

|   |                   |     |     |  |
|---|-------------------|-----|-----|--|
| Product designation                                       |                   |     |     | Rotary cam switches  |
| Product type designation                                  |                   |     |     | 7GN12  |
| <b>General characteristics</b>                            |                   |     |     |  |
| Switching diagram   |                   |     |     | 13 - Dahlander motor control switch 1-0-2  |
| N° of elements  |                   |     |     | 4  |
| Mounting form   |                   |     |     | U65 - Front mounting with red/yellow handle padlockable in 0 and protection covers |
| <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   | 16  |  |
|   | UL/CSA            | A   | 15  |  |
| Rated operational voltage                                 |                   |     | V   | 480  |
| Rated operational impulse voltage                         |                   |     | kV  | 4  |
| Maximum fuse size for short-circuit protection $I_n$ (gG) | 10kA              | A   | 16  |  |
|   | 15kA              | A   | 10  |  |
|   | 25kA              | A   | 10  |  |
| Rated short time current $I_{cw}$                         |                   |     | 1s  | kA   |
|   |                   |     |     | 200  |
| Conductivity  |                   |     |     | 10/5 mA/V  |
| Operational current $I_e$ 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 |  |

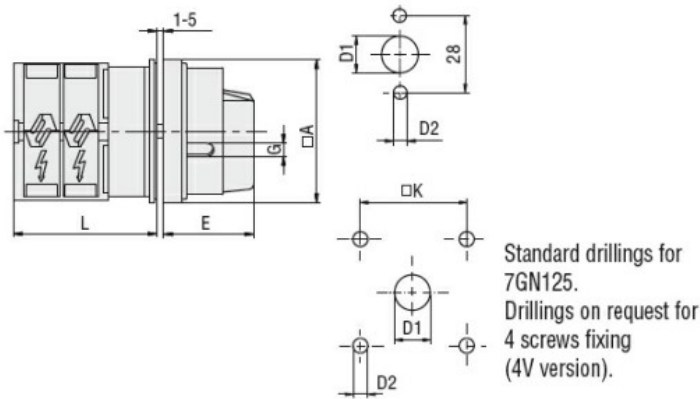
|   |          |                 |                   |
|---|----------|-----------------|-------------------|
|   | 220/230V | kW              | 1.7               |
|   | 380/440V | kW              | 3                 |
| <b>Rated operational current in DC</b>        |          |                 |  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

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

**Resistance & Protection**

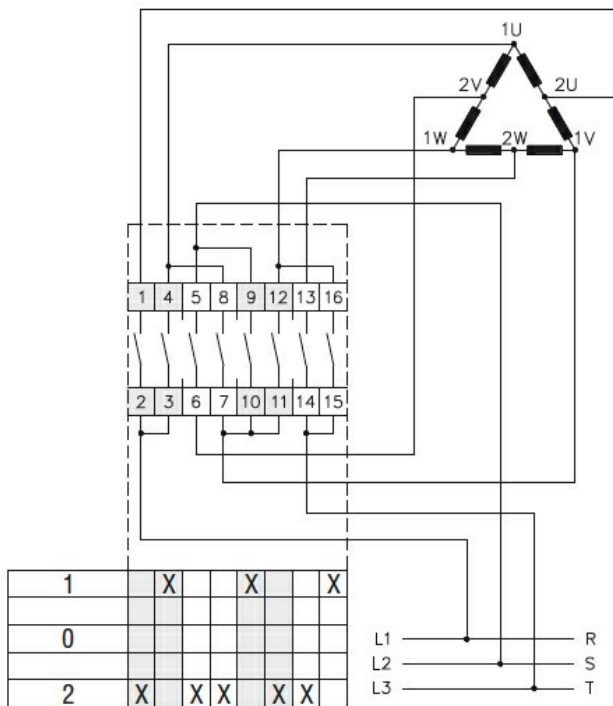
|                     |      |
|---------------------|------|
| Frontal IP degree   | IP40 |
| Terminals IP degree | IP00 |

**Dimensions**



| Series | Dimensions |    |    |      |   |    | L    |      |        |       |
|--------|------------|----|----|------|---|----|------|------|--------|-------|
|        | □A         | D1 | D2 | E    | G | □K | 1    | 2    | 3...12 |       |
| 7GN12  | 65         | 12 | 5  | 34.2 | 5 | 36 | 36.1 | 45.8 | 55.5   | 142.8 |
| 7GN20  | 65         | 12 | 5  | 34.2 | 5 | 36 | 36.1 | 45.8 | 55.5   | 142.8 |
| 7GN25  | 65         | 12 | 5  | 34.2 | 5 | 36 | 40.5 | 54.1 | 67.7   | 190.1 |
| 7GN32  | 65         | 14 | 5  | 38   | 6 | 48 | 46.5 | 61.6 | 76.7   | 212.6 |
| 7GN40  | 65         | 14 | 5  | 38   | 6 | 48 | 46.5 | 61.6 | 76.7   | 212.6 |
| 7GN63  | 65         | 14 | 5  | 38   | 6 | 48 | 50.3 | 68.4 | 86.5   | 249.4 |
| 7GN125 | 90         | 16 | 6  | 49   | 7 | 68 | 67.3 | 96.4 | 125.5  | 394.9 |

**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