



PRODUCT-DETAILS

# NFZ22EK-30

## NFZ22EK-30 24VDC Contactor Relay



General Information

|                       |                                  |
|-----------------------|----------------------------------|
| Extended Product Type | NFZ22EK-30                       |
| Product ID            | 1SBH136005R3022                  |
| EAN                   | 3471523153394                    |
| Catalog Description   | NFZ22EK-30 24VDC Contactor Relay |

Long Description

NFZ..K contactor relays are used for switching auxiliary and control circuits. NFZ..K contactors relays with coil 30 include a 24 V DC electronic coil interface with a built-in surge suppression, obtaining a reduced holding coil consumption up to 1.7 W for a low panel energy consumption and a direct control by PLC-output  $\geq 250$  mA 24 V DC, without need of additional interface relay. Only NFZ..-30 contactor relays need to respect the polarity on the coil terminals (A1+ and A2-). NFZ..K include Push-in Spring terminals. Only one push is all you need for extremely fast wiring: faster than ever installation, easier than ever wiring, reliable as ever connections. - Poles: 4-pole contactor relays (mechanically-linked auxiliary contacts compliant with Annex L of IEC 60947-5-1 and including the "Mechanically Linked" symbol on the contactor relay side) - Accessories: a wide range of accessories is available.

Ordering

|                        |          |
|------------------------|----------|
| Minimum Order Quantity | 1 piece  |
| Customs Tariff Number  | 85364900 |

| Popular Downloads        |                 |
|--------------------------|-----------------|
| Instructions and Manuals | 1SBC101054M6801 |
| CAD Dimensional Drawing  | 2CDC001079B0201 |

| Dimensions                 |          |
|----------------------------|----------|
| Product Net Width          | 45 mm    |
| Product Net Depth / Length | 97 mm    |
| Product Net Height         | 92.3 mm  |
| Product Net Weight         | 0.435 kg |

| Technical                                                   |                                                                                                                                                                                                                                                                        |
|-------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Number of Auxiliary Contacts NO                             | 2                                                                                                                                                                                                                                                                      |
| Number of Auxiliary Contacts NC                             | 2                                                                                                                                                                                                                                                                      |
| Standards                                                   | IEC/EN 60947-1, IEC/EN 60947-5-1, UL 508, CSA C22.2 No. 14-13                                                                                                                                                                                                          |
| Rated Operational Voltage                                   | Auxiliary Circuit 690 V<br>Main Circuit 690 V                                                                                                                                                                                                                          |
| Rated Frequency (f)                                         | Auxiliary Circuit 50 / 60 Hz                                                                                                                                                                                                                                           |
| Conventional Free-air Thermal Current ( $I_{th}$ )          | acc. to IEC 60947-5-1, $\Theta = 40\text{ }^{\circ}\text{C}$ 16 A                                                                                                                                                                                                      |
| Rated Operational Current AC-15 ( $I_{\theta}$ )            | (500 V) 2 A<br>(690 V) 2 A<br>(24 / 127 V) 6 A<br>(220 / 240 V) 4 A<br>(400 / 440 V) 3 A                                                                                                                                                                               |
| Rated Short-time Withstand Current Low Voltage ( $I_{cw}$ ) | for 0.1 s 140 A<br>for 1 s 100 A                                                                                                                                                                                                                                       |
| Maximum Electrical Switching Frequency                      | (AC-15) 1200 cycles per hour<br>(DC-13) 900 cycles per hour                                                                                                                                                                                                            |
| Rated Operational Current DC-13 ( $I_{\theta}$ )            | (24 V) 6 A / 144 W<br>(48 V) 2.8 A / 134 W<br>(72 V) 1 A / 72 W<br>(110 V) 0.55 A / 60 W<br>(125 V) 0.55 A / 69 W<br>(220 V) 0.27 A / 60 W<br>(250 V) 0.27 A / 68 W<br>(400 V) 0.15 A / 60 W<br>(500 V) 0.13 A / 65 W<br>(600 V) 0.1 A / 60 W                          |
| Rated Insulation Voltage ( $U_i$ )                          | acc. to IEC 60947-5-1 690 V<br>acc. to UL/CSA 600 V                                                                                                                                                                                                                    |
| Rated Impulse Withstand Voltage ( $U_{imp}$ )               | 6 kV                                                                                                                                                                                                                                                                   |
| Maximum Mechanical Switching Frequency                      | 6000 cycles per hour                                                                                                                                                                                                                                                   |
| Rated Control Circuit Voltage ( $U_c$ )                     | DC Operation 24 V                                                                                                                                                                                                                                                      |
| Coil Consumption                                            | Average Holding Value DC 1.7 W<br>Average Pull-in Value, from Cold State 6 W                                                                                                                                                                                           |
| Operate Time                                                | Between Coil De-energization and NC Contact Closing 22 ... 57 ms<br>Between Coil De-energization and NO Contact Opening 17 ... 29 ms<br>Between Coil Energization and NC Contact Opening 20 ... 35 ms<br>Between Coil Energization and NO Contact Closing 27 ... 53 ms |
| Mounting on DIN Rail                                        | TH35-15 (35 x 15 mm Mounting Rail) acc. to IEC 60715<br>TH35-7.5 (35 x 7.5 mm Mounting Rail) acc. to IEC 60715                                                                                                                                                         |
| Mounting by Screws (not supplied)                           | 2 x M4 screws placed diagonally                                                                                                                                                                                                                                        |
| Connecting Capacity Auxiliary Circuit                       | Flexible with Ferrule 1/2x 0.5 ... 2.5 mm <sup>2</sup><br>Flexible with Insulated Ferrule 1/2x 0.5 ... 1.5 mm <sup>2</sup>                                                                                                                                             |

