



PRODUCT-DETAILS

NFZB22ES-22

NFZB22ES-22 48-130V50/60HZ-DC Contactor Relay



General Information	
Extended Product Type	NFZB22ES-22
Product ID	1SBH136059R2222
EAN	3471523108721
Catalog Description	NFZB22ES-22 48-130V50/60HZ-DC Contactor Relay
Long Description	NFZB..S 3-pole contactors comply with the latest railway rolling stock standards and allow installation in passengers or driver cabins for trains frequently operating tunnels or undergrounds. They are mainly used for controlling 3-phase motors and power circuits up to 690 V AC and 220 V DC. Improve the compactness of the installations thanks to reduced dimension and side-by-side mounting requiring less 15% width (without spacing) from -40 °C up to +70 °C Meet all main rolling stocks standards: IEC 60947-4-1, IEC 60947-5-1, IEC 60077-1/-2 and applicable parts of EN 50155 standards, shocks and vibration withstand conforming to IEC 61373 cat. 1, class B. Reach the highest levels in fire and smoke behaviour with compliance to European standard EN 45545-2 (HL2 hazard levels) in group mounting. Reduce train energy with lighter devices and requiring 68% less coil energy consumption in operation. Electronic coil interface handling large DC voltage fluctuation voltage, including several Uc DC control voltages used for battery supply and accepting sinusoidal AC 50/60 Hz control supplies included inside U_{cmin}.... U_{cmax} voltage range. Max permitted AC 50/60 Hz control voltage must not be exceeded (see technical data). Wide range of auxiliary contact blocks for front and side mounting.

Ordering	
Minimum Order Quantity	1 piece

Customs Tariff Number 85364900

Popular Downloads

Instructions and Manuals 1SBC101032M6801

Dimensions

Product Net Width	45 mm
Product Net Depth / Length	77 mm
Product Net Height	91.5 mm
Product Net Weight	0.31 kg

Technical

Number of Auxiliary Contacts NO	2
Number of Auxiliary Contacts NC	2
Number of Poles	4P
Standards	IEC/EN 60947-1, IEC/EN 60947-5-1, UL 60335-2-40 LZGH2 A2L, UL 60947-5-1, CSA C22.2 No. 60335-2-40 LZGH2 A2L, CSA C22.2 No. 60947-5-1, IEC 60077-1 (applicable parts), IEC 60077-2 (applicable parts), EN 50155 (applicable parts), TR CU 001/2011, IEC 61373, For compliance confirmation on applicable parts based on your application and combination, please consult your ABB sales representatives.
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, $\Theta = 40\text{ }^{\circ}\text{C}$ 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 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 Switching Frequency	6000 cycles per hour
Rated Control Circuit Voltage (U_c)	50 Hz 48 ... 130 V 60 Hz 48 ... 130 V DC Operation 48 ... 130 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 mm² Flexible with Insulated Ferrule 1/2x 0.75 ... 1.5 mm² Rigid Solid 1/2x 1 ... 2.5 mm²
Connecting Capacity Control Circuit	Flexible with Ferrule 1/2x 0.75 ... 2.5 mm² Flexible with Insulated Ferrule 1/2x 0.75 ... 1.5 mm² Rigid Solid 1/2x 1 ... 2.5 mm²
Wire Stripping Length	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	Spring Terminals
Product Name	Block Contactor Relay

Technical UL/CSA

Connecting Capacity Auxiliary Circuit UL/CSA	Rigid Solid 1/2x 18-14 AWG
Connecting Capacity Control Circuit UL/CSA	Rigid Solid 1/2x 18-14 AWG

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
Pollution Degree	3

Material Compliance

Conflict Minerals Reporting Template (CMRT)	9AKK108467A5658
REACH Declaration	2CMT2021-006202
RoHS Information	2CMT2021-006277
RoHS Status	Following EU Directive 2011/65/EU
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)

Certificates and Declarations

A2L Certificate - UL	9AKK108469A4900;9AKK108469A4902
CB Certificate	CB_SE-93051M2
CCC Certificate	CCC_2011010303465426
CQC Certificate	CQC2019010303267993
Declaration of Conformity - CCC	2020980303000175
Declaration of Conformity - CE	1SBD250006U1000
Declaration of Conformity - UKCA	1SBD250037U1000
UL Certificate	UL 20180227 E252354 2 1

Container Information	
Package Level 1 Units	box 1 piece
Package Level 1 Width	93 mm
Package Level 1 Depth / Length	79 mm
Package Level 1 Height	47 mm
Package Level 1 Gross Weight	0.31 kg
Package Level 1 EAN	3471523108721
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	16.74 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

Categories

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

