## General Information

| Extended Product Type: | NF31E-14 |
| :---: | :---: |
| Product ID: | 1SBH137001R1431 |
| EAN: | 3471523100244 |
| Catalog Description: | NF31E-14 250-500V50/60HZ-DC Contactor Relay |
| Long Description: | 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 $24 \ldots 500 \mathrm{~V} 50 / 60 \mathrm{~Hz}$ or $20 \ldots . .500 \mathrm{~V}$ 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) - |

## Categories

Products » Low Voltage Products and Systems » Control Products » Contactors » Block Contactors
Ordering

| Minimum Order Quantity: | 1 piece |
| :--- | :--- |
| Customs Tariff Number: | 85369085 |
| EAN: | 3471523100244 |

Dimensions

| Product Net Depth: | 77 mm |
| :--- | :--- |
| Product Net Height: | 86 mm |
| Product Net Weight: | 0.310 kg |
| Product Net Width: | 45 mm |

Container Information

| Package Level 1 Width: | 87 mm |
| :--- | :--- |
| Package Level 1 Length: | 79 mm |
| Package Level 1 Height: | 47 mm |
| Package Level 1 Gross Weight: | 0.31 kg |
| Package Level 1 EAN: | 3471523100244 |
| Package Level 2 Units: | 54 piece |
| Package Level 2 Width: | 250 mm |
| Package Level 2 Length: | 300 mm |
| Package Level 2 Height: | 315 mm |
| Package Level 3 Units: | 1296 piece |
| Package Level 1 Units: | 1 piece |

## Technical

| Number of Auxiliary Contacts NO: | 3 |
| :---: | :---: |
| Number of Auxiliary Contacts NC: | 1 |
| Standards: | IEC 60947-5-1 and EN 60947-5-1, UL 508, CSA C22.2 No14 |
| Rated Operational Voltage: | Auxiliary Circuit 690 V <br> Main Circuit 690 V |
| Rated Frequency (f): | Auxiliary Circuit $50 / 60 \mathrm{~Hz}$ |
| Conventional Free-air Thermal Current (lth): | acc. to IEC 60947-5-1, $\mathrm{q}=40^{\circ} \mathrm{C} 16 \mathrm{~A}$ |
| Rated Operational Current AC-15 ( $\mathrm{I}_{\mathrm{e}}$ ): | $\begin{aligned} & (220 / 240 \mathrm{~V}) 4 \mathrm{~A} \\ & (24 / 127 \mathrm{~V}) 6 \mathrm{~A} \\ & (400 / 440 \mathrm{~V}) 3 \mathrm{~A} \\ & (500 \mathrm{~V}) 2 \mathrm{~A} \\ & (690 \mathrm{~V}) 2 \mathrm{~A} \end{aligned}$ |
| Rated Short-time Withstand Current ( $\mathrm{I}_{\mathrm{cw}}$ ): | $\begin{aligned} & \text { for } 0.1 \mathrm{~s} 140 \mathrm{~A} \\ & \text { for } 1 \mathrm{~s} 100 \mathrm{~A} \end{aligned}$ |
| Maximum Electrical Switching Frequency: | AC-15 1200 cycles per hour DC-13 900 cycles per hour |
| Rated Operational Current DC-13 ( I ) : | ( 110 V ) $0.55 \mathrm{~A} / 60 \mathrm{~W}$ ( 125 V ) $0.55 \mathrm{~A} / 69 \mathrm{~W}$ (220 V) $0.27 \mathrm{~A} / 60 \mathrm{~W}$ ( 24 V ) 6 A / 144 W ( 250 V ) $0.27 \mathrm{~A} / 68 \mathrm{~W}$ |


