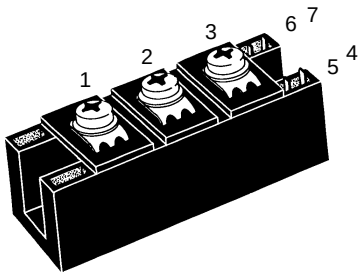
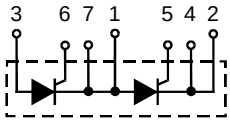
Thyristor Modules
Thyristor/Diode Modules

I_{TRMS} = 2x 300 A
I_{TAVM} = 2x 190 A
V_{RRM} = 800-1800 V

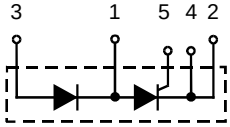
V_{RSM} V_{DSM} V	V_{RRM} V_{DRM} V	Type Version 1	Version 1
900	800	MCC 162-08io1	MCD 162-08io1
1300	1200	MCC 162-12io1	MCD 162-12io1
1500	1400	MCC 162-14io1	MCD 162-14io1
1700	1600	MCC 162-16io1	MCD 162-16io1
1900	1800	MCC 162-18io1	MCD 162-18io1



MCC



MCD



Symbol	Test Conditions		Maximum Ratings	
I_{TRMS}, I_{FRMS}	$T_{VJ} = T_{VJM}$		300	A
I_{TAVM}, I_{FAVM}	T_C = 80°C; 180° sine		190	A
	T_C = 85°C; 180° sine		181	A
I_{TSM}, I_{FSM}	T_{VJ} = 45°C;	t = 10 ms (50 Hz), sine	6000	A
	V_R = 0	t = 8.3 ms (60 Hz), sine	6400	A
	$T_{VJ} = T_{VJM}$	t = 10 ms (50 Hz), sine	5250	A
	V_R = 0	t = 8.3 ms (60 Hz), sine	5600	A
$\int i^2dt$	T_{VJ} = 45°C	t = 10 ms (50 Hz), sine	180 000	A^2s
	V_R = 0	t = 8.3 ms (60 Hz), sine	170 000	A^2s
	$T_{VJ} = T_{VJM}$	t = 10 ms (50 Hz), sine	137 000	A^2s
	V_R = 0	t = 8.3 ms (60 Hz), sine	128 000	A^2s
$(di/dt)_{cr}$	$T_{VJ} = T_{VJM}$	repetitive, I_T = 500 A	150	A/µs
	f =50 Hz, t_P =200 µs			
	V_D = 2/3 V_{DRM}			
	I_G = 0.5 A	non repetitive, I_T = 500 A	500	A/µs
	di_G/dt = 0.5 A/µs			
$(dv/dt)_{cr}$	$T_{VJ} = T_{VJM}$;	V_{DR} = 2/3 V_{DRM}	1000	V/µs
	R_{GK} = ∞; method 1 (linear voltage rise)			
P_{GM}	$T_{VJ} = T_{VJM}$	t_P = 30 µs	120	W
	$I_T = I_{TAVM}$	t_P = 500 µs	60	W
P_{GAV}			8	W
V_{RGM}			10	V
T_{VJ}			-40...+125	°C
T_{VJM}			125	°C
T_{stg}			-40...+125	°C
V_{ISOL}	50/60 Hz, RMS	t = 1 min	3000	V~
	$I_{ISOL} \le$ 1 mA	t = 1 s	3600	V~
M_d	Mounting torque (M6)		2.25-2.75/20-25	Nm/lb.in.
	Terminal connection torque (M6)		4.5-5.5/40-48	Nm/lb.in.
Weight	Typical including screws		125	g

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

Features
- International standard package
- Direct copper bonded Al_2O_3 -ceramic base plate
- Planar passivated chips
- Isolation voltage 3600 V~
- UL registered, E 72873
- Keyed gate/cathode twin pins

Applications
- Motor control
- Power converter
- Heat and temperature control for industrial furnaces and chemical processes
- Lighting control
- Contactless switches

Advantages
- Space and weight savings
- Simple mounting
- Improved temperature and power cycling
- Reduced protection circuits