

|   |                   |     |     |  |
|---|-------------------|-----|-----|--|
| Product designation                                       |                   |     |     | Rotary cam switches                    |
| Product type designation                                  |                   |     |     | 7GN20                                  |
| <b>General characteristics</b>                            |                   |     |     |  |
| Switching diagram   |                   |     |     | 110 - Multi-step<br>0-1-2-3-4-5 1 pole |
| N° of elements  |                   |     |     | 3                                      |
| Mounting form   |                   |     |     | U - Front mounting with black handle   |
| <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 $I_{cw}$                         |                   |     | 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 |     |  |

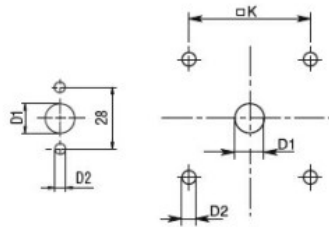
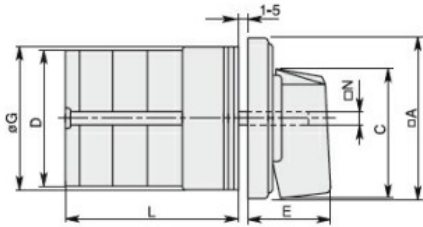
|  |      |                 |                   |
|--|------|-----------------|-------------------|
| Rated operational current in DC        |      |                 |                   |
| DC21A                                  |      |                 |                   |
|  | 48V  | A               | 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               |
| <b>Mechanical features</b>             |      |                 |                   |
| 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> |
| <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                |
| for single-phase motor                 |      |                 |                   |
|  | 120V | HP              | 0.75              |
|  | 240V | HP              | 2                 |
| <b>Ambient conditions</b>              |      |                 |                   |
| 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 |

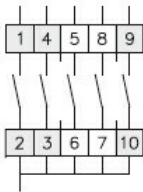
**Dimensions**



Standard drillings for 7GN125.  
Drillings on request for 4 screws fixing  
(4V version).

| Series | Dimensions |      |    |     |     |      |      |    |    | L Number of elements |      |       |       |       |       |       |       |       |       |       |       |
|--------|------------|------|----|-----|-----|------|------|----|----|----------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|        | □A         | C    | ØD | ØD1 | ØD2 | E    | ØG   | □K | □N | 1                    | 2    | 3     | 4     | 5     | 6     | 7     | 8     | 9     | 10    | 11    | 12    |
| 7GN12  | 48         | 39.5 | 39 | 12  | 5   | 26.5 | 38   | 36 | 6  | 36.1                 | 45.8 | 55.5  | 65.2  | 74.9  | 84.6  | 94.3  | 104   | 113.7 | 123.4 | 133.1 | 142.8 |
| 7GN20  | 48         | 39.5 | 39 | 12  | 5   | 26.5 | 38   | 36 | 6  | 36.1                 | 45.8 | 55.5  | 65.2  | 74.9  | 84.6  | 94.3  | 104   | 113.7 | 123.4 | 133.1 | 142.8 |
| 7GN25  | 48         | 39.5 | 43 | 12  | 5   | 26.5 | 38   | 36 | 6  | 40.5                 | 54.1 | 67.7  | 81.3  | 94.9  | 108.5 | 122.1 | 135.7 | 147.3 | 162.9 | 176.5 | 190.1 |
| 7GN32  | 65         | 53   | 58 | 14  | 5   | 34.5 | 58.5 | 48 | 7  | 46.5                 | 61.6 | 76.7  | 91.8  | 106.9 | 122   | 137.1 | 152.2 | 167.3 | 182.4 | 197.5 | 212.6 |
| 7GN40  | 65         | 53   | 58 | 14  | 5   | 34.5 | 58.5 | 48 | 7  | 46.5                 | 61.6 | 76.7  | 91.8  | 106.9 | 122   | 137.1 | 152.2 | 167.3 | 182.4 | 197.5 | 212.6 |
| 7GN63  | 65         | 53   | 62 | 14  | 5   | 34.5 | 58.5 | 48 | 7  | 50.3                 | 68.4 | 86.5  | 104.6 | 122.7 | 140.8 | 158.9 | 177   | 195.1 | 213.2 | 231.3 | 249.4 |
| 7GN125 | 90         | 70.5 | 86 | 16  | 6   | 41.5 | 84   | 68 | 9  | 67.3                 | 96.4 | 125.5 | 154.6 | 183.7 | 220.3 | 249.4 | 278.5 | 307.6 | 336.7 | 365.8 | 394.9 |

**Wiring diagrams**



|   |   |   |   |   |   |
|---|---|---|---|---|---|
| 0 |   |   |   |   |   |
| 1 | X |   |   |   |   |
| 2 |   |   | X |   |   |
| 3 |   |   |   |   | X |
| 4 |   | X |   |   |   |
| 5 |   |   |   | X |   |

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**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