

# NFZB80ERT-23



Products Low Voltage Products and Systems Control Products Contactors Block Contactors

## General Information

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| <b>Extended Product Type:</b> | NFZB80ERT-23  |
| <b>Product ID:</b>            | 1SBH136060R2380   |
| <b>EAN:</b>                   | 3471523107137   |
| <b>Catalog Description:</b>   | NFZB80ERT-23 100-250V50/60HZ-DC Contactor Relay   |
| <b>Long Description:</b>      | NFZB..RT 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, 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>c</sub> min.... U <sub>c</sub> max 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

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| <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<br>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>                                      | 23  |
| <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>                      | 1SBC100178C0201   |
| <b>Declaration of Conformity - CE:</b>                         | 1SBD250006U1000   |
| <b>EAC Certificate:</b>  | EAC_RU C-FR ME77 B01006   |
| <b>EAN:</b>  | 3471523107137   |
| <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<br>NO contact / NO contact, 2 connection points / NO auxiliary contact 13_14<br>NO contact / NO contact, 2 connection points / NO auxiliary contact 23_24<br>NO contact / NO contact, 2 connection points / NO auxiliary contact 33_34<br>NO contact / NO contact, 2 connection points / NO auxiliary contact 43_44<br>NO contact / NO contact, 2 connection points / NO auxiliary contact 53_54<br>NO contact / NO contact, 2 connection points / NO auxiliary contact 63_64<br>NO contact / NO contact, 2 connection points / NO auxiliary contact 73_74<br>NO contact / NO contact, 2 connection points / NO auxiliary contact 83_84 |
| <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>                              | 1SBD250165E1000   |

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| <b>Fire and Smoke Standards:</b>                      | ASTM E 1354<br>ASTM E 162<br>ASTM E 662<br>BSS 7239<br>EN 45545 (Hazard levels HL2, HL3)<br>NF F 16-101 / NF F 16-102  |
| <b>IT Publishing Status:</b>                          | Level 0 - Information enabled  |
| <b>Industrial IT Certification Level:</b>             | 0  |
| <b>Instructions and Manuals:</b>                      | 1SBC101035M6801  |
| <b>Invoice Description:</b>                           | NFZB80ERT-23 100-250V50/60HZ-DC Contactor Relay  |
| <b>Low Coil Consumption:</b>                          | Yes  |
| <b>Maximum Electrical Switching Frequency:</b>        | AC-15 1200 cycles per hour<br>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>          | 4 NO, 0 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>               | 0  |
| <b>Number of Auxiliary Contacts NO:</b>               | 8  |
| <b>Object Classification Code:</b>                    | K  |
| <b>Operate Time:</b>                                  | Between Coil De-energization and NC Contact Closing 13...98 ms<br>Between Coil De-energization and NO Contact Opening 11...95 ms<br>Between Coil Energization and NC Contact Opening 38...90 ms<br>Between Coil Energization and NO Contact Closing 40...95 ms |
| <b>Order Multiple:</b>                                | 1 piece  |
| <b>Package Level 1 EAN:</b>                           | 3471523107137  |
| <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>                  | 14.800 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>Rated Control Circuit Voltage (U<sub>c</sub>):</b> | 50 Hz 100 ... 250 V<br>60 Hz 100 ... 250 V<br>DC Operation 100 ... 250 V   |
| <b>Rated Frequency (f):</b>                           | Main Circuit 50 / 60 Hz  |

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| <b>Rated Impulse Withstand Voltage (<math>U_{imp}</math>):</b>   | 6 kV  |
| <b>Rated Insulation Voltage (<math>U_i</math>):</b>              | acc. to IEC 60947-5-1 and VDE 0110 (Gr. C) 690 V  |
| <b>Rated Operational Current AC-15 (<math>I_a</math>):</b>       | (220 / 240 V) 4 A<br>(24 / 127 V) 6 A<br>(400 / 440 V) 3 A<br>(500 V) 2 A<br>(690 V) 2 A  |
| <b>Rated Operational Current DC-13 (<math>I_a</math>):</b>       | (110 V) 0.55 A / 60 W<br>(125 V) 0.55 A / 69 W<br>(220 V) 0.27 A / 60 W<br>(24 V) 6 A / 144 W<br>(250 V) 0.27 A / 68 W<br>(400 V) 0.15 A / 60 W<br>(48 V) 2.8 A / 134 W<br>(500 V) 0.13 A / 65 W<br>(600 V) 0.1 A / 60 W<br>(72 V) 1 A / 72 W |
| <b>Rated Operational Voltage:</b>                                | Auxiliary Circuit 690 V   |
| <b>Rated Short-time Withstand Current (<math>I_{cw}</math>):</b> | for 0.1 s 140 A<br>for 1 s 100 A  |
| <b>RoHS Date:</b>  | 20121001  |
| <b>RoHS Information:</b>   | 1SBD251016E1000   |
| <b>RoHS Status:</b>  | Planned to follow EU Directive 2002/95/EC August 18, 2005 and amendment after 2008 Q4   |
| <b>Selling Unit of Measure:</b>                                  | piece   |
| <b>Short Description:</b>  | NFZB80ERT-23 100-250V50/60HZ-DC Contactor Relay   |
| <b>Terminal Type:</b>  | Ring-Tongue Terminals   |
| <b>Tightening Torque:</b>  | Control Circuit 1.2 N·m<br>Main Circuit 1.2 N·m   |
| <b>UNSPSC:</b>   | 39121500  |