



VUO 160

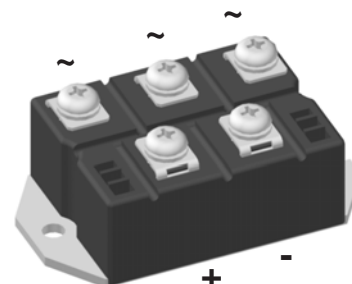
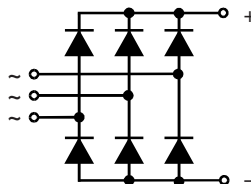
Three Phase Rectifier Bridge

$I_{dAV} = 175 \text{ A}$
 $V_{BBM} = 800\text{-}1800 \text{ V}$

Preliminary data

V_{RSM}	V_{RRM}	Type
V	V	
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}	$T_C = 90^{\circ}\text{C}$, 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 ² s
	$V_R = 0$	$t = 8.3 \text{ ms}$ (60 Hz), sine	16 200	A ² s
	$T_{VJ} = T_{VJM}$	$t = 10 \text{ ms}$ (50 Hz), sine	12 800	A ² s
	$V_R = 0$	$t = 8.3 \text{ ms}$ (60 Hz), sine	13 400	A ² s
T_{VJ}			-40...+150	$^{\circ}\text{C}$
T_{VJM}			150	$^{\circ}\text{C}$
T_{stg}			-40...+125	$^{\circ}\text{C}$
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)		$5 \pm 15 \%$	Nm
	Terminal connection torque (M6)		$5 \pm 15 \%$	Nm
Weight	typ.		270	g

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")

Symbol	Test Conditions		Characteristic Values		
I_R	$V_R = V_{RRM}^?$	$T_{VJ} = 25^{\circ}\text{C}$	$\leq$	0.3	mA
	$V_R = V_{RRM}^?$	$T_{VJ} = T_{VJM}$	$\leq$	5	mA
V_F	$I_F = 300\text{ A};$	$T_{VJ} = 25^{\circ}\text{C}$	$\leq$	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 ²

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.

20080227a

© 2008 IXYS All rights reserved

1 - 1

