

|                                                        |                                      |    |     |
|--------------------------------------------------------|--------------------------------------|----|-----|
| Product designation                                    | Rotary cam switches                  |    |     |
| Product type designation                               | 7GN20                                |    |     |
| General characteristics                                |                                      |    |     |
| Switching diagram                                      | 97 - Ammeter switch                  |    |     |
| N° of elements                                         | 5                                    |    |     |
| 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  | 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 |
| max | °C | +55 |

## Storage temperature

|     |    |     |
|-----|----|-----|
| min | °C | -40 |
|-----|----|-----|

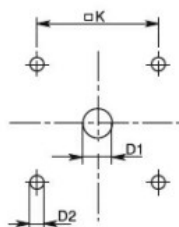
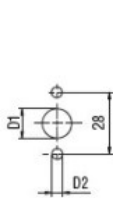
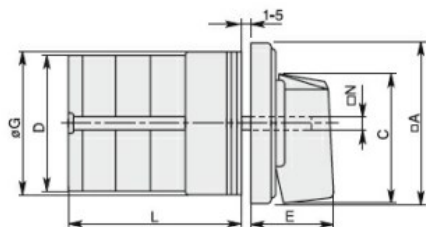
max °C +70

## Resistance & Protection

Frontal IP degree IP40

Terminals IP degree IP00

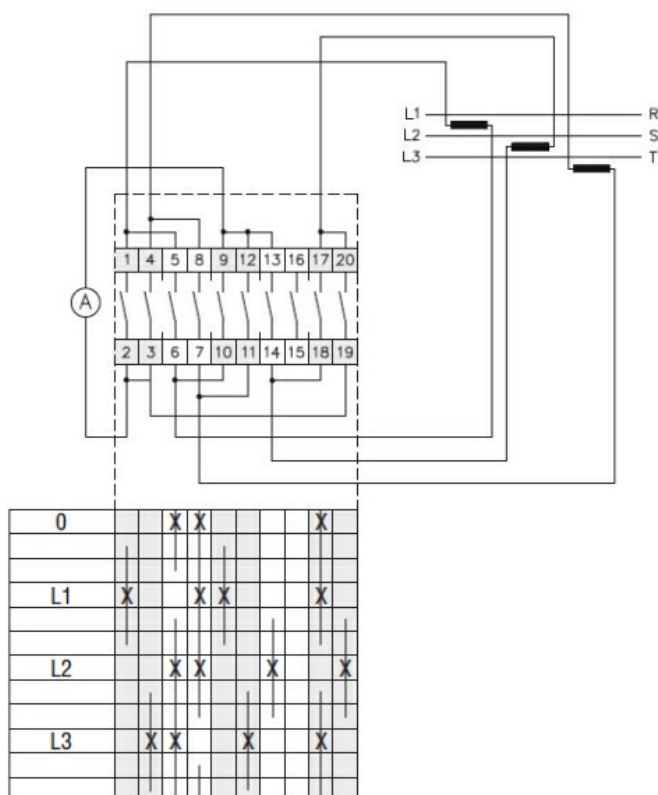
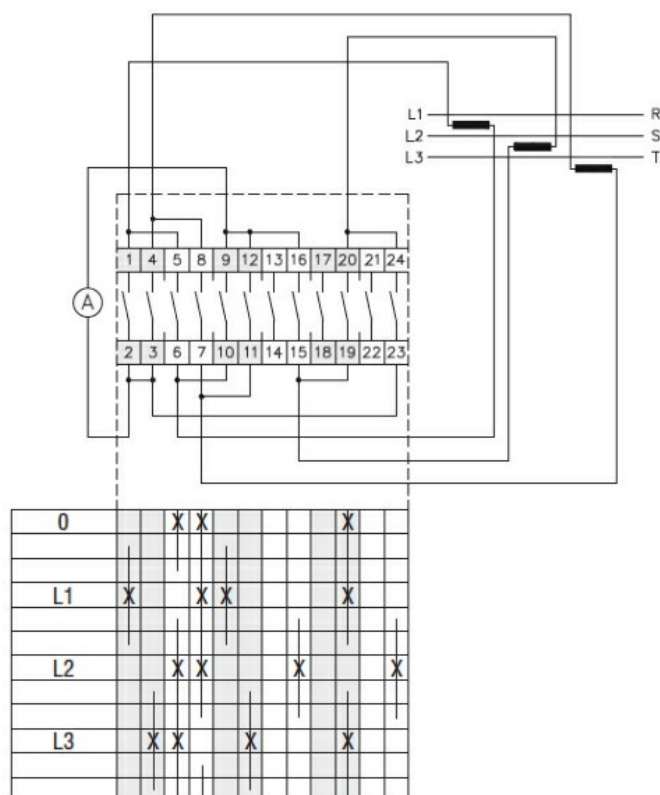
## Dimensions



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

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IEC/EN/BS 60947-5-1

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UL60947-4-1

Certificates

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cCSAus

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EAC

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UL

ETIM classification

ETIM 8.0

EC001105 - Off-  
load switch