# 7GN2020U47

ROTARY CAM SWITCH 7GN SERIES, DAHLANDER MOTOR 2-SPEED REVERSING SWITCH, 20A, MODULAR SERVICE COVER FOR 35MM DIN REAIL MOUNTING WITH BLACK HANDLE, FRONT PLATE 48X48MM

| | | | |
|---|---|---|---|
| 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 | | | U47 - Snap on fron mounting with black handle for hole diam. 22mm finxing |
| **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 | A | 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 |

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|  |  |  |  |
|---|---|---|---|
|  | 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 | mm² | 0.5 |
|  | Max | mm² | 2.5 |
| Conductor size (IEC) - Rigid cable |  |  |  |
|  | min | mm² | 0.5 |
|  | Max | mm² | 2.5 |
| Mechanical life |  | cycles | $5\times10^6$ |

## 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 |
| for single-phase motor |  |  |  |
|  | 120V | HP | 0.75 |
|  | 240V | HP | 2 |

## Ambient conditions

| Temperature |  |  |  |
|---|---|---|---|
| Operating temperature |  |  |  |
|  | min | °C | -25 |

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| | max | °C | +55 |
|---|---|---|---|
| Storage temperature | | | |
| | min | °C | -40 |
| | max | °C | +70 |

## Resistance & Protection

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

## Dimensions
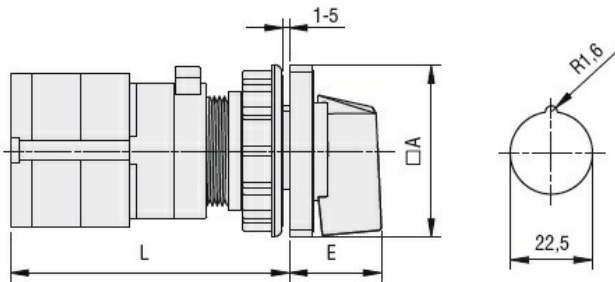


| Series | Dimensions | | L | | | |
|---|---|---|---|---|---|---|
| | □A | E | 1 | 2 | 3......8 | |
| 7GN12 | 48 | 26.5 | 58 | 67.7 | 77.4 | 125.9 |
| 7GN20 | 48 | 26.5 | 58 | 67.7 | 77.4 | 125.9 |
| 7GN25 | 48 | 26.5 | 62.4 | 76 | 89.6 | 157.6 |

## Wiring diagrams
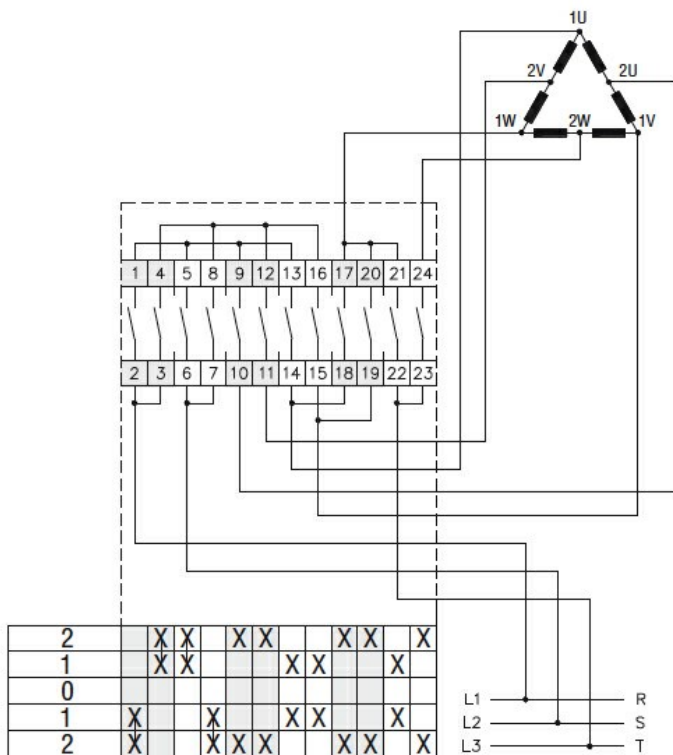


## Certifications and compliance

Compliance

CSA C22.2 n° 14

IEC/EN/BS 60947-1

IEC/EN/BS 60947-3

IEC/EN/BS 60947-5-1

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| | | |
|---|---|---|
| | UL60947-4-1 | |
| Certificates | | |
| | cCSAus | |
| | EAC | |
| | UL | |

## ETIM classification

| ETIM 8.0 | EC001029 - Selector switch, complete |
|---|---|