

THYRISTOR-THYRISTOR MODULES

M8-160-12, M8-200-12; M8-250-12

DATASHEET IN BRIEF

The thyristor module of two back-to-back thyristors with isolated control is intended for switching of powerful AC loads.

OVERALL DRAWING AND INTERNAL CONNECTION CIRCUIT

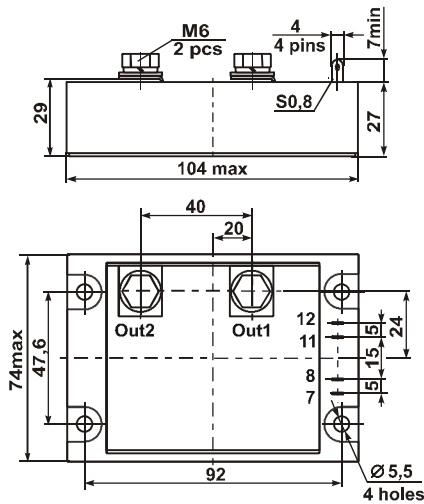


Figure 1 – overall drawing of M8-160-12

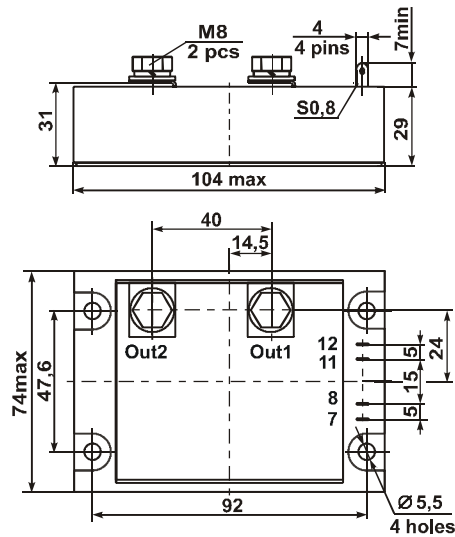


Figure 2 - overall drawing of M8-200-12, M8-250-12

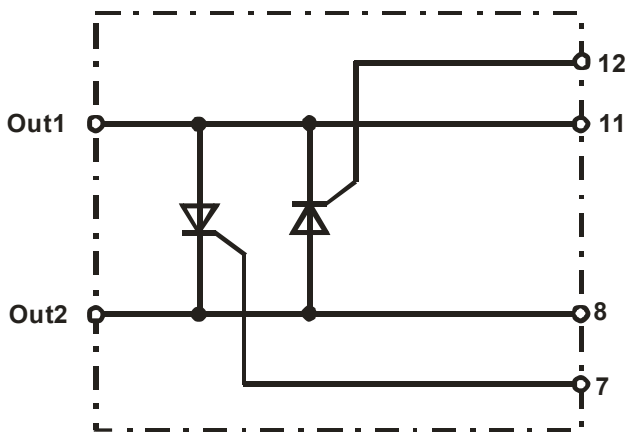


Figure 3 Circuit of internal connection

BASIC CHARACTERISTICS

T = 25 °C

Product name	Pulse on-state voltage, U_{TM} , V		Repetitive peak blocking state current, I_{DRM} , mA		Repetitive peak reverse thyristor current, I_{RRM} , mA		Gate trigger direct voltage, U_{GT} , V	Gate trigger DC I_{GT} , mA	Electric isolation strength at DC through radiator and power outputs, U_{ISOL} , V		Gate non-trigger direct voltage, U_{GD} , (V) $T_j = 125^\circ\text{C}$	Thermal junction-cooler resistance, $R_{th(j-c)}$, ($^\circ\text{C}/\text{W}$)
	max	$I_{T(AV)}$, A amplit. value	max	U_{DRM} , V	max	U_{RRM} , V	max	max	min	t, minute	min	max
M8-160-12	1.65	$\pi \cdot I_{T(AV)}$, 10 ms, 50 Hz, sinus	1.0	± 1200	1.0	± 1200	3.0	200	4000	1	0.25	0.180
M8-200-12												0.175
M8-250-12												0.169

MAXIMUM ALLOWABLE OPERATING MODES

Product name	Repetitive thyristor pulse reverse voltage/ off-state, U_{RRM} / U_{DRM} , V	Average on-state current with cooler $I_{T(AV)}$, A, $T=85\text{ }^{\circ}\text{C}$	Commutation voltage, U_{com} , V	Surge on-state current, I_{TSM} , A		Critical rate of rise of off-state voltage, $(du_d / dt)_{cr}$, V/ μ s	Critical rate of rise of on-state current, $(di_T / dt)_{cr}$, A/ μ s	Junction temperature, T_{VJ}^* , $^{\circ}\text{C}$	
					t, ms			min	max
M8-160-12	± 1200	160	840	4000	10	1000	100	- 40	+125
M8-200-12		200		5000					
M8-250-12		250		6000					
	max	max	max	max		max	max		

* the modules are designed to operate in equipment with using of coolers that support transition temperature in the prescribed ranges

Precious metals are not contained.

CONTENT OF NON-FERROUS AND PRECIOUS METALS

The product contains the precious metals: Copper..... g
 Brass... .. g

5 Naugorskoe shosse, Orel, 302020, Russia Tel. +7(4862) 44-03-44, Fax +7(4862) 47-02-12

E-mail: mail@electrum-av.com