

NFZ31E-21



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

General Information

Extended Product Type:	NFZ31E-21
Product ID:	1SBH136001R2131
EAN:	3471523101814
Catalog Description:	NFZ31E-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 $U_c \text{ min.} \dots U_c \text{ max.}$ 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: AC or DC operated - 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):	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 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
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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

UL Listing Card: UL_E252354

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: 3471523101814

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

E-number: 3211450

ETIM 4: EC000196 - Contactor relay

ETIM 5: EC000196 - Contactor relay

ETIM 6: EC000196 - Contactor relay

UNSPSC: 39121500

