

### **General Information**

NFZ22E-21 **Extended Product Type:** 1SBH136001R2122 Product ID: EAN: 3471523101715

**Catalog Description:** NFZ22E-21 24-60V50/60HZ 20-60VDC Contactor Relay

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

relays include an electronic coil interface accepting a wide control voltage Uc min. ... Uc max. Only four coils cover control voltages between 24...250 V 50/60 Hz or 12...250 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 NFZ contactor relays allow direct control by PLC-output ≥ 24 V DC 500 mA and obtain a reduced holding coil consumption. NFZ contactor relays withstand short voltage dips and voltage sags (SEMI F47-0706 compliance) between 24...250 V 50/60 Hz NFZ 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: 3471523101715

#### **Dimensions**

77 mm **Product Net Depth:** 86 mm **Product Net Height: 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: 3471523101715 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:** 2 **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 acc. to IEC 60947-5-1, q = 40 °C 16 A

**Conventional Free-air Thermal** 

Current (Ith): **Rated Operational Current AC-15** 

(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 (I<sub>cw</sub>): for 1 s 100 A

**Maximum Electrical Switching** 

Frequency:

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

AC-15 1200 cycles per hour DC-13 900 cycles per hour

**Rated Operational Current DC-13** 

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

(110 V) 0.55 A / 60 W (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

Rated Insulation Voltage (Ui): acc. to UL/CSA 600 V

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

Rated Impulse Withstand Voltage

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

**Maximum Mechanical Switching** 

Frequency:

6000 cycles per hour

Rated Control Circuit Voltage (U<sub>c</sub>): 50 Hz 24 ... 60 V

60 Hz 24 ... 60 V DC Operation 20 ... 60 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

**Terminal Type:** Screw Terminals

### **Environmental**

Climatic Withstand: Category B according to IEC 60947-1 Annex Q 3000 m

**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 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...+80 °C

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

### **Technical UL/CSA**

**DNV Certificate:** 

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

**EAC Certificate:** EAC\_RU C-FR ME77 B01006

**GL Certificate:** GL\_3786612HH

**GOST Certificate:** GOST POCCFR.ME77.B07174.pdf

**DNV E11683** 

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	
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# Classifications

E-nummer:	3211446
ETIM 4:	EC000196 - Contactor relay
ETIM 5:	EC000196 - Contactor relay
ETIM 6:	EC000196 - Contactor relay
UNSPSC:	39121500
Object Classification Code:	K

