

### General characteristics

|                   |  |
|-------------------|--|
| Switching diagram | 13 - Dahlander motor control switch 1-0-2                                |
| N° of elements    | 4  |
| Mounting form     | O48 - Modular service cover for 35mm din rail mounting with black handle |

### Contact characteristics

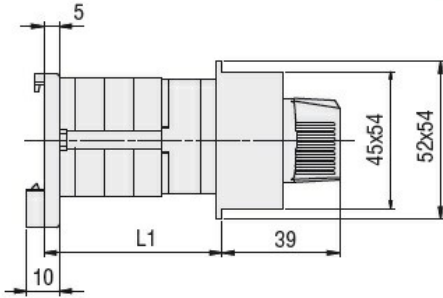
|   |                                 |    |     |           |
|---|---------------------------------|----|-----|-----------|
| Rated insulation voltage $U_i$                            | IEC/EN                          | V  | 690 |           |
|   | UL/CSA                          | V  | 600 |           |
| 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                              | kA | 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 |           |
|   | 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                 |
| <hr/>                                  |      |                 |                   |
| <b>Ambient conditions</b>              |      |                 |                   |
| Temperature                            |      |                 |                   |
| Operating temperature                  |      |                 |                   |
|  | min  | °C              | -25               |
|  | max  | °C              | +55               |
| <hr/>                                  |      |                 |                   |
| Storage temperature                    |      |                 |                   |
|  | min  | °C              | -40               |
|  | max  | °C              | +70               |

**Resistance & Protection**

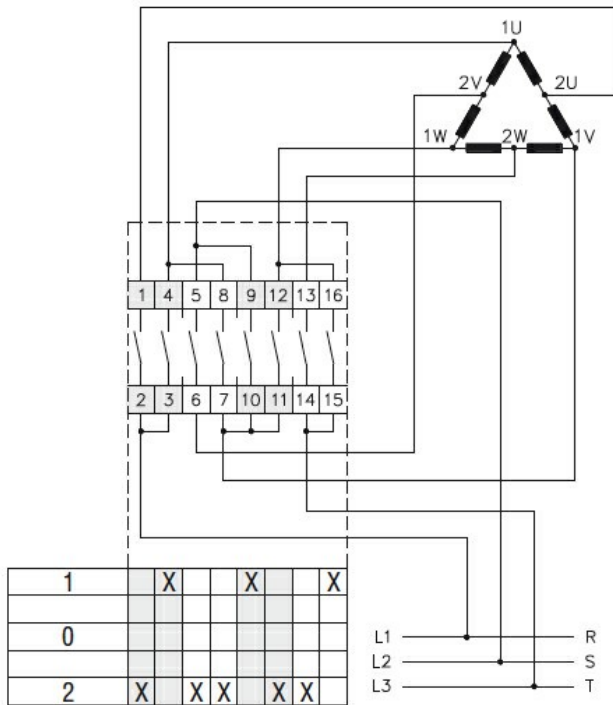
|                     |      |
|---------------------|------|
| Frontal IP degree   | IP40 |
| Terminals IP degree | IP00 |

**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

**Certificates**

cCSAus  
EAC

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UL

ETIM classification

ETIM 8.0

EC001029 -  
Selector switch,  
complete