

### General characteristics

|                   |                                                                          |
|-------------------|--------------------------------------------------------------------------|
| Switching diagram | 87 - Multi-step 1-2-3-4 2 poles                                          |
| N° of elements    | 4                                                                        |
| Mounting form     | O48 - Modular service cover for 35mm din rail mounting with black handle |

### Contact characteristics

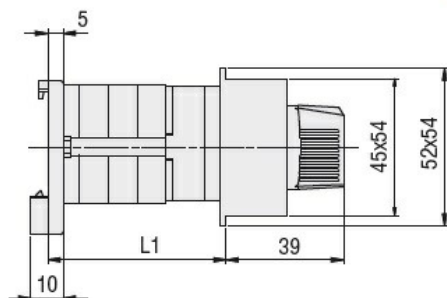
|                                                           |                                          |                  |                    |
|-----------------------------------------------------------|------------------------------------------|------------------|--------------------|
| Rated insulation voltage $U_i$                            | IEC/EN<br>UL/CSA                         | V<br>V           | 690<br>600         |
| Rated impulse withstand voltage $U_{imp}$                 |                                          | kV               | 6                  |
| Conventional free air thermal current $I_{th}$            | IEC/EN<br>UL/CSA                         | A<br>A           | 25<br>30           |
| Rated operational voltage                                 |                                          | V                | 480                |
| Rated operational impulse voltage                         |                                          | kV               | 4                  |
| Maximum fuse size for short-circuit protection $I_n$ (gG) | 10kA<br>15kA<br>25kA                     | A<br>A<br>A      | 25<br>25<br>25     |
| Rated short time current $I_{cw}$                         | 1s                                       | kA               | 400                |
| Conductivity                                              |                                          |                  | 10/5 mA/V          |
| Operational current $I_e$ IEC/EN                          |                                          |                  |                    |
| AC1/AC21A                                                 |                                          | A                | 25                 |
| AC15                                                      | 110V<br>220/230V<br>380/400V<br>660/690V | A<br>A<br>A<br>A | 16<br>12<br>8<br>2 |
| Rated operational power in AC                             |                                          |                  |                    |
| Three-phase AC-3                                          | 220/230V<br>380/440V<br>500/690V         | kW<br>kW<br>kW   | 5.5<br>7.5<br>7.5  |
| Single-phase AC-3                                         | 110V<br>220/230V<br>380/440V             | kW<br>kW<br>kW   | 1.5<br>3<br>5.5    |
| Three-phase AC23A                                         | 220/230V<br>380/440V<br>500/690V         | kW<br>kW<br>kW   | 6.5<br>11<br>11    |
| Single-phase AC23A                                        | 110V<br>220/230V<br>380/440V             | kW<br>kW<br>kW   | 1.5<br>3.7<br>5.5  |
| Rated operational current in DC                           |                                          |                  |                    |
| DC21A                                                     |                                          |                  |                    |

|                                        |      |                 |        |                   |
|----------------------------------------|------|-----------------|--------|-------------------|
|                                        |      | 48V             | A      | 25                |
|                                        |      | 60V             | A      | 25                |
|                                        |      | 110V            | A      | 4                 |
|                                        |      | 220V            | A      | 0.7               |
| DC23A (poles in series)                |      |                 |        |                   |
|                                        |      | 24V             | A      | 25 (1)            |
|                                        |      | 48V             | A      | 25 (2)            |
|                                        |      | 60V             | A      | 25 (3)            |
|                                        |      | 110V            | A      | 12 (3)            |
|                                        |      | 220V            | A      | 10 (4)            |
| DC13                                   |      |                 |        |                   |
|                                        |      | 24V             | A      | 25                |
|                                        |      | 48V             | A      | 20                |
|                                        |      | 60V             | A      | 16                |
|                                        |      | 110V            | A      | 1.5               |
|                                        |      | 220V            | A      | 0.4               |
| Power dissipation                      |      |                 | W      | 1.1               |
| Mechanical features                    |      |                 |        |                   |
| Terminals screw                        |      |                 |        | M3.5              |
| Tightening torque for terminals max    |      |                 | Nm     | 0.8               |
| Conductor size                         |      |                 |        |                   |
| AWG - Rigid cable                      |      |                 |        |                   |
|                                        | min  | AWG             |        | 20                |
|                                        | Max  | AWG             |        | 10                |
| AWG - Flexible cable                   |      |                 |        |                   |
|                                        | min  | AWG             |        | 20                |
|                                        | Max  | AWG             |        | 12                |
| Conductor size (IEC) - Flexible cable  |      |                 |        |                   |
|                                        | min  | mm <sup>2</sup> |        | 0.5               |
|                                        | Max  | mm <sup>2</sup> |        | 4                 |
| Conductor size (IEC) - Rigid cable     |      |                 |        |                   |
|                                        | min  | mm <sup>2</sup> |        | 0.5               |
|                                        | Max  | mm <sup>2</sup> |        | 4                 |
| Mechanical life                        |      |                 | cycles | 5x10 <sup>6</sup> |
| UL technical data                      |      |                 |        |                   |
| Motor power for direct-on-line control |      |                 |        |                   |
| for three-phase motor                  |      |                 |        |                   |
|                                        | 120V | HP              |        | 3                 |
|                                        | 240V | HP              |        | 5                 |
|                                        | 480V | HP              |        | 10                |
|                                        | 600V | HP              |        | 15                |
| for single-phase motor                 |      |                 |        |                   |
|                                        | 120V | HP              |        | 1.5               |
|                                        | 240V | HP              |        | 3                 |
| 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

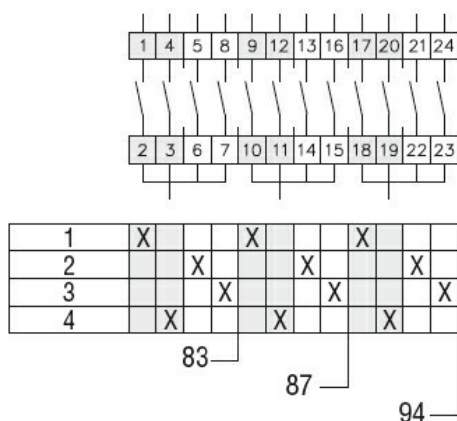
IP00

## 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