**Lovato electric**
ENERGY AND AUTOMATION

ROTARY CAM SWITCH 7GN SERIES, DAHLANDER MOTOR CONTROL SWITCH 0-1-2, 40A, FOR FRONT MOUNTING WITH BLACK HANDLE, FRONT PLATE 65X65MM

| | | | |
|---|---|---|---|
| Product designation | | | Rotary cam switches |
| Product type designation | | | 7GN40 |
| **General characteristics** | | | |
| Switching diagram | | | 19 - Dahlander motor control switch 0-1-2 |
| N° of elements | | | 4 |
| 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 | 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 |

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| | | | 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 | mm² | 1.5 |
| | | | Max | mm² | 6 |
| | Conductor size (IEC) - Rigid cable | | | | |
| | | | min | mm² | 1.5 |
| | | | Max | mm² | 10 |
| Mechanical life | | | | cycles | $5 \times 10^6$ |

## 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 |

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## Resistance & Protection

| | |
|---|---|
| Frontal IP degree | IP40 |
| Terminals IP degree | IP00 |

## Dimensions
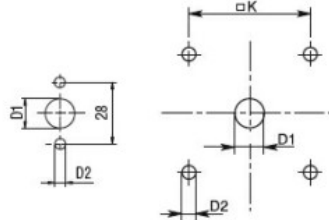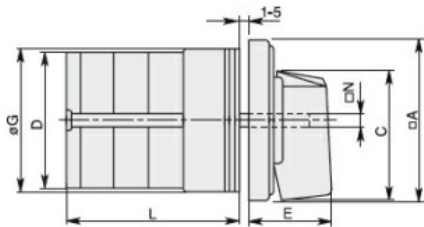


Standard drillings for 7GN125.
Drillings on request for 4 screws fixing (4V version).

| 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
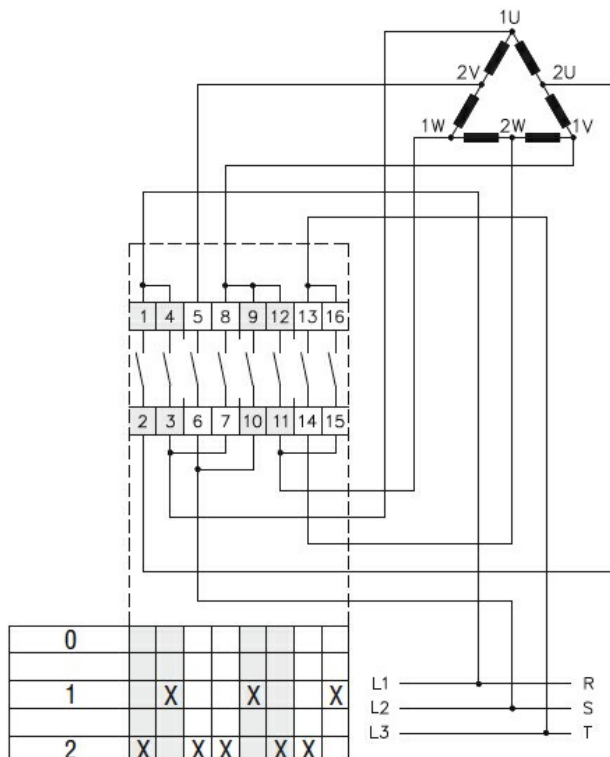


## Certifications and compliance

Compliance

CSA C22.2 n° 14

IEC/EN/BS 60947-1

IEC/EN/BS 60947-3

IEC/EN/BS 60947-5-1

UL60947-4-1

Certificates

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| cCSAus |
| --- |
| EAC |
| UL |

## ETIM classification

ETIM 8.0

EC001029 - Selector switch, complete