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## **General Information**

 Extended Product Type:
 NFZ22E-20

 Product ID:
 1SBH136001R2022

 EAN:
 3471523101708

Catalog Description: NFZ22E-20 12-20VDC 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: DC operated for NF..Z-20 contactors. Only NF..Z-20 contactor relays need to respect the polarity on the coil terminals (A1+ and A2-). - Accessories: a wide range of Accessories is

Categories

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

Ordering

EAN: 3471523101708

Minimum Order Quantity: 1 piece

Customs Tariff Number: 85369085

## **Dimensions**

Product Net Width: 45 mm

Product Net Depth: 77 mm

Product Net Height: 86 mm

Product Net Weight: 0.310 kg

## **Container Information**

Package Level 1 Units: 1 piece 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 3471523101708 Package Level 1 EAN: Package Level 2 Units: 54 piece Package Level 2 Width: 250 mm 300 mm Package Level 2 Length: Package Level 2 Height: 315 mm Package Level 3 Units: 1296 piece

## **Technical**

Number of Auxiliary Contacts NO: 2 Number of Auxiliary Contacts NC: 2

**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

Conventional Free-air Thermal

Current (Ith):

Rated Frequency (f):

acc. to IEC 60947-5-1, q = 40 °C 16 A

Auxiliary Circuit 50 / 60 Hz

Rated Operational Current AC-15

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

**Maximum Electrical Switching** 

Frequency:

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

**Rated Operational Current DC-13** (110 V) 0.55 A / 60 W

(125 V) 0.55 A / 69 W (l<sub>e</sub>):

(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** 6000 cycles per hour

Frequency:

Operate Time:

Rated Control Circuit Voltage (Uc): DC Operation 12 ... 20 V

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 mm²

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

acc. to IEC 60529, IEC 60947-1, EN 60529 Auxiliary Terminals IP20 Degree of Protection:

acc. to IEC 60529, IEC 60947-1, EN 60529 Coil Terminals IP20

**Terminal Type:** Screw Terminals

Environmental

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

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

**Maximum Operating Altitude** 

Permissible:

3000 m

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

60068-2-6:

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

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

**Technical UL/CSA** 

Tightening Torque UL/CSA: Auxiliary Circuit 11 in·lb

Control Circuit 11 in·lb

Certificates and Declarations (Document Number)

**ABS Certificate:** ABS 15-GE1349500-PDA 90682247

**CB Certificate:** CB\_SE\_70920A1M2 CCC Certificate: CCC\_2011010303465426 **cUL Certificate:** UL\_20091127-E252354-2-1 **Declaration of Conformity - CE:** 1SBD250166C2000

**DNV Certificate:** DNV\_E11683

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

**GL Certificate:** GL 3786612HH

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

LR Certificate: LRS\_C1400038 **RINA Certificate:** RINA ELE084013XG **RMRS Certificate:** RMRS 1300132124 **RoHS Information:** 1SBD251014E1000

Classifications

ETIM 5: EC000196 - Contactor relay UNSPSC:

39121500







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