

**PFDS / PFDT
DFDS / DFDT
SFDS / SFDT**

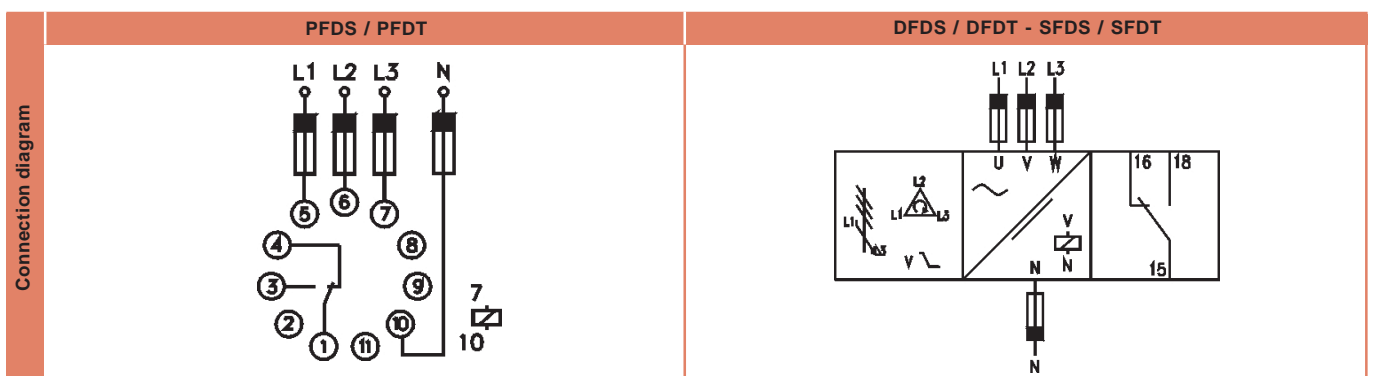
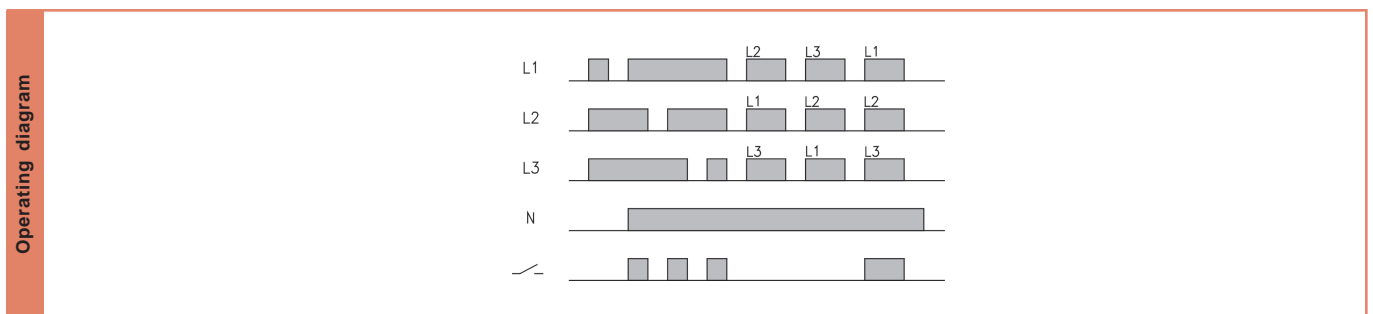


PHASE RELAY

| | |
|---------------------|--|
| Difference | Control of the phase sequence and the phase failure. Three-phase lines with neutral. |
| Connection | The three-phase line is connected to terminals 5, 6, 7 and 10 (PFDS/T) or L1, L2, L3 and N (DFDS/T - SFDS/T) in the order indicated in the connection diagram. |
| Operating principle | While there is no anomaly the relay remains operated, and it releases for any of the following causes: . If the phase sequence is not correct. . If one or more phases or the neutral are not present. When a phase faults, if the return voltage is greater than 50 % of the nominal one, the relay will not detect. |
| Leds indication | Power on: Green Relay on: Red |
| Delay on detection | 2 sec. approx., fix. |
| Detection by | Voltage drop -50% |
| Delay on release | No |

| | HOUSING | FUNCTION | OUTPUT | VOLTAGE | RANGES |
|-----------|------------------|----------------|------------------|---------------------|----------------------|
| Reference | P Plug-in | FD Phase relay | S SPDT T DPDT | 110 3 x 110 VAC + N | 50 50 Hz 60 60 Hz |
| | D DIN Rail | | | 220 3 x 220 VAC + N | |
| | S Flush mounting | | | 400 3 x 400 VAC + N | |
| | | | | 440 3 x 440 VAC + N | |
| | | | | 500 3 x 500 VAC + N | |

