

|   |                   |    |      |   |
|---|-------------------|----|------|---|
| Product designation                                       |                   |    |      | Enclosed rotary cam switch              |
| Product type designation                                  |                   |    |      | 7GN40                                   |
| <b>General characteristics</b>                            |                   |    |      |   |
| Switching diagram   |                   |    |      | 93 - Multi-step 1-2-3 3 poles           |
| N° of elements  |                   |    |      | 5                                       |
| Mounting form   |                   |    |      | P - Plastic enclosure 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  | 40   |   |
|   | UL/CSA            | A  | 50   |   |
| Rated operational voltage                                 |                   |    | V    | 480                                     |
| Rated operational impulse voltage                         |                   |    | kV   | 4                                       |
| Maximum fuse size for short-circuit protection $I_n$ (gG) | 10kA              | A  | 40   |   |
|   | 15kA              | A  | 40   |   |
|   | 25kA              | A  | 40   |   |
|   | 50kA              | A  | 40   |   |
|   | 63kA              | A  | 40   |   |
| Rated short time current $I_{cw}$                         | 1s                | kA | 1000 |   |
|   |                   |    |      | 10/5 mA/V                               |
| Conductivity  |                   |    |      | 10/5 mA/V                               |
| Operational current $I_e$ IEC/EN                          | AC1/AC21A         |    | A    | 40                                      |
|   | AC15              |    |      |   |
|   | 110V              | A  | 25   |   |
|   | 220/230V          | A  | 22   |   |
|   | 380/400V          | A  | 12   |   |
|   | 660/690V          | A  | 2    |   |
| Rated operational power in AC                             | Three-phase AC-3  |    |      |   |
|   | 220/230V          | kW | 8    |   |
|   | 380/440V          | kW | 15   |   |
|   | 500/690V          | kW | 15   |   |
|   | Single-phase AC-3 |    |      |   |
|   | 110V              | kW | 3    |   |
|   | 220/230V          | kW | 6.5  |   |
|   | 380/440V          | kW | 8    |   |
|   | Three-phase AC23A |    |      |   |
|   | 220/230V          | kW | 8    |   |
|   | 380/440V          | kW | 18.5 |   |
|   | 500/690V          | kW | 22   |   |
| Single-phase AC23A  |                   |    |      |   |
| 110V  | kW                | 3  |      |   |
| 220/230V  | kW                | 6  |      |   |

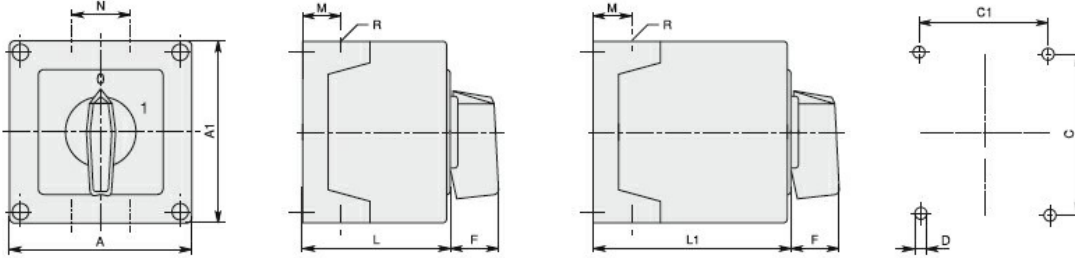
|  |      | 380/440V        | kW     | 11                |
|--|------|-----------------|--------|-------------------|
| Rated operational current in DC        |      |                 |        |                   |
| DC21A                                  |      |                 |        |                   |
|  |      | 48V             | A      | 40                |
|  |      | 60V             | A      | 40                |
|  |      | 110V            | A      | 6                 |
|  |      | 220V            | A      | 0.9               |
| DC23A (poles in series)                |      |                 |        |                   |
|  |      | 24V             | A      | 40 (1)            |
|  |      | 48V             | A      | 40 (2)            |
|  |      | 60V             | A      | 40 (3)            |
|  |      | 110V            | A      | 20 (3)            |
|  |      | 220V            | A      | 12 (4)            |
| DC13                                   |      |                 |        |                   |
|  |      | 24V             | A      | 40                |
|  |      | 48V             | A      | 32                |
|  |      | 60V             | A      | 16                |
|  |      | 110V            | A      | 3                 |
| Power dissipation                      |      |                 | W      | 2.0               |
| <b>Mechanical features</b>             |      |                 |        |                   |
| Terminals screw                        |      |                 |        | M4                |
| Tightening torque for terminals max    |      |                 | Nm     | 1.2               |
| Conductor size                         |      |                 |        |                   |
| AWG - Rigid cable                      |      |                 |        |                   |
|  | min  | AWG             |        | 16                |
|  | Max  | AWG             |        | 8                 |
| AWG - Flexible cable                   |      |                 |        |                   |
|  | min  | AWG             |        | 16                |
|  | Max  | AWG             |        | 10                |
| Conductor size (IEC) - Flexible cable  |      |                 |        |                   |
|  | min  | mm <sup>2</sup> |        | 1.5               |
|  | Max  | mm <sup>2</sup> |        | 6                 |
| Conductor size (IEC) - Rigid cable     |      |                 |        |                   |
|  | min  | mm <sup>2</sup> |        | 1.5               |
|  | Max  | mm <sup>2</sup> |        | 10                |
| 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              |        | 5                 |
|  | 240V | HP              |        | 10                |
|  | 480V | HP              |        | 20                |
|  | 600V | HP              |        | 20                |
| for single-phase motor                 |      |                 |        |                   |
|  | 120V | HP              |        | 2                 |
|  | 240V | HP              |        | 5                 |
| <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 IP65

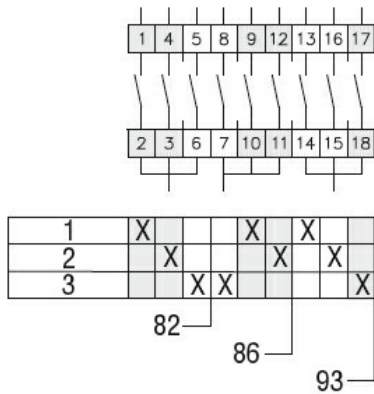
Terminals IP degree IP00

**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

