

## Features

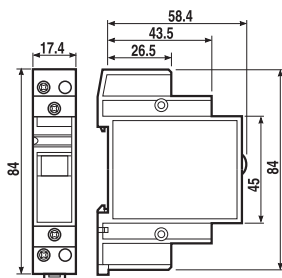
1 or 2 pole, 20 A relay  
for direct 35 mm rail (EN 60715) mounting

- 17.4 mm wide
- Test button
- Identification label
- AC coils and DC coils
- 35 mm rail (EN 60715) mount
- Cadmium free contact material

22.21



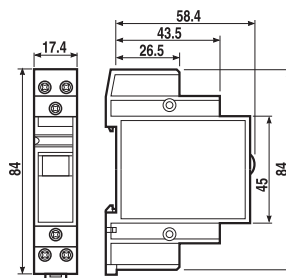
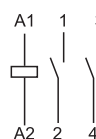
- Single phase switch 1 NO (SPST-NO)
- 35 mm rail (EN 60715) mount



22.22



- Double phase switch 2 NO (DPST-NO)
- 35 mm rail (EN 60715) mount



## Contact specification

|                                              |                    |                    |
|----------------------------------------------|--------------------|--------------------|
| Contact configuration                        | 1 NO (SPST-NO)     | 2 NO (DPST-NO)     |
| Rated current/Maximum peak current A         | 20/30              | 20/30              |
| Rated voltage/Maximum switching voltage V AC | 250/400            | 250/400            |
| Rated load AC1 VA                            | 5,000              | 5,000              |
| Rated load AC15 (230 V AC) VA                | 1,000              | 1,000              |
| Single phase motor rating (230 V AC) kW      | —                  | —                  |
| Breaking capacity DC1: 30/110/220 V A        | 20/0.3/0.12        | 20/0.3/0.12        |
| Minimum switching load mW (V/mA)             | 1,000 (10/10)      | 1,000 (10/10)      |
| Standard contact material                    | AgSnO <sub>2</sub> | AgSnO <sub>2</sub> |

## Coil specification

|                                   |                 |                            |                            |
|-----------------------------------|-----------------|----------------------------|----------------------------|
| Nominal voltage (U <sub>N</sub> ) | V AC (50/60 Hz) | 12 - 24 - 230              |                            |
|                                   | V DC            | 12 - 24                    | 12 - 24                    |
| Rated power AC/DC VA (50 Hz)/W    |                 | 3/1.25                     | 3/1.25                     |
| Operating range                   | AC (50 Hz)      | (0.85...1.1)U <sub>N</sub> | (0.85...1.1)U <sub>N</sub> |
|                                   | DC              | (0.9...1.1)U <sub>N</sub>  | (0.9...1.1)U <sub>N</sub>  |

## Technical data

|                                                     |        |                       |                       |
|-----------------------------------------------------|--------|-----------------------|-----------------------|
| Mechanical life AC/DC                               | cycles | 500 · 10 <sup>3</sup> | 500 · 10 <sup>3</sup> |
| Electrical life at rated load in AC1                | cycles | 50 · 10 <sup>3</sup>  | 50 · 10 <sup>3</sup>  |
| Operate/release time                                | ms     | 15/8                  | 15/8                  |
| Maximum impulse duration                            |        | continuous            | continuous            |
| Insulation between coil and contacts (1.2/50 μs) kV |        | 4                     | 4                     |
| Ambient temperature range                           | °C     | -40...+40             | -40...+40             |
| Protection category                                 |        | IP 20                 | IP 20                 |

Approvals (according to type)



## Features

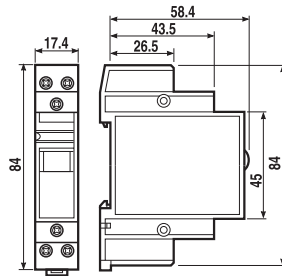
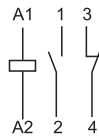
1 or 2 pole, 20 A relay  
for direct 35 mm rail (EN 60715) mounting

- 17.4 mm wide
- Test button
- Identification label
- AC coils and DC coils
- 35 mm rail (EN 60715) mount
- Cadmium free contact material

