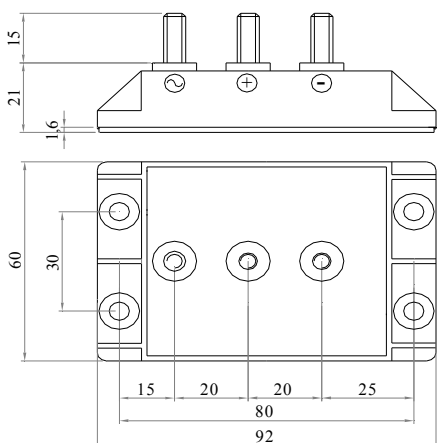




**Fig.1** MRS200.16-SS6-FIX5-HP-P80-TA  
Code:990002000000



**Fig.2** MRS200.16-MM6x10-FIX5-HP-P80-TA  
Code:990002000001



**Fig.3** MRS200.16-MM6x15-FIX5-HP-P80-TA  
Code:990002000002

**Power fix:**  
SS=Screw (M6 )  
MM=Bolt (M6 )

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

**Profile:**  
HP=High Profile