|  | (400 V) $0.15 \mathrm{~A} / 60 \mathrm{~W}$ ( 48 V ) $2.8 \mathrm{~A} / 134 \mathrm{~W}$ ( 500 V ) $0.13 \mathrm{~A} / 65 \mathrm{~W}$ ( 600 V ) $0.1 \mathrm{~A} / 60 \mathrm{~W}$ (72 V) 1 A / 72 W |
| :---: | :---: |
| Rated Insulation Voltage ( $\mathrm{U}_{\mathrm{i}}$ ): | acc. to UUCSA 600 V <br> acc. to IEC 60947-5-1 and VDE 0110 (Gr. C) 690 V |
| Rated Impulse Withstand Voltage ( $\mathrm{U}_{\text {imp }}$ ): | 6 kV |
| Maximum Mechanical Switching Frequency: | 6000 cycles per hour |
| Rated Control Circuit Voltage ( $\mathrm{U}_{\mathrm{c}}$ ): | 50 Hz 250 ... 500 V <br> 60 Hz 250 ... 500 V <br> DC Operation 250 ... 500 V |
| 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 $40 \ldots 95 \mathrm{~ms}$ |
| Connecting Capacity Auxiliary Circuit: | Flexible with Ferrule $1 / 2 \times 0.75 \ldots 2.5 \mathrm{~mm}^{2}$ <br> Flexible with Insulated Ferrule $1 \times 0.75 \ldots 2.5 \mathrm{~mm}^{2}$ Flexible with Insulated Ferrule $2 \times 0.75 \ldots 1.5 \mathrm{~mm}^{2}$ Rigid $1 / 2 \times 1 \ldots 2.5 \mathrm{~mm}^{2}$ |
| Connecting Capacity Control Circuit: | Flexible with Ferrule $1 / 2 \times 0.75 \ldots 2.5 \mathrm{~mm}^{2}$ <br> Flexible with Insulated Ferrule $1 \times 0.75 \ldots 2.5 \mathrm{~mm}^{2}$ Flexible with Insulated Ferrule $2 \times 0.75 \ldots 1.5 \mathrm{~mm}^{2}$ Rigid $1 / 2 \times 1$... $2.5 \mathrm{~mm}^{2}$ |
| 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 |
| Environmental |  |
| Climatic Withstand: | Category B according to IEC 60947-1 Annex Q |
| Maximum Operating Altitude Permissible: | 3000 m |
| Resistance to Vibrations acc. to IEC 60068-2-6: | 5 ... 300 Hz 4 g closed position/2g open position |
| 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 |
| RoHS Status: | Planned to follow EU Directive 2002/95/EC August 18, 2005 and amendment after 2008 Q1 |
| Ambient Air Temperature: | Close to Contactor for Storage $-60 \ldots+80^{\circ} \mathrm{C}$ <br> Near Contactor for Operation in Free Air - $40 \ldots+70^{\circ} \mathrm{C}$ |

## Technical ULCSA

| Tightening Torque ULCSA: | Auxiliary Circuit 11 in $\cdot l \mathrm{lb}$ <br> Control Circuit 11 in $\cdot \mathrm{lb}$ |
| :--- | :--- |

Certificates and Declarations (Document Number)

| Instructions and Manuals: | 1SBC101027M6801 |
| :--- | :--- |
| ABS Certificate: | ABS_15-GE1349500-PDA_90682247 |
| CB Certificate: | CB_SE_70920A1M2 |
| CCC Certificate: | CCC_2011010303465426 |
| Data Sheet, Technical Information: | 1SBC101428D0201 |
| Declaration of Conformity - CE: | 1SBD250005U1000 |
| DNV Certificate: | DNV_E11683 |
| EAC Certificate: | EAC_RU C_FR ME77 B01006 |
| GL Certificate: | GL_3786612HH |
| GOST Certificate: | GOST_POCCFR.ME77.B06804.pdf |
| LR Certificate: | LRS_C1400038 |
| RINA Certificate: | RINA_ELE084013XG |
| RMRS Certificate: | RMRS_1300132124 |
| RoHS Information: | 1SBD251014E1000 |
| UL Certificate: | UL_20130206-E252354-2-1 |
| UL Listing Card: | UL_E252354 |


| E-nummer: |
| :--- |
| ETIM 4: |
| ETIM 5: |
| ETIM 6: |
| UNSPSC: |
| Object Classification Code: |

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