



| | | | |
|---|---|----|-------|
| Product designation | Rotary cam switches | | |
| Product type designation | 7GN20 | | |
| General characteristics | | | |
| Switching diagram | 20 - Dahlander motor 2-speed reversing switch | | |
| N° of elements | 6 | | |
| Mounting form | U - Front mounting with black handle | | |
| Contact characteristics | | | |
| 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 | 20 |
| | UL/CSA | A | 20 |
| Rated operational voltage | | V | 480 |
| Rated operational impulse voltage | | kV | 4 |
| Maximum fuse size for short-circuit protection I_n (gG) | 10kA | A | 20 |
| | 15kA | A | 16 |
| | 25kA | A | 16 |
| Rated short time current I_{cw} | 1s | kA | 250 |
| | Conductivity 10/5 mA/V | | |
| Operational current I_e IEC/EN | AC1/AC21A | | A 20 |
| | AC15 | | |
| | 110V | A | 10 |
| | 220/230V | A | 8 |
| | 380/400V | A | 6 |
| Rated operational power in AC | 660/690V | | A 1.5 |
| | 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 |
| Three-phase AC23A | 380/440V | | kW 3 |

| | | | |
|--|----------|-----------------|-------------------|
| | 220/230V | kW | 5 |
| | 380/440V | kW | 7.5 |
| | 500/690V | kW | 7.5 |
| <hr/> | | | |
| Single-phase AC23A | 110V | kW | 0.8 |
| | 220/230V | kW | 2.5 |
| | 380/440V | kW | 3.7 |
| <hr/> | | | |
| Rated operational current in DC | | | |
| DC21A | | | |
| | 48V | A | 20 |
| | 60V | A | 20 |
| | 110V | A | 4 |
| | 220V | A | 0.6 |
| | 440V | A | 0.25 |
| <hr/> | | | |
| DC23A (poles in series) | | | |
| | 24V | A | 20 (1) |
| | 48V | A | 20 (2) |
| | 60V | A | 20 (3) |
| | 110V | A | 10 (3) |
| | 220V | A | 8 (4) |
| <hr/> | | | |
| DC13 | | | |
| | 24V | A | 20 |
| | 48V | A | 16 |
| | 60V | A | 12 |
| | 110V | A | 1 |
| | 220V | A | 0.4 |
| | 440V | A | 0.15 |
| <hr/> | | | |
| Power dissipation | | W | 0.8 |
| Mechanical features | | | |
| Terminals screw | | | M3 |
| Tightening torque for terminals max | | Nm | 0.5 |
| <hr/> | | | |
| 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 ² | 0.5 |
| | Max | mm ² | 2.5 |
| <hr/> | | | |
| Conductor size (IEC) - Rigid cable | | | |
| | min | mm ² | 0.5 |
| | Max | mm ² | 2.5 |
| <hr/> | | | |
| Mechanical life | | cycles | 5x10 ⁶ |
| 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 |
| <hr/> | | | |
| 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

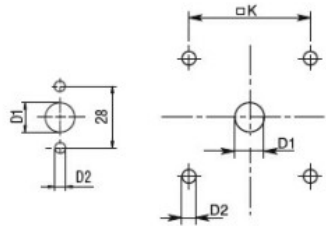
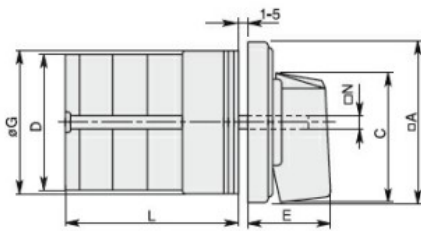
Frontal IP degree

IP40

Terminals IP degree

IP00

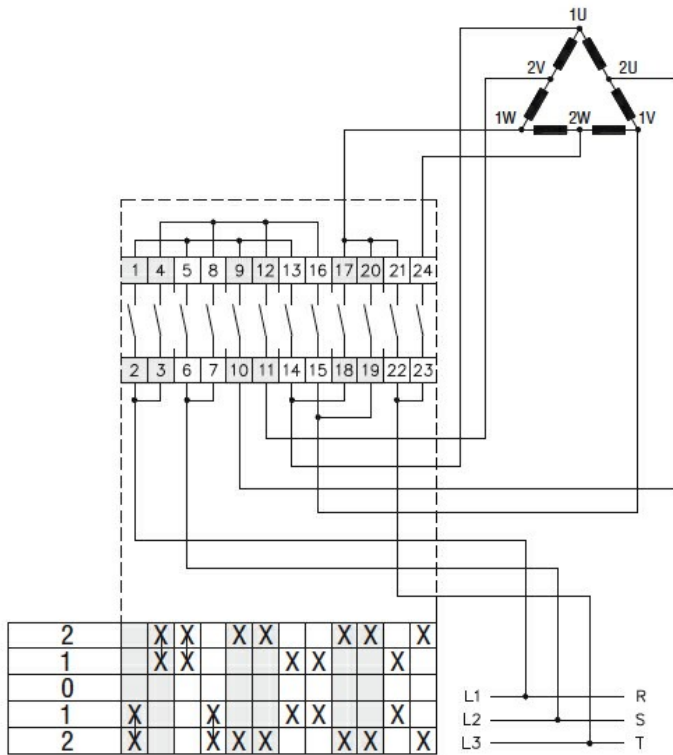
Dimensions



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

cCSAus
EAC
UL

ETIM classification

ETIM 8.0

EC001105 - Off-load switch