

THYRISTOR-THYRISTOR MODULES M8-160-16, M8-200-16; M8-250-16 USER'S MANUAL 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

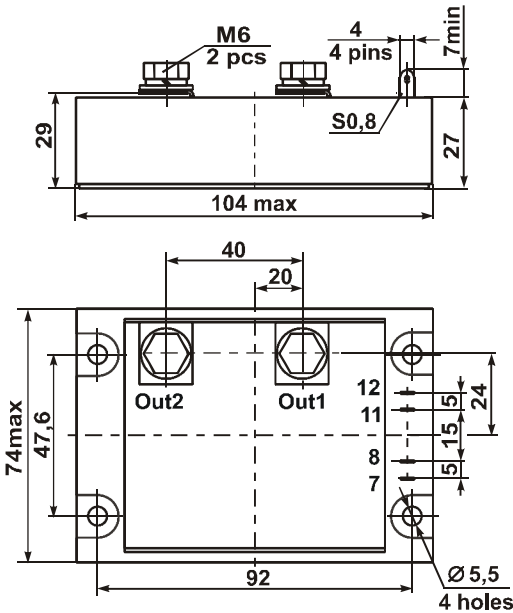


Figure1 – Overall drawing M8-160-16

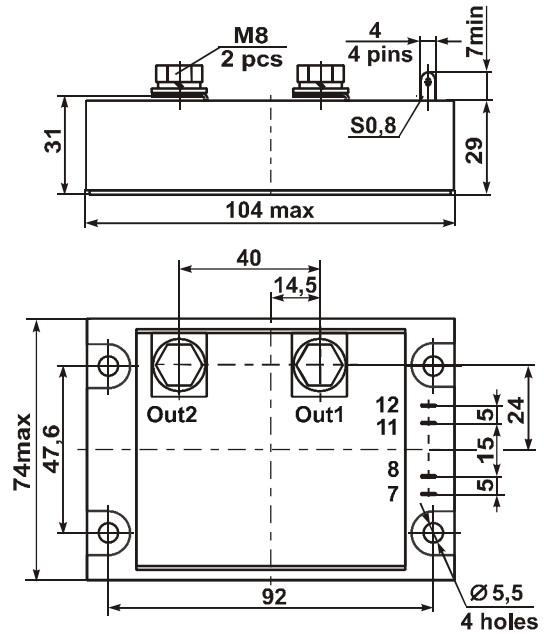


Figure 2 - Overall drawing M8-200-16, M8-250-16

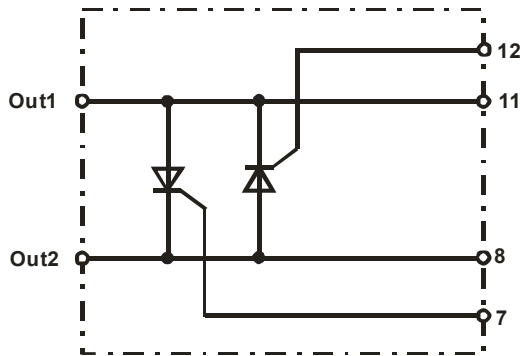


Figure 3 – Circuit of internal module connection

BASIC CHARACTERISTICS

T = 25 °C

Product name	Pulse on-state voltage, U_{TM} , V		Repetitive peak off-state current, I_{DRM} , mA		Repetitive peak reverse thyristor current, I_{RRM} , mA		Gate trigger DC voltage, U_{GT} , V	Gate trigger DC I_{GT} , mA	Electric isolation strength at DC between radiator and power outputs, U_{ISOL} , V		Gate non-trigger DC 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			min	t, minute		
M8-160-16	1.65	$\pi \cdot I_{T(AV)}$, 10 ms, 50 Hz, sinus	1.0	± 1600	1.0	± 1600	3.0	200	4000	1	0.25	0.180
M8-200-16												0.175
M8-250-16												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
	max	max	max	max		max	max	min	max
M8-160-16	± 1600	160	1150	4000	10	1000	100	- 40	+125
M8-200-16		200		5000					
M8-250-16		250		6000					

* 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.

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