



PRODUCT-DETAILS

# NF44E-14

## NF44E-14 250-500V50/60HZ-DC Contactor Relay



| General Information    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Extended Product Type  | NF44E-14                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Product ID             | 1SBH137001R1444                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| EAN                    | 3471523100749                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Catalog Description    | NF44E-14 250-500V50/60HZ-DC Contactor Relay                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Long Description       | <p>The NF44E-14 is a 690 V IEC or 600 UL 8-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 (250 -500 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

| 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 | 110.5 mm |
| Product Net Height         | 86 mm    |
| Product Net Weight         | 0.36 kg  |

| Technical                                                         |                                                                                                                                                                                                                                               |
|-------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Number of Auxiliary Contacts NO                                   | 4                                                                                                                                                                                                                                             |
| Number of Auxiliary Contacts NC                                   | 4                                                                                                                                                                                                                                             |
| Number of Poles                                                   | 8P                                                                                                                                                                                                                                            |
| Standards                                                         | IEC/EN 60947-1, IEC/EN 60947-5-1, UL 60335-2-40 LZGH2 A2L, UL 508, CSA C22.2 No. 60335-2-40 LZGH2 A2L, CSA C22.2 No. 14-13                                                                                                                    |
| Rated Operational Voltage                                         | Auxiliary Circuit 690 V                                                                                                                                                                                                                       |
| Rated Frequency (f)                                               | Auxiliary Circuit 50 / 60 Hz<br>Control Circuit 50 / 60 Hz                                                                                                                                                                                    |
| Conventional Free-air Thermal Current (I <sub>th</sub> )          | acc. to IEC 60947-5-1, $\Theta = 40\text{ °C}$ 16 A                                                                                                                                                                                           |
| Rated Operational Current AC-15 (I <sub>e</sub> )                 | (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 Operational Current DC-13 (I <sub>e</sub> )                 | (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 Short-time Withstand Current Low Voltage (I <sub>cw</sub> ) | for 0.1 s 140 A<br>for 1 s 100 A                                                                                                                                                                                                              |
| Rated Insulation Voltage (U <sub>i</sub> )                        | acc. to IEC 60947-5-1 690 V<br>acc. to UL/CSA 600 V                                                                                                                                                                                           |
| Rated Impulse Withstand Voltage (U <sub>imp</sub> )               | 6 kV                                                                                                                                                                                                                                          |
| Maximum Electrical Switching Frequency                            | (AC-15) 1200 cycles per hour<br>(DC-13) 900 cycles per hour                                                                                                                                                                                   |
| Maximum Mechanical Switching Frequency                            | 6000 cycles per hour                                                                                                                                                                                                                          |
| Rated Control Circuit Voltage (U <sub>c</sub> )                   | 50 Hz 250 ... 500 V<br>60 Hz 250 ... 500 V                                                                                                                                                                                                    |

|                                       |                                                                                                                                                                                                                                                                        |
|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DC Operation 250 ... 500 V            |                                                                                                                                                                                                                                                                        |
| 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 |
| 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 0.75 ... 2.5 mm²<br>Flexible with Insulated Ferrule 1x 0.75 ... 2.5 mm²<br>Flexible with Insulated Ferrule 2x 0.75 ... 1.5 mm²<br>Rigid Solid 1/2x 1 ... 2.5 mm²<br>Rigid Stranded 1/2x 1 ... 2.5 mm²                                       |
| Connecting Capacity Control Circuit   | Flexible with Ferrule 1/2x 0.75 ... 2.5 mm²<br>Flexible with Insulated Ferrule 1x 0.75 ... 2.5 mm²<br>Flexible with Insulated Ferrule 2x 0.75 ... 1.5 mm²<br>Rigid Solid 1/2x 1 ... 2.5 mm²<br>Rigid Stranded 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                                                                                                                                      |
| Tightening Torque                     | Auxiliary Circuit 1.2 N·m<br>Control Circuit 1.2 N·m                                                                                                                                                                                                                   |
| Terminal Type                         | Screw Terminals                                                                                                                                                                                                                                                        |
| Product Name                          | Block Contactor Relay                                                                                                                                                                                                                                                  |

Technical UL/CSA

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

Environmental

|                                            |                                                                                                                                                                                  |
|--------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ambient Air Temperature                    | Close to Contactor for Storage -60 ... +80 °C<br>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<br>Open, Shock Direction: B1 5 g<br>Shock Direction: A 30 g<br>Shock Direction: B2 15 g<br>Shock Direction: C1 25 g<br>Shock Direction: C2 25 g |
| Resistance to Vibrations                   | 4g Closed Position & 2g Open position 5 ... 300 Hz                                                                                                                               |
| Pollution Degree                           | 3                                                                                                                                                                                |

Material Compliance

|                                             |                                                                        |
|---------------------------------------------|------------------------------------------------------------------------|
| 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 |

|                                     |                                                            |
|-------------------------------------|------------------------------------------------------------|
| 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

|                                                   |                           |
|---------------------------------------------------|---------------------------|
| End Of Life Disassembling Instructions            | 1SBC101080M6801           |
| Environmental Product Declaration - EPD           | 1SBD250584E3000           |
| Sustainable Material Content in Packaging (wt. %) | Recycled Cardboard - 86 % |
| Sustainable Material Content in Product (wt. %)   | Recycled Metal - 28 %     |

Certificates and Declarations

|                                  |                                 |
|----------------------------------|---------------------------------|
| A2L Certificate – UL             | 9AKK108469A4900;9AKK108469A4902 |
| 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     |
| 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

|                                |               |
|--------------------------------|---------------|
| Package Level 1 Units          | box 1 piece   |
| Package Level 1 Width          | 87 mm         |
| Package Level 1 Depth / Length | 113 mm        |
| Package Level 1 Height         | 47 mm         |
| Package Level 1 Gross Weight   | 0.36 kg       |
| Package Level 1 EAN            | 3471523100749 |
| Package Level 2 Units          | box 18 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 | 12.96 kg  |
| Package Level 3 Units        | 864 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)                 | 3706423                               |

Categories

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

