

|   |                   |          |          |  |     |
|---|-------------------|----------|----------|--|-----|
| Product designation                                       |                   |          |          | Enclosed rotary cam switch                     |     |
| Product type designation                                  |                   |          |          | 7GN12  |     |
| <b>General characteristics</b>                            |                   |          |          |  |     |
| Switching diagram   |                   |          |          | 90 - ON/OFF switch 1 pole                      |     |
| N° of elements  |                   |          |          | 1  |     |
| Mounting form   |                   |          |          | P25 - Plastic enclosure with red/yellow 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        | 16       |  |     |
|   | UL/CSA            | A        | 15       |  |     |
| Rated operational voltage                                 |                   |          | V        | 480  |     |
| Rated operational impulse voltage                         |                   |          | kV       | 4  |     |
| Maximum fuse size for short-circuit protection $I_n$ (gG) | 10kA              | A        | 16       |  |     |
|   | 15kA              | A        | 10       |  |     |
|   | 25kA              | A        | 10       |  |     |
| Rated short time current $I_{cw}$                         |                   |          | 1s       | A  |     |
|   |                   |          | 200      |  |     |
| Conductivity  |                   |          |          | 10/5 mA/V                                      |     |
| Operational current $I_e$ 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   |
| <hr/>                   |      |   |        |
| DC23A (poles in series) | 24V  | A | 10 (1) |
|                         | 48V  | A | 10 (2) |
|                         | 60V  | A | 10 (3) |
|                         | 110V | A | 5 (3)  |
|                         | 220V | A | 5 (4)  |
| <hr/>                   |      |   |        |
| DC13                    | 24V  | A | 12     |
|                         | 48V  | A | 10     |
|                         | 60V  | A | 8      |
|                         | 110V | A | 1      |
|                         | 220V | A | 0.4    |
| <hr/>                   |      |   |        |
| 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  |
| <hr/>                                 |     |                 |     |
| AWG - Flexible cable                  | min | AWG             | 20  |
|                                       | Max | AWG             | 14  |
| <hr/>                                 |     |                 |     |
| Conductor size (IEC) - Flexible cable | min | mm <sup>2</sup> | 0.5 |
|                                       | Max | mm <sup>2</sup> | 2.5 |
| <hr/>                                 |     |                 |     |
| 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<br>for three-phase motor | 120V | HP | 1.5 |
|   | 240V | HP | 3   |
| <hr/>   |      |    |     |
| for single-phase motor  | 120V | HP | 0.5 |
|   | 240V | HP | 1   |

**Ambient conditions**

|             |                       |    |     |
|-------------|-----------------------|----|-----|
| Temperature | Operating temperature |    |     |
|             | min                   | °C | -25 |
|             | max                   | °C | +55 |
| <hr/>       |                       |    |     |
|             | Storage temperature   |    |     |
|             | min                   | °C | -40 |
|             | max                   | °C | +70 |

