

|                                                        |                                         |    |     |
|--------------------------------------------------------|-----------------------------------------|----|-----|
| Product designation                                    | Enclosed rotary cam switch              |    |     |
| Product type designation                               | 7GN20                                   |    |     |
| General characteristics                                |                                         |    |     |
| Switching diagram                                      | 12 - Star-delta motor starter switch    |    |     |
| 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  | 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 |

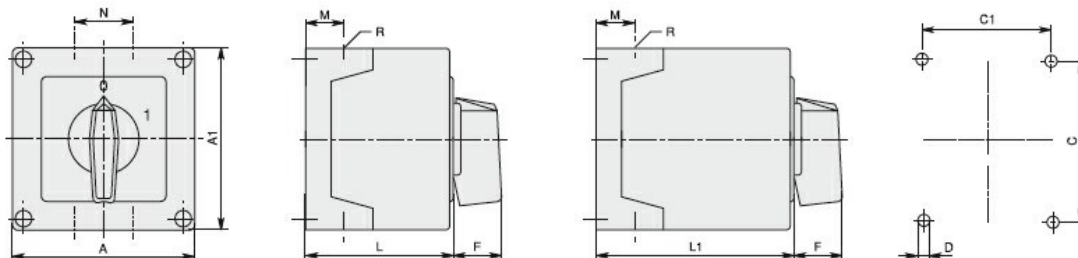
Storage temperature

|     |    |     |
|-----|----|-----|
| min | °C | -40 |
| max | °C | +70 |

## Resistance & Protection

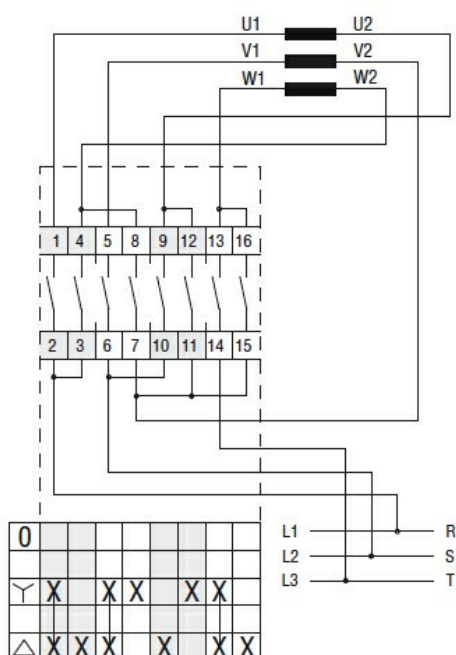
|                     |      |
|---------------------|------|
| Frontal IP degree   | IP65 |
| Terminals IP degree | IP00 |

## 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