

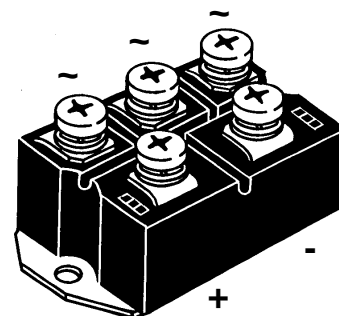
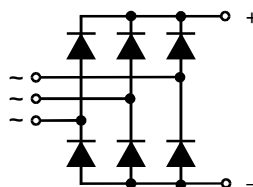
# Three Phase Rectifier Bridge

$$I_{dAV} = 175 \text{ A}$$

$$V_{RRM} = 800-1800 \text{ V}$$

| $V_{RSM}$<br>V | $V_{RRM}$<br>V | Type           |
|----------------|----------------|----------------|
| 800            | 800            | VUO 160-08NO7  |
| 1200           | 1200           | VUO 160-12NO7  |
| 1400           | 1400           | VUO 160-14NO7  |
| 1600           | 1600           | VUO 160-16NO7  |
| 1800           | 1800           | VUO 160-18NO7* |

\* delivery time on request



| Symbol     | Test Conditions                                                   | Maximum Ratings         |
|------------|-------------------------------------------------------------------|-------------------------|
| $I_{dAV}$  | $T_C = 100^\circ\text{C}$ , module                                | 175 A                   |
| $I_{dAV}$  | $T_A = 35^\circ\text{C}$ ( $R_{thCA} = 0.2 \text{ K/W}$ ), module | 139 A                   |
| $I_{FSM}$  | $T_{VJ} = 45^\circ\text{C}$ ; $t = 10 \text{ ms}$ (50 Hz), sine   | 1800 A                  |
|            | $V_R = 0$ ; $t = 8.3 \text{ ms}$ (60 Hz), sine                    | 1950 A                  |
|            | $T_{VJ} = T_{VJM}$ ; $t = 10 \text{ ms}$ (50 Hz), sine            | 1600 A                  |
|            | $V_R = 0$ ; $t = 8.3 \text{ ms}$ (60 Hz), sine                    | 1800 A                  |
| $I^2t$     | $T_{VJ} = 45^\circ\text{C}$ ; $t = 10 \text{ ms}$ (50 Hz), sine   | 16 200 A <sup>2</sup> s |
|            | $V_R = 0$ ; $t = 8.3 \text{ ms}$ (60 Hz), sine                    | 16 200 A <sup>2</sup> s |
|            | $T_{VJ} = T_{VJM}$ ; $t = 10 \text{ ms}$ (50 Hz), sine            | 12 800 A <sup>2</sup> s |
|            | $V_R = 0$ ; $t = 8.3 \text{ ms}$ (60 Hz), sine                    | 13 400 A <sup>2</sup> s |
| $T_{VJ}$   |                                                                   | -40...+150 °C           |
| $T_{VJM}$  |                                                                   | 150 °C                  |
| $T_{stg}$  |                                                                   | -40...+125 °C           |
| $V_{ISOL}$ | 50/60 Hz, RMS; $t = 1 \text{ min}$                                | 2500 V~                 |
|            | $I_{ISOL} \leq 1 \text{ mA}$ ; $t = 1 \text{ s}$                  | 3000 V~                 |
| $M_d$      | Mounting torque (M6)                                              | 5 ± 15 % Nm             |
|            | Terminal connection torque (M6)                                   | 5 ± 15 % Nm             |
| Weight     | typ.                                                              | 270 g                   |

| Symbol     | Test Conditions                                     | Characteristic Values |
|------------|-----------------------------------------------------|-----------------------|
| $I_R$      | $V_R = V_{RRM1}$ ; $T_{VJ} = 25^\circ\text{C}$      | ≤ 0.3 mA              |
|            | $V_R = V_{RRM1}$ ; $T_{VJ} = T_{VJM}$               | ≤ 5 mA                |
| $V_F$      | $I_F = 300 \text{ A}$ ; $T_{VJ} = 25^\circ\text{C}$ | ≤ 1.65 V              |
| $V_{T0}$   | For power-loss calculations only                    | 0.8 V                 |
| $r_T$      |                                                     | 3 mΩ                  |
| $R_{thJC}$ | per diode                                           | 0.65 K/W              |
|            | per module                                          | 0.108 K/W             |
| $R_{thJH}$ | per diode                                           | 0.83 K/W              |
|            | per module                                          | 0.138 K/W             |
| $d_s$      | Creeping distance on surface                        | 10 mm                 |
| $d_A$      | Creepage distance in air                            | 9.4 mm                |
| $a$        | Max. allowable acceleration                         | 50 m/s <sup>2</sup>   |

Data according to IEC 60747 and refer to a single diode unless otherwise stated  
IXYS reserves the right to change limits, test conditions and dimensions.

## Features

- Package with screw terminals
- Isolation voltage 3000 V~
- Planar passivated chips
- Blocking voltage up to 1800 V
- Low forward voltage drop
- UL registered E72873

## Applications

- Supplies for DC power equipment
- Input rectifiers for PWM inverter
- Battery DC power supplies
- Field supply for DC motors

## Advantages

- Easy to mount with two screws
- Space and weight savings
- Improved temperature and power cycling

## Dimensions in mm (1 mm = 0.0394")

