

Bremas Ersce SpA

Via castellazzo 9 - 20040 Cambiago (MI)

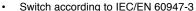
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www.bremas.eu info@bremas.it

ISO 9001 Certified Quality System

## Cod. CR012MZ23RT4

# Standard and Approvals





- Suitable as Manual Motor Controller
- CCC certified







# Technical characteristics: Body

IP20 Protection degree

Rated operational current le: 12A

Rated thermal current Ith: 16A

Rated insulation voltage Ui: 690V

Panel Mounting

· Fixing with 2 vertical screws at 28mm

Switching angle: 45°

Class V2 self-extinguishing thermoplastic housing

 Assembled with metal shaft and threaded stud bolts to ensure maximum operating reliability

 Positive opening double break contacts, made of silver and alloy

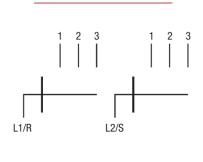


#### Technical characteristics: Plate and knob

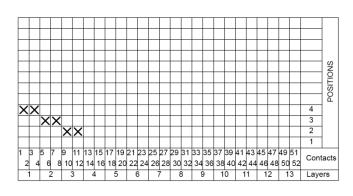
- Grey plate 48x48mm and black knob
- IP66 Protection degree
- Fixing with 2 vertical screws at 28mm



# Electrical scheme



### Electrical function





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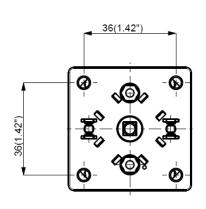
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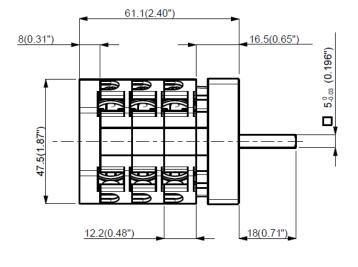
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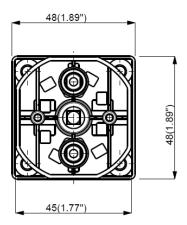
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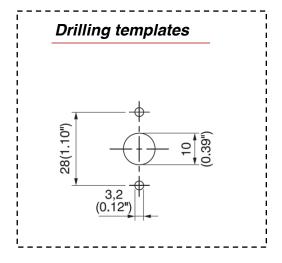
#### measures in mm (in)

