

# SINGLE PHASE / THREE PHASE BRIDGE RECTIFIER MODULE

(MDQ, MDS)



## Features

- Electrical insulation between the chip and the backplane with insulation voltage 2500VAC
- International standard package
- "Vacuum + hydrogenation protection" welding technology
- Low forward voltage drop
- Maximum operating junction temperature up to 150 °C
- Compact dimensions and low weight

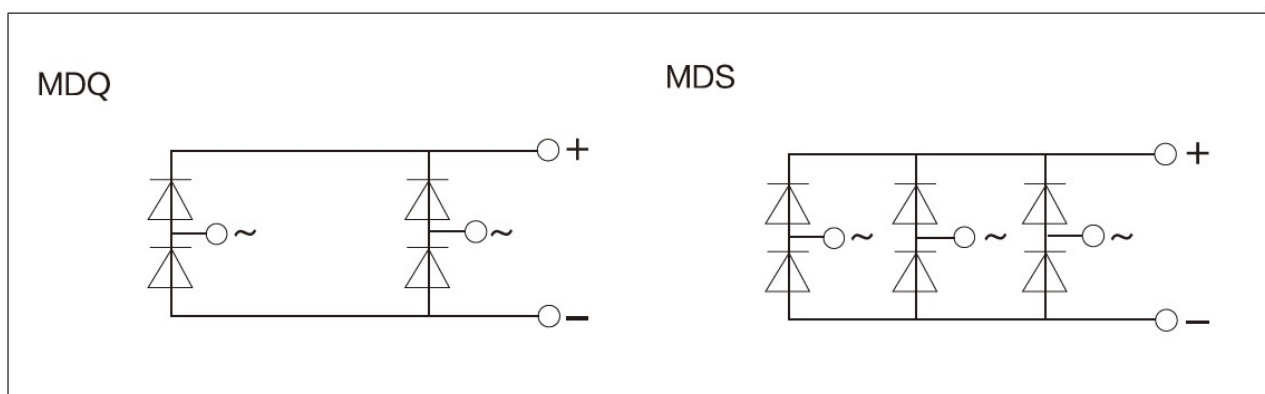
## Product description

- $V_{RSM}=V_{RRM}+200V$
- In addition to  $V_{FM}$  and  $V_{ISO}$ , the other parameters in the table are the test values under  $T_{jm}$ .

## Typical application

- DC power supply of the instruments and equipment
- Input rectification power supply of the PWM inverter
- Excitation power supply of the DC motor
- Input rectification system of switching power supply
- Soft start capacitor charging system
- Electrical drive and auxiliary current
- Inverter welder
- DC power charging system

