

PRODUCT-DETAILS

NFC31E-81

NFC31E-81 24V 50/60Hz Contactor Relay



General Information

Extended Product Type	NFC31E-81
Product ID	1SBH131001R8131
EAN	3471523015401
Catalog Description	NFC31E-81 24V 50/60Hz Contactor Relay
Long Description	The NFC31E-81 is a contactor relay with 4 auxiliary contacts (3 N.O + 1 N.C) and screw terminals, used to switch auxiliary and control circuits. Within the AF platform, NFC contactors offer an optimized operating time for AC controlled applications with electromagnetic coil (control voltage : 24 V AC 50/60 Hz). NFC contactors have a block type design and can be easily extended with add-on auxiliary contact blocks and a wide range of additional accessories.

Ordering

Minimum Order Quantity	1 piece
Customs Tariff Number	85364900

Popular Downloads

Data Sheet, Technical Information	1SBC100219C0201
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	0.309 kg

Technical

Number of Main Contacts NC	0
Number of Auxiliary Contacts NO	3
Number of Auxiliary Contacts NC	1
Standards	IEC/EN 60947-1, IEC/EN 60947-5-1, UL 60947-1, UL 60947-5-1, CSA C22.2 No. 60947-1-13, CSA C22.2 No. 60947-5-1-14
Rated Operational Voltage	Auxiliary Circuit 690 V
Rated Frequency (f)	Auxiliary Circuit 50 / 60 Hz Control Circuit 50 / 60 Hz Main Circuit 50 / 60 Hz
Conventional Free-air Thermal Current (I_{th})	acc. to IEC 60947-5-1, $\Theta = 40^\circ\text{C}$ 16 A
Rated Operational Current AC-15 (I_{θ})	(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-1) 0 cycles per hour (AC-15) 1200 cycles per hour (AC-2 / AC-4) 0 cycles per hour (AC-3) 0 cycles per hour (DC-13) 900 cycles per hour
Rated Operational Current DC-13 (I_{θ})	(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 V 60 Hz 24 V
Operate Time	Between Coil De-energization and NC Contact Closing 9 ... 20 ms Between Coil De-energization and NO Contact Opening 4 ... 18 ms Between Coil Energization and NC Contact Opening 7 ... 21 ms Between Coil Energization and NO Contact Closing 10 ... 26 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 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

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 Near Contactor for Operation in Free Air (0.85 ... 1.1 Uc) -40 ... +60 °C Near Contactor for Operation in Free Air (Uc) -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 acc. to IEC 60068-2-6	5 ... 300 Hz 4 g closed position / 2 g open position
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

Certificates and Declarations (Document Number)

BV Certificate	BV_2634H24899C0
CB Certificate	CB_SE-93051M2
CCC Certificate	2020980303000185
CQC Certificate	CQC2019010303267993
Declaration of Conformity - CCC	2020980303000175
Declaration of Conformity - CE	1SBD250026U1000
Declaration of Conformity - UKCA	1SBD250047U1000
Instructions and Manuals	1SBC101027M6801
REACH Declaration	2CMT2021-006202
RoHS Information	2CMT2021-006277
UL Certificate	UL-US-L252354-121-72119002-1 UL-CA-L252354-321-72119002-1

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	0.309 kg
Package Level 1 EAN	3471523015401
Package Level 3 Units	1296 piece

Classifications	
Object Classification Code	K
ETIM 7	EC000196 - Contactor relay
ETIM 8	EC000196 - Contactor relay
eClass	V11.0 : 27371001
UNSPSC	39121500
IDEA Granular Category Code (IGCC)	4755 >> Contactors

Categories

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

