



Product designation

Product type designation

Rotary cam  
switches  
7GN20

### General characteristics

Switching diagram

98 - Ammeter  
switch

N° of elements

3

Mounting form

U - Front  
mounting with  
black handle

### Contact characteristics

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 kA 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               |
| 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

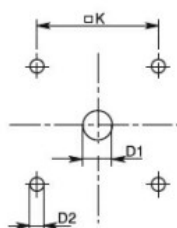
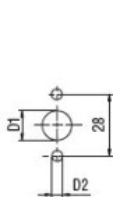
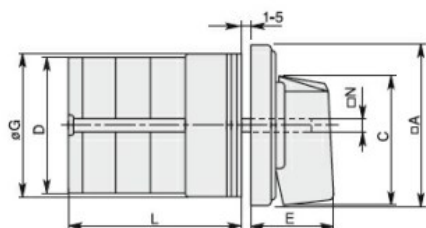
### Frontal IP degree

IP40

### Terminals IP degree

IP00

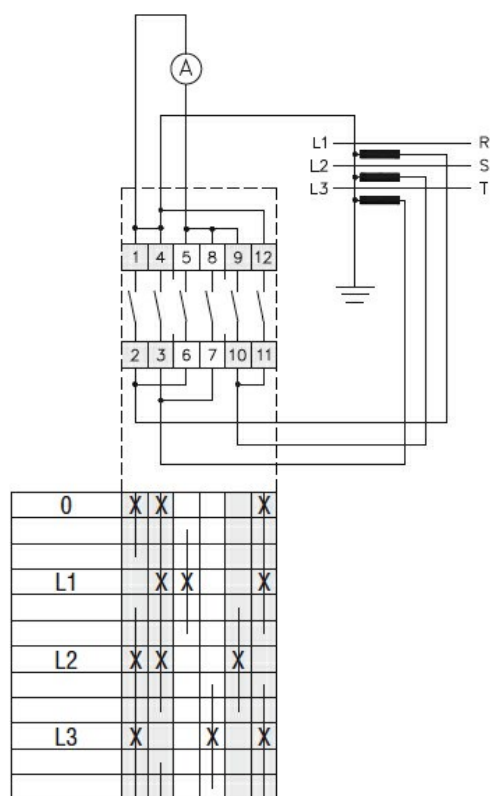
## Dimensions



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

EC001105 - Off-  
load switch