



## Alternate Catalog No. NF31E-13 Catalog No. 1SBH137001R1331

Description: NF31E-13 100-250V50/60HZ-DC Contactor Relay

UPC No 3471523100237

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NF contactor relays are used for switching auxiliary and control circuits. NF contactor relays include an electronic coil interface accepting a wide control voltage Uc min. ... Uc 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.

Descriptors	
Category	AF Contactors
Block Contactor Type	Contactor Relay

Specifications		
Product Type	AF	
Object Classification Code	K	
Terminal Type	Screw Terminals	
Rated Control Circuit Voltage	50 Hz /60 Hz DC Operation 100 250 V	
Resistance to Vibrations acc. to IEC 60068-2-6	5 300 Hz 4 g closed position / 2 g open position	
Number of Auxiliary Contacts NO	3	
RoHS Status	Following EU Directive 2011/65/EU	
Reference Ambient Air Temperature	Close to Contactor for Storage °C Near Contactor for Operation in Free Air °C	
Rated Operational Voltage	Auxiliary Circuit 690 V Main Circuit 690 V	
Number of Auxiliary Contacts NC	1	
Tightening Torque UL/CSA	Auxiliary Circuit 11 IA Control Circuit 11 IA	
Maximum Operating Altitude Permissible	3000 m	
Standards	IEC 60947-5-1 and EN 60947-5-1, UL 508, CSA C22.2 N°14	
Conventional Free-air Thermal Current	acc. to IEC 60947-5-1, q = 40 °C 16 A	
Rated Operational Current AC-15	(220 / 240 V) 4 A (24 / 127 V) 6 A (500 V) 2 A (690 V) 2 A (400 / 440 V) 3 A	
Rated Frequency	Auxiliary Circuit 50 Hz Auxiliary Circuit 60 Hz	
Rated Short-time Withstand Current	for 0.1 s A for 1 s A	
Maximum Electrical Switching Frequency	AC-15 1200 cycles per hour DC-13 900 cycles per hour	
Rated Insulation Voltage	acc. to UL/CSA 600 V acc. to IEC 60947-5-1 and VDE 0110 (Gr. C) 690 V	
Maximum Mechanical Switching Frequency	6000 cycles per hour	

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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
Secondary Rated Impulse Withstand Voltage	6 kV
Rated Operational Current DC-13	(125 V) 0.55 A / 69 W (24 V) 6 A / 144 W (250 V) 0.27 A / 68 W (48 V) 2.8 A / 134 W (72 V) 1 A / 72 W (110 V) 0.55 A / 60 W (220 V) 0.27 A / 60 W (400 V) 0.15 A / 60 W (500 V) 0.13 A / 65 W (600 V) 0.1 A / 60 W
Connecting Capacity Control Circuit	Flexible with Insulated Ferrule Rigid
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
Connecting Capacity Auxiliary Circuit	Flexible with Ferrule 1/2x 0.75 2.5 m <sup>2</sup> Flexible with Insulated Ferrule 1x 0.75 2.5/2x 0.75 1.5 m <sup>2</sup> Rigid 1/2x 1 2.5 m <sup>2</sup>
Wire Stripping Length	Auxiliary Circuit 10 mm Control Circuit 10 mm
Classifications	
ETIM 4	EC000196 - Contactor relay
ETIM 6.0	EC000196 - Contactor relay
ETIM 7	EC000196 - Contactor relay
ETIM 5.0	EC000196 - Contactor relay
Dimensions	
<b>Dimensions</b> Product Net Weight	0.27 kg
	0.27 kg 77 mm
Product Net Weight	-
Product Net Weight Product Net Depth / Length	77 mm
Product Net Weight Product Net Depth / Length Product Net Width Product Net Height	77 mm 45 mm
Product Net Weight Product Net Depth / Length Product Net Width	77 mm 45 mm
Product Net Weight Product Net Depth / Length Product Net Width Product Net Height	77 mm 45 mm
Product Net Weight Product Net Depth / Length Product Net Width Product Net Height  Package Information	77 mm 45 mm 86 mm  87 mm 79 mm
Product Net Weight Product Net Depth / Length Product Net Width Product Net Height  Package Information Package Level 1 Width	77 mm 45 mm 86 mm
Product Net Weight Product Net Depth / Length Product Net Width Product Net Height  Package Information  Package Level 1 Width Package Level 1 Depth / Length	77 mm 45 mm 86 mm  87 mm 79 mm
Product Net Weight Product Net Depth / Length Product Net Width Product Net Height  Package Information  Package Level 1 Width Package Level 1 Depth / Length Package Level 1 EAN Package Level 1 Units Package Level 2 Height	77 mm 45 mm 86 mm  87 mm 79 mm 3471523100237 box 1 piece 315 mm
Product Net Weight Product Net Depth / Length Product Net Width Product Net Height  Package Information  Package Level 1 Width Package Level 1 Depth / Length Package Level 1 EAN Package Level 1 Units Package Level 2 Height Package Level 2 Units	77 mm 45 mm 86 mm  87 mm 79 mm 3471523100237 box 1 piece 315 mm 27 piece
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Product Net Weight Product Net Depth / Length Product Net Width Product Net Height  Package Information  Package Level 1 Width Package Level 1 Depth / Length Package Level 1 EAN Package Level 1 Units Package Level 2 Height Package Level 2 Units	77 mm 45 mm 86 mm  87 mm 79 mm 3471523100237 box 1 piece 315 mm 27 piece

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Minimum Order Quantity