

|                                                        |  |  |                                           |     |      |
|--------------------------------------------------------|--|--|-------------------------------------------|-----|------|
| Product designation                                    |  |  | Enclosed rotary cam switch                |     |      |
| Product type designation                               |  |  | 7GN40                                     |     |      |
| General characteristics                                |  |  |                                           |     |      |
| Switching diagram                                      |  |  | 19 - Dahlander motor control switch 0-1-2 |     |      |
| N° of elements                                         |  |  | 4                                         |     |      |
| Mounting form                                          |  |  | P - Plastic enclosure 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   | 40   |
|                                                        |  |  | UL/CSA                                    | A   | 50   |
| Rated operational voltage                              |  |  | V                                         | 480 |      |
| Rated operational impulse voltage                      |  |  | kV                                        | 4   |      |
| Maximum fuse size for short-circuit protection In (gG) |  |  | 10kA                                      | A   | 40   |
|                                                        |  |  | 15kA                                      | A   | 40   |
|                                                        |  |  | 25kA                                      | A   | 40   |
|                                                        |  |  | 50kA                                      | A   | 40   |
|                                                        |  |  | 63kA                                      | A   | 40   |
| Rated short time current Icw                           |  |  | 1s                                        | kA  | 1000 |
| Conductivity                                           |  |  | 10/5 mA/V                                 |     |      |
| Operational current Ie 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               |
| Mechanical features                    |  |          |                 |                   |
| 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> |
| UL technical data                      |  |          |                 |                   |
| 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                 |
| Ambient conditions                     |  |          |                 |                   |
| Temperature                            |  |          |                 |                   |
| Operating temperature                  |  |          |                 |                   |
|                                        |  | min      | °C              | -25               |
|                                        |  | max      | °C              | +55               |
| Storage temperature                    |  |          |                 |                   |
|                                        |  | min      | °C              | -40               |

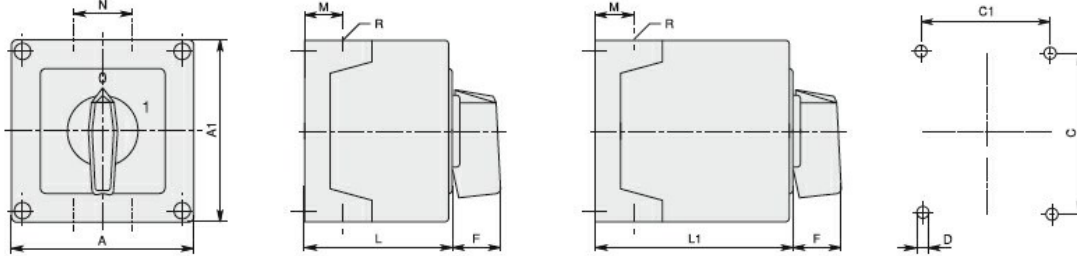
max °C +70

## Resistance & Protection

Frontal IP degree IP65

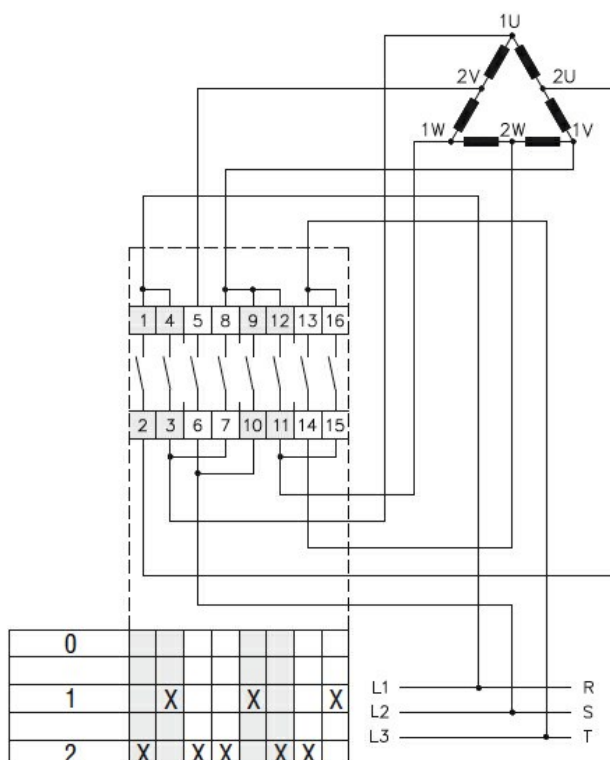
Terminals IP degree IP00

## 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  | 110x110        | 1 - 2              | 3 - 4 | 110        | 110 | 98.4 | 83  | 4.5 | 32 | 21 | 39.5 | 85.5 | 119.5 | 4xPG21           | IP65              |
| 7GN40  |                | 1                  | 2 - 3 |            |     |      |     |     |    |    |      |      |       |                  |                   |
| 7GN63  |                | 1 - 4              | 5 - 8 |            |     |      |     |     |    |    |      |      |       |                  |                   |
| 7GN12  | 125x175        | 1 - 4              | 5 - 8 | 125        | 175 | 146  | 112 | 5.5 | 32 | 21 | 68   | 84.3 | 118.3 | 4xPG21<br>2xPG11 | IP65              |
| 7GN20  |                | 1 - 4              | 5 - 8 |            |     |      |     |     |    |    |      |      |       |                  |                   |
| 7GN25  |                | 1 - 3              | 4 - 5 |            |     |      |     |     |    |    |      |      |       |                  |                   |
| 7GN32  | 180x254        | 1 - 3              | 4 - 5 | 180        | 254 | 120  | 190 | 5.5 | 32 | 35 | 76   | 121  | 175   | 4xPG29<br>2xPG11 | IP65              |
| 7GN40  |                | 1 - 2              | 3 - 4 |            |     |      |     |     |    |    |      |      |       |                  |                   |
| 7GN63  |                | 1 - 4              | 5 - 8 |            |     |      |     |     |    |    |      |      |       |                  |                   |
| 7GN125 | 180x254        | 1 - 5              | 6 - 8 | 180        | 254 | 120  | 190 | 5.5 | 32 | 35 | 76   | 121  | 175   | 4xPG29<br>2xPG11 | IP65              |
| 7GN20  |                | 1 - 4              | 5 - 7 |            |     |      |     |     |    |    |      |      |       |                  |                   |
| 7GN25  |                | 1 - 3              | 4 - 6 |            |     |      |     |     |    |    |      |      |       |                  |                   |
| 7GN32  | 180x254        | 1 - 2              | 3 - 4 | 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 | 180x254        | 1 - 2              | 3 - 4 | 180        | 254 | 120  | 190 | 5.5 | 32 | 35 | 76   | 121  | 175   | 4xPG29<br>2xPG11 | IP65              |
| 7GN20  |                | 1 - 4              | 5 - 7 |            |     |      |     |     |    |    |      |      |       |                  |                   |
| 7GN25  |                | 1 - 3              | 4 - 6 |            |     |      |     |     |    |    |      |      |       |                  |                   |

## 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