



## Main

|                                              |                                                                                                                   |
|----------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| Range of product                             | Zelio Relay                                                                                                       |
| Series name                                  | Power                                                                                                             |
| Product or component type                    | Plug-in relay                                                                                                     |
| Device short name                            | RPF                                                                                                               |
| Contacts type and composition                | 2 NO                                                                                                              |
| Control circuit voltage                      | 24 V AC                                                                                                           |
| Control type                                 | Without lockable test button                                                                                      |
| Shape of pin                                 | Flat                                                                                                              |
| Contacts material                            | Silver tin oxide                                                                                                  |
| [Ithe] conventional enclosed thermal current | 30 A at -40...55 °C for 13 mm gap between two relays<br>25 A at -40...55 °C for relays side by side without a gap |
| Resistive rated load                         | 30 A at 250 V AC<br>25 A at 28 V DC                                                                               |
| Utilisation coefficient                      | 10 %                                                                                                              |

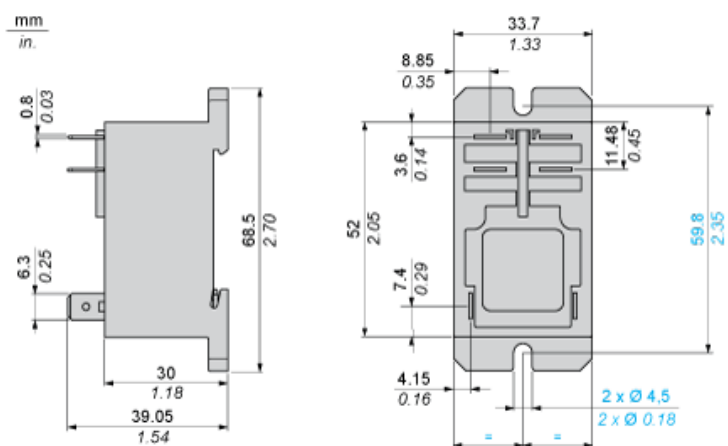
## Complementary

|                                        |                                                                                                                                                                                      |
|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Mounting support                       | DIN rail<br>Panel                                                                                                                                                                    |
| Control circuit voltage limits         | 19.2...26.4 V                                                                                                                                                                        |
| [Ie] rated operational current         | 25 A at 28 V DC (for NO) conforming to IEC<br>30 A at 250 V AC (for NO) conforming to IEC<br>20 A at 28 V DC (for NO) conforming to UL<br>30 A at 277 V AC (for NO) conforming to UL |
| [Ui] rated insulation voltage          | 300 V conforming to UL<br>250 V conforming to IEC                                                                                                                                    |
| [Uimp] rated impulse withstand voltage | 4 kV 1.2/50 µs                                                                                                                                                                       |
| Maximum switching voltage              | 250 V conforming to IEC                                                                                                                                                              |
| Maximum switching capacity             | 7500 VA/700 W                                                                                                                                                                        |
| Operating rate                         | <= 18000 cycles/hour no-load<br><= 1200 cycles/hour under load                                                                                                                       |
| Mechanical durability                  | 5000000 cycles                                                                                                                                                                       |
| Electrical durability                  | 100000 cycles for resistive load                                                                                                                                                     |
| Average coil consumption               | 4 VA at 60 Hz                                                                                                                                                                        |
| Drop-out voltage threshold             | >= 0.15 Uc                                                                                                                                                                           |
| Operate time                           | 25 ms                                                                                                                                                                                |
| Release time                           | 25 ms                                                                                                                                                                                |
| Average resistance                     | 170 Ohm (tolerance +/- 15 %) at 20 °C                                                                                                                                                |
| Safety reliability data                | B10d = 100000                                                                                                                                                                        |
| Protection category                    | RT II                                                                                                                                                                                |
| Operating position                     | Any position                                                                                                                                                                         |
| Product weight                         | 0.082 kg                                                                                                                                                                             |

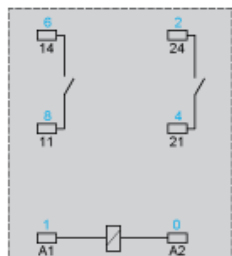
## Environment

|                                       |                                                                                                                                                                                  |
|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Dielectric strength                   | 1500 V AC between contacts with micro disconnection insulation<br>4000 V AC between coil and contact with reinforced insulation<br>2000 V AC between poles with basic insulation |
| Standards                             | EN/IEC 61810-1<br>UL 508<br>CSA C22.2 No 14                                                                                                                                      |
| Product certifications                | CE<br>CSA<br>GOST<br>UL                                                                                                                                                          |
| Ambient air temperature for storage   | -40...85 °C                                                                                                                                                                      |
| Ambient air temperature for operation | -40...55 °C                                                                                                                                                                      |
| Vibration resistance                  | 10 gn (+/- 1 mm, f = 10...150 Hz) 5 cycles not operating<br>3 gn (+/- 1 mm, f = 10...150 Hz) 5 cycles in operation                                                               |
| IP degree of protection               | IP40 conforming to EN/IEC 60529                                                                                                                                                  |
| Shock resistance                      | 30 gn not operating<br>10 gn in operation                                                                                                                                        |
| Pollution degree                      | 3                                                                                                                                                                                |

Dimensions



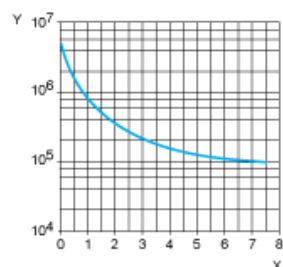
## Wiring Diagram



Symbols shown in blue correspond to Nema marking.

## Electrical Durability of Contacts

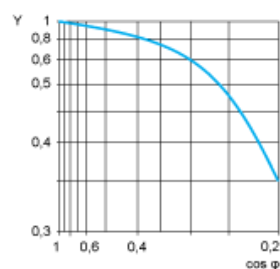
### AC Resistive load



X Switching capacity (kVA)  
Y Durability (number of operating cycles)

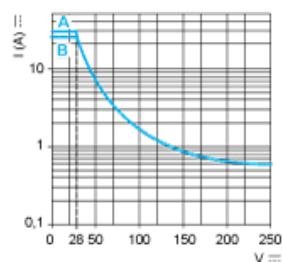
### AC Reduction coefficient for inductive load (depending on power factor $\cos \phi$ )

Durability (inductive load) = durability (resistive load) x reduction coefficient.



Y reduction coefficient

### Maximum switching capacity on DC resistive load



A 30 A  
B 25 A

Note : These are typical curves, actual durability depends on load, environment, duty cycle, etc.