



PRODUCT-DETAILS

NF31E-11

NF31E-11 24-60V50/60HZ 20-60VDC

Contactor Relay



General Information	
Extended Product Type	NF31E-11
Product ID	1SBH137001R1131
EAN	3471523100213
Catalog Description	NF31E-11 24-60V50/60HZ 20-60VDC Contactor Relay
Long Description	<p>The NF31E-11 is a 690 V IEC or 600 UL 4-pole contactor relay with screw terminals, used for switching auxiliary and control circuits.</p> <p>Thanks to the AF technology, the contactor relay has a wide control voltage range (24-60 V 50/60 Hz and 20-60 V DC), managing large control voltage variations, reducing panel energy consumptions and ensuring distinct operations in unstable networks.</p> <p>Furthermore, surge protection is built-in, offering a compact solution. NF contactor relays have a block type design, can be easily extended with add-on auxiliary contact blocks and an additional wide range of accessories.</p> <p>These contactor relays include mechanically-linked auxiliary contacts compliant with Annex L of IEC 60947-5-1 and are side-marked with the "Mechanically Linked" symbol.</p>

Ordering	
Minimum Order Quantity	1 piece
Customs Tariff Number	85364900

Popular Downloads	
Data Sheet, Technical Information	1SBC100214C0202
Instructions and Manuals	1SBC101027M6801
CAD Dimensional Drawing	2CDC001079B0201

Dimensions	
Product Net Width	45 mm
Product Net Depth / Length	77 mm
Product Net Height	86 mm
Product Net Weight	0.27 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 508, CSA C22.2 No. 14-13
Rated Operational Voltage	Auxiliary 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_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)	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 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 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 Solid 1/2x 1 ... 2.5 mm ² Rigid Stranded 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

Technical UL/CSA

Connecting Capacity Auxiliary Circuit UL/CSA	Rigid Solid 1/2x 18-14 AWG Rigid Stranded 1/2x 18-14 AWG
Tightening Torque UL/CSA	Auxiliary Circuit 11 in-lb 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 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
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
SCIP	9eec38a3-9a2f-4533-aec7-8d767bb26afb China (CN)
Simplified SCIP	87de14ba-6fc3-4689-8870-a0c7fb4c3e07 Croatia (HR) 35d3cdc1-0abc-484f-bc62-416a7476489a Czech Republic (CZ) 21b7a0b6-231e-4e1f-97b0-6be8f7331f83 Germany (DE) e508cb08-d215-41a2-be8c-00768893d74f Bulgaria (BG) 33918f1d-0a3e-43f3-b510-15560fb0556f Sweden (SE)

	714cfb70-9f69-4cf2-859a-6ff54767c0d5 Germany (DE)
	9383611c-707d-4099-b85d-43ebb71f6fea Denmark (DK)
	3977102c-ee02-4544-b022-c7c129431e51 Germany (DE)
	40a64cd0-962b-47af-a36d-076ffa6459f0 Poland (PL)
	77d5993c-23a4-429b-b541-15daf8bdfb88 France (FR)
	dfba97cc-6848-41df-b59a-fbb8cd6dcea9 Sweden (SE)
	e75b5760-925a-4b41-b555-feefff1d6a55 Germany (DE)
	5c304043-6cc3-4449-8382-68a8509c031d Portugal (PT)
	32e603c8-a963-42c4-a40f-c84afa315d0a Belgium (BE)
	a73b071a-d983-4639-bc11-02f1b3fa000c Hungary (HU)
	6ae49f82-e721-470f-9ca2-f7e2448efcc5 Norway (NO)
	1d6e9ab9-76ac-47e2-b293-e12de717c481 Estonia (EE)
	487a8590-e8f1-451f-ad87-bd9f0b11ecb8 Hungary (HU)
	5b58bcb4-1ef6-40f2-a662-8da56e47d4cb Finland (FI)
	00a381a1-271c-4515-90f5-30ee8ae943b7 Spain (ES)
	eee265b1-5d89-449b-bcd6-dae1fabfa3f7 Greece (GR)
	d96b8547-06c9-4cbb-8704-c43479e17d3a Belgium (BE)
	0ce9e120-0f85-4154-8d25-0e0cc5cfafe2 Netherlands (NL)
	70889373-7818-41ce-85a0-16cceafd576f Poland (PL)
	fadcb295-0c9a-4c76-812c-e13730f6b94f Poland (PL)
	148f3a64-300b-4877-9398-7cffbaaf6462 Germany (DE)
	92ff169e-41c0-45fe-96cf-0f5d678fa870 France (FR)
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 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.B06804.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
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Package Level 1 Width	87 mm
Package Level 1 Depth / Length	79 mm
Package Level 1 Height	47 mm
Package Level 1 Gross Weight	0.27 kg
Package Level 1 EAN	3471523100213
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	14.58 kg
Package Level 3 Units	1296 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)	3705814	
E-Number (Sweden)	3211471	

Categories

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