**Resistance & Protection**

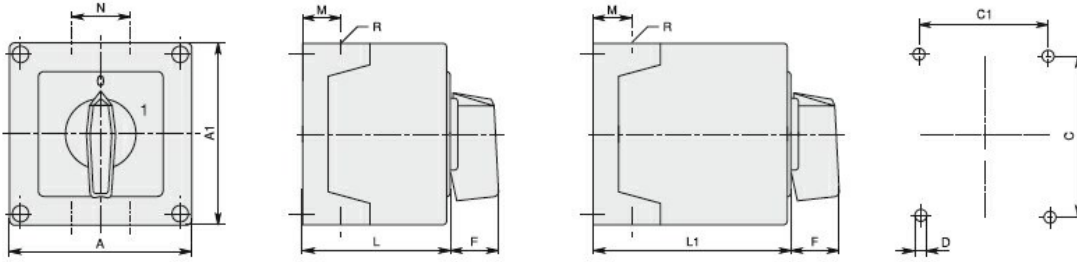
Frontal IP degree

IP65

Terminals IP degree

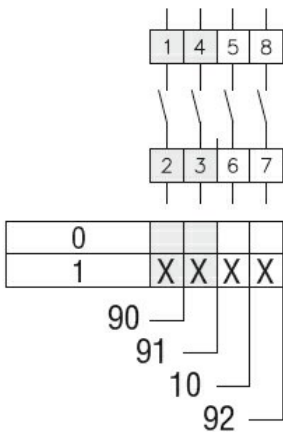
IP00

**Dimensions**



| Series | Enclosure size | Number of elements |     | Dimensions |     |      |     |     |    |    |      |      |       | Cable entry      | Protection degree |
|--------|----------------|--------------------|-----|------------|-----|------|-----|-----|----|----|------|------|-------|------------------|-------------------|
|        |                | L                  | L1  | A          | A1  | C    | C1  | D   | F  | M  | N    | L    | L1    |                  |                   |
| 7GN12  | 75x75          | 1-2                | 3-4 | 75         | 75  | 50   | 64  | 4.5 | 19 | 14 | 28   | 57.5 | 79.8  | 4xPG13.5         | IP65              |
| 7GN20  |                | 1-2                | 3-4 |            |     |      |     |     |    |    |      |      |       |                  |                   |
| 7GN25  |                | 1                  | 2-3 |            |     |      |     |     |    |    |      |      |       |                  |                   |
| 7GN12  | 90x90          | 1-3                | 4-6 | 90         | 90  | 79   | 63  | 4.5 | 25 | 19 | 30   | 71.3 | 98.3  | 4xPG16           | IP65              |
| 7GN20  |                | 1-3                | 4-6 |            |     |      |     |     |    |    |      |      |       |                  |                   |
| 7GN25  |                | 1-2                | 3-4 |            |     |      |     |     |    |    |      |      |       |                  |                   |
| 7GN32  |                | 1-2                | 3-4 |            |     |      |     |     |    |    |      |      |       |                  |                   |
| 7GN40  |                | 1                  | 2-3 |            |     |      |     |     |    |    |      |      |       |                  |                   |
| 7GN12  | 110x110        | 1-4                | 5-8 | 110        | 110 | 98.4 | 83  | 4.5 | 32 | 21 | 39.5 | 85.5 | 119.5 | 4xPG21           | IP65              |
| 7GN20  |                | 1-4                | 5-8 |            |     |      |     |     |    |    |      |      |       |                  |                   |
| 7GN25  |                | 1-3                | 4-5 |            |     |      |     |     |    |    |      |      |       |                  |                   |
| 7GN32  |                | 1-3                | 4-5 |            |     |      |     |     |    |    |      |      |       |                  |                   |
| 7GN40  |                | 1-2                | 3-5 |            |     |      |     |     |    |    |      |      |       |                  |                   |
| 7GN63  |                | 1-2                | 3-4 |            |     |      |     |     |    |    |      |      |       |                  |                   |
| 7GN32  | 125x175        | 1-3                | 4-5 | 125        | 175 | 146  | 112 | 5.5 | 32 | 21 | 68   | 84.3 | 118.3 | 4xPG21<br>2xPG11 | IP65              |
| 7GN40  |                | 1-2                | 3-4 |            |     |      |     |     |    |    |      |      |       |                  |                   |
| 7GN63  |                | 1-2                | 3-4 |            |     |      |     |     |    |    |      |      |       |                  |                   |
| 7GN125 |                | 1                  | 2   |            |     |      |     |     |    |    |      |      |       |                  |                   |
| 7GN32  | 180x254        | 1-5                | 6-8 | 180        | 254 | 120  | 190 | 5.5 | 32 | 35 | 76   | 121  | 175   | 4xPG29<br>2xPG11 | IP65              |
| 7GN40  |                | 1-4                | 5-7 |            |     |      |     |     |    |    |      |      |       |                  |                   |
| 7GN63  |                | 1-3                | 4-6 |            |     |      |     |     |    |    |      |      |       |                  |                   |
| 7GN125 |                | 1-2                | 3-4 |            |     |      |     |     |    |    |      |      |       |                  |                   |

**Wiring diagrams**



**Certifications and compliance**

Compliance

- IEC/EN/BS 60947-1
- IEC/EN/BS 60947-3
- IEC/EN/BS 60947-5-1

Certificates

EAC

**ETIM classification**

ETIM 8.0

EC001029 -  
Selector switch,  
complete