



PRODUCT-DETAILS

NFZ31E-30

NFZ31E-30 24VDC Contactor Relay



General Information

Extended Product Type	NFZ31E-30
Product ID	1SBH136001R3031
EAN	3471523101890
Catalog Description	NFZ31E-30 24VDC Contactor Relay

Long Description	NFZ contactor relays are used for switching auxiliary and control circuits. NFZ contactor relays with coil 30 include a 24 V DC electronic coil interface with a built-in surge suppression, obtaining a reduced holding coil consumption up to 1.7 W for a low panel energy consumption and a direct control by PLC-output ≥ 250 mA 24 V DC, without need of additional interface relay. Only NFZ...-30 contactor relays need to respect the polarity on the coil terminals (A1+ and A2-). - 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.
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Ordering

Minimum Order Quantity	1 piece
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Popular Downloads

Data Sheet, Technical	1SBC100214C0202
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Information

Instructions and Manuals	1SBC101053M6801
CAD Dimensional Drawing	2CDC001079B0201

Dimensions

Product Net Width	45 mm
Product Net Depth / Length	97 mm
Product Net Height	86 mm
Product Net Weight	0.43 kg

Technical

Number of Auxiliary Contacts NO	3
Number of Auxiliary Contacts NC	1
Standards	IEC/EN 60947-1, IEC/EN 60947-5-1, UL 60335-2-40 LZGH2 A2L, UL 508, CSA C22.2 No. 60335-2-40 LZGH2 A2L, CSA C22.2 No. 14-13
Rated Operational Voltage	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, $\Theta = 40\text{ }^{\circ}\text{C}$ 16 A
Rated Operational Current AC-15 (I _e)	(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 _e)	(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)	DC Operation 24 V
Operate Time	Between Coil De-energization and NC Contact Closing 22 ... 57 ms Between Coil De-energization and NO Contact Opening 17 ... 29 ms Between Coil Energization and NC Contact Opening 20 ... 35 ms Between Coil Energization and NO Contact Closing 27 ... 53 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 supplied)	2 x M4 screws placed diagonally
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 Solid 1/2x 1 ... 2.5 mm ² Rigid Stranded 1/2x 1 ... 2.5 mm ²

Connecting Capacity	Flexible with Ferrule 1/2x 0.75 ... 2.5 mm²
Control Circuit	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

Technical UL/CSA

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 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	Without Derating 3000 m
Resistance to Vibrations	4g Closed Position & 2g Open position 5 ... 300 Hz

Material Compliance

Conflict Minerals Reporting Template (CMRT)	9AKK108467A5658
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

A2L Certificate - UL	9AKK108469A4900;9AKK108469A4902
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 - CE	1SBD250005U1000
Declaration of Conformity - UKCA	1SBD250036U1000
DNV Certificate	DNV_TAE00001BV-5

EAC Certificate	EAC_RU C-FR ME77 B03544
KC Certificate	KC-HW02016-21029A
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	96 mm
Package Level 1 Depth / Length	112 mm
Package Level 1 Height	50 mm
Package Level 1 Gross Weight	0.475 kg
Package Level 1 EAN	3471523101890
Package Level 2 Units	crate 12 piece
Package Level 2 Width	51 mm
Package Level 2 Depth / Length	98 mm
Package Level 2 Height	114 mm
Package Level 2 Gross Weight	5.7 kg
Package Level 3 Units	576 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

Categories

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

