

### **General Information**

NF22E-12 **Extended Product Type:** 

Product ID: 1SBH137001R1222 EAN: 3471523100121

**Catalog Description:** NF22E-12 48-130V50/60HZ-DC Contactor Relay

NF contactor relays are used for switching auxiliary and control circuits. NF contactor relays Long Description:

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.

## Categories

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

Ordering

Minimum Order Quantity: 1 piece **Customs Tariff Number:** 85369085 EAN: 3471523100121

**Dimensions** 

**Product Net Depth:** 77 mm **Product Net Height:** 86 mm **Product Net Weight:** 0.270 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: 0.27 kg 3471523100121 Package Level 1 EAN: 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: **Number of Auxiliary Contacts NC:** 

Standards: IEC 60947-5-1 and EN 60947-5-1, UL 508, CSA C22.2 N°14

Rated Operational Voltage: Auxiliary Circuit 690 V

Main Circuit 690 V

Rated Frequency (f): Auxiliary Circuit 50 / 60 Hz

Conventional Free-air Thermal Current (Ith):

acc. to IEC 60947-5-1, q = 40 °C 16 A

**Rated Operational Current AC-15** 

(l<sub>e</sub>):

(220 / 240 V) 4 A (24 / 127 V) 6 A (400 / 440 V) 3 A (500 V) 2 A (690 V) 2 A

Rated Short-time Withstand Current 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 (110 V) 0.55 A / 60 W

**Rated Operational Current DC-13** 

(l<sub>e</sub>):

(125 V) 0.55 A / 69 W (220 V) 0.27 A / 60 W (24 V) 6 A / 144 W (250 V) 0.27 A / 68 W

(400 V) 0.15 A / 60 W (48 V) 2.8 A / 134 W (500 V) 0.13 A / 65 W (600 V) 0.1 A / 60 W

(72 V) 1 A / 72 W acc. to UL/CSA 600 V

acc. to IEC 60947-5-1 and VDE 0110 (Gr. C) 690 V

Rated Impulse Withstand Voltage

Rated Insulation Voltage (Ui):

(U<sub>imp</sub>):

**Maximum Mechanical Switching** 

Frequency:

6000 cycles per hour

Rated Control Circuit Voltage (Uc):

50 Hz 48 ... 130 V 60 Hz 48 ... 130 V DC Operation 48 ... 130 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...95 ms

**Connecting Capacity Auxiliary** 

Circuit:

Flexible with Ferrule 1/2x 0.75 ... 2.5 mm<sup>2</sup> Flexible with Insulated Ferrule 1x 0.75 ... 2.5 mm<sup>2</sup> Flexible with Insulated Ferrule 2x 0.75 ... 1.5 mm<sup>2</sup>

Rigid 1/2x 1...2.5 mm<sup>2</sup>

Connecting Capacity Control Circuit: Flexible with Ferrule 1/2x 0.75 ... 2.5 mm<sup>2</sup>

Flexible with Insulated Ferrule 1x 0.75 ... 2.5 mm<sup>2</sup> Flexible with Insulated Ferrule 2x 0.75 ... 1.5 mm<sup>2</sup>

Rigid 1/2x 1 ... 2.5 mm<sup>2</sup>

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

Screw Terminals **Terminal Type:** 

#### **Environmental**

Climatic Withstand: Category B according to IEC 60947-1 Annex Q

**Maximum Operating Altitude** 

Permissible:

Resistance to Vibrations acc. to IEC 5 ... 300 Hz 4 g closed position / 2 g open position

60068-2-6:

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

**RoHS Status:** Planned to follow EU Directive 2002/95/EC August 18, 2005 and amendment after 2008 Q1

Shock Direction: C2 25 g

**Ambient Air Temperature:** Close to Contactor for Storage -60...+80 °C

Near Contactor for Operation in Free Air -40 ... +70 °C

## Technical UL/CSA

Tightening Torque UL/CSA: Auxiliary Circuit 11 in·lb Control Circuit 11 in·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: 1SBC101427D0201 **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

Classifications

 E-nummer:
 3211447

 ETIM 4:
 EC000196 - Contactor relay

 ETIM 5:
 EC000196 - Contactor relay

 ETIM 6:
 EC000196 - Contactor relay

 UNSPSC:
 39121500

 Object Classification Code:
 K

