

## THREE-PHASE THYRISTOR-DIODE BRIDGE MODULE M23-63-12; M23-100-12; M23-160-12; M23-200-12; M23-250-12

### DATASHEET IN BRIEF

A module of three-phase diode-thyristor bridge with control by three thyristors connected to "positive" output, is intended for rectifying (converting of AC into pulsating DC voltage).

### OVERALL DRAWING AND MODULE CIRCUIT

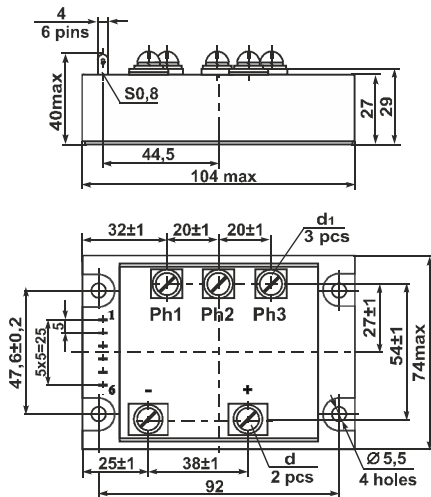


Figure 1

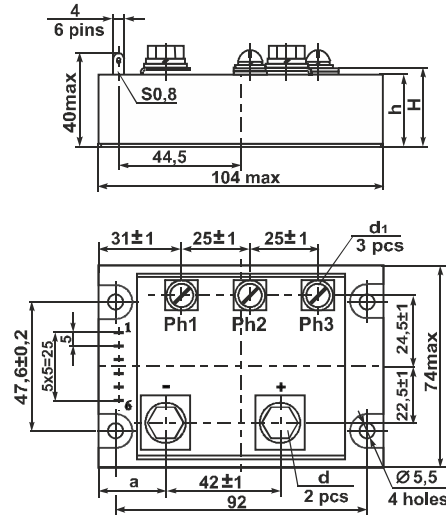
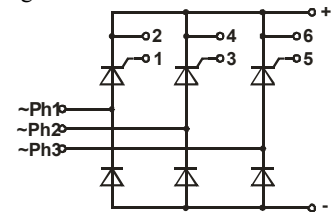


Figure 2

Product description	Fig.	d	d <sub>1</sub>	a, mm	h, mm	H, mm
M23-63-12	1	screw M5	screw M5	-	-	-
M23-100-12	2	screw M6	screw M5	24±1	27	29
M23-160-12	2	screw M6	screw M5	24±1	27	29
M23-200-12	2	bolt M8	screw M6	26±1	29	31
M23-250-12	2	bolt M8	screw M6	26±1	29	31



### BASIC CHARACTERISTICS

T<sub>a</sub> = 25 °C

Product name	Pulse voltage: on-state thyristor/direct diode, U <sub>TM</sub> /U <sub>FM</sub> , V		Blocking state current /rectifier inverse current, I <sub>D</sub> /I <sub>R</sub> , mA		Thyristor gate trigger DC voltage, U <sub>GT</sub> , V	Thyristor gate trigger DC, I <sub>GT</sub> , mA	Electric isolation strength at DC between radiator and outputs, U <sub>ISOL</sub> , V		Thyristor non-trigger DC voltage, U <sub>GD</sub> , V T <sub>j</sub> = 125 °C	Thermal junction-radiator resistance R <sub>th(j-c)</sub> , °C/W	
	max	I <sub>O</sub> , A, amplit. value	max	U <sub>O</sub> , V			min	t, minute		thyristor	diode
M23-63-12	1.65	$\frac{\pi}{3} \cdot I_O$	2.0	± 1200	3.0	200	4000	1	0.25	1.00	1.3
M23-100-12										0.50	0.6
M23-160-12										0.35	0.4
M23-200-12										0.20	0.3
M23-250-12										0.15	0.2

### MAXIMUM ALLOWABLE OPERATING MODES

Product name	Thyristor repetitive/non-repetitive pulse blocking state voltage, U <sub>RRM</sub> /U <sub>DRM</sub> , V	Average rectified current, I <sub>O</sub> , A T <sub>rad</sub> =85 °C	Linear voltage (rms.), U <sub>lin</sub> , V	Non-repetitive surge DC, I <sub>TSM</sub> , A		Critical rate of rise of reverse voltage, (du <sub>R</sub> /dt) <sub>cr</sub> , V/μs	DC critical rate of rise, (di <sub>T</sub> /dt) <sub>cr</sub> , A/μs	Junction temperature T <sub>VJ</sub> *, °C	
				max	t, ms			min	max
M23-63-12	± 1200	63	840	300	10	1000	150	- 40	+125
M23-100-12		100		600					
M23-160-12		160		1200					
M23-200-12		200		1400					
M23-250-12		250		1600					

\*the modules are designed for operating in the equipment with using of coolers that support transition temperature in the prescribed ranges

Precious metals are not contained