22.23



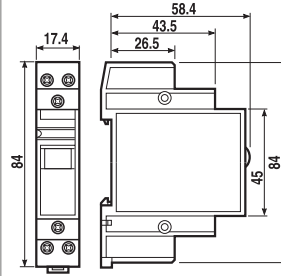
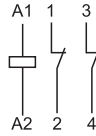
- Double phase switch  
1NO+1NC (SPST-NO+SPST-NC)
- 35 mm rail (EN 60715) mount



22.24



- Double phase switch 2 NC  
(DPST-NC)
- 35 mm rail (EN 60715) mount



## Contact specification

|                                              |                           |                    |
|----------------------------------------------|---------------------------|--------------------|
| Contact configuration                        | 1NO+1NC (SPST-NO+SPST-NC) | 2 NC (DPST-NC)     |
| Rated current/Maximum peak current           | A 20/30                   | 20/30              |
| Rated voltage/Maximum switching voltage V AC | 250/400                   | 250/400            |
| Rated load AC1                               | VA 5,000                  | 5,000              |
| Rated load AC15 (230 V AC)                   | VA 1,000                  | 1,000              |
| Single phase motor rating (230 V AC)         | kW —                      | —                  |
| Breaking capacity DC1: 30/110/220 V          | A 20/0.3/0.12             | 20/0.3/0.12        |
| Minimum switching load                       | mW (V/mA) 1,000 (10/10)   | 1,000 (10/10)      |
| Standard contact material                    | AgSnO <sub>2</sub>        | AgSnO <sub>2</sub> |

## Coil specification

|                                   |                 |                            |                            |
|-----------------------------------|-----------------|----------------------------|----------------------------|
| Nominal voltage (U <sub>N</sub> ) | V AC (50/60 Hz) | 12 - 24 - 230              |                            |
|                                   | V DC            | 12 - 24                    | 12 - 24                    |
| Rated power AC/DC                 | VA (50 Hz)/W    | 3/1.25                     | 3/1.25                     |
| Operating range                   | AC (50 Hz)      | (0.85...1.1)U <sub>N</sub> | (0.85...1.1)U <sub>N</sub> |
|                                   | DC              | (0.9...1.1)U <sub>N</sub>  | (0.9...1.1)U <sub>N</sub>  |

## Technical data

|                                                  |        |                       |                       |
|--------------------------------------------------|--------|-----------------------|-----------------------|
| Mechanical life AC/DC                            | cycles | 500 · 10 <sup>3</sup> | 500 · 10 <sup>3</sup> |
| Electrical life at rated load in AC1             | cycles | 50 · 10 <sup>3</sup>  | 50 · 10 <sup>3</sup>  |
| Operate/release time                             | ms     | 15/8                  | 15/8                  |
| Maximum impulse duration                         |        | continuous            | continuous            |
| Insulation between coil and contacts (1.2/50 μs) | kV     | 4                     | 4                     |
| Ambient temperature range                        | °C     | -40...+40             | -40...+40             |
| Protection category                              |        | IP 20                 | IP 20                 |

Approvals (according to type)



## Ordering information

Example: 22 series 35 mm rail mount relay, 1 NO (SPST-NO) 20 A contact, coil rated 24 V DC, contact material AgSnO<sub>2</sub>.

|                                          |  |  |                                                                                                       |  |  |                     |  |  |                             |  |  |  |
|------------------------------------------|--|--|-------------------------------------------------------------------------------------------------------|--|--|---------------------|--|--|-----------------------------|--|--|--|
| <div>2 2 . 2 1 . 9 . 0 2 4 . 4 0 0</div> |  |  |                                                                                                       |  |  |                     |  |  |                             |  |  |  |
| <b>Series</b>                            |  |  | <b>Type</b>                                                                                           |  |  | <b>No. of poles</b> |  |  | <b>Contact material</b>     |  |  |  |
| 2 = 35 mm rail (EN 60715) mount          |  |  | 1 = 1 NO (SPST-NO)<br>2 = 2 NO (DPST-NO)<br>3 = 1 NO + 1 NC (SPST-NO + SPST-NC)<br>4 = 2 NC (DPST-NC) |  |  |                     |  |  | 4 = AgSnO <sub>2</sub>      |  |  |  |
|                                          |  |  |                                                                                                       |  |  |                     |  |  | <b>Coil voltage</b>         |  |  |  |
|                                          |  |  |                                                                                                       |  |  |                     |  |  | See coil specifications     |  |  |  |
|                                          |  |  |                                                                                                       |  |  |                     |  |  | <b>Coil version</b>         |  |  |  |
|                                          |  |  |                                                                                                       |  |  |                     |  |  | 8 = AC (50/60 Hz)<br>9 = DC |  |  |  |

