

|                                                        |                                                                           |                  |                     |
|--------------------------------------------------------|---------------------------------------------------------------------------|------------------|---------------------|
| Product designation                                    | Rotary cam switches                                                       |                  |                     |
| Product type designation                               | 7GN20                                                                     |                  |                     |
| General characteristics                                |                                                                           |                  |                     |
| Switching diagram                                      | 13 - Dahlander motor control switch 1-0-2                                 |                  |                     |
| N° of elements                                         | 4                                                                         |                  |                     |
| Mounting form                                          | U47 - Snap on fron mounting with black handle for hole diam. 22mm finxing |                  |                     |
| 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           | 20<br>20            |
| 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      | 20<br>16<br>16      |
| Rated short time current Icw                           | 1s                                                                        | kA               | 250                 |
| Conductivity                                           | 10/5 mA/V                                                                 |                  |                     |
| Operational current Ie IEC/EN                          |                                                                           |                  |                     |
| AC1/AC21A                                              |                                                                           | A                | 20                  |
| AC15                                                   | 110V<br>220/230V<br>380/400V<br>660/690V                                  | A<br>A<br>A<br>A | 10<br>8<br>6<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   | 3<br>5.5<br>5.5     |
| Single-phase AC-3                                      | 110V<br>220/230V<br>380/440V                                              | kW<br>kW<br>kW   | 0.8<br>2.2<br>3     |
| Three-phase AC23A                                      | 220/230V<br>380/440V<br>500/690V                                          | kW<br>kW<br>kW   | 5<br>7.5<br>7.5     |
| Single-phase AC23A                                     | 110V                                                                      | kW               | 0.8                 |

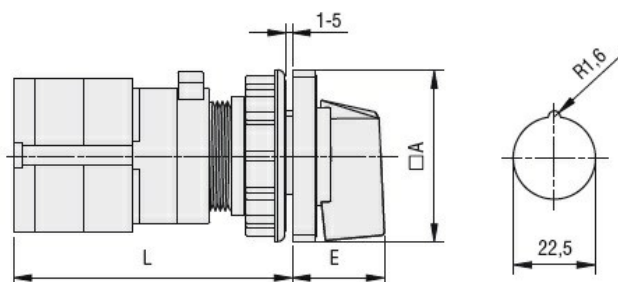
|                                        |  |          |                 |                   |
|----------------------------------------|--|----------|-----------------|-------------------|
|                                        |  | 220/230V | kW              | 2.5               |
|                                        |  | 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              |
| DC23A (poles in series)                |  |          |                 |                   |
|                                        |  | 24V      | A               | 20 (1)            |
|                                        |  | 48V      | A               | 20 (2)            |
|                                        |  | 60V      | A               | 20 (3)            |
|                                        |  | 110V     | A               | 10 (3)            |
|                                        |  | 220V     | A               | 8 (4)             |
| DC13                                   |  |          |                 |                   |
|                                        |  | 24V      | A               | 20                |
|                                        |  | 48V      | A               | 16                |
|                                        |  | 60V      | A               | 12                |
|                                        |  | 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          | 5x10 <sup>6</sup> |
| UL technical data                      |  |          |                 |                   |
| 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                |
| for single-phase motor                 |  |          |                 |                   |
|                                        |  | 120V     | HP              | 0.75              |
|                                        |  | 240V     | HP              | 2                 |
| Ambient conditions                     |  |          |                 |                   |
| Temperature                            |  |          |                 |                   |
| Operating temperature                  |  |          |                 |                   |
|                                        |  | min      | °C              | -25               |

|                     |     |    |     |
|---------------------|-----|----|-----|
|                     | max | °C | +55 |
| Storage temperature | min | °C | -40 |
|                     | max | °C | +70 |

#### Resistance & Protection

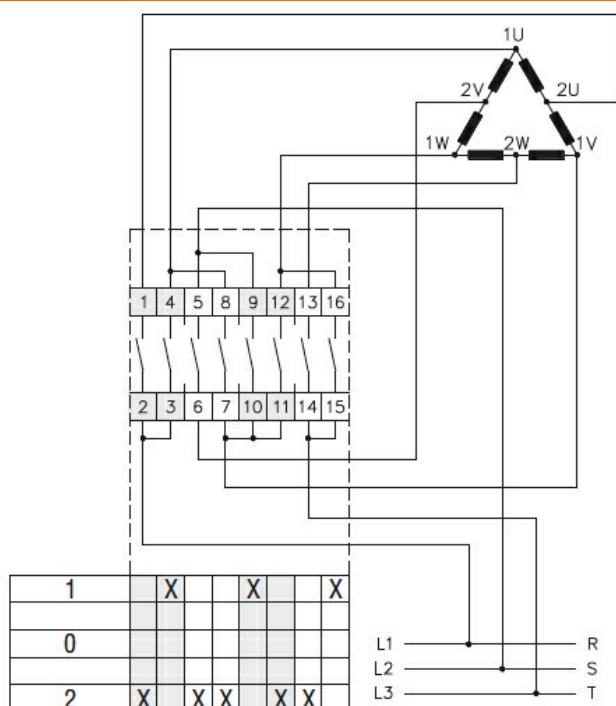
|                     |      |
|---------------------|------|
| Frontal IP degree   | IP40 |
| Terminals IP degree | IP00 |

#### Dimensions



| Series | Dimensions |      | L    |      |        |       |
|--------|------------|------|------|------|--------|-------|
|        | □A         | E    | 1    | 2    | 3....8 |       |
| 7GN12  | 48         | 26.5 | 58   | 67.7 | 77.4   | 125.9 |
| 7GN20  | 48         | 26.5 | 58   | 67.7 | 77.4   | 125.9 |
| 7GN25  | 48         | 26.5 | 62.4 | 76   | 89.6   | 157.6 |

#### 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