|                       |                                                                                                                                   |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------|
|                       | Flexible 1/2x 0.5 ... 2.5 mm²<br>Rigid Solid 1/2x 1 ... 2.5 mm²                                                                   |
| Connecting Capacity   | Flexible with Ferrule 1/2x 0.5 ... 2.5 mm²                                                                                        |
| Control Circuit       | Flexible with Insulated Ferrule 1/2x 0.5 ... 1.5 mm²<br>Flexible 1/2x 0.5 ... 2.5 mm²<br>Rigid Solid 1/2x 1 ... 2.5 mm²           |
| Wire Stripping Length | Auxiliary Circuit 10 mm<br>Control Circuit 10 mm                                                                                  |
| Degree of Protection  | acc. to IEC 60529, IEC 60947-1, EN 60529 Auxiliary Terminals IP20<br>acc. to IEC 60529, IEC 60947-1, EN 60529 Coil Terminals IP20 |
| Terminal Type         | Push-in Spring Terminals                                                                                                          |

## Technical UL/CSA

|                          |                            |
|--------------------------|----------------------------|
| Connecting Capacity      | Rigid Solid 1/2x 18-14 AWG |
| Auxiliary Circuit UL/CSA |                            |
| Connecting Capacity      | Rigid Solid 1/2x 18-14 AWG |
| Control Circuit UL/CSA   |                            |

## Environmental

|                                           |                                                                                                                                                                                                                                                     |
|-------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ambient Air Temperature                   | Close to Contactor for Storage -60 ... +80 °C<br>Near Contactor for Operation in Free Air -40 ... 70 °C<br>Near Contactor for Operation in Free Air (0.85 ... 1.1 Uc) -40 ... +60 °C<br>Near Contactor for Operation in Free Air (Uc) -40 ... 70 °C |
| Climatic Withstand                        | Category B according to IEC 60947-1 Annex Q                                                                                                                                                                                                         |
| Maximum Operating<br>Altitude Permissible | Without Derating 3000 m                                                                                                                                                                                                                             |
| Resistance to Vibrations                  | 4g Closed Position & 2g Open position 5 ... 300 Hz                                                                                                                                                                                                  |

## Material Compliance

|                                                   |                                                            |
|---------------------------------------------------|------------------------------------------------------------|
| Conflict Minerals<br>Reporting Template<br>(CMRT) | 9AKK108467A5658                                            |
| REACH Declaration                                 | 2CMT2021-006202                                            |
| RoHS Information                                  | 2CMT2021-006277                                            |
| RoHS Status                                       | Following EU Directive 2011/65/EU                          |
| Toxic Substances Control<br>Act - TSCA            | 2CMT2023-006525                                            |
| WEEE B2C / B2B                                    | Business To Business                                       |
| WEEE Category                                     | 5. Small Equipment (No External Dimension More Than 50 cm) |

## Certificates and Declarations

|                                     |                         |
|-------------------------------------|-------------------------|
| ABS Certificate                     | ABS_20-2060694-PDA      |
| CB Certificate                      | CB_SE-93051M2           |
| CCC Certificate                     | 2020980303000185        |
| CQC Certificate                     | CQC2019010303267993     |
| Declaration of Conformity<br>- CCC  | CQC2011010303465426     |
| Declaration of Conformity<br>- CE   | 1SBD250005U1000         |
| Declaration of Conformity<br>- UKCA | 1SBD250036U1000         |
| DNV Certificate                     | DNV_TAE00001BV-5        |
| KC Certificate                      | KC-HW02016-21029A       |
| LR Certificate                      | LRS_LR2003684TA-02      |
| RINA Certificate                    | RINA_ELE240318XG        |
| RMRS Certificate                    | RMRS_1802702280         |
| UL Certificate                      | UL_20180227 E252354 2 1 |

Container Information

|                                |                |
|--------------------------------|----------------|
| Package Level 1 Units          | box 1 piece    |
| Package Level 1 Width          | 96 mm          |
| Package Level 1 Depth / Length | 112 mm         |
| Package Level 1 Height         | 50 mm          |
| Package Level 1 Gross Weight   | 0.467 kg       |
| Package Level 1 EAN            | 3471523153394  |
| Package Level 2 Units          | crate 12 piece |
| Package Level 2 Width          | 245 mm         |
| Package Level 2 Depth / Length | 245 mm         |
| Package Level 2 Height         | 153 mm         |
| Package Level 2 Gross Weight   | 5.6 kg         |

Classifications

|                            |                            |
|----------------------------|----------------------------|
| Object Classification Code | K                          |
| ETIM 4                     | EC000196 - Contactor relay |
| ETIM 5                     | EC000196 - Contactor relay |
| ETIM 6                     | EC000196 - Contactor relay |
| ETIM 7                     | EC000196 - Contactor relay |
| ETIM 8                     | EC000196 - Contactor relay |
| eClass                     | V11.0 : 27371001           |
| UNSPSC                     | 39120000                   |

Categories

Low Voltage Products and Systems → Control Products → Contactors → Block Contactors → NF Contactor Relays