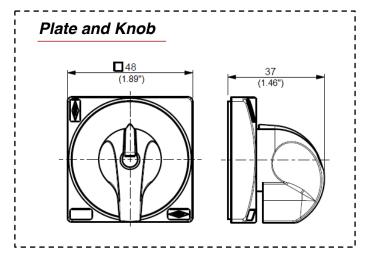
#### **Dimensions**













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| Technical data IEC 947-3 EN 60947-3   |                     |              |                          |              |
|---|---------------------|--------------|--------------------------|--------------|
| Rated insulation voltage  |                     | Ui           | V                        | 690          |
| Rated operating voltage   |                     | Ue           | V                        | 690          |
| Rated impulse withstand voltage   |                     | Uimp         | kV                       | 6            |
| Rated thermal current for open switch   |                     | Ith          | A                        | 16           |
| Rated thermal current for enclosed switch   |                     | Ithe         | A                        | 16           |
| Rated operation frequency   |                     | Tene         | Hz                       | 50/60        |
| Power dissipation for each pole   |                     |              | W                        | 0,27         |
| Rated operating current   |                     |              |                          | 0,27         |
| AC-21A Switching resistive loads, including moderate overloads                                      |                     | le           | A                        | 12           |
| AC-22A Switching of mixed resistive and inductive loads, including moderate overloads               |                     | le           | A                        | 12           |
| AC-20A Connecting and disconnecting under no loads conditions                                       |                     |              |                          | -            |
| Rated operating power   |                     |              |                          |              |
| AC-23A Switching of motor loads or other highly inductive loads 3 phase - 3 pole                    |                     | 230V         | Kw (A)                   | 3 (9)        |
| AC-23A Switching of motor loads or other highly inductive loads 1 phase - 2 pole                    |                     | 400V         | Kw (A)                   | 4 (9)        |
|   |                     | 500V         | Kw (A)                   | - (5)        |
|   |                     | 690V         | Kw (A)                   | -            |
|   |                     | 110V         | Kw (A)                   | 0,75 (8,5)   |
| AC-23A Switching of motor loads of other highly inductive loads 1 phase - 2 pole                    |                     | 230V         | Kw (A)                   | 1,5 (8,5)    |
| AC 2 Squirrol cago motors: starting switishing off motors during running 2 phase. 2 pole            |                     | 230V         |                          |              |
| AC-3 Squirrel cage motors: starting, swtiching off motors during running 3 phase - 3 pole           |                     | 400V         | Kw (A)<br>Kw (A)         | 2,2 (7)      |
|   |                     | 500V         |                          | 3,5 (7)      |
|   |                     | 690V         | Kw (A)                   | -            |
| AC-3 Squirrel cage motors: starting, swtiching off motors during running 1 phase - 2 pole           |                     | 110V         | KW (A)                   | 0,37 (4)     |
| no 3 Squarrer cage motors, starting, swatching on motors during running 1 phase - 2 pole            |                     | 230V         | Kw (A)                   | 1,1 (6)      |
|   |                     | 400V         | Kw (A)                   |              |
| AC 4 Squirred cope metars starting pluggies inching   |                     |              |                          | -            |
| AC-4 Squirrel cage motors: starting, pluggign, inching  |                     | 230V<br>400V | Kw (A)<br>Kw (A)         |              |
| 10.150  |                     |              |                          |              |
| AC-15 Control of a.c electromagnetic loads  |                     | 230V         | A                        | 3            |
| Debad beselves associate in AC 22A / a 0.45   |                     | 400V         | Α                        |              |
| Rated breaking capability in AC-23A (cos φ=0,45)  |                     | 230V<br>400V | A<br>A                   | 72<br>72     |
| Short circuit protection  |                     | 4000         | A                        | /2           |
| ·   |                     | 1            | •                        | 450          |
| Rated short time withstand current  |                     | lcw          | Α                        | 150          |
| Rated short-circuit make capacity   |                     | lcm          | A                        |              |
| Rated conditional short-circuit current   |                     |              | kA .                     | 4            |
| With fuses class gG   |                     | 500V         | A                        | 16           |
| Technical data UL/CSA   |                     |              | /054.1/                  | 500/         |
| Rated operating voltage   |                     | Ue           | UL/CSA V                 | 600/ -       |
| General use current   |                     | le           | UL/CSA A                 | 12           |
| Short circuit rating @600Vac  |                     |              | Arms                     | 5000         |
| Fuse size (Class RK5, 600Vac, 200kA A.I.C.)   |                     |              | A                        | 60           |
| Rated operating power   |                     |              |                          | 0 = /= =:    |
| 1 phase - 2 pole  |                     | 120V         | Hp (A)                   | 0,5 (9,8)    |
|   |                     | 240V         | Hp (A)                   | 1,5 (10)     |
| 3 phase - 3 pole  |                     | 200V         | Hp (A)                   | 1,5 (6,9)    |
|   |                     | 240V         | Hp (A)                   | 2 (6,8)      |
|   |                     | 480V         | Hp (A)                   | 3 (4,8)      |
|   |                     | 600V         | Hp (A)                   | 5 (6,1)      |
| Mechanical characteristics  |                     |              |                          |              |
| Panel tickness  |                     | Max          | mm                       | 4            |
| Mechanical life   |                     |              | Cycles x 10 <sup>6</sup> | 2            |
|   |                     |              | Cycles/hr                | 120          |
| Connection according to IEC 9471-1 and EN 50947-1   |                     |              |                          |              |
| Connecting capability   | With flexible wires | Min-Max      | mm²                      | 2x1,5-4      |
|   |                     | Min-Max      | AWG                      | 16-10        |
|   | With solid wires    | Min-Max      | mm²                      | 2x1,5-6      |
| Connection terminal screw dimensions  |                     |              | Туре                     | M3,5         |
| Screw tightening torque   |                     |              | Nm                       | 1            |
| Protection degree IEC 529 EN 60529  |                     |              |                          |              |
| Terminals   |                     |              | IP                       | 20           |
| Ambient conditions  |                     |              |                          |              |
| Operating ambient temperature   |                     |              | °C                       | -25 ÷ +55    |
| Storage ambient temprature  |                     |              | °C                       | -30 ÷ +70    |
| <u> </u>  |                     |              |                          |              |
| Withstand to constant humid according to IEC 60068  |                     |              |                          | 2-78         |
| Withstand to constant humid according to IEC 60068 Withstand to cyclic humid according to IEC 60068 |                     |              |                          | 2-78<br>2-30 |

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