

|                                                           |          |    |     |                                                                          |
|-----------------------------------------------------------|----------|----|-----|--------------------------------------------------------------------------|
| Product designation                                       |          |    |     | Rotary cam switches                                                      |
| Product type designation                                  |          |    |     | 7GN20                                                                    |
| <b>General characteristics</b>                            |          |    |     |                                                                          |
| Switching diagram                                         |          |    |     | 66 - Voltmeter switch for phase-neutral and phase-phase voltages         |
| N° of elements                                            |          |    |     | 3                                                                        |
| Mounting form                                             |          |    |     | O48 - Modular service cover for 35mm din rail mounting with black handle |
| <b>Contact characteristics</b>                            |          |    |     |                                                                          |
| Rated insulation voltage $U_i$                            | IEC/EN   | V  | 690 |                                                                          |
|                                                           | UL/CSA   | V  | 600 |                                                                          |
| Rated impulse withstand voltage $U_{imp}$                 |          | kV | 6   |                                                                          |
| Conventional free air thermal current $I_{th}$            | IEC/EN   | A  | 20  |                                                                          |
|                                                           | UL/CSA   | A  | 20  |                                                                          |
| Rated operational voltage                                 |          | V  | 480 |                                                                          |
| Rated operational impulse voltage                         |          | kV | 4   |                                                                          |
| Maximum fuse size for short-circuit protection $I_n$ (gG) | 10kA     | A  | 20  |                                                                          |
|                                                           | 15kA     | A  | 16  |                                                                          |
|                                                           | 25kA     | A  | 16  |                                                                          |
| Rated short time current $I_{cw}$                         | 1s       | A  | 250 |                                                                          |
| Conductivity                                              |          |    |     | 10/5 mA/V                                                                |
| Operational current $I_e$ IEC/EN                          |          |    |     |                                                                          |
| AC1/AC21A                                                 |          | A  | 20  |                                                                          |
| AC15                                                      | 110V     | A  | 10  |                                                                          |
|                                                           | 220/230V | A  | 8   |                                                                          |
|                                                           | 380/400V | A  | 6   |                                                                          |
|                                                           | 660/690V | A  | 1.5 |                                                                          |
| Rated operational power in AC                             |          |    |     |                                                                          |
| Three-phase AC-3                                          | 220/230V | kW | 3   |                                                                          |
|                                                           | 380/440V | kW | 5.5 |                                                                          |
|                                                           | 500/690V | kW | 5.5 |                                                                          |
| Single-phase AC-3                                         | 110V     | kW | 0.8 |                                                                          |
|                                                           | 220/230V | kW | 2.2 |                                                                          |
|                                                           | 380/440V | kW | 3   |                                                                          |
| Three-phase AC23A                                         | 220/230V | kW | 5   |                                                                          |
|                                                           | 380/440V | kW | 7.5 |                                                                          |
|                                                           | 500/690V | kW | 7.5 |                                                                          |
| Single-phase AC23A                                        |          |    |     |                                                                          |

