



PRODUCT-DETAILS

NF22E-13

NF22E-13 100-250V50/60HZ-DC Contactor Relay



| General Information | |
|-----------------------|--|
| Extended Product Type | NF22E-13 |
| Product ID | 1SBH137001R1322 |
| EAN | 3471523100138 |
| Catalog Description | NF22E-13 100-250V50/60HZ-DC Contactor Relay |
| Long Description | <p>The NF22E-13 is a 690 V IEC or 600 UL 4-pole contactor relay with screw terminals, used for switching auxiliary and control circuits.</p> <p>Thanks to the AF technology, the contactor relay has a wide control voltage range (100 -250 V 50/60 Hz and DC), managing large control voltage variations, reducing panel energy consumptions and ensuring distinct operations in unstable networks.</p> <p>Furthermore, surge protection is built-in, offering a compact solution. NF contactor relays have a block type design, can be easily extended with add-on auxiliary contact blocks and an additional wide range of accessories.</p> <p>These contactor relays include mechanically-linked auxiliary contacts compliant with Annex L of IEC 60947-5-1 and are side-marked with the "Mechanically Linked" symbol.</p> |

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

| Popular Downloads | |
|-----------------------------------|-----------------|
| Data Sheet, Technical Information | 1SBC100214C0202 |
| Instructions and Manuals | 1SBC101027M6801 |
| CAD Dimensional Drawing | 2CDC001079B0201 |

| Dimensions | |
|----------------------------|---------|
| Product Net Width | 45 mm |
| Product Net Depth / Length | 77 mm |
| Product Net Height | 86 mm |
| Product Net Weight | 0.27 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 |
| Rated Frequency (f) | Auxiliary Circuit 50 / 60 Hz Control Circuit 50 / 60 Hz |
| Conventional Free-air Thermal Current (I _{th}) | acc. to IEC 60947-5-1, $\Theta = 40\text{ °C}$ 16 A |
| Rated Operational Current AC-15 (I _e) | (500 V) 2 A (690 V) 2 A (24 / 127 V) 6 A (220 / 240 V) 4 A (400 / 440 V) 3 A |
| Rated Short-time Withstand Current Low Voltage (I _{cw}) | for 0.1 s 140 A for 1 s 100 A |
| Maximum Electrical Switching Frequency | (AC-15) 1200 cycles per hour (DC-13) 900 cycles per hour |
| Rated Operational Current DC-13 (I _e) | (24 V) 6 A / 144 W (48 V) 2.8 A / 134 W (72 V) 1 A / 72 W (110 V) 0.55 A / 60 W (125 V) 0.55 A / 69 W (220 V) 0.27 A / 60 W (250 V) 0.27 A / 68 W (400 V) 0.15 A / 60 W (500 V) 0.13 A / 65 W (600 V) 0.1 A / 60 W |
| Rated Insulation Voltage (U _i) | acc. to IEC 60947-5-1 690 V 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) | 50 Hz 100 ... 250 V 60 Hz 100 ... 250 V DC Operation 100 ... 250 V |

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| Operate Time | Between Coil De-energization and NC Contact Closing 13 ... 98 ms Between Coil De-energization and NO Contact Opening 11 ... 95 ms Between Coil Energization and NC Contact Opening 38 ... 90 ms Between Coil Energization and NO Contact Closing 40 ... 95 ms |
| Mounting on DIN Rail | TH35-15 (35 x 15 mm Mounting Rail) acc. to IEC 60715 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 0.75 ... 2.5 mm² Flexible with Insulated Ferrule 1x 0.75 ... 2.5 mm² Flexible with Insulated Ferrule 2x 0.75 ... 1.5 mm² Rigid Solid 1/2x 1 ... 2.5 mm² Rigid Stranded 1/2x 1 ... 2.5 mm² |
| Connecting Capacity Control Circuit | Flexible with Ferrule 1/2x 0.75 ... 2.5 mm² Flexible with Insulated Ferrule 1x 0.75 ... 2.5 mm² Flexible with Insulated Ferrule 2x 0.75 ... 1.5 mm² Rigid Solid 1/2x 1 ... 2.5 mm² Rigid Stranded 1/2x 1 ... 2.5 mm² |
| Wire Stripping Length | Auxiliary Circuit 10 mm Control Circuit 10 mm |
| Degree of Protection | acc. to IEC 60529, IEC 60947-1, EN 60529 Auxiliary Terminals IP20 acc. to IEC 60529, IEC 60947-1, EN 60529 Coil Terminals IP20 |
| Terminal Type | Screw Terminals |

Technical UL/CSA

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|--|---|
| Connecting Capacity Auxiliary Circuit UL/CSA | Rigid Solid 1/2x 18-14 AWG Rigid Stranded 1/2x 18-14 AWG |
| Tightening Torque UL/CSA | Auxiliary Circuit 11 in-lb Control Circuit 11 in-lb |

Environmental

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| Ambient Air Temperature | Close to Contactor for Storage -60 ... +80 °C Near Contactor for Operation in Free Air -40 ... 70 °C |
| Climatic Withstand | Category B according to IEC 60947-1 Annex Q |
| Maximum Operating Altitude Permissible | Without Derating 3000 m |
| Resistance to Shock acc. to IEC 60068-2-27 | Closed, Shock Direction: B1 25 g Open, Shock Direction: B1 5 g Shock Direction: A 30 g Shock Direction: B2 15 g Shock Direction: C1 25 g Shock Direction: C2 25 g |
| Resistance to Vibrations | 4g Closed Position & 2g Open position 5 ... 300 Hz |

