



Representative Image

## Alternate Catalog No. NF40EK-14 Catalog No. 1SBH137005R1440

**Description:** NF40EK-14 250-500V50/60HZ-DC Contactor Relay

**UPC No** 3471523152441

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

NF..K contactor relays are used for switching auxiliary and control circuits. NF contactor relays include an electronic coil interface accepting a wide control voltage  $U_c \text{ min.} \dots U_c \text{ max.}$  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. NF..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.

### Descriptors

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

### Specifications

|                                                |                                                                                                                                                                                                                                                                        |
|------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Type                                   | AF                                                                                                                                                                                                                                                                     |
| Object Classification Code                     | K                                                                                                                                                                                                                                                                      |
| Terminal Type                                  | Push-in Spring Terminals                                                                                                                                                                                                                                               |
| Rated Control Circuit Voltage                  | 50 Hz / 60 Hz DC Operation 250 ... 500 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                | 4                                                                                                                                                                                                                                                                      |
| 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                | 0                                                                                                                                                                                                                                                                      |
| Maximum Operating Altitude Permissible         | 3000 m                                                                                                                                                                                                                                                                 |
| Conventional Free-air Thermal Current          | acc. to IEC 60947-5-1, $q = 40^\circ\text{C}$ 16 A<br>(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 Operational Current AC-15                | Auxiliary Circuit 50 Hz<br>Auxiliary Circuit 60 Hz                                                                                                                                                                                                                     |
| Rated Frequency                                | for 0.1 s A<br>for 1 s A                                                                                                                                                                                                                                               |
| Rated Short-time Withstand Current             | AC-15 1200 cycles per hour<br>DC-13 900 cycles per hour                                                                                                                                                                                                                |
| Maximum Electrical Switching Frequency         | acc. to IEC 60947-5-1 and VDE 0110 (Gr. C) 690 V                                                                                                                                                                                                                       |
| Rated Insulation Voltage                       | 6000 cycles per hour                                                                                                                                                                                                                                                   |
| Maximum Mechanical Switching Frequency         | 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 |
| Operate Time                                   | 6 kV                                                                                                                                                                                                                                                                   |
| Secondary Rated Impulse Withstand Voltage      |                                                                                                                                                                                                                                                                        |

**by ABB**

## Specifications

|                                       |                                                                                                                                                                                                                                               |
|---------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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>Flexible<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 0.5 ... 2.5 m <sup>2</sup><br>Flexible with Insulated Ferrule 1/2x 0.5 ... 1.5 m <sup>2</sup><br>Flexible 1/2x 0.5 ... 2.5 m <sup>2</sup><br>Rigid 1/2x 1 ... 2.5 m <sup>2</sup>                                   |
| Wire Stripping Length                 | Auxiliary Circuit 10 mm<br>Control Circuit 10 mm                                                                                                                                                                                              |

## Classifications

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

## Dimensions

|                            |         |
|----------------------------|---------|
| Product Net Weight         | 0.325kg |
| Product Net Depth / Length | 77 mm   |
| Product Net Width          | 45 mm   |
| Product Net Height         | 92.3 mm |

## Package Information

|                                |               |
|--------------------------------|---------------|
| Package Level 1 Width          | 93 mm         |
| Package Level 1 Depth / Length | 86 mm         |
| Package Level 1 EAN            | 3471523152441 |
| Package Level 1 Units          | box 1 piece   |
| Package Level 2 Height         | 315 mm        |
| Package Level 2 Units          | box 21 piece  |
| Package Level 3 Units          | 1080 piece    |
| Package Level 2 Depth / Length | 300 mm        |
| Package Level 2 Gross Weight   | 15.3 kg       |

## Ordering

|                        |   |
|------------------------|---|
| Minimum Order Quantity | 1 |
|------------------------|---|