

Representative Image

# Alternate Catalog No. NF31E-12
# Catalog No. 1SBH137001R1231

**Description: NF31E-12 48-130V50/60HZ-DC Contactor Relay**

**UPC No 3471523100220**

**Home > Contactors & Starters > UL Listed IEC Contactors > AF Contactors**

NF contactor relays are used for switching auxiliary and control circuits. NF contactor relays include an electronic coil interface accepting a wide control voltage Uc min. ... Uc max. Only four coils cover control voltages between 24...500 V 50/60 Hz or 20...500 V DC. NF contactor relays can manage large control voltage variations. One coil can be used for different control voltages used worldwide without any coil change. NF contactor relays have built-in surge protection and do not require additional surge suppressors. - 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) - Control Circuit: AC or DC operated - Accessories: a wide range of Accessories is available.

## Descriptors

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|---|---|
| Category | AF Contactors |
| Block Contactor Type | Contactor Relay |

## Specifications

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|---|---|
| Product Type | AF |
| Object Classification Code | K |
| Terminal Type | Screw Terminals |
| Rated Control Circuit Voltage | 50 Hz /60 Hz DC Operation 48 ... 130 V |
| Resistance to Vibrations acc. to IEC 60068-2-6 | 5 ... 300 Hz 4 g closed position / 2 g open position |
| Number of Auxiliary Contacts NO | 3 |
| RoHS Status | Following EU Directive 2011/65/EU |
| Reference Ambient Air Temperature | Close to Contactor for Storage °C<br>Near Contactor for Operation in Free Air °C |
| Rated Operational Voltage | Auxiliary Circuit 690 V<br>Main Circuit 690 V |
| Number of Auxiliary Contacts NC | 1 |
| Tightening Torque UL/CSA | Auxiliary Circuit 11 IA<br>Control Circuit 11 IA |
| Maximum Operating Altitude Permissible | 3000 m |
| Standards | IEC 60947-5-1 and EN 60947-5-1, UL 508, CSA C22.2 N°14 |
| Conventional Free-air Thermal Current | acc. to IEC 60947-5-1, q = 40 °C 16 A |
| Rated Operational Current AC-15 | (220 / 240 V) 4 A<br>(24 / 127 V) 6 A<br>(500 V) 2 A<br>(690 V) 2 A<br>(400 / 440 V) 3 A |
| Rated Frequency | Auxiliary Circuit 50 Hz<br>Auxiliary Circuit 60 Hz |
| Rated Short-time Withstand Current | for 0.1 s A<br>for 1 s A |
| Maximum Electrical Switching Frequency | AC-15 1200 cycles per hour<br>DC-13 900 cycles per hour |
| Rated Insulation Voltage | acc. to UL/CSA 600 V<br>acc. to IEC 60947-5-1 and VDE 0110 (Gr. C) 690 V |
| Maximum Mechanical Switching Frequency | 6000 cycles per hour |

by ABB

## Specifications

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|---|---|
| Operate Time | Between Coil De-energization and NC Contact Closing 13 ... 98 ms<br>Between Coil De-energization and NO Contact Opening 11 ... 95 ms<br>Between Coil Energization and NC Contact Opening 38 ... 90 ms<br>Between Coil Energization and NO Contact Closing 40 ... 95 ms |
| Secondary Rated Impulse Withstand Voltage | 6 kV |
| Rated Operational Current DC-13 | (125 V) 0.55 A / 69 W<br>(24 V) 6 A / 144 W<br>(250 V) 0.27 A / 68 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>(220 V) 0.27 A / 60 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 |
| Connecting Capacity Control Circuit | Flexible with Ferrule<br>Flexible with Insulated Ferrule<br>Rigid |
| 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 |
| Connecting Capacity Auxiliary Circuit | Flexible with Ferrule 1/2x 0.75 ... 2.5 m²<br>Flexible with Insulated Ferrule 1x 0.75 ... 2.5/2x 0.75 ... 1.5 m²<br>Rigid 1/2x 1 ... 2.5 m² |
| Wire Stripping Length | Auxiliary Circuit 10 mm<br>Control Circuit 10 mm |

## Classifications

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|---|---|
| ETIM 4 | EC000196 - Contactor relay |
| ETIM 6.0 | EC000196 - Contactor relay |
| ETIM 7 | EC000196 - Contactor relay |
| ETIM 5.0 | EC000196 - Contactor relay |

## Dimensions

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| Product Net Weight | 0.27 kg |
| Product Net Depth / Length | 77 mm |
| Product Net Width | 45 mm |
| Product Net Height | 86 mm |

## Package Information

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| Package Level 1 Width | 87 mm |
| Package Level 1 Depth / Length | 79 mm |
| Package Level 1 EAN | 3471523100220 |
| Package Level 1 Units | box 1 piece |
| Package Level 2 Height | 315 mm |
| Package Level 2 Units | 27 piece |
| Package Level 3 Units | 1296 piece |
| Package Level 2 Depth / Length | 300 mm |
| Package Level 2 Gross Weight | 14.58 kg |

## Ordering

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| Minimum Order Quantity | 1 |