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PRODUCT-DETAILS

NFZ22E-21

NFZ22E-21 24-60V50/60HZ 20-60VDC Contactor Relay



General	Inforn	nation
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Extended Product Type	NFZ22E-21
Product ID	1SBH136001R2122
EAN	3471523101715
Catalan Danswintian	NETZZE 21.24 GOVEO (GOLLZ 20 GOVEO Contactor Polov

Catalog Description

NFZ22E-21 24-60V50/60HZ 20-60VDC Contactor Relay

a wide range of Accessories is available.

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: AC or DC operated - Accessories:

NFZ contactor relays are used for switching auxiliary and control circuits. NFZ

Long Description

Ordering

Minimum Order Quantity 1 piece

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Customs Tariff Number 85364900

### April 1980 1980	Popular Downloads		
Manuals CAD Dimensional	Data Sheet, Technical Information	1SBC100214C0202	
Dimensions Product Net Width	Instructions and Manuals	1SBC101027M6801	
Product Net Width 45 mm Product Net Depth / 77 mm Length 77 mm Product Net Depth / 86 mm Product Net Height 86 mm Product Net Height 97 Technical Number of Auxiliary 2 Contacts NO Number of Auxiliary 2 Contacts NO Standards IEC/EN 60947-1, IEC/EN 60947-5-1, UL 508, CSA C222 No. 14-13 Rated Operational Auxiliary Circuit 50 / 60 Hz Control Cir	CAD Dimensional Drawing	2CDC001079B0201	
Product Net Width 45 mm Product Net Depth / 77 mm Length 77 mm Product Net Depth / 86 mm Product Net Height 86 mm Product Net Height 97 Technical Number of Auxiliary 2 Contacts NO Number of Auxiliary 2 Contacts NO Number of Auxiliary 2 Contacts NO Standards IEC/EN 60947-1, IEC/EN 60947-5-1, UL 508, CSA C222 No. 14-13 Rated Operational Auxiliary Circuit 50 / 60 Hz Control Circuit 50 / 60 Hz Cont			
Product Net Delpth / 77 mm Pength	Dimensions		
Product Net Height	Product Net Width	45 mm	
Perclutic Net Weight State	Product Net Depth / Length	77 mm	
Number of Auxiliary 2 2 2 2 2 2 2 2 2	Product Net Height	86 mm	
Number of Auxiliary 2 Contacts NO Number of Auxiliary 2 Contacts NC Standards IEC/EN 60947-1, IEC/EN 60947-5-1, UL 508, CSA C22.2 No. 14-13 Rated Operational Auxiliary Circuit 50 / 60 Hz Control Circuit 50 / 60	Product Net Weight	0.31 kg	
Contacts NO	Technical		
Electron No. Standards S	Number of Auxiliary Contacts NO		
Rated Operational	Number of Auxiliary Contacts NC	2	
Voltage Rated Frequency (f)	Standards		
Control Circuit 50 / 60 Hz Conventional Free-air Thermal Current (I _{th}) Rated Operational Current AC-15 (I _e) Rated Operational Current AC-15 (I _e) Rated Short-time (690 V) 2 A (24 / 127 V) 6 A (220 / 240 V) 4 A (400 / 440 V) 3 A (400 / 400 V) 0.15 A / 60 W (400 V) 0.15 A /		Auxiliary Circuit 690 V	
Thermal Current (Ith) Rated Operational Current AC-15 (Ie) (500 V) 2 A (24 / 127 V) 6 A (220 / 240 V) 4 A (400 / 440 V) 3 A Rated Short-time for 0.1 s 140 A Withstand Current Low Voltage (Icw) Maximum Electrical Switching Frequency (DC-13) 900 cycles per hour (34 V) 6 A / 144 W (27 V) 1 A / 72 W (110 V) 0.55 A / 60 W (220 V) 0.27 A / 60 W (220 V) 0.27 A / 60 W (220 V) 0.27 A / 60 W (220 V) 0.13 A / 65 W (600 V) 0.14 A / 65 W (600 V) 0.15 A / 60 W (800 V) 0.14 A / 65 W (800 V) 0.15 A / 60 W (800 V) 0.15 A / 60 W (800 V) 0.15 A / 60 W (800 V) 0.15 A / 65 W (800 V)	Rated Frequency (f)		
Current AC-15 (I _e) (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 Withstand Current Low Woltage (I _{cw}) Maximum Electrical Maximum	Conventional Free-air Thermal Current (I _{th})	acc. to IEC 60947-5-1, Θ = 40 °C 16 A	
(24 / 127 V) 6 A (220 / 240 V) 4 A (220 / 240 V) 4 A (220 / 240 V) 4 A (200 / 440 V) 3 A (400 / 440 V) 6 A / 144 A (400 / 440 V) 6 A / 144 W (400 / 128 A / 134 W (72 V) 1 A / 72 W (110 V) 0.55 A / 60 W (125 V) 0.27 A / 66 W (125 V) 0.27 A / 66 W (200 V) 0.17 A / 66 W (200 V) 0.17 A / 66 W (500 V) 0.13 A / 65 W (500 V) 0.13 A / 65 W (500 V) 0.13 A / 65 W (500 V) 0.13 A / 66 W (500 V) 0.14 A / 60 W (500 V) 0.15 A / 60 W (500 V)	Rated Operational		
