

SINGLE-PHASE THYRISTOR BRIDGE MODULE

M22-100-12; M22-160-12
DATASHEET IN BRIEF

Single-phase thyristor bridge module with control of four thyristors, connected to “positive” and “negative” outputs, is intended for rectifying (converting of AC into pulsating direct voltage).

OVERALL DRAWING AND ELECTRIC CIRCUIT

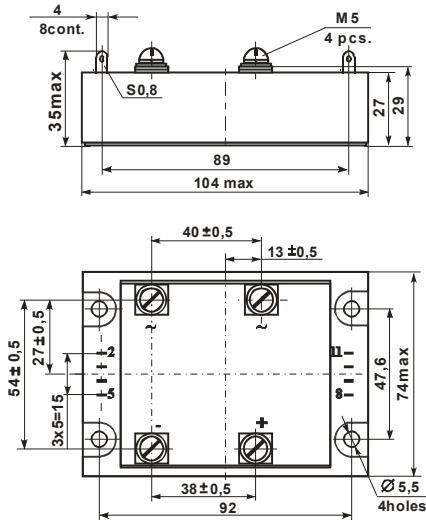


Figure 1

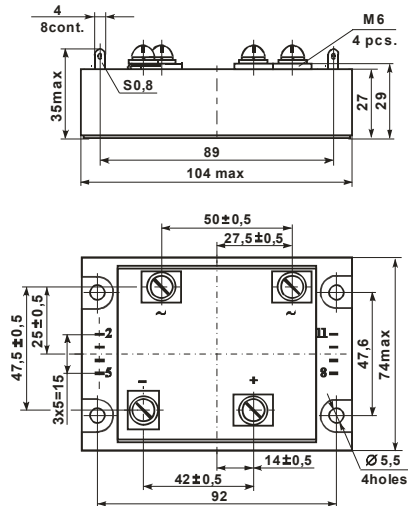
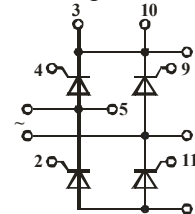


Figure 2

Product description	Figure
M22-100-12	1
M22-160-12	2



BASIC CHARACTERISTICS

T = 25 °C

Product name	Pulse voltage in thyristor on-state, U _{TM} , V		Current in thyristor off-state/rectifier reverse current, I _D /I _R , mA		Thyristor hold-on current, I _H , mA	Thyristor turn-on current, I _b , mA	Thyristor gate trigger DC voltage, U _{GT} , V	Thyristor gate trigger DC, I _{GT} , mA	Electric isolation strength at DC between radiator and outputs, U _{ISOL} , V		Thyristor non-trigger DC voltage, U _{GD} , V T _j = 125 °C		Thermal junction to radiator resistance R _{th(j-c)} , °C/W	
	max	I _O , A ampl. value	max	U _O , V	max	max	max	max	min	t, minute	max	thyristor	diode	
M22-100-12	1.65	$\frac{\pi}{2} \cdot I_O$, 10 ms, 50 Hz, sinus	1.5	± 1200	200	400	3.0	200	4000	1	0.25	0.50	0.60	
M22-160-12												0.35	0.40	

MAXIMUM ALLOWABLE OPERATING MODES

Product name	Pulse non-repetitive voltage in thyristor off-state, U _{DSM} , V	Pulse repetitive voltage in thyristor off-state, U _{DRM} , V	Average rectified current, I _O , A T _r =75 °C	Linear voltage (rms), U _{lin} , V	Non-repetitive surge DC, I _{TSM} I _{FSM} , A		Maximum switching frequency, f _{com} , kHz	Critical rate of rise of reverse voltage, (du _R / dt) _{cr} , V/μs	DC critical rate of rise, (di _T / dt) _{cr} , A/μs	Junction temperature T _{VJ} *, °C	
	max	max	max	max	max	t, ms				min	max
M22-100-12	± 1300	± 1200	100	840	600	10	3	1000	150	- 40	+125
M22-160-12			160		1200						

* 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.

E-mail: mail@electrum-av.com