To compose the reference, select one option of each column. Example: **PFDS 110 50**



| | | PFDS | PFD T | DFDS | DFDT | SFDS | SFDT | |
|-----------------------|------------------------------|----------------------|-----------------------------------|------------------------------|-----------------------------------|------------------------------|-----------------------------------|------------------------------|
| Output relays | | | | | | | | |
| | Resistive load | AC | 10 A / 250 V | 8 A / 250 V | 10 A / 250 V | 8 A / 250 V | 10 A / 250 V | 8 A / 250 V |
| | | DC | 0,4 A / 200 V 10 A / 24 V | 0,25 A / 200 V 8 A / 24 V | 0,4 A / 200 V 10 A / 24 V | 0,25 A / 200 V 8 A / 24 V | 0,4 A / 200 V 10 A / 24 V | 0,25 A / 200 V 8 A / 24 V |
| | Inductive load | AC | 5 A / 250 V | 2,5 A / 250 V | 5 A / 250 V | 2,5 A / 250 V | 5 A / 250 V | 2,5 A / 250 V |
| | | DC | 5 A / 24 V | 4 A / 24 V | 5 A / 24 V | 4 A / 24 V | 5 A / 24 V | 4 A / 24 V |
| | Mechanical life | | > 30 x 10 ⁶ operations | | > 30 x 10 ⁶ operations | | > 30 x 10 ⁶ operations | |
| | Max. switching rate, mech. | | 72.000 operations / hour | | 72.000 operations / hour | | 72.000 operations / hour | |
| | Electrical life at full load | | 360 operations / hour | | 360 operations / hour | | 360 operations / hour | |
| | Contact material | | AgNi 90/10 | | AgNi 90/10 | | AgNi 90/10 | |
| | Maximum voltage | | 440 VAC | | 440 VAC | | 440 VAC | |
| | Operating voltage | | 250 VAC | | 250 VAC | | 250 VAC | |
| | Volt. between changeovers | | 2500 VAC | | 2500 VAC | | 2500 VAC | |
| | Voltage between contacts | | 1000 VAC | | 1000 VAC | | 1000 VAC | |
| | Voltage coil/contact | | 5000 VAC | | 5000 VAC | | 5000 VAC | |
| Distance coil/contact | | 10 mm | | 10 mm | | 10 mm | | |
| Isolation resistance | | > 10 ⁴ MΩ | | > 10 ⁴ MΩ | | > 10 ⁴ MΩ | | |

| Supply | AC | |
|--------------------|--------------------|-----------------|
| | PFDS/PFD T | DFDS/T - SFDS/T |
| | | |
| | Galvanic isolation | Yes |
| | Frequency | 50 / 60 Hz |
| | Operating margins | ±10% -15% |
| Positive | - | |
| Protected polarity | - | |

| Constructive and environmental data | PFDS / PFD T | DFDS / DFDT | SFDS / SFDT | |
|-------------------------------------|---|----------------------|----------------------|----------------------|
| | Voltage phase-neutral | 300 V | 300 V | 300 V |
| | Overvoltage category | III | III | III |
| | Rated impulse voltage | 4 kV | 4 kV | 4 kV |
| | Pollution degree | 2 | 3 | 2 |
| | Protection | IP 20 B | IP 20 | IP 20 |
| | Approximate weight | 250 g | 280 g | 270 g |
| | Storage temperature | -50°C +85°C | -50°C +85°C | -50°C +85°C |
| | Operating temperature | -20°C +50°C | -20°C +50°C | -20°C +50°C |
| | Humidity | 30~85% HR | 30~85% HR | 30~85% HR |
| | Housing | Cycloxy - Light grey | Cycloxy - Light grey | Cycloxy - Light grey |
| | Socket | Lexan - Light grey | - | - |
| | Visor leds | Lexan - Transparent | Lexan - Transparent | Lexan - Transparent |
| | Button, terminal block, clip | Technyl - Dark blue | Technyl - Dark blue | Technyl - Dark blue |
| Pins of the socket | Nickel brass | - | - | |
| Pins of the terminal block | - | Brass | Brass | |
| Approvals | Designed and manufactured under EEC standards. Electromagnetic compatibility , directives 89/366/EEC and 92/31/EEC. Electric safety, directive 73/23/EEC. Plastics: UL 91 V0 | | | |

| Dimensions | PFDS / PFD T | DFDS / DFDT | SFDS / SFDT |
|------------|--------------|-------------|-------------|
| | | | |

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