## Technical data

| Contact specifications                                                                           |                       |                    |                          |                |
|--------------------------------------------------------------------------------------------------|-----------------------|--------------------|--------------------------|----------------|
| Nominal rate lamps                                                                               |                       |                    |                          |                |
| incandescent (230V)                                                                              | W                     | 1,000              |                          |                |
| compensated fluorescent (230V)                                                                   | W                     | 360                |                          |                |
| Insulation                                                                                       |                       |                    |                          |                |
| Dielectric strength                                                                              |                       |                    |                          |                |
| between supply and contacts                                                                      | V AC                  | 3,500              |                          |                |
| between open contacts                                                                            | V AC                  | 2,000              |                          |                |
| between adjacent contacts                                                                        | V AC                  | 2,000              |                          |                |
| Other data                                                                                       |                       |                    |                          |                |
| Bounce time: NO / NC                                                                             | ms                    | 5 / 10             |                          |                |
| Power lost to the environment                                                                    |                       |                    |                          |                |
| without contact current                                                                          | W                     | 1.2                |                          |                |
| with rated current                                                                               | W                     | 3.2 (22.21, 22.23) | 5.2 (22.22, 22.24)       |                |
|  Screw torque | Nm                    | 0.8                | 0.8                      |                |
| Max. wire size                                                                                   | <b>Coil terminals</b> |                    | <b>Contact terminals</b> |                |
|                                                                                                  | solid cable           | stranded cable     | solid cable              | stranded cable |
|                                                                                                  | mm <sup>2</sup>       | 1x4 / 2x2.5        | 1x2.5 / 2x2.5            | 1x6 / 2x6      |
|                                                                                                  | AWG                   | 1x12 / 2x14        | 1x14 / 2x14              | 1x10 / 2x10    |

If the coil is operated for a prolonged period of time, adequate ventilation of the relays must be provided - suggested gap of 9 mm between adjacent relays.

## Coil specifications

## DC version data

| Nominal voltage<br>$U_N$ | Coil code | Operating range |           | Resistance<br>$R$ | Consumption<br>$I$ at $U_N$ |
|--------------------------|-----------|-----------------|-----------|-------------------|-----------------------------|
|                          |           | $U_{min}$       | $U_{max}$ |                   |                             |
| V                        |           | V               | V         | $\Omega$          | mA                          |
| 12                       | 9.012     | 10.8            | 13.2      | 115               | 104                         |
| 24                       | 9.024     | 21.6            | 26.4      | 460               | 52.2                        |

## AC version data

| Nominal voltage<br>$U_N$ | Coil code | Operating range |           | Resistance<br>$R$ | Consumption<br>$I$ at $U_N$<br>(50 Hz) |
|--------------------------|-----------|-----------------|-----------|-------------------|----------------------------------------|
|                          |           | $U_{min}$       | $U_{max}$ |                   |                                        |
| V                        |           | V               | V         | $\Omega$          | mA                                     |
| 12                       | 8.012     | 10.2            | 13.2      | 13.5              | 245                                    |
| 24                       | 8.024     | 20.4            | 26.4      | 41                | 135                                    |
| 230                      | 8.230     | 196             | 253       | 4,200             | 12.5                                   |

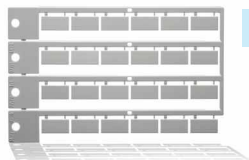
## Accessories



020.01

**Adaptor for panel mounting, 17.5 mm wide**

020.01



020.24

**Sheet of marker tags, plastic, 24 tags, 9x17 mm**

020.24



022.09

**Separator for rail mounting, plastic, 9 mm wide**

022.09

