

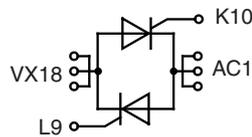
# AC Controller Modules

ECO-PAC 2

Preliminary Data

**$I_{RMS} = 230\text{ A}$**   
 **$I_{TAVM} = 105\text{ A}$**   
 **$V_{RRM} = 1200/1600\text{ V}$**

$V_{RSM}$	$V_{RRM}$	Typ
$V_{DSM}$ V	$V_{DRM}$ V	
1300	1200	MMO 230-12io7
1700	1600	MMO 230-16io7



Symbol	Conditions	Maximum Ratings	
$I_{RMS}$	$T_C = 85^\circ\text{C}$ ; 50-400 Hz (per single controller)	230	A
$I_{TRMS}$		180	A
$I_{TAVM}$	$T_C = 85^\circ\text{C}$ ; 180° sine	105	A
$I_{TSM}$	$T_{VJ} = 45^\circ\text{C}$ ; $t = 10\text{ ms}$ (50 Hz)	2250	A
	$V_R = 0$ ; $t = 8.3\text{ ms}$ (60 Hz)	2400	A
	$T_{VJ} = 125^\circ\text{C}$ ; $t = 10\text{ ms}$ (50 Hz)	2000	A
	$V_R = 0$ ; $t = 8.3\text{ ms}$ (60 Hz)	2150	A
$I^2t$	$T_{VJ} = 45^\circ\text{C}$ ; $t = 10\text{ ms}$ (50 Hz)	25 300	A <sup>2</sup> s
	$V_R = 0$ ; $t = 8.3\text{ ms}$ (60 Hz)	23 900	A <sup>2</sup> s
	$T_{VJ} = 125^\circ\text{C}$ ; $t = 10\text{ ms}$ (50 Hz)	20 000	A <sup>2</sup> s
	$V_R = 0$ ; $t = 8.3\text{ ms}$ (60 Hz)	19 100	A <sup>2</sup> s
$(di/dt)_{cr}$	$T_{VJ} = 125^\circ\text{C}$ ; $f = 50\text{ Hz}$ ; $t_p = 200\text{ }\mu\text{s}$ ; repetitive, $I_T = 250\text{ A}$	150	A/ $\mu\text{s}$
	$V_D = \frac{2}{3} V_{DRM}$ ; $I_G = 0.45\text{ A}$ ; $di_G/dt = 0.45\text{ A}/\mu\text{s}$ ; non repetitive, $I_T = I_{TAVM}$	500	A/ $\mu\text{s}$
$(dv/dt)_{cr}$	$T_{VJ} = 125^\circ\text{C}$ ; $V_D = \frac{2}{3} V_{DRM}$ ; $R_{GK} = \infty$ ; method 1 (linear voltage rise)	1000	V/ $\mu\text{s}$
$P_{GM}$	$T_{VJ} = 125^\circ\text{C}$ ; $t_p = 30\text{ ms}$	$\leq 10$	W
	$I_T = I_{T(AV)M}$ ; $t_p = 300\text{ ms}$	$\leq 5$	W
$P_{GAVM}$		0.5	W
$V_{RGM}$		10	V
$T_{VJ}$		-40...+125	°C
$T_{VJM}$	for 10 sec.	125	°C
$T_{stg}$		-40...+125	°C
$V_{ISOL}$	50/60 Hz, RMS; $t = 1\text{ min}$	3000	V~
	$I_{ISOL} \leq 1\text{ mA}$ ; $t = 1\text{ s}$	3600	V~
$M_d$	Mounting torque (M4)	1.5 - 2.0	Nm
		14 - 18	lb.in.
Weight	Typical including screws	26	g

Data according to IEC 60747 and refer to a single diode unless otherwise stated.

## Features

- Thyristor controller for AC (circuit W1C acc. to IEC) for mains frequency
- Isolation voltage 3000 V~
- Planar glass passivated chips
- Low forward voltage drop
- Leads suitable for PC board soldering

## Applications

- Switching and control of single and three phase AC circuits
- Light and temperature control
- Softstart AC motor controller
- Solid state switches

## Advantages

- Easy to mount with two screws
- Space and weight savings
- Improved temperature and power cycling
- High power density
- Small and light weight



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