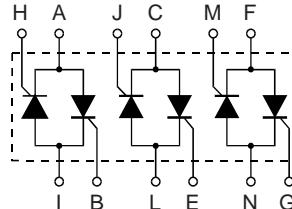


AC Controller Modules

I_{RMS} = 3x 35 A
V_{RRM} = 600-1200 V

Preliminary data

V _{RSM}	V _{RRM}	Type
V _{DSM}	V _{DRM}	
V	V	
700	600	VWO 35-06ho7
900	800	VWO 35-08ho7
1300	1200	VWO 35-12ho7



Symbol	Conditions	Maximum Ratings		
I _{RMS}	T _C = 85°C, (per phase)	35	A	
I _{TAVM}	T _C = 85°C; (180° sine ; per thyristor)	16	A	
I _{TSM}	T _{VJ} = 45°C; V _R = 0	t = 10 ms (50 Hz), sine t = 8.3 ms (60 Hz), sine	200 210	A A
	T _{VJ} = T _{VJM} V _R = 0	t = 10 ms (50 Hz), sine t = 8.3 ms (60 Hz), sine	180 190	A A
I ² t	T _{VJ} = 45°C V _R = 0	t = 10 ms (50 Hz), sine t = 8.3 ms (60 Hz), sine	200 150	A ² s A ² s
	T _{VJ} = T _{VJM} V _R = 0	t = 10 ms (50 Hz), sine t = 8.3 ms (60 Hz), sine	160 150	A ² s A ² s
(di/dt) _{cr}	T _{VJ} = T _{VJM} f = 50Hz, t _p = 200μs V _D = 2/3 V _{DRM} I _G = 0.15 A di _G /dt = 0.15 A/μs	repetitive, I _T = 20 A non repetitive, I _T = I _{TAVM}	100 500	A/μs A/μs
(dv/dt) _{cr}	T _{VJ} = T _{VJM} ; R _{GK} = ∞; method 1 (linear voltage rise)	V _{DR} = 2/3 V _{DRM}	500	V/μs
V _{RGM}			10	V
P _{GM}	T _{VJ} = T _{VJM} I _T = I _{TAVM}	t _p = 30 μs t _p = 300 μs	≤ 5 ≤ 2.5 0.5	W W W
P _{GAVM}			-40...+125	°C
T _{VJ}			125	°C
T _{VJM}			-40...+125	°C
T _{stg}			-40...+125	°C
V _{ISOL}	50/60 Hz, RMS I _{ISOL} ≤ 1 mA	t = 1 min t = 1 s	2500 3000	V~ V~
M _d	Mounting torque (M4)		1.5 - 2 14 - 18	Nm lb.in.
Weight	typ.		18	g

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

Symbol	Conditions	Characteristic Values		
I_D, I_R	$T_{VJ} = T_{VJM}$; $V_R = V_{RRM}$; $V_D = V_{DRM}$	\leq	5	mA
V_T	$I_T = 20 \text{ A}$; $T_{VJ} = 25^\circ\text{C}$	\leq	1.6	V
V_{T0}	For power-loss calculations only		0.85	V
r_T			27	$\text{m}\Omega$
V_{GT}	$V_D = 6 \text{ V}$; $T_{VJ} = 25^\circ\text{C}$	\leq	1.5	V
	$T_{VJ} = -40^\circ\text{C}$	\leq	2.5	V
I_{GT}	$V_D = 6 \text{ V}$; $T_{VJ} = 25^\circ\text{C}$	\leq	25	mA
	$T_{VJ} = -40^\circ\text{C}$	\leq	50	mA
V_{GD}	$T_{VJ} = T_{VJM}$; $V_D = \frac{2}{3} V_{DRM}$	\leq	0.2	V
I_{GD}		\leq	3	mA
I_L	$T_{VJ} = 25^\circ\text{C}$; $t_p = 10 \mu\text{s}$ $I_G = 0.1 \text{ A}$; $di_G/dt = 0.1 \text{ A}/\mu\text{s}$	\leq	75	mA
I_H	$T_{VJ} = 25^\circ\text{C}$; $V_D = 6 \text{ V}$; $R_{GK} = \infty$	\leq	50	mA
t_{gd}	$T_{VJ} = 25^\circ\text{C}$; $V_D = \frac{1}{2} V_{DRM}$ $I_G = 0.1 \text{ A}$; $di_G/dt = 0.1 \text{ A}/\mu\text{s}$	\leq	2	μs
R_{thJC}	per thyristor; DC		1.3	K/W
	per module		0.22	K/W
R_{thJK}	per thyristor; DC		1.8	K/W
	per module		0.3	K/W
d_s	Creeping distance on surface		11.2	mm
d_A	Creepage distance in air		5.0	mm
a	Max. allowable acceleration		50	m/s^2

Dimensions in mm (1 mm = 0.0394")