Material Compliance

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|---|---|
| Conflict Minerals Reporting Template (CMRT) | 9AKK108467A5658 |
| REACH Declaration | 2CMT2021-006202 |
| RoHS Information | 2CMT2021-006277 |
| RoHS Status | Following EU Directive 2011/65/EU and Amendment 2015/863 July 22, 2019 |
| SCIP | 5611a638-de62-42f4-ab21-bce6bffa1c76 China (CN) |
| Simplified SCIP | f3bae351-c0cd-4bab-bf7b-6bd0db1d1f37 Estonia (EE) 1885854c-d808-4403-a683-cfc666ca8ed9 Finland (FI) a8a790c6-8865-42dc-9a16-25c71c579cd4 Hungary (HU) 59605740-7ed4-4540-b17c-1518303e80a5 France (FR) cc44becd-3e4c-4438-a018-76c100575d4a Czech Republic (CZ) |

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| f76f9696-c830-41c5-b415-8c237939b7eb Germany (DE) | |
| 6f76ebd8-1e69-449a-976c-6ff242c1e41a Croatia (HR) | |
| 9f56f5f1-8011-409e-8370-61a20483a92f Germany (DE) | |
| d4147311-807d-4704-8816-6937315d9f78 Poland (PL) | |
| ce59d800-bdf2-465e-af6f-fe6d1ba44fd1 France (FR) | |
| d62686b9-6abd-4dd6-b569-b45f1df84332 Sweden (SE) | |
| 09ef808a-e3aa-4c6d-a04a-aebb099d2357 Germany (DE) | |
| a4ec99a6-f169-44e5-b94e-26a2bc67bc67 Portugal (PT) | |
| 8d8029c9-ad99-4e21-a5e9-7fc522e5e887 Denmark (DK) | |
| f4311c29-4ca4-44e2-b3ec-25dd1aba9a81 Germany (DE) | |
| f62bf0b2-925a-4c1e-90c0-0dd30d54e965 Germany (DE) | |
| 9f85c2e0-013e-4516-8563-37b66ba26fcd Bulgaria (BG) | |
| 8101e312-0d84-4d34-9a04-330462c44519 Sweden (SE) | |
| d3407bd3-bf30-4d85-acd5-2d32b1c79fc1 Belgium (BE) | |
| b0226ce6-f0c7-40b5-8b57-5ec6648fe56b Spain (ES) | |
| 016176d6-283d-44d6-b525-56f0360a6d44 Belgium (BE) | |
| 0b14c632-d6ac-49d1-8487-ee8816a82d15 Greece (GR) | |
| 8e0a69aa-6cf3-4534-a91e-d73643b77111 Norway (NO) | |
| cbcd985c-25da-4de1-9f2f-20d6be1e5549 Poland (PL) | |
| aec57acf-fcca-4684-87ea-bf712a874385 Poland (PL) | |
| 53829389-b1d3-4434-b42f-a362e318a659 Netherlands (NL) | |
| 5de59291-108d-468f-a1d0-570d71b20dda Hungary (HU) | |
| Toxic Substances Control Act - TSCA | 2CMT2023-006525 |
| WEEE B2C / B2B | Business To Business |
| WEEE Category | 5. Small Equipment (No External Dimension More Than 50 cm) |

ABB EcoSolutions

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| Environmental Product Declaration - EPD | 1SBD250584E3000 2TFP200035A1001 |
| End of Life Instructions | 1SBC101080M6801 |

Certificates and Declarations

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|----------------------------------|-----------------------------|
| ABS Certificate | ABS_20-2060694-PDA |
| BV Certificate | BV_2634H24899C0 |
| CB Certificate | CB_SE-93051M2 |
| CCC Certificate | 2020980303000185 |
| CQC Certificate | CQC2019010303267993 |
| Declaration of Conformity - CCC | CQC2011010303465426 |
| Declaration of Conformity - CE | 1SBD250005U1000 |
| Declaration of Conformity - UKCA | 1SBD250036U1000 |
| DNV Certificate | DNV_TAE00001BV-5 |
| EAC Certificate | EAC_RU C-FR ME77 B03544 |
| GOST Certificate | GOST_POCCFR.ME77.B06804.pdf |
| KC Certificate | KC-HW02016-21031A |
| LR Certificate | LRS_LR2003684TA-02 |
| RINA Certificate | RINA_ELE142224XG |
| RMRS Certificate | RMRS_1802702280 |
| UL Certificate | UL_20180227_E252354_2_1 |
| UL Listing Card | UL_E252354 |

Container Information

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|-----------------------|-------------|
| Package Level 1 Units | box 1 piece |
|-----------------------|-------------|

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|--------------------------------|---------------|
| Package Level 1 Width | 87 mm |
| Package Level 1 Depth / Length | 79 mm |
| Package Level 1 Height | 47 mm |
| Package Level 1 Gross Weight | 0.27 kg |
| Package Level 1 EAN | 3471523100138 |
| Package Level 2 Units | box 27 piece |
| Package Level 2 Width | 250 mm |
| Package Level 2 Depth / Length | 300 mm |
| Package Level 2 Height | 315 mm |
| Package Level 2 Gross Weight | 14.58 kg |
| Package Level 3 Units | 1296 piece |

| Classifications | | |
|------------------------------------|---------------------------------------|---|
| Object Classification Code | | K |
| ETIM 7 | EC000196 - Contactor relay | |
| ETIM 8 | EC000196 - Contactor relay | |
| ETIM 9 | EC000196 - Contactor relay | |
| eClass | V11.0 : 27371001 | |
| UNSPSC | 39121529 | |
| IDEA Granular Category Code (IGCC) | 4763 >> Power contactor, DC switching | |
| E-Number (Finland) | 3706401 | |
| E-Number (Sweden) | 3211448 | |

Categories

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

