

|  |  |  |  |     |
|--|--|--|--|-----|
| Product designation                                    |  |  | Rotary cam switches  |     |
| Product type designation                               |  |  | 7GN12  |     |
| General characteristics                                |  |  |  |     |
| Switching diagram                                      |  |  | 93 - Multi-step 1-2-3 3 poles  |     |
| N° of elements   |  |  | 5  |     |
| Mounting form  |  |  | O48 - Modular service cover for 35mm din rail mounting with black handle |     |
| Contact characteristics                                |  |  |  |     |
| Rated insulation voltage Ui                            |  |  | IEC/EN V   | 690 |
|  |  |  | UL/CSA V   | 600 |
| Rated impulse withstand voltage Uimp                   |  |  | kV   | 6   |
| Conventional free air thermal current Ith              |  |  | IEC/EN A   | 16  |
|  |  |  | UL/CSA A   | 15  |
| Rated operational voltage                              |  |  | V  | 480 |
| Rated operational impulse voltage                      |  |  | kV   | 4   |
| Maximum fuse size for short-circuit protection In (gG) |  |  | 10kA A   | 16  |
|  |  |  | 15kA A   | 10  |
|  |  |  | 25kA A   | 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 A   | 10  |
|  |  |  | 220/230V A   | 8   |
|  |  |  | 380/400V A   | 4   |
|  |  |  | 660/690V A   | 1.5 |
| Rated operational power in AC Three-phase AC-3         |  |  | 220/230V kW  | 2.5 |
|  |  |  | 380/440V kW  | 4   |
|  |  |  | 500/690V kW  | 5.5 |
| Single-phase AC-3                                      |  |  | 110V kW  | 0.8 |
|  |  |  | 220/230V kW  | 1.5 |
|  |  |  | 380/440V kW  | 2.2 |
| Three-phase AC23A                                      |  |  | 220/230V kW  | 3   |
|  |  |  | 380/440V kW  | 5.5 |
|  |  |  | 500/690V kW  | 7.5 |
| Single-phase AC23A                                     |  |  | 110V kW  | 0.8 |
|  |  |  | 220/230V kW  | 1.7 |

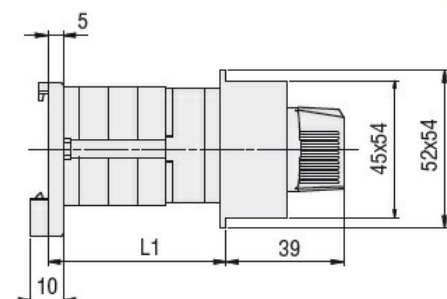
|  |     |                 |        |                   |
|--|-----|-----------------|--------|-------------------|
|  |     | 380/440V        | kW     | 3                 |
| Rated operational current in DC        |     |                 |        |                   |
| DC21A                                  |     |                 |        |                   |
|  |     | 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

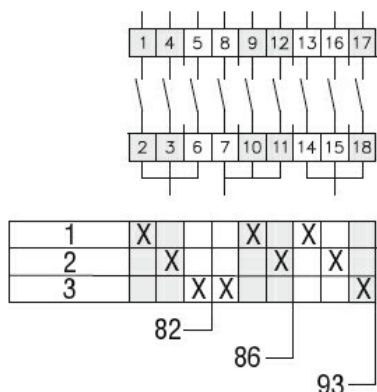
|                     |      |
|---------------------|------|
| Frontal IP degree   | IP40 |
| Terminals IP degree | IP00 |

## 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



## 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