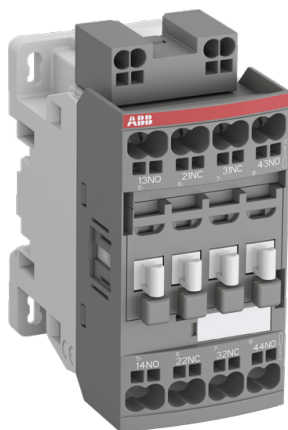


PRODUCT-DETAILS

# NFZ31EK-20

## NFZ31EK-20 12-20VDC Contactor Relay



### General Information

Extended Product Type	NFZ31EK-20
Product ID	1SBH136005R2031
EAN	3471523153400
Catalog Description	NFZ31EK-20 12-20VDC Contactor Relay

Long Description	<p>NFZ..K contactor relays are used for switching auxiliary and control circuits. NFZ contactor relays include an electronic coil interface accepting a wide control voltage <math>U_c \text{ min. } \dots U_c \text{ max.}</math> 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 <math>\geq 24 \text{ V DC } 500 \text{ mA}</math> 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. Only NFZ..-20 contactor relays need to respect the polarity on the coil terminals (A1+ and A2-). NFZ..K include Push-in Spring terminals. Only one push is all you need for extremely fast wiring: faster than ever installation, easier than ever wiring, reliable as ever connections. - 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) - Accessories: a wide range of accessories is available.</p>
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### Classifications

Object Classification Code	K
ETIM 4	EC000196 - Contactor relay
ETIM 5	EC000196 - Contactor relay

ETIM 6	EC000196 - Contactor relay
ETIM 7	EC000196 - Contactor relay
UNSPSC	39121500

## Container Information

Package Level 1 Units	box 1 piece
Package Level 1 Width	93 mm
Package Level 1 Depth / Length	86 mm
Package Level 1 Height	45 mm
Package Level 1 Gross Weight	0.33 kg
Package Level 1 EAN	3471523153400
Package Level 2 Units	box 21 piece
Package Level 2 Width	250 mm
Package Level 2 Depth / Length	300 mm
Package Level 2 Height	315 mm
Package Level 2 Gross Weight	14.85 kg
Package Level 3 Units	1080 piece

## Certificates and Declarations (Document Number)

CB Certificate	CB_SE-93051
cUL Certificate	UL_20180227_E252354_2_1
Declaration of Conformity - CE	1SBD250005U1000
DNV Certificate	DNV-GL_TAE00001BV-3
DNV GL Certificate	DNV-GL_TAE00001BV-3
GL Certificate	DNV-GL_TAE00001BV-3
Instructions and Manuals	1SBC101054M6801
RINA Certificate	RINA_ELE240318XG
RMRS Certificate	RMRS_1802702280
RoHS Information	1SBD250005U1000

## 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
RoHS Status	Following EU Directive 2011/65/EU

## Technical

Number of Auxiliary Contacts NO	3
Number of Auxiliary Contacts NC	1
Rated Operational Voltage	Main Circuit 690 V Auxiliary Circuit 690 V
Rated Frequency (f)	Auxiliary Circuit 50 / 60 Hz
Conventional Free-air Thermal Current ( $I_{th}$ )	acc. to IEC 60947-5-1, $q = 40\text{ °C}$ 16 A
Rated Operational Current AC-15 ( $I_{\theta}$ )	(220 / 240 V) 4 A (24 / 127 V) 6 A (500 V) 2 A (690 V) 2 A (400 / 440 V) 3 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 ( $I_{\theta}$ )	(125 V) 0.55 A / 69 W (24 V) 6 A / 144 W (250 V) 0.27 A / 68 W (48 V) 2.8 A / 134 W (72 V) 1 A / 72 W (110 V) 0.55 A / 60 W (220 V) 0.27 A / 60 W (400 V) 0.15 A / 60 W (500 V) 0.13 A / 65 W (600 V) 0.1 A / 60 W
Rated Insulation Voltage ( $U_i$ )	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 - 50 Hz / 60 Hz 100 ... 250 V 60 Hz - 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 0.5 ... 2.5 Flexible with Insulated Ferrule 1/2x 0.5 ... 1.5 Flexible 1/2x 0.5 ... 2.5 m <sup>2</sup> Rigid 1/2x 1 ... 2.5 m <sup>2</sup>
Connecting Capacity Control Circuit	Flexible with Ferrule 1/2x 0.5 ... 2.5 m <sup>2</sup> Flexible with Insulated Ferrule 1/2x 0.5 ... 1.5 m <sup>2</sup> Flexible 1/2x 0.5 ... 2.5 m <sup>2</sup> Rigid 1/2x 1 ... 2.5 m <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	Push-in Spring Terminals

## Dimensions

Product Net Width

45 mm

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Product Net Depth / Length	77 mm
Product Net Height	92.3 mm
Product Net Weight	0.315 kg

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## Popular Downloads

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Instructions and Manuals	1SBC101054M6801
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## Ordering

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Minimum Order Quantity	1 piece
Customs Tariff Number	85364900

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## Categories

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