|                                        |          |                 |                   |
|----------------------------------------|----------|-----------------|-------------------|
|                                        | 110V     | kW              | 0.8               |
|                                        | 220/230V | kW              | 2.5               |
|                                        | 380/440V | kW              | 3.7               |
| <hr/>                                  |          |                 |                   |
| Rated operational current in DC        |          |                 |                   |
| DC21A                                  |          |                 |                   |
|                                        | 48V      | A               | 20                |
|                                        | 60V      | A               | 20                |
|                                        | 110V     | A               | 4                 |
|                                        | 220V     | A               | 0.6               |
|                                        | 440V     | A               | 0.25              |
| <hr/>                                  |          |                 |                   |
| DC23A (poles in series)                |          |                 |                   |
|                                        | 24V      | A               | 20 (1)            |
|                                        | 48V      | A               | 20 (2)            |
|                                        | 60V      | A               | 20 (3)            |
|                                        | 110V     | A               | 10 (3)            |
|                                        | 220V     | A               | 8 (4)             |
| <hr/>                                  |          |                 |                   |
| DC13                                   |          |                 |                   |
|                                        | 24V      | A               | 20                |
|                                        | 48V      | A               | 16                |
|                                        | 60V      | A               | 12                |
|                                        | 110V     | A               | 1                 |
|                                        | 220V     | A               | 0.4               |
|                                        | 440V     | A               | 0.15              |
| <hr/>                                  |          |                 |                   |
| Power dissipation                      |          | W               | 0.8               |
| <b>Mechanical features</b>             |          |                 |                   |
| Terminals screw                        |          |                 | M3                |
| Tightening torque for terminals max    |          | Nm              | 0.5               |
| <hr/>                                  |          |                 |                   |
| Conductor size                         |          |                 |                   |
| AWG - Rigid cable                      |          |                 |                   |
|                                        | min      | AWG             | 20                |
|                                        | Max      | AWG             | 12                |
| <hr/>                                  |          |                 |                   |
| AWG - Flexible cable                   |          |                 |                   |
|                                        | min      | AWG             | 20                |
|                                        | Max      | AWG             | 14                |
| <hr/>                                  |          |                 |                   |
| Conductor size (IEC) - Flexible cable  |          |                 |                   |
|                                        | min      | mm <sup>2</sup> | 0.5               |
|                                        | Max      | mm <sup>2</sup> | 2.5               |
| <hr/>                                  |          |                 |                   |
| Conductor size (IEC) - Rigid cable     |          |                 |                   |
|                                        | min      | mm <sup>2</sup> | 0.5               |
|                                        | Max      | mm <sup>2</sup> | 2.5               |
| <hr/>                                  |          |                 |                   |
| Mechanical life                        |          | cycles          | 5x10 <sup>6</sup> |
| <b>UL technical data</b>               |          |                 |                   |
| Motor power for direct-on-line control |          |                 |                   |
| for three-phase motor                  |          |                 |                   |
|                                        | 120V     | HP              | 1.5               |
|                                        | 240V     | HP              | 3                 |
|                                        | 480V     | HP              | 7.5               |
|                                        | 600V     | HP              | 10                |
| <hr/>                                  |          |                 |                   |
| for single-phase motor                 |          |                 |                   |
|                                        | 120V     | HP              | 0.75              |
|                                        | 240V     | HP              | 2                 |

**Ambient conditions**

Temperature

Operating temperature

|     |    |     |
|-----|----|-----|
| min | °C | -25 |
| max | °C | +55 |

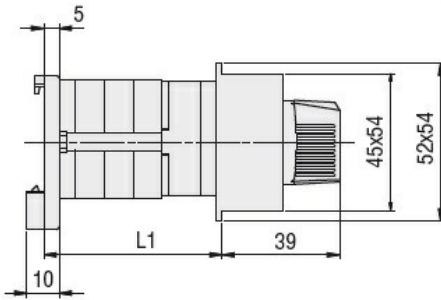
Storage temperature

|     |    |     |
|-----|----|-----|
| min | °C | -40 |
| max | °C | +70 |

**Resistance & Protection**

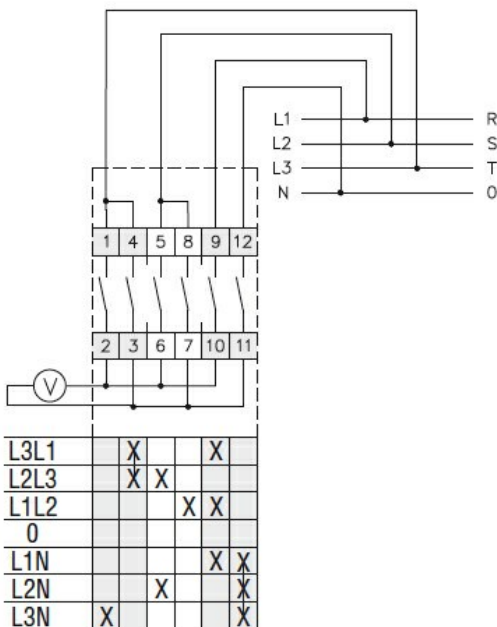
|                     |      |
|---------------------|------|
| Frontal IP degree   | IP40 |
| Terminals IP degree | IP00 |

**Dimensions**



| Series       | L1   |      |      |
|--------------|------|------|------|
|              | 1    | 2    | 3    |
| <b>7GN12</b> | 38.1 | 47.8 | 57.5 |
| <b>7GN20</b> | 38.1 | 47.8 | 57.5 |
| <b>7GN25</b> | 42.5 | 56.1 | 69.7 |

**Wiring diagrams**



**Certifications and compliance**

Compliance

- CSA C22.2 n° 14
- IEC/EN/BS 60947-1
- IEC/EN/BS 60947-3
- IEC/EN/BS 60947-5-1
- UL60947-4-1

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Certificates

cCSAus

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EAC

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UL

**ETIM classification**

ETIM 8.0

EC001029 -  
Selector switch,  
complete