

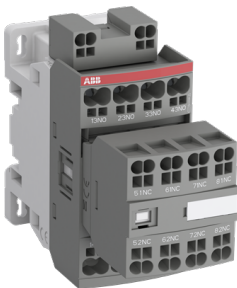


PRODUCT-DETAILS

NFZ53EK-21

NFZ53EK-21 24-60V50/60HZ 20-60VDC

Contactor Relay



General Information

Extended Product Type	NFZ53EK-21
Product ID	1SBH136005R2153
EAN	3471523153813
Catalog Description	NFZ53EK-21 24-60V50/60HZ 20-60VDC Contactor Relay

Long Description

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 $U_c \text{ min. } \dots U_c \text{ max.}$ Only four coils cover control voltages between 24...250 V 50/60 Hz or 12...250 V DC. 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 $\geq 24 \text{ V DC } 500 \text{ mA}$ 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. 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: 8-pole contactor relays with a non-removable front-mounted auxiliary contact block (mechanically-linked auxiliary contacts compliant with Annex L of IEC 60947-5-1 and including the "Mechanically Linked" symbol on the contactor relay side).

Ordering

Minimum Order Quantity	1 piece
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Popular Downloads

Data Sheet, Technical Information	1SBC100214C0202
Instructions and Manuals	1SBC101054M6801
CAD Dimensional Drawing	2CDC001079B0201

Dimensions

Product Net Width	45 mm
Product Net Depth / Length	110.5 mm
Product Net Height	92.3 mm
Product Net Weight	0.36 kg

Technical

Number of Auxiliary Contacts NO	5
Number of Auxiliary Contacts NC	3
Standards	IEC/EN 60947-1, IEC/EN 60947-5-1, UL 508, CSA C22.2 No. 14-13
Rated Operational Voltage	Auxiliary Circuit 690 V Main Circuit 690 V
Rated Frequency (f)	Auxiliary Circuit 50 / 60 Hz Control Circuit 50 / 60 Hz
Conventional Free-air Thermal Current (I_{th})	acc. to IEC 60947-5-1, $\Theta = 40\text{ }^{\circ}\text{C}$ 16 A
Rated Operational Current AC-15 (I_{θ})	(500 V) 2 A (690 V) 2 A (24 / 127 V) 6 A (220 / 240 V) 4 A (400 / 440 V) 3 A
Rated Short-time Withstand Current Low Voltage (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_{θ})	(24 V) 6 A / 144 W (48 V) 2.8 A / 134 W (72 V) 1 A / 72 W (110 V) 0.55 A / 60 W (125 V) 0.55 A / 69 W (220 V) 0.27 A / 60 W (250 V) 0.27 A / 68 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 60947-5-1 690 V acc. to UL/CSA 600 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
Mounting on DIN Rail	TH35-15 (35 x 15 mm Mounting Rail) acc. to IEC 60715 TH35-7.5 (35 x 7.5 mm Mounting Rail) acc. to IEC 60715
Mounting by Screws (not	2 x M4 screws placed diagonally

supplied)	
Connecting Capacity	Flexible with Ferrule 1/2x 0.5 ... 2.5 mm²
Auxiliary Circuit	Flexible with Insulated Ferrule 1/2x 0.5 ... 1.5 mm²
	Flexible 1/2x 0.5 ... 2.5 mm²
	Rigid Solid 1/2x 1 ... 2.5 mm²
Connecting Capacity	Flexible with Ferrule 1/2x 0.5 ... 2.5 mm²
Control Circuit	Flexible with Insulated Ferrule 1/2x 0.5 ... 1.5 mm²
	Flexible 1/2x 0.5 ... 2.5 mm²
	Rigid Solid 1/2x 1 ... 2.5 mm²
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

Technical UL/CSA

Connecting Capacity	Rigid Solid 1/2x 18-14 AWG
Auxiliary Circuit UL/CSA	
Connecting Capacity	Rigid Solid 1/2x 18-14 AWG
Control Circuit UL/CSA	

Environmental

Ambient Air Temperature	Close to Contactor for Storage -60 ... +80 °C
	Near Contactor for Operation in Free Air -40 ... 70 °C
	Near Contactor for Operation in Free Air (0.85 ... 1.1 Uc) -40 ... +60 °C
	Near Contactor for Operation in Free Air (Uc) -40 ... 70 °C
Climatic Withstand	Category B according to IEC 60947-1 Annex Q
Maximum Operating	Without Derating 3000 m
Altitude Permissible	
Resistance to Vibrations	4g Closed Position & 2g Open position 5 ... 300 Hz

Material Compliance

Conflict Minerals	9AKK108467A5658
Reporting Template (CMRT)	
REACH Declaration	2CMT2021-006202
RoHS Information	2CMT2021-006277
RoHS Status	Following EU Directive 2011/65/EU and Amendment 2015/863 July 22, 2019
Toxic Substances Control Act - TSCA	2CMT2023-006525
WEEE B2C / B2B	Business To Business
WEEE Category	5. Small Equipment (No External Dimension More than 50 cm)

ABB EcoSolutions

Environmental Product Declaration - EPD	1SBD250584E3000
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Certificates and Declarations

ABS Certificate	ABS_20-2060694-PDA
CB Certificate	CB_SE-93051M2
CCC Certificate	2020980303000185
CQC Certificate	CQC2019010303267993
Declaration of Conformity - CCC	CQC2011010303465426
Declaration of Conformity	1SBD250005U1000

- CE	
Declaration of Conformity - UKCA	1SBD250036U1000
DNV Certificate	DNV_TAE00001BV-5
LR Certificate	LRS_LR2003684TA-02
RINA Certificate	RINA_ELE142224XG
RMRS Certificate	RMRS_1802702280
UL Certificate	UL_20180227 E252354 2 1

Container Information

Package Level 1 Units	box 1 piece
Package Level 1 Width	93 mm
Package Level 1 Depth / Length	111 mm
Package Level 1 Height	45 mm
Package Level 1 Gross Weight	0.379 kg
Package Level 1 EAN	3471523153813
Package Level 2 Units	box 18 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	17.055 kg
Package Level 3 Units	1080 piece

Classifications

Object Classification Code	K
ETIM 7	EC000196 - Contactor relay
ETIM 8	EC000196 - Contactor relay
ETIM 9	EC000196 - Contactor relay
eClass	V11.0 : 27371001
UNSPSC	39121529
IDEA Granular Category Code (IGCC)	4763 >> Power contactor, DC switching
E-Number (Finland)	3708014

Categories

Low Voltage Products and Systems → Control Products → Contactors → Block Contactors → NF Contactor Relays

