



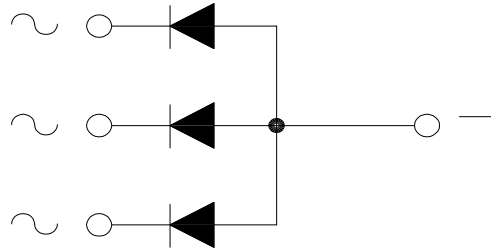
# SCOMES

[www.scomes.com](http://www.scomes.com)

## MSS50N-HM

### POWER RECTIFIER BRIDGE

Output Current **50 A**



| $V_{RRM}$ | $V_{RSM}$ | P/N       |
|-----------|-----------|-----------|
| 400       | 500       | MSS50.04N |
| 600       | 700       | MSS50.06N |
| 800       | 900       | MSS50.08N |
| 1200      | 1300      | MSS50.12N |
| 1600      | 1700      | MSS50.16N |

#### Features

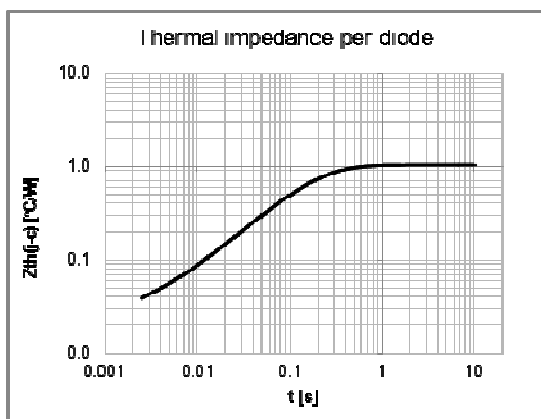
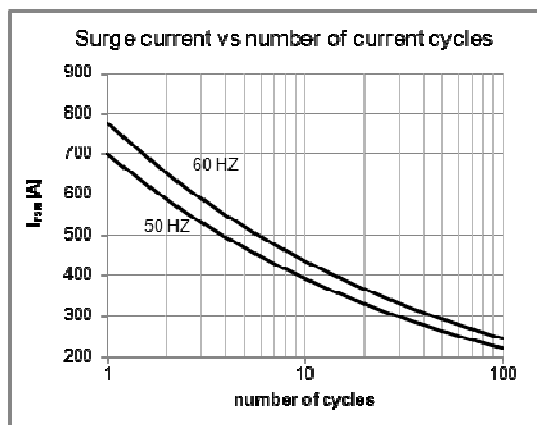
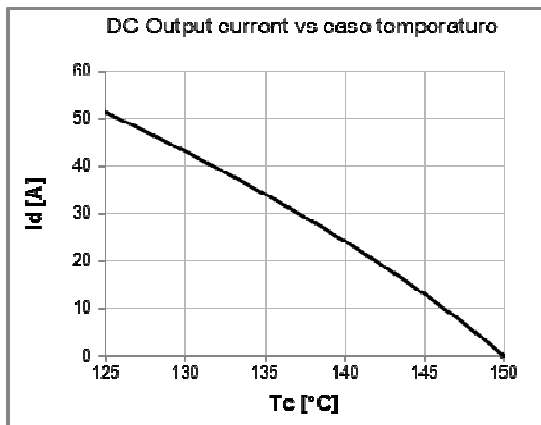
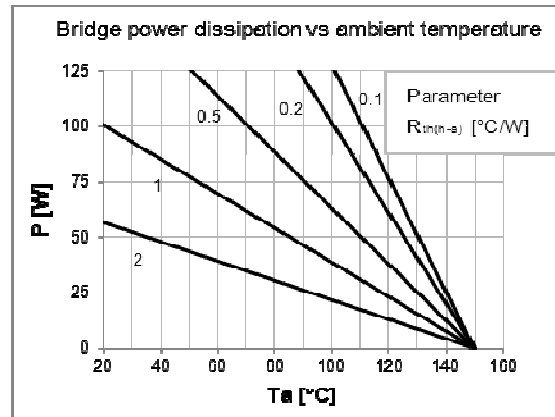
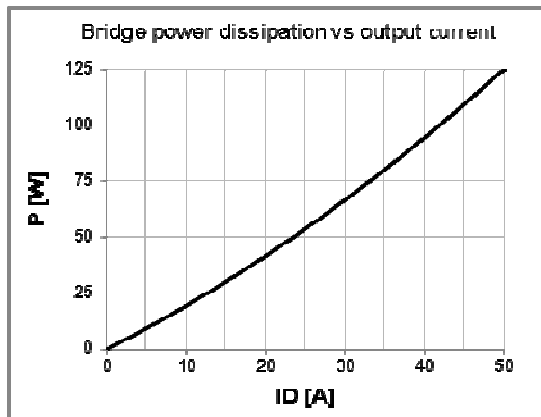
Low forward voltage diodes for high surge capability  
Low thermal impedance packaging  
Electrically insulated case

