

|   |  |     |           |
|---|--|-----|-----------|
| Product designation                                       | Rotary cam switches  |     |           |
| Product type designation                                  | 7GN20  |     |           |
| <b>General characteristics</b>                            |  |     |           |
| Switching diagram   | 25 - 1-phase motor reversing switch with spring return                     |     |           |
| N° of elements  | 2  |     |           |
| Mounting form   | U47 - Snap on front mounting with black handle for hole diam. 22mm finxing |     |           |
| <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   | 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 $I_{cw}$                         |  | A   | 250       |
|   | 1s   | A   | 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 |           |

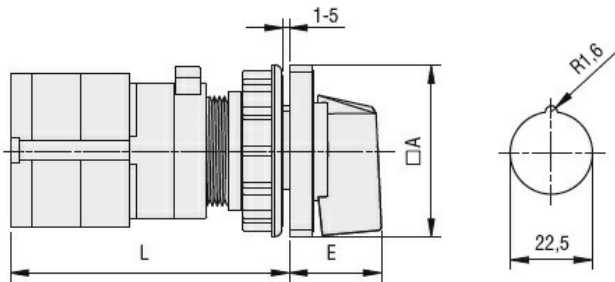
|   |          |                 |                   |
|---|----------|-----------------|-------------------|
|   | 220/230V | kW              | 2.5               |
|   | 380/440V | kW              | 3.7               |
| <b>Rated operational current in DC</b>        |          |                 |                   |
| DC21A   |          |                 |                   |
|   | 48V      | A               | 20                |
|   | 60V      | A               | 20                |
|   | 110V     | A               | 4                 |
|   | 220V     | A               | 0.6               |
|   | 440V     | A               | 0.25              |
| <b>DC23A (poles in series)</b>                |          |                 |                   |
|   | 24V      | A               | 20 (1)            |
|   | 48V      | A               | 20 (2)            |
|   | 60V      | A               | 20 (3)            |
|   | 110V     | A               | 10 (3)            |
|   | 220V     | A               | 8 (4)             |
| <b>DC13</b>                                   |          |                 |                   |
|   | 24V      | A               | 20                |
|   | 48V      | A               | 16                |
|   | 60V      | A               | 12                |
|   | 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          | 5x10 <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                 |
|   | 480V     | HP              | 7.5               |
|   | 600V     | HP              | 10                |
| for single-phase motor                        |          |                 |                   |
|   | 120V     | HP              | 0.75              |
|   | 240V     | HP              | 2                 |
| <b>Ambient conditions</b>                     |          |                 |                   |
| <b>Temperature</b>                            |          |                 |                   |
| Operating temperature                         |          |                 |                   |
|   | min      | °C              | -25               |

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

**Resistance & Protection**

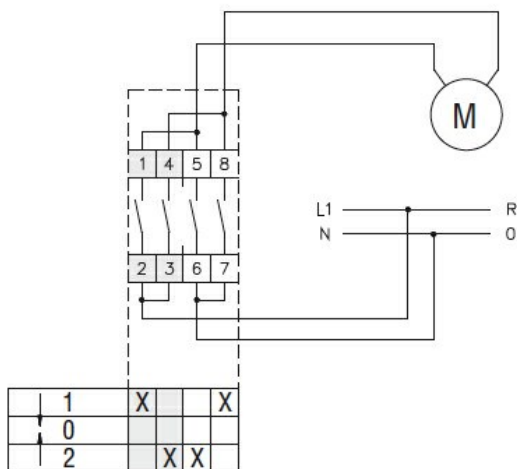
|                     |      |
|---------------------|------|
| Frontal IP degree   | IP40 |
| Terminals IP degree | IP00 |

**Dimensions**



| Series | Dimensions |      | L    |      |       |       |
|--------|------------|------|------|------|-------|-------|
|        | CA         | 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 |
|----------|--------------------------------------|