Rated Short-time Withstand Current Low Voltage (lcw) Maximum Electrical Switching Frequency Rated Operational Current DC-13 (le) Rated Short-time (AC-15) 1200 cycles per hour (DC-13) 900 cycles per hour (DC-13) 900 cycles per hour (AR W) 2.8 A / 134 W (T2 V) 1 A / 72 W (110 V) 0.55 A / 60 W (125 V) 0.27 A / 66 W (125 V) 0.27 A / 66 W (220 V) 0.27 A / 66 W (200 V) 0.13 A / 65 W (200 V) 0.13 A / 65 W (200 V) 0.13 A / 65 W (200 V) 0.13 A / 60 W (200 V) 0.14 A / 60 W (200 V) 0.15	current AC-13 (1 _e)		
Rated Short-time Withstand Current Low Voltage (lcw) Maximum Electrical (AC-15) 1200 cycles per hour (DC-13) 900 cycles per hour (AB 1) 2.8 A / 134 W (AB V) 2.8 A / 134 W (AB			
### Stand Current Low ### Stand Current Doc-13 (le) ### Stand Operational ### Stand Oper	Data d Chart time		
Switching Frequency Rated Operational Current DC-13 (le) (24 V) 6 A / 144 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 / 60 W (500 V) 0.15 A / 60 W	Withstand Current Low		
Rated Operational Current DC-13 (le) (24 V) 6 A / 144 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 / 66 W (250 V) 0.27 A / 66 W (400 V) 0.15 A / 60 W (500 V) 0.13 A / 65 W (500 V) 0.13 A / 65 W (600 V) 0.14 / 60 W Rated Insulation Voltage (Ui) Rated Impulse Withstand Voltage (Uimp) Maximum Mechanical Switching Frequency Rated Control Circuit 50 Hz 24 60 V	Maximum Electrical		
Current DC-13 (le) (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 acc. to IEC 60947-5-1 690 V (Ui) acc. to UL/CSA 600 V Rated Impulse 6 kV Withstand Voltage (Uimp 6 Maximum Mechanical 6000 cycles per hour Switching Frequency Rated Control Circuit 50 Hz 24 60 V			
(72 V) 1 A / 72 W (110 V) 0.55 A / 60 W (125 V) 0.55 A / 60 W (125 V) 0.55 A / 69 W (220 V) 0.27 A / 68 W (220 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 (600 V) 0.1 A / 60 W (600 V) 0.1 A / 60 W (101) Rated Insulation Voltage (Ui) Rated Impulse 6 kV Withstand Voltage (Uimp 6 Maximum Mechanical Switching Frequency Rated Control Circuit 50 Hz 24 60 V	·		
(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 (600 V) 0.1 A / 60 W (101 V) 0.10 A / 60 W (102 V) 0.10 A / 60 W (103 V) 0.10 A / 60 W (104 V) 0.10 A / 60 W (105 V) 0.10 A / 60 W (105 V) 0.10 A / 60 W (106 V) 0.10 A / 60 W (107 V) 0.10 A / 60 W (108 V) 0.10 A / 60 W (1		(72 V) 1 A / 72 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) 0.14 / 60 W Rated Insulation Voltage (U ₁) Rated Impulse Withstand Voltage (U _{imp} Maximum Mechanical Switching Frequency Rated Control Circuit (220 V) 0.27 A / 60 W (250 V) 0.27 A / 68 W (400 V) 0.15 A / 60 W (500 V) 0.15 A / 60 W (500 V) 0.13 A / 65 W (600 V) 0.14 A / 60 W (500 V) 0.14 A / 60 W (500 V) 0.14 A / 60 W (500 V) 0.15 A /			
(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 (Ui) Rated Impulse 6 kV Withstand Voltage (Uimp) Maximum Mechanical Switching Frequency Rated Control Circuit 50 Hz 24 60 V			
(500 V) 0.13 A / 65 W (600 V) 0.1 A / 60 W Rated Insulation Voltage (Ui) Rated Impulse 6 kV Withstand Voltage (Uimp Maximum Mechanical Switching Frequency Rated Control Circuit 50 Hz 24 60 V		(250 V) 0.27 A / 68 W	
Rated Insulation Voltage (Ui) Rated Impulse Withstand Voltage (Uimp Maximum Mechanical Switching Frequency Rated Control Circuit (600 V) 0.1 A / 60 W acc. to IEC 60947-5-1 690 V acc. to UL/CSA 600 V 6 kV 6 kV 6 kV 6 by			
Rated Insulation Voltage (Ui) Rated Impulse Withstand Voltage (Uimp Maximum Mechanical Switching Frequency Rated Control Circuit acc. to IEC 60947-5-1 690 V acc. to UL/CSA 600 V 6 kV 6 kV 6 kV 6 000 cycles per hour 50 Hz 24 60 V			
Withstand Voltage (U _{imp} Maximum Mechanical 6000 cycles per hour Switching Frequency Rated Control Circuit 50 Hz 24 60 V		acc. to IEC 60947-5-1 690 V	
Maximum Mechanical 6000 cycles per hour Switching Frequency Rated Control Circuit 50 Hz 24 60 V	Rated Impulse Withstand Voltage (U _{imp})	6 kV	
	, Maximum Mechanical Switching Frequency	6000 cycles per hour	
© 2024 ABB. All rights reserved. 2024/10/19 Subject to change without not	Rated Control Circuit	50 Hz 24 60 V	
	© 2024 ABB. All rights reserved.	2024/10/19 Subject to change wit	thout not

