

**SINGLE-PHASE OPTOTHYRISTOR BRIDGE MODULE**
**MO22-63-16; MO22-100-16; MO22-160-16; MO22A-63-16; MO22A-100-16; MO22A-160-16**
**TICKET**

Single-phase thyristor-diode bridge module with opto decoupling with thyristors control connected to “positive” and “negative” outputs is intended for rectifying conversion of AC into pulsating DC voltage).

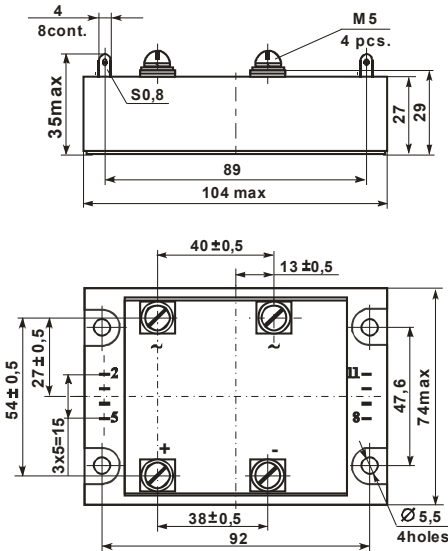
**OVERALL DRAWING AND ELECTRIC CIRCUIT**


Figure 1

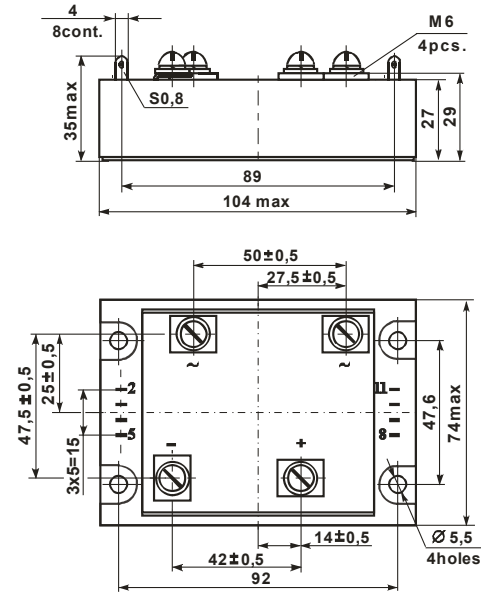
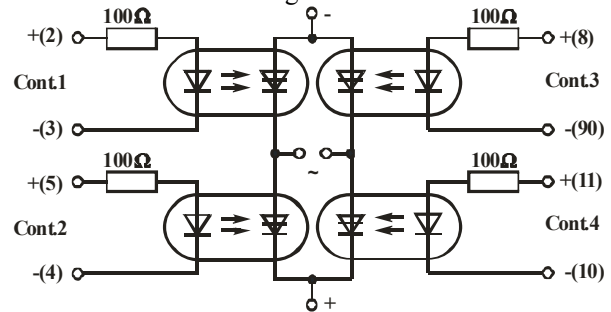


Figure 2

| Product description       | Figure |
|---------------------------|--------|
| MO22-63-16; MO22A-63-16   | 1      |
| MO22-100-16; MO22A-100-16 | 1      |
| MO22-160-16; MO22A-160-16 | 2      |


**BASIC CHARACTERISTICS**

T = 25 °C

| Product name                | Peak voltage in thyristor on-state / direct diode peak voltage, $U_{TM} / U_{FM}$ , V |               | Bridge port current (closed state), $I_D$ , mA |               | Open state voltage on control $U_{Gon}$ , V |     |                | Electric isolation at DC, $U_{ISOL}$ , V | Isolation resistance between: power outputs and controlling outputs/ power outputs and radiator, $R_{ISOL}$ , MΩ | Thermal resistance transition-housing radiator $R_{thic}$ , °C/W |
|-----------------------------|---|---------------|--|---------------|---|-----|----------------|--|--|--|
|                             | max   | $I_{OUT}$ , A | max  | $U_{OUT}$ , V | min   | max | $I_{Gon}$ , mA |  |  |  |
| MO22-63-16<br>MO22A-63-16   | 1.65  | 63            | ± 1.5  | ± 1600        | 3.0   | 4.2 | 10             | 4000                                     | 100 / 10   | max  |
| MO22-100-16<br>MO22A-100-16 |   | 100           |  |               |   |     |                |  |  | 0.50   |
| MO22-160-16<br>MO22A-160-16 |   | 160           |  |               |   |     |                |  |  | 0.35   |

**MAXIMUM ALLOWABLE OPERATING MODES**

| Product name | Linear voltage (rms),<br>U <sub>lin</sub> ,<br>V |      | Average rectified module current,<br>I <sub>o</sub> ,<br>A |     | Non-repetitive surge DC<br>I <sub>F(SM)</sub> I <sub>T(SM)</sub> ,<br>A |          | Control current<br>I <sub>G</sub> ,<br>mA |     | Critical rate of rise                                     |  | Junction temperature,<br>T <sub>VJ</sub> *,<br>°C |      |
|--------------|--|------|--|-----|---|----------|---|-----|---|--|---|------|
|              |  |      |  |     |   |          |   |     | open state current,<br>(di <sub>T</sub> / dt) cr,<br>A/μs | closed state voltage,<br>(du <sub>d</sub> / dt)cr,<br>V/μs |   |      |
|              | min  | max  | min  | max | max   | t,<br>ms | min                                       | max |   |  | min   | max  |
| MO22-63-16   | 50   | 1150 | 0.2  | 63  | 300   | 10       | 10  | 30  | 150   | 1000   | -40   | +125 |
| MO22A-63-16  | 12   |      |  |     |   |          |   |     |   |  |   |      |
| MO22-100-16  | 50   |      |  |     |   |          |   |     |   |  |   |      |
| MO22A-100-16 | 12   |      |  |     |   |          |   |     |   |  |   |      |
| MO22-160-16  | 50   |      |  |     |   |          |   |     |   |  |   |      |
| MO22A-160-16 | 12   |      |  | 160 | 1200  |          |   |     |   |  |   |      |

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

Precious metals are not contained

5 Naugorskoe highway, Orel, 302020, Russia  
 Tel. +7(4862) 44-03-44, Fax +7(4862) 47-02-12, E-mail: [mail@electrum-av.com](mailto:mail@electrum-av.com)