

NFZ31E-20



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

General Information

Extended Product Type:	NFZ31E-20
Product ID:	1SBH136001R2031
EAN:	3471523101807
Catalog Description:	NFZ31E-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 $U_c \text{ min.} \dots U_c \text{ max.}$ Only four coils cover control voltages between 24...250 V 50/60 Hz or 12...250 V DC. NFZ 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 $\geq 24 \text{ V DC } 500 \text{ mA}$ 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 available.

Ordering

Minimum Order Quantity:	1 piece
Customs Tariff Number:	85364900

Popular Downloads

Data Sheet, Technical Information:	1SBC101428D0201
Instructions and Manuals:	1SBC101027M6801

Dimensions

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

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 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 (I_{th}):	acc. to IEC 60947-5-1, $q = 40 \text{ }^\circ\text{C}$ 16 A
Rated Operational Current AC-15 (I_e):	(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 (I_{cw}):	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
Rated Operational Current DC-13 (I_e):	(110 V) 0.55 A / 60 A (125 V) 0.55 A / 69 A (220 V) 0.27 A / 60 A (24 V) 6 A / 144 A (250 V) 0.27 A / 68 A (400 V) 0.15 A / 60 A (48 V) 2.8 A / 134 A (500 V) 0.13 A / 65 A (600 V) 0.1 A / 60 A (72 V) 1 A / 72 A
Rated Insulation Voltage (U_i):	acc. to UL/CSA 600 V acc. to IEC 60947-5-1 and VDE 0110 (Gr. C) 690 V
Rated Impulse Withstand Voltage (U_{imp}):	6 kV
Maximum Mechanical Switching Frequency:	6000 cycles per hour
Rated Control Circuit Voltage (U_c):	DC Operation 12 ... 20 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 ² Flexible with Insulated Ferrule 1x 0.75 ... 2.5 mm ² Flexible with Insulated Ferrule 2x 0.75 ... 1.5 mm ² Rigid 1/2x 1 ... 2.5 mm ²
Connecting Capacity Control Circuit:	Flexible with Ferrule 1/2x 0.75 ... 2.5 mm ² Flexible with Insulated Ferrule 1x 0.75 ... 2.5 mm ² Flexible with Insulated Ferrule 2x 0.75 ... 1.5 mm ² Rigid 1/2x 1 ... 2.5 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

Ambient Air Temperature: Close to Contactor for Storage -60 ... +80 °C
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:** 3000 m

**Resistance to Vibrations acc. to
IEC 60068-2-6:** 5 ... 300 Hz 4 g closed position / 2 g open position

**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

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

BV Certificate: BV_2634H24899B0

CB Certificate: CB_SE-89845

CCC Certificate: CCC_2011010303465426

cUL Certificate: UL_20180227_E252354_2_1

Declaration of Conformity - CE: 1SBD250005U1000

DNV Certificate: DNV-GL_TAE00001BV

DNV GL Certificate: DNV-GL_TAE00001BV

EAC Certificate: EAC_RU C-FR ME77 B01006

Environmental Information: 1SBD250151E1000

GOST Certificate: GOST_POCCFR.ME77.B07174.pdf

Instructions and Manuals: 1SBC101027M6801

LR Certificate: LRS_C1400038

RINA Certificate: RINA_ELE084013XG

RMRS Certificate: RMRS_1300132124

RoHS Information: 1SBD251014E1000

UL Certificate: UL_20130206-E252354-2-1

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
Package Level 1 EAN:	3471523101807
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 2 Gross Weight:	16.74 kg
Package Level 3 Units:	1296 piece

Classifications

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