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Voltage (U _c)	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 $ imes$ 15 mm Mounting Rail) acc. to IEC 60715 TH35-7.5 (35 $ imes$ 7.5 mm Mounting Rail) acc. to IEC 60715
Mounting by Screws (not supplied)	2 x M4 screws placed diagonally
Connecting Capacity Auxiliary Circuit	Flexible with Ferrule 1/2x 0.75 2.5 mm² Flexible with Insulated Ferrule 1x 0.75 2.5 mm² Flexible with Insulated Ferrule 2x 0.75 1.5 mm² Rigid Solid 1/2x 1 2.5 mm² Rigid Stranded 1/2x 1 2.5 mm²
Connecting Capacity Control Circuit	Flexible with Ferrule 1/2x 0.75 2.5 mm² Flexible with Insulated Ferrule 1x 0.75 2.5 mm² Flexible with Insulated Ferrule 2x 0.75 1.5 mm² Rigid Solid 1/2x 1 2.5 mm² Rigid Stranded 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	Screw Terminals

Tech	nnical	UL/CSA	1

Connecting Capacity	Rigid Solid 1/2x 18-14 AWG
Auxiliary Circuit UL/CSA	Rigid Stranded 1/2x 18-14 AWG
Tightening Torque	Auxiliary Circuit 11 in·lb
UL/CSA	Control Circuit 11 in·lb

Environmental

Ambient Air	Close to Contactor for Storage -60 +80 °C
Temperature	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	Without Derating 3000 m
Resistance to Shock acc.	Closed, Shock Direction: B1 25 g
to IEC 60068-2-27	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
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	2CMT2023-006525
Control Act - TSCA	
WEEE B2C / B2B	Business To Business

5. Small Equipment (No External Dimension More Than 50 cm)

ABB EcoSolutions	
Environmental Product Declaration - EPD	1SBD250584E3000 2TFP200035A1001
End of Life Instructions	1SBC101080M6801

Certificates and Declarations	
ABS Certificate	ABS_20-2060694-PDA
BV Certificate	BV_2634H24899C0
CB Certificate	CB_SE-93051M2
CCC Certificate	2020980303000185
CQC Certificate	CQC2019010303267993
Declaration of Conformity - CCC	CQC2011010303465426
Declaration of Conformity - CE	1SBD250005U1000
Declaration of Conformity - UKCA	1SBD250036U1000
DNV Certificate	DNV_TAE00001BV-5
EAC Certificate	EAC_RU C-FR ME77 B03544
GOST Certificate	GOST_POCCFR.ME77.B07174.pdf
KC Certificate	KC-HW02016-21031A
LR Certificate	LRS_LR2003684TA-02
RINA Certificate	RINA_ELE142224XG
RMRS Certificate	RMRS_1802702280
UL Certificate	UL_20180227_E252354_2_1
UL Listing Card	UL_E252354

Container Information	
Package Level 1 Units	box 1 piece
Package Level 1 Width	87 mm
Package Level 1 Depth / Length	79 mm
Package Level 1 Height	47 mm
Package Level 1 Gross Weight	0.31 kg
Package Level 1 EAN	3471523101715
Package Level 2 Units	box 27 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	16.74 kg
Package Level 3 Units	1296 piece

Classifications	
Object Classification	K
Code	

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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)	3706404
E-Number (Sweden)	3211446

Categories

 $Low\ Voltage\ Products\ and\ Systems \rightarrow Control\ Products \rightarrow Contactors \rightarrow Block\ Contactors \rightarrow NF\ Contactor\ Relays$

