

|                                                        |  |  |                                                                                        |     |     |
|--------------------------------------------------------|--|--|----------------------------------------------------------------------------------------|-----|-----|
| Product designation                                    |  |  | Rotary cam switches                                                                    |     |     |
| Product type designation                               |  |  | 7GN20                                                                                  |     |     |
| General characteristics                                |  |  |                                                                                        |     |     |
| Switching diagram                                      |  |  | 05 - ON/OFF switch 1 pole                                                              |     |     |
| N° of elements                                         |  |  | 1                                                                                      |     |     |
| Mounting form                                          |  |  | U12 - Front mounting without front plate with key operation for hole diam. 22mm fixing |     |     |
| Contact characteristics                                |  |  |                                                                                        |     |     |
| Rated insulation voltage Ui                            |  |  | IEC/EN                                                                                 | V   | 690 |
|                                                        |  |  | UL/CSA                                                                                 | V   | 600 |
| Rated impulse withstand voltage Uimp                   |  |  | kV                                                                                     | 6   |     |
| Conventional free air thermal current Ith              |  |  | 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 In (gG) |  |  | 10kA                                                                                   | A   | 20  |
|                                                        |  |  | 15kA                                                                                   | A   | 16  |
|                                                        |  |  | 25kA                                                                                   | A   | 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                                                                                   | 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 |

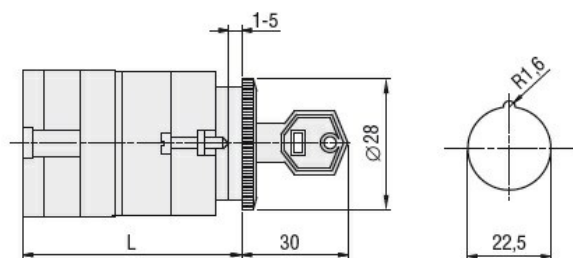
|                                        |  |          |                 |                   |
|----------------------------------------|--|----------|-----------------|-------------------|
|                                        |  | 220/230V | kW              | 2.5               |
|                                        |  | 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              |
| 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               |

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

#### Resistance & Protection

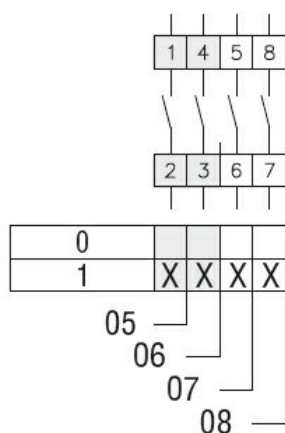
|                     |      |
|---------------------|------|
| Frontal IP degree   | IP40 |
| Terminals IP degree | IP00 |

#### Dimensions



| Series | L    |      |         |       |
|--------|------|------|---------|-------|
|        | 1    | 2    | 3.....8 |       |
| 7GN12  | 47   | 56.7 | 66.4    | 114.9 |
| 7GN20  | 47   | 56.7 | 66.4    | 114.9 |
| 7GN25  | 51.4 | 65   | 78.6    | 146.6 |

#### 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 | EC001105 - Off-load switch |
|----------|----------------------------|