

|                                                        |                                                                          |                  |                     |
|--------------------------------------------------------|--------------------------------------------------------------------------|------------------|---------------------|
| Product designation                                    | Rotary cam switches                                                      |                  |                     |
| Product type designation                               | 7GN12                                                                    |                  |                     |
| General characteristics                                |                                                                          |                  |                     |
| Switching diagram                                      | 110 - Multi-step<br>0-1-2-3-4-5 1 pole                                   |                  |                     |
| N° of elements                                         | 3                                                                        |                  |                     |
| Mounting form                                          | O48 - Modular service cover for 35mm din rail mounting with black handle |                  |                     |
| Contact characteristics                                |                                                                          |                  |                     |
| Rated insulation voltage Ui                            | IEC/EN<br>UL/CSA                                                         | V<br>V           | 690<br>600          |
| Rated impulse withstand voltage Uimp                   |                                                                          | kV               | 6                   |
| Conventional free air thermal current Ith              | IEC/EN<br>UL/CSA                                                         | A<br>A           | 16<br>15            |
| Rated operational voltage                              |                                                                          | V                | 480                 |
| Rated operational impulse voltage                      |                                                                          | kV               | 4                   |
| Maximum fuse size for short-circuit protection In (gG) | 10kA<br>15kA<br>25kA                                                     | A<br>A<br>A      | 16<br>10<br>10      |
| Rated short time current Icw                           | 1s                                                                       | kA               | 200                 |
| Conductivity                                           | 10/5 mA/V                                                                |                  |                     |
| Operational current Ie IEC/EN                          |                                                                          |                  |                     |
| AC1/AC21A                                              |                                                                          | A                | 16                  |
| AC15                                                   | 110V<br>220/230V<br>380/400V<br>660/690V                                 | A<br>A<br>A<br>A | 10<br>8<br>4<br>1.5 |
| Rated operational power in AC                          |                                                                          |                  |                     |
| Three-phase AC-3                                       | 220/230V<br>380/440V<br>500/690V                                         | kW<br>kW<br>kW   | 2.5<br>4<br>5.5     |
| Single-phase AC-3                                      | 110V<br>220/230V<br>380/440V                                             | kW<br>kW<br>kW   | 0.8<br>1.5<br>2.2   |
| Three-phase AC23A                                      | 220/230V<br>380/440V<br>500/690V                                         | kW<br>kW<br>kW   | 3<br>5.5<br>7.5     |
| Single-phase AC23A                                     | 110V                                                                     | kW               | 0.8                 |

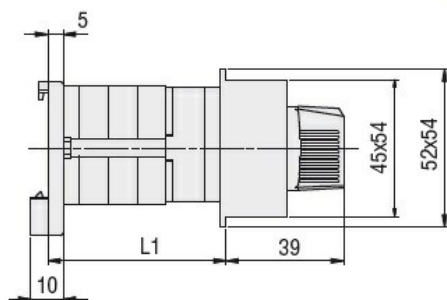
|                                        |     |                 |        |                   |
|----------------------------------------|-----|-----------------|--------|-------------------|
|                                        |     | 220/230V        | kW     | 1.7               |
|                                        |     | 380/440V        | kW     | 3                 |
| Rated operational current in DC        |     |                 |        |                   |
| DC21A                                  |     |                 |        |                   |
|                                        |     | 48V             | A      | 12                |
|                                        |     | 60V             | A      | 12                |
|                                        |     | 110V            | A      | 4                 |
|                                        |     | 220V            | A      | 0.6               |
|                                        |     | 440V            | A      | 0.25              |
| DC23A (poles in series)                |     |                 |        |                   |
|                                        |     | 24V             | A      | 10 (1)            |
|                                        |     | 48V             | A      | 10 (2)            |
|                                        |     | 60V             | A      | 10 (3)            |
|                                        |     | 110V            | A      | 5 (3)             |
|                                        |     | 220V            | A      | 5 (4)             |
| DC13                                   |     |                 |        |                   |
|                                        |     | 24V             | A      | 12                |
|                                        |     | 48V             | A      | 10                |
|                                        |     | 60V             | A      | 8                 |
|                                        |     | 110V            | A      | 1                 |
|                                        |     | 220V            | A      | 0.4               |
|                                        |     | 440V            | A      | 0.15              |
| Power dissipation                      |     |                 | W      | 0.8               |
| Mechanical features                    |     |                 |        |                   |
| Terminals screw                        |     |                 |        | M3                |
| Tightening torque for terminals max    |     |                 | Nm     | 0.5               |
| Conductor size                         |     |                 |        |                   |
| AWG - Rigid cable                      |     |                 |        |                   |
|                                        | min | AWG             |        | 20                |
|                                        | Max | AWG             |        | 12                |
| AWG - Flexible cable                   |     |                 |        |                   |
|                                        | min | AWG             |        | 20                |
|                                        | Max | AWG             |        | 14                |
| Conductor size (IEC) - Flexible cable  |     |                 |        |                   |
|                                        | min | mm <sup>2</sup> |        | 0.5               |
|                                        | Max | mm <sup>2</sup> |        | 2.5               |
| Conductor size (IEC) - Rigid cable     |     |                 |        |                   |
|                                        | min | mm <sup>2</sup> |        | 0.5               |
|                                        | Max | mm <sup>2</sup> |        | 2.5               |
| Mechanical life                        |     |                 | cycles | 3x10 <sup>6</sup> |
| UL technical data                      |     |                 |        |                   |
| Motor power for direct-on-line control |     |                 |        |                   |
| for three-phase motor                  |     |                 |        |                   |
|                                        |     | 120V            | HP     | 1.5               |
|                                        |     | 240V            | HP     | 3                 |
| for single-phase motor                 |     |                 |        |                   |
|                                        |     | 120V            | HP     | 0.5               |
|                                        |     | 240V            | HP     | 1                 |
| Ambient conditions                     |     |                 |        |                   |
| Temperature                            |     |                 |        |                   |
| Operating temperature                  |     |                 |        |                   |
|                                        | min | °C              |        | -25               |
|                                        | max | °C              |        | +55               |
| Storage temperature                    |     |                 |        |                   |

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

### Resistance & Protection

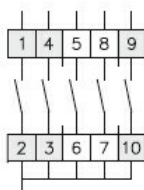
|                     |      |
|---------------------|------|
| Frontal IP degree   | IP40 |
| Terminals IP degree | IP00 |

### Dimensions



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

### Wiring diagrams



|   |   |   |   |   |   |
|---|---|---|---|---|---|
| 0 |   |   |   |   |   |
| 1 | X |   |   |   |   |
| 2 |   |   | X |   |   |
| 3 |   |   |   |   | X |
| 4 |   | X |   |   |   |
| 5 |   |   |   | X |   |

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### 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

#### Certificates

cCSAus  
EAC  
UL

### ETIM classification

ETIM 8.0

EC001029 -  
Selector switch,  
complete