

## General Information

<b>Extended Product Type:</b>	NFZB44E-21
<b>Product ID:</b>	1SBH136061R2144
<b>EAN:</b>	3471523105911
<b>Catalog Description:</b>	NFZB44E-21 24-60V50/60HZ 20-60VDC Contactor Relay
<b>Long Description:</b>	NFZB contactor relays 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 used for switching auxiliary and control circuits. 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, HL3 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 U <sub>c</sub> DC control voltages used for battery supply and accepting sinusoidal AC 50/60 Hz control supplies included inside U <sub>cmin</sub> ... U <sub>cmax</sub> 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.

## Additional Information

<b>ABB Industrial IT Suite:</b>	Control IT
<b>ABB Industry Usage Level 2:</b>	TRA.2 - Railway
<b>Ambient Air Temperature:</b>	Close to Contactor for Storage -60...+80 °C Near Contactor for Operation in Free Air -40 ... +70 °C
<b>Block Contactor Type:</b>	Contactor Relay
<b>CB Certificate:</b>	CB_SE_70920A1M2
<b>CCC Certificate:</b>	CCC_2011010303465426
<b>Climatic Withstand:</b>	Category B according to IEC 60947-1 Annex Q
<b>Coil Voltage Code:</b>	21
<b>Conventional Free-air Thermal Current (I<sub>th</sub>):</b>	acc. to IEC 60947-5-1, q = 40 °C 16 A
<b>Country of Origin:</b>	France (FR)
<b>Customs Tariff Number:</b>	85364900
<b>Data Sheet, Technical Information:</b>	1SBC100174C0201
<b>Declaration of Conformity - CE:</b>	1SBD250006U1000
<b>EAC Certificate:</b>	EAC_RU C-FR ME77 B01006
<b>EAN:</b>	3471523105911
<b>EPLAN Catalog Tree:</b>	Electrical engineering / Relays, contactors / Contactors
<b>EPLAN Function Definition:</b>	Coil / Coil, 2 connection points / Coil for power contactor A1_A2 NO contact / NO contact, 2 connection points / NO auxiliary contact 13_14 NO contact / NO contact, 2 connection points / NO auxiliary contact 23_24 NO contact / NO contact, 2 connection points / NO auxiliary contact 33_34 NO contact / NO contact, 2 connection points / NO auxiliary contact 43_44 NC contact / NC contact, 2 connection points / NC auxiliary contact 51_52 NC contact / NC contact, 2 connection points / NC auxiliary contact 61_62 NC contact / NC contact, 2 connection points / NC auxiliary contact 71_72 NC contact / NC contact, 2 connection points / NC auxiliary contact 81_82
<b>ETIM 4:</b>	EC000196 - Contactor relay
<b>ETIM 5:</b>	EC000196 - Contactor relay
<b>ETIM 6:</b>	EC000196 - Contactor relay
<b>Environmental Information:</b>	1SBD250167E1000

<b>Fire and Smoke Standards:</b>	EN 45545 (Hazard levels HL2, HL3) NF F 16-101 / NF F 16-102 DIN 5510-2
<b>GOST Certificate:</b>	GOST_POCCFR.ME77.B07174.pdf
<b>IT Publishing Status:</b>	Level 0 - Information enabled
<b>Industrial IT Certification Level:</b>	0
<b>Instructions and Manuals:</b>	1SBC101037M6801
<b>Invoice Description:</b>	NFZB44E-21 24-60V50/60HZ 20-60VDC Contactor Relay
<b>Low Coil Consumption:</b>	Yes
<b>Maximum Electrical Switching Frequency:</b>	AC-15 1200 cycles per hour DC-13 900 cycles per hour
<b>Maximum Mechanical Switching Frequency:</b>	6000 cycles per hour
<b>Maximum Operating Altitude Permissible:</b>	3000 m
<b>Minimum Order Quantity:</b>	1 piece
<b>Mounted Auxiliary Contacts 1st Stack:</b>	4 NO, 0 NC
<b>Mounted Auxiliary Contacts 2nd Stack:</b>	0 NO, 4 NC
<b>Mounting Position:</b>	Max. add-on N.C. auxiliary contacts: see accessory fitting details for a NF contactor relay
<b>Number of Auxiliary Contacts NC:</b>	4
<b>Number of Auxiliary Contacts NO:</b>	4
<b>Object Classification Code:</b>	K
<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>Order Multiple:</b>	1 piece
<b>Package Level 1 EAN:</b>	3471523105911
<b>Package Level 1 Gross Weight:</b>	0.37 kg
<b>Package Level 1 Height:</b>	47 mm
<b>Package Level 1 Length:</b>	113 mm
<b>Package Level 1 Units:</b>	1 piece
<b>Package Level 1 Width:</b>	87 mm
<b>Package Level 2 Gross Weight:</b>	14.400 kg
<b>Package Level 2 Height:</b>	315 mm
<b>Package Level 2 Length:</b>	300 mm
<b>Package Level 2 Units:</b>	36 piece
<b>Package Level 2 Width:</b>	250 mm
<b>Package Level 3 Units:</b>	864 piece
<b>Product Main Type:</b>	NF
<b>Product Name:</b>	Block Contactor Relay
<b>Product Net Depth:</b>	86 mm
<b>Product Net Height:</b>	86 mm
<b>Product Net Weight:</b>	0.370 kg
<b>Product Net Width:</b>	45 mm
<b>Product Packing Type:</b>	Box
<b>RMRS Certificate:</b>	RMRS_1300132124
<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>Rated Frequency (f):</b>	Main Circuit 50 / 60 Hz
<b>Rated Insulation Withstand Voltage (U<sub>i</sub>):</b>	60 V

rated impulse withstand voltage ( $U_{imp}$ ):	0 kV
Rated Insulation Voltage ( $U_i$ ):	acc. to IEC 60947-5-1 and VDE 0110 (Gr. C) 690 V
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 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
Rated Operational Voltage:	Auxiliary Circuit 690 V
Rated Short-time Withstand Current ( $I_{cw}$ ):	for 0.1 s 140 A for 1 s 100 A
RoHS Date:	20130123
RoHS Information:	1SBD251017E1000
RoHS Status:	Planned to follow EU Directive 2002/95/EC August 18, 2005 and amendment after 2008 Q4
Selling Unit of Measure:	piece
Short Description:	NFZB44E-21 24-60V50/60HZ 20-60VDC Contactor Relay
Terminal Type:	Screw Terminals
Tightening Torque:	Control Circuit 1.2 N·m
UL Certificate:	UL_20130206-E252354-2-1
UL Listing Card:	UL_E252354
UNSPSC:	39121500

