

## 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:	NF contactor relays are used for switching auxiliary and control circuits. NF contactor relays include an electronic coil interface accepting a wide control voltage $U_c$ min. ... $U_c$ max. Only four coils cover control voltages between 24...500 V 50/60 Hz or 20...500 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. NF 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: a wide range of Accessories is available. Note: NF..E-11 not suitable for a direct control by PLC-output. NF..E-11 type available in some countries: please consult your ABB representative.

## Categories

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

## Ordering

Minimum Order Quantity:	1 piece
Customs Tariff Number:	85369085
EAN:	3471523100213

## Dimensions

Product Net Depth:	77 mm
Product Net Height:	86 mm
Product Net Weight:	0.270 kg
Product Net Width:	45 mm

## Container Information

Package Level 1 Width:	87 mm
Package Level 1 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:	54 piece
Package Level 2 Width:	250 mm
Package Level 2 Length:	300 mm
Package Level 2 Height:	315 mm
Package Level 3 Units:	1296 piece
Package Level 1 Units:	1 piece

## Technical

Number of Auxiliary Contacts NO:	3
Number of Auxiliary Contacts NC:	1
Standards:	IEC 60947-5-1 and EN 60947-5-1, UL 508, CSA C22.2 N°14
Rated Operational Voltage:	Auxiliary Circuit 690 V Main Circuit 690 V
Rated Frequency (f):	Auxiliary Circuit 50 / 60 Hz
Conventional Free-air Thermal Current ( $I_{th}$ ):	acc. to IEC 60947-5-1, $q = 40$ °C 16 A
Rated Operational Current AC-15 ( $I_e$ ):	(220 / 240 V) 4 A (24 / 127 V) 6 A (400 / 440 V) 3 A (500 V) 2 A (690 V) 2 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 ( $I_e$ ):	(110 V) 0.55 A / 60 W (125 V) 0.55 A / 69 W (220 V) 0.27 A / 60 W

	(24 V) 6 A / 144 W (250 V) 0.27 A / 68 W (400 V) 0.15 A / 60 W (48 V) 2.8 A / 134 W (500 V) 0.13 A / 65 W (600 V) 0.1 A / 60 W (72 V) 1 A / 72 W
<b>Rated Insulation Voltage (U<sub>i</sub>):</b>	acc. to UL/CSA 600 V acc. to IEC 60947-5-1 and VDE 0110 (Gr. C) 690 V
<b>Rated Impulse Withstand Voltage (U<sub>imp</sub>):</b>	6 kV
<b>Maximum Mechanical Switching Frequency:</b>	6000 cycles per hour
<b>Rated Control Circuit Voltage (U<sub>c</sub>):</b>	50 Hz 24 ... 60 V 60 Hz 24 ... 60 V DC Operation 20 ... 60 V
<b>Operate Time:</b>	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
<b>Connecting Capacity Auxiliary Circuit:</b>	Flexible with Ferrule 1/2x 0.75 ... 2.5 mm <sup>2</sup> Flexible with Insulated Ferrule 1x 0.75 ... 2.5 mm <sup>2</sup> Flexible with Insulated Ferrule 2x 0.75 ... 1.5 mm <sup>2</sup> Rigid 1/2x 1...2.5 mm <sup>2</sup>
<b>Connecting Capacity Control Circuit:</b>	Flexible with Ferrule 1/2x 0.75 ... 2.5 mm <sup>2</sup> Flexible with Insulated Ferrule 1x 0.75 ... 2.5 mm <sup>2</sup> Flexible with Insulated Ferrule 2x 0.75 ... 1.5 mm <sup>2</sup> Rigid 1/2x 1 ... 2.5 mm <sup>2</sup>
<b>Wire Stripping Length:</b>	Auxiliary Circuit 10 mm Control Circuit 10 mm
<b>Degree of Protection:</b>	acc. to IEC 60529, IEC 60947-1, EN 60529 Auxiliary Terminals IP20 acc. to IEC 60529, IEC 60947-1, EN 60529 Coil Terminals IP20
<b>Terminal Type:</b>	Screw Terminals

## Environmental

<b>Climatic Withstand:</b>	Category B according to IEC 60947-1 Annex Q
<b>Maximum Operating Altitude Permissible:</b>	3000 m
<b>Resistance to Vibrations acc. to IEC 60068-2-6:</b>	5 ... 300 Hz 4 g closed position / 2 g open position
<b>Resistance to Shock acc. to IEC 60068-2-27:</b>	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
<b>RoHS Status:</b>	Planned to follow EU Directive 2002/95/EC August 18, 2005 and amendment after 2008 Q1
<b>Ambient Air Temperature:</b>	Close to Contactor for Storage -60...+80 °C Near Contactor for Operation in Free Air -40 ... +70 °C

## Technical UL/CSA

<b>Tightening Torque UL/CSA:</b>	Auxiliary Circuit 11 in-lb Control Circuit 11 in-lb
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## Certificates and Declarations (Document Number)

<b>Instructions and Manuals:</b>	1SBC101027M6801
<b>ABS Certificate:</b>	ABS_15-GE1349500-PDA_90682247
<b>CB Certificate:</b>	CB_SE_70920A1M2
<b>CCC Certificate:</b>	CCC_2011010303465426
<b>Data Sheet, Technical Information:</b>	1SBC101428D0201
<b>Declaration of Conformity - CE:</b>	1SBD250005U1000
<b>DNV Certificate:</b>	DNV_E11683
<b>EAC Certificate:</b>	EAC_RU C-FR ME77 B01006
<b>GL Certificate:</b>	GL_3786612HH
<b>GOST Certificate:</b>	GOST_POCCFR.ME77.B06804.pdf
<b>LR Certificate:</b>	LRS_C1400038
<b>RINA Certificate:</b>	RINA_ELE084013XG
<b>RMRS Certificate:</b>	RMRS_1300132124
<b>RoHS Information:</b>	1SBD251014E1000
<b>UL Certificate:</b>	UL_20091127-E252354-2-1

## Classifications

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<b>E-nummer:</b>	3211471
<b>ETIM 4:</b>	EC000196 - Contactor relay
<b>ETIM 5:</b>	EC000196 - Contactor relay
<b>ETIM 6:</b>	EC000196 - Contactor relay
<b>Object Classification Code:</b>	K

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