



## Products + Low Voltage Products and Systems + Control Products + Contactors + Block Contactors

General Information	
Extended Product Type:	NFZ44E-20
Product ID:	1SBH136001R2044
EAN:	3471523102309
Catalog Description:	NFZ44E-20 12-20VDC Contactor Relay
Long Description:	NFZ contactor relays are used for switching auxiliary and control circuits. N FZ contactor relays include an electronic coil interface accepting a wide control voltage Uc min Uc max. Only four coils cover control voltages bet ween 24250 V 50/60 Hz or 12250 V DC. NF contactor relays can mana ge large control voltage variations. One coil can be used for different control voltages used worldwide without any coil change NFZ contactor relays al low direct control by PLC-output $\geq 24$ V DC 500 mA and obtain a reduced h olding coil consumption. NFZ contactor relays withstand short voltage dips and voltage sags (SEMI F47-0706 compliance) between 24250 V 50/60 Hz NFZ contactor relays have built-in surge protection and do not require a dditional surge suppressors - Poles: 8-pole contactor relays with a non-rem ovable front-mounted auxiliary contact block (mechanically-linked auxiliary contacts compliant with Annex L of IEC 60947-5-1 and including the "Mech anically Linked" symbol on the contactor relay side) - Control Circuit: DC o perated for NFZ-20 contactors. Only NFZ-20 contactor relays need to res pect the polarity on the coil terminals (A1+ and A2-) Accessories: a wide range of Accessories is available.
Ordering	

## Ordering

Minimum Order Quantity:	1 piece
Customs Tariff Number:	85364900
Popular Downloads	
Data Sheet, Technical Information:	1SBC101430D0201
Instructions and Manuals:	1SBC101027M6801
Dimensions	
Product Net Width:	45 mm
Product Net Width: Product Net Depth:	45 mm 110.5 mm
	-
Product Net Depth:	110.5 mm
Product Net Depth: Product Net Height:	110.5 mm 86 mm
Product Net Depth: Product Net Height: Product Net Weight:	110.5 mm 86 mm

Standards:	IEC 60947-5-1 and EN 60947-5-1, UL 508, CSA C22.2 N°14
Rated Operational Voltage:	Auxiliary Circuit 690 V Main Circuit 690 V
Rated Frequency (f):	Auxiliary Circuit 50 / 60 Hz
Conventional Free-air Thermal Current (I <sub>th</sub> ):	acc. to IEC 60947-5-1, q = 40 °C 16 A
Rated Operational Current AC-15 (I <sub>e</sub> ):	(220 / 240 V) 4 A (24 / 127 V) 6 A (400 / 440 V) 3 A (500 V) 2 A (690 V) 2 A
Rated Short-time Withstand Current (I <sub>cw</sub> ):	for 0.1 s 140 A for 1 s 100 A
Maximum Electrical Switching Frequency:	AC-15 1200 cycles per hour DC-13 900 cycles per hour
Rated Operational Current DC-13 (I <sub>e</sub> ):	(110 V) 0.55 A / 60 A (125 V) 0.55 A / 69 A (220 V) 0.27 A / 60 A (24 V) 6 A / 144 A (250 V) 0.27 A / 68 A (400 V) 0.15 A / 60 A (48 V) 2.8 A / 134 A (500 V) 0.13 A / 65 A (600 V) 0.1 A / 60 A (72 V) 1 A / 72 A
Rated Insulation Voltage (U <sub>i</sub> ):	acc. to UL/CSA 600 V acc. to IEC 60947-5-1 and VDE 0110 (Gr. C) 690 V
Rated Impulse Withstand Voltage (U <sub>imp</sub> ):	6 kV
Maximum Mechanical Switching Frequency:	6000 cycles per hour
Rated Control Circuit Voltage (U <sub>c</sub> ):	DC Operation 12 20 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
Connecting Capacity Auxiliary Circuit:	Flexible with Ferrule 1/2x 0.75 2.5 mm <sup>2</sup> Flexible with Insulated Ferrule 1x 0.75 2.5 mm <sup>2</sup> Flexible with Insulated Ferrule 2x 0.75 1.5 mm <sup>2</sup> Rigid 1/2x 1 2.5 mm <sup>2</sup>
Connecting Capacity Control Circuit:	Flexible with Ferrule 1/2x 0.75 2.5 mm <sup>2</sup> Flexible with Insulated Ferrule 1x 0.75 2.5 mm <sup>2</sup> Flexible with Insulated Ferrule 2x 0.75 1.5 mm <sup>2</sup> Rigid 1/2x 1 2.5 mm <sup>2</sup>

