



|                                                        |  |  |                                                |     |     |
|--------------------------------------------------------|--|--|------------------------------------------------|-----|-----|
| Product designation                                    |  |  | Rotary cam switches                            |     |     |
| Product type designation                               |  |  | 7GN12                                          |     |     |
| General characteristics                                |  |  |                                                |     |     |
| Switching diagram                                      |  |  | 67 - Voltmeter switch for phase-phase voltages |     |     |
| N° of elements                                         |  |  | 2                                              |     |     |
| Mounting form                                          |  |  | U - Front mounting with black handle           |     |     |
| 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   | 16  |
|                                                        |  |  | UL/CSA                                         | A   | 15  |
| Rated operational voltage                              |  |  | V                                              | 480 |     |
| Rated operational impulse voltage                      |  |  | kV                                             | 4   |     |
| Maximum fuse size for short-circuit protection In (gG) |  |  | 10kA                                           | A   | 16  |
|                                                        |  |  | 15kA                                           | A   | 10  |
|                                                        |  |  | 25kA                                           | A   | 10  |
| Rated short time current Icw                           |  |  | 1s                                             | kA  | 200 |
| Conductivity                                           |  |  | 10/5 mA/V                                      |     |     |
| Operational current Ie 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                 |
| Rated operational current in DC        |          |                 |                   |
| DC21A                                  |          |                 |                   |
|                                        | 48V      | A               | 12                |
|                                        | 60V      | A               | 12                |
|                                        | 110V     | A               | 4                 |
|                                        | 220V     | A               | 0.6               |
|                                        | 440V     | A               | 0.25              |
| DC23A (poles in series)                |          |                 |                   |
|                                        | 24V      | A               | 10 (1)            |
|                                        | 48V      | A               | 10 (2)            |
|                                        | 60V      | A               | 10 (3)            |
|                                        | 110V     | A               | 5 (3)             |
|                                        | 220V     | A               | 5 (4)             |
| DC13                                   |          |                 |                   |
|                                        | 24V      | A               | 12                |
|                                        | 48V      | A               | 10                |
|                                        | 60V      | A               | 8                 |
|                                        | 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          | 3x10 <sup>6</sup> |
| UL technical data                      |          |                 |                   |
| Motor power for direct-on-line control |          |                 |                   |
| for three-phase motor                  |          |                 |                   |
|                                        | 120V     | HP              | 1.5               |
|                                        | 240V     | HP              | 3                 |
| for single-phase motor                 |          |                 |                   |
|                                        | 120V     | HP              | 0.5               |
|                                        | 240V     | HP              | 1                 |
| Ambient conditions                     |          |                 |                   |

## Temperature

### Operating temperature

|     |    |     |
|-----|----|-----|
| min | °C | -25 |
| max | °C | +55 |

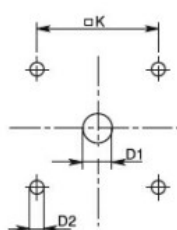
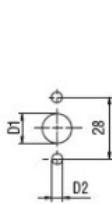
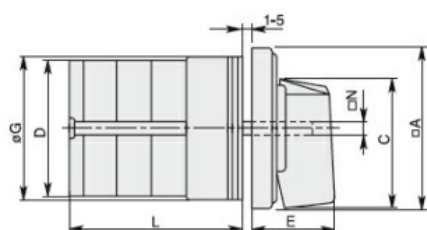
### Storage temperature

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

## Resistance & Protection

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

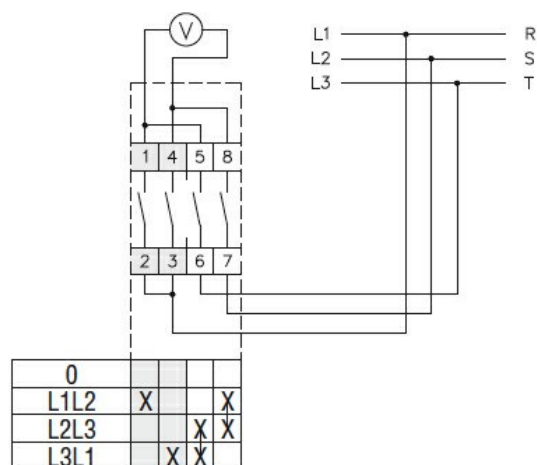
## Dimensions



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



## 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 -<br>Selector switch,<br>complete |
|----------|--------------------------------------------|