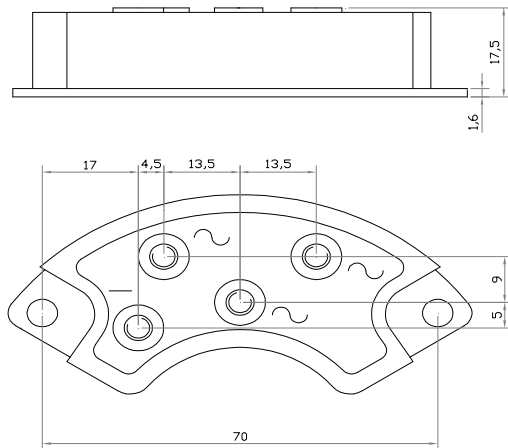
#### Applications

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        | 7,0 mΩ                |
| $V_{FM}$               | Peak forward voltage, max             | $I_F = 100A$                     | 25         | 1,7 V                 |
| $I_{FSM}$              | Surge forward current                 | Half sine wave, 10 ms            | 150        | 700 A                 |
| $I^2t$                 | Max $I^2t$ for fusing                 |                                  | 150        | 2450 A <sup>2</sup> s |
| $T_{jmax}$             | Operating junction temperature        |                                  |            | -40 / 150 °C          |
| $R_{th(j-c)}$          | Thermal resistance (junction to case) | DC operation                     |            | 1,04 °C/W             |
| $R_{th(j-c)}$          | Thermal resistance (junction to case) | Rectangular wave 120° conduction |            | 1,16 °C/W             |

| Module characteristics |                                          | Conditions                                    | Value      |
|------------------------|------------------------------------------|-----------------------------------------------|------------|
| $I_D$                  | DC output current                        | $T_c = 126$ °C                                | 50 A       |
| $I_D$                  | DC output current                        | $T_a = 40$ °C ; freely suspended              | 6 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                                  | 0,174 °C/W |
| $R_{th(j-c)}$          | Thermal resistance (junction to case)    | Rect. wave 120° conduction                    | 0,193 °C/W |
| $R_{th(c-h)}$          | Thermal resistance (case to heatsink)    | Mounting surface flat, smooth and greased     | 0,100 °C/W |
| $R_{th(j-a)}$          | Thermal resistance (junction to ambient) | Freely suspended or mounted on an insulator   | 9,0 °C/W   |
| $R_{th(j-a)}$          | Thermal resistance (junction to ambient) | Mounted on a painted metal sheet 250x250x1 mm | 3,5 °C/W   |
| $T_{stg}$              | Max storage temperature                  |                                               | 150 °C     |
| $W$                    | Weight                                   |                                               | 85 g       |
| $M_1$                  | 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**

MSS50.04N-SS5-FIX5-LP-P70-TG

Code: 9300005000000

MSS50.06N-SS5-FIX5-LP-P70-TG

Code: 9300005000002

MSS50.08N-SS5-FIX5-LP-P70-TG

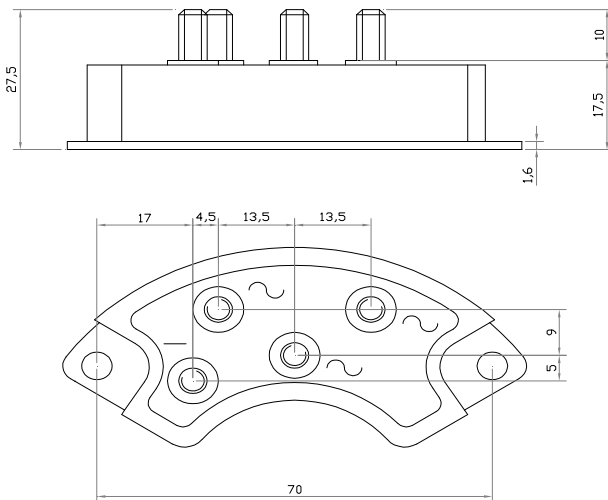
Code: 9300005000004

MSS50.12N-SS5-FIX5-LP-P70-TG

Code: 9300005000006

MSS50.16N-SS5-FIX5-LP-P70-TG

Code: 9300005000008


**Fig.2**

MSS50.04N-MM5x10-FIX5-LP-P70-TG

Code: 9300005000001

MSS50.06N-MM5x10-FIX5-LP-P70-TG

Code: 9300005000003

MSS50.08N-MM5x10-FIX5-LP-P70-TG

Code: 9300005000005

MSS50.12N-MM5x10-FIX5-LP-P70-TG

Code: 9300005000007

MSS50.16N-MM5x10-FIX5-LP-P70-TG

Code: 9300005000009

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

SS=Screw (M5)

MM=Bolt (M5)

**Mounting fix:**

FIX= Ø5,5