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
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:	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
Technical UL/CSA	
Tightening Torque UL/CSA:	Auxiliary Circuit 11 in·lb Control Circuit 11 in·lb
Certificates and Declarations (I	Document Number)
ABS Certificate:	
	ABS 15-GE1349500-PDA 90682247
BV Certificate:	ABS_15-GE1349500-PDA_90682247 BV_2634H24899B0
BV Certificate:	BV_2634H24899B0
BV Certificate: CB Certificate:	BV_2634H24899B0 CB_SE-89845
BV Certificate: CB Certificate: CCC Certificate:	BV_2634H24899B0 CB_SE-89845 CCC_2011010303465426
BV Certificate: CB Certificate: CCC Certificate: cUL Certificate:	BV_2634H24899B0 CB_SE-89845 CCC_2011010303465426 UL_20180227_E252354_2_1
BV Certificate: CB Certificate: CCC Certificate: cUL Certificate: Declaration of Conformity - CE:	BV_2634H24899B0 CB_SE-89845 CCC_2011010303465426 UL_20180227_E252354_2_1 1SBD250005U1000
BV Certificate: CB Certificate: CCC Certificate: cUL Certificate: Declaration of Conformity - CE: DNV Certificate:	BV_2634H24899B0 CB_SE-89845 CCC_2011010303465426 UL_20180227_E252354_2_1 1SBD250005U1000 DNV-GL_TAE00001BV
BV Certificate: CB Certificate: CCC Certificate: cUL Certificate: Declaration of Conformity - CE: DNV Certificate: DNV GL Certificate:	BV_2634H24899B0   CB_SE-89845   CCC_2011010303465426   UL_20180227_E252354_2_1   1SBD250005U1000   DNV-GL_TAE00001BV   DNV-GL_TAE00001BV
BV Certificate: CB Certificate: CCC Certificate: cUL Certificate: Declaration of Conformity - CE: DNV Certificate: DNV GL Certificate: EAC Certificate:	BV_2634H24899B0   CB_SE-89845   CCC_2011010303465426   UL_20180227_E252354_2_1   1SBD250005U1000   DNV-GL_TAE00001BV   DNV-GL_TAE00001BV   EAC_RU C-FR ME77 B01006
BV Certificate: CB Certificate: CCC Certificate: cUL Certificate: Declaration of Conformity - CE: DNV Certificate: DNV GL Certificate: EAC Certificate: Environmental Information:	BV_2634H24899B0   CB_SE-89845   CCC_2011010303465426   UL_20180227_E252354_2_1   1SBD250005U1000   DNV-GL_TAE00001BV   DNV-GL_TAE00001BV   EAC_RU C-FR ME77 B01006   1SBD250152E1000
BV Certificate: CB Certificate: CCC Certificate: cUL Certificate: Declaration of Conformity - CE: DNV Certificate: DNV GL Certificate: EAC Certificate: Environmental Information: GOST Certificate:	BV_2634H24899B0   CB_SE-89845   CCC_2011010303465426   UL_20180227_E252354_2_1   1SBD250005U1000   DNV-GL_TAE00001BV   DNV-GL_TAE00001BV   EAC_RU C-FR ME77 B01006   1SBD250152E1000   GOST_POCCFR.ME77.B07174.pdf
BV Certificate: CB Certificate: CCC Certificate: cUL Certificate: Declaration of Conformity - CE: DNV Certificate: DNV GL Certificate: EAC Certificate: Environmental Information: GOST Certificate: Instructions and Manuals:	BV_2634H24899B0   CB_SE-89845   CCC_2011010303465426   UL_20180227_E252354_2_1   1SBD250005U1000   DNV-GL_TAE00001BV   DNV-GL_TAE00001BV   EAC_RU C-FR ME77 B01006   1SBD250152E1000   GOST_POCCFR.ME77.B07174.pdf   1SBC101027M6801
BV Certificate: CB Certificate: CCC Certificate: cUL Certificate: Declaration of Conformity - CE: DNV Certificate: DNV GL Certificate: EAC Certificate: Environmental Information: GOST Certificate: Instructions and Manuals: LR Certificate:	BV_2634H24899B0   CB_SE-89845   CCC_2011010303465426   UL_20180227_E252354_2_1   1SBD250005U1000   DNV-GL_TAE00001BV   DNV-GL_TAE00001BV   EAC_RU C-FR ME77 B01006   1SBD250152E1000   GOST_POCCFR.ME77.B07174.pdf   1SBC101027M6801   LRS_C1400038

UL Certificate:	UL_20130206-E252354-2-1
UL Listing Card:	UL_E252354
Container Information	
Package Level 1 Units:	1 piece
Package Level 1 Width:	87 mm
Package Level 1 Length:	113 mm
Package Level 1 Height:	47 mm
Package Level 1 Gross Weight:	0.36 kg
Package Level 1 EAN:	3471523102309
Package Level 2 Units:	36 piece
Package Level 2 Width:	250 mm
Package Level 2 Length:	300 mm
Package Level 2 Height:	315 mm
Package Level 2 Gross Weight:	12.96 kg
Package Level 3 Units:	864 piece

## Classifications

Object Classification Code:	К
ETIM 4:	EC000196 - Contactor relay
ETIM 5:	EC000196 - Contactor relay
ETIM 6:	EC000196 - Contactor relay
UNSPSC:	39121500

