



 PRODUCT-DETAILS

NF40E-12

NF40E-12 48-130V50/60HZ-DC Contactor Relay



General Information

Extended Product Type	NF40E-12
Product ID	1SBH137001R1240
EAN	3471523100022
Catalog Description	NF40E-12 48-130V50/60HZ-DC Contactor Relay

Long Description	<p>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 - Control Circuit: AC or DC operated - Accessories: a wide range of Accessories is available.</p>
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Ordering

Minimum Order Quantity	1 piece
Customs Tariff Number	85364900

Popular Downloads

EPLAN Data	9AAC159655_EPLAN
Data Sheet, Technical Information	1SBC100214C0202
Instructions and Manuals	1SBC101027M6801
Instructions and Manuals (Part 2)	1SAC200017M0002
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	4
Number of Auxiliary Contacts NC	0
Number of Poles	4P
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 Control 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_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 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 Short-time Withstand Current Low Voltage (I_{cw})	for 0.1 s 140 A for 1 s 100 A
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 Electrical Switching Frequency	(AC-15) 1200 cycles per hour (DC-13) 900 cycles per hour
Maximum Mechanical	6000 cycles per hour

Switching Frequency	
Rated Control Circuit Voltage (U _c)	50 Hz 48 ... 130 V 60 Hz 48 ... 130 V DC Operation 48 ... 130 V
Power Loss	at 6 A per Pole 0.1 W
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
Tightening Torque	Auxiliary Circuit 1.2 N·m Control Circuit 1.2 N·m
Terminal Type	Screw Terminals
Product Name	Block Contactor Relay

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
Pollution Degree	3

Material Compliance

Conflict Minerals Reporting Template (CMRT)	9AKK108467A5658
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REACH Declaration	2CMT2021-006202
RoHS Declaration	2CMT2021-006277
RoHS Information	Following EU Directive 2011/65/EU and Amendment 2015/863 July 22, 2019
SCIP	43a387df-ed0c-4710-aec0-e0200811e715 China
Simplified SCIP	78ae90e0-a7b0-4779-b380-b51dfc15cd21 Denmark f2515c82-811f-4490-af66-e4564b335c35 Germany 9d18775b-9d0a-44e0-8b2b-cdc93a6e3029 Germany cd39f5ac-ee0a-4c0a-a0c6-ea7347172e70 Croatia 6a7107da-d14b-48f2-a7b6-bdbbeb28eebd9 Hungary 01e5c70c-7860-46d0-8014-9c5df8fc65db Belgium e10344bb-acc4-4343-a1cc-f0f3efca92fb Germany 59cbf182-11b5-4ad3-8610-0c60235678ae France bf2b1466-0b83-48bf-ae5e-fb76d057b585 Sweden 087d19b6-7c3b-49ba-9e0e-0097426ec8af Sweden e1e05689-6f16-429d-9690-3de300eb0915 Portugal 3bb48cc5-cc60-47da-bede-0df6e7009d5e Bulgaria 06715de8-cc17-4192-9fc8-d7fbc4b87f4b Poland 53820df1-30d7-45d2-8fea-1a9c402149be Germany 2619a5ed-0c4a-4925-9d44-8b913ca8de08 France 24601d19-a3cb-4603-b968-2ce45b55fd25 Estonia 1d7c30e0-e0ef-4982-9e31-b40cb936dd60 Greece f972f849-0fc2-4427-b41c-b380f9877d27 Netherlands 3a8c97e2-7f03-407c-a0c0-badccceaddabc Poland ae1f466c-c958-455c-9ba0-b350de019c3d Hungary f29d08ba-77e8-433c-9253-f3d587c3ffe9 Spain 8b4aefa1-c3a6-47e2-b61e-b0280004de5e Norway 0ec1b628-aab6-4782-b583-406d81fa0470 Poland d53ef64c-e4b9-42db-a03f-9d2408690ffc Germany 2161be85-8986-4226-b733-3218651f76a2 Czech Republic c6269559-b0b9-4461-8e79-da14d3f4d5c7 Belgium 5748385b-9246-4a2a-ba3b-34945af4ec21 Finland
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

ABB EcoSolutions	Yes
ABB Site Meeting Group Waste To Landfill Target	No non-hazardous waste is sent to a landfill
End Of Life Disassembling Instructions	1SBC101080M6801
Environmental Product Declaration - EPD	1SBD250584E3000
Improved Energy Efficiency for Customers	Product Efficiency - Product considered more energy-efficient compared to similar product on market or older products from the same line
Recyclability Rate of the Product acc. to EN45555	Design for Closing Resource Loops - Standard EN45555 - 92.7 %

Certificates and Declarations

A2L Certificate – UL	9AKK108469A4900 9AKK108469A4902
ABS Certificate	ABS_20-2060694-PDA
BV Certificate	BV_2634H24899C1
CB Certificate	CB_SE-116792
CCC Certificate	CCC_2024010303656666
Declaration of Conformity - CCC	CQC2011010303465426
Declaration of	1SBD250005U1000

Conformity - CE	
Declaration of Conformity - UKCA	1SBD250036U1000
DNV Certificate	DNV_TAE00001BV-5
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
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	3471523100022
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

External Classifications and Standards

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)	3706414
E-Number (Sweden)	3211455

Categories

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