## Module model and circuit diagram



## Product Specifications

| SINGLE PHAS BRIDGE RECTIFIER MODULE |                   |                               |                   |   |   |   |          |                              |                   |                    |
|-------------------------------------|-------------------|-------------------------------|-------------------|---|---|---|----------|------------------------------|-------------------|--------------------|
| Model                               | DC Output Current | Average Forward Input Current | Cover Temperature | Maximum Repetitive Peak Reverse Voltage | Maximum Repetitive Peak Reverse Current | Maximum Peak On-state Voltage and Current |          | Maximum Junction Temperature | Isolation Voltage | Overall Dimensions |
|                                     | $I_d$             | $I_{F(AV)}$                   | $T_C$             | $V_{RRM}$                               | $I_{RRM}$                               | $V_{TM}$                                  | $I_{TM}$ | $T_{jm}$                     | $V_{isol}$        |                    |
|                                     | A                 | A                             | °C                | V                                       | mA                                      | V   | A        | °C                           | V(AC)             |                    |
| MDQ 30                              | 30                | 10                            | 100               | 600-2000                                | 8                                       | 1.45                                      | 30       | 150                          | 2500              | 102A               |
| MDQ 60                              | 60                | 20                            | 100               | 600-2000                                | 8                                       | 1.45                                      | 60       | 150                          | 2500              | 102A               |
| MDQ 100                             | 100               | 35                            | 100               | 600-2000                                | 10                                      | 1.45                                      | 100      | 150                          | 2500              | 102A               |
| MDQ 150                             | 150               | 50                            | 100               | 600-2000                                | 10                                      | 1.50                                      | 150      | 150                          | 2500              | 103A, 103A-1       |
| MDQ 200                             | 200               | 68                            | 100               | 600-2000                                | 10                                      | 1.50                                      | 200      | 150                          | 2500              | 103A, 103A-1       |
| MDQ 300                             | 300               | 100                           | 100               | 600-2000                                | 10                                      | 1.50                                      | 300      | 150                          | 2500              | 104A               |
| MDQ 400                             | 400               | 135                           | 100               | 600-2000                                | 10                                      | 1.50                                      | 400      | 150                          | 2500              | 104A               |
| MDQ 500                             | 500               | 168                           | 100               | 600-2000                                | 10                                      | 1.50                                      | 500      | 150                          | 2500              | 105A               |
| MDQ 600                             | 600               | 200                           | 100               | 600-2000                                | 10                                      | 1.50                                      | 600      | 150                          | 2500              | 106A               |
| THREE PHASE BRIDGE RECTIFIER MODULE |                   |                               |                   |   |   |   |          |                              |                   |                    |
| Model                               | DC Output Current | Average Forward Input Current | Cover Temperature | Maximum Repetitive Peak Reverse Voltage | Maximum Repetitive Peak Reverse Current | Maximum Peak On-state Voltage and Current |          | Maximum Junction Temperature | Isolation Voltage | Overall Dimensions |
|                                     | $I_d$             | $I_{F(AV)}$                   | $T_C$             | $V_{RRM}$                               | $I_{RRM}$                               | $V_{TM}$                                  | $I_{TM}$ | $T_{jm}$                     | $V_{isol}$        |                    |
|                                     | A                 | A                             | °C                | V                                       | mA                                      | V   | A        | °C                           | V(AC)             |                    |
| MDS 30                              | 30                | 10                            | 100               | 600-2000                                | 8                                       | 1.45                                      | 30       | 150                          | 2500              | 102A               |
| MDS 60                              | 60                | 20                            | 100               | 600-2000                                | 8                                       | 1.45                                      | 60       | 150                          | 2500              | 102A               |
| MDS 100                             | 100               | 35                            | 100               | 600-2000                                | 10                                      | 1.45                                      | 100      | 150                          | 2500              | 102A               |
| MDS 150                             | 150               | 50                            | 100               | 600-2000                                | 10                                      | 1.50                                      | 150      | 150                          | 2500              | 103A, 103A-1       |
| MDS 200                             | 200               | 68                            | 100               | 600-2000                                | 10                                      | 1.50                                      | 200      | 150                          | 2500              | 103A, 103A-1       |
| MDS 300                             | 300               | 100                           | 100               | 600-2000                                | 10                                      | 1.50                                      | 300      | 150                          | 2500              | 104A               |
| MDS 400                             | 400               | 135                           | 100               | 600-2000                                | 10                                      | 1.50                                      | 400      | 150                          | 2500              | 104A               |
| MDS 500                             | 500               | 168                           | 100               | 600-2000                                | 10                                      | 1.50                                      | 500      | 150                          | 2500              | 105A               |
| MDS 600                             | 600               | 200                           | 100               | 600-2000                                | 10                                      | 1.50                                      | 600      | 150                          | 2500              | 106A               |

Note:

Single phase bridge rectifier module (MDQ); the domestic models corresponding to the imported models SKCH, DF, VHF etc., are subject to the circuit diagram.

Three phase bridge rectifier module (MDS); the domestic models corresponding to the imported models 6RI, RM, DF etc., are subject to the circuit diagram.