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PRODUCT-DETAILS

NSL53E-88

NSL53E-88 220VDC Contactor Relay



| General Information | |
|-----------------------|--|
| Extended Product Type | NSL53E-88 |
| Product ID | 1SBH103001R8853 |
| EAN | 3471523056688 |
| Catalog Description | NSL53E-88 220VDC Contactor Relay |
| Long Description | NSL contactor relays are used for switching auxiliary circuits and control circuits Poles: 8-pole contactor relays (mechanically-linked auxiliary contacts compliant with Annex L of IEC 60947-5-1 including the "Mechanically Linked" symbol on the contactor relay side) - Control circuit: DC operated with solid core magnet circuit. The polarity on the coil terminals (A1+ and A2-) must be respected - Accessories: a wide range of accessories is available NSL contactors are fitted with low consumption DC coils and are suitable for a direct control by PLC outputs. |

| Ordering | |
|------------------------|----------|
| Minimum Order Quantity | 32 piece |
| Customs Tariff Number | 85364900 |

Popular Downloads

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| Data Sheet, Technical Information | 1SBC100214C0202 |
|--------------------------------------|-----------------|
| Instructions and Manuals | 1SBC101020M9701 |

| Dimensions | |
|----------------------------|----------|
| Product Net Width | 45 mm |
| Product Net Depth / Length | 100.2 mm |
| Product Net Height | 68 mm |
| Product Net Weight | 0.32 kg |

| Contacts NO Number of Auxiliary 3 Contacts NC Standards IEC 60947-5-1 and EN 60947-5-1, UL 508, CSA C22.2 N°14 Rated Operational Auxiliary Circuit 690 V oltage Main Circuit 690 V oltage Rated Frequency (f) Auxiliary Circuit 50 / 60 Hz Conventional Free-air acc. to IEC 60947-5-1, 0 = 40 °C 10 A Thermal Current (th) Rated Operational (500 V) N.2 A Current AC-15 (le) (500 V) N.2 A Rated Operational (24 V) 6 A, 1/44 W Current DC-13 (le) (48 V) 2.8 A, 1/34 W Current DC-13 (le) (48 V) 2.8 A, 1/34 W Current DC-13 (le) (10 V) N.2 A Rated Short-time (20 V) 0.27 A / 60 W Current Low (500 V) 0.27 A / 60 W Voltage (lcw) (20 V) 0.27 A / 60 W Rated Insulation Voltage acc. to IEC 60947-5-1 and VDE 0110 (Gr. C) 690 V (U) acc. to IEC 60947-5-1 and VDE 0110 (Gr. C) 690 V (U) acc. to IEC 60947-5-1 and VDE 0110 (Gr. C) 690 V (U) acc. to IEC 60947-5-1 and VDE 0110 (Gr. C) 690 V (U) acc. to IEC 60947-5-1 and VDE 0110 (Gr. C) 690 V (U) acc. to IEC 60947-5-1 and VDE 0110 (Gr. | Technical | |
|--|-------------------------------------|--|
| Standards Standards Standards Standards Standards Standards Standards Standards Auxiliary Circuit 690 V Notage Standards Auxiliary Circuit 690 V Notage Standards Auxiliary Circuit 690 V Notage Standards Auxiliary Circuit 690 V Notage (Feepleacy (f) | | 5 |
| Rated Operational Voltage | | 3 |
| Voltage Main Circuit 690 V Rated Frequency (f) Auxiliary Circuit 507, 60 Hz Conventional Free-air acc. to IEC 60947-5-1, 0 = 40 °C 10 A Thermal Current (Ith) (500 V) NC 2 Rated Operational (500 V) NC 2 Current AC-15 (Ie) (500 V) 2 A Rated Operational (24 V) 6 A / 144 W Current DC-13 (Ie) (48 V) 2.8 A / 134 W Current DC-13 (Ie) (48 V) 2.8 A / 134 W Rated Short-time (25 V) 0.55 A / 69 W Withstand Current Low (25 V) 0.55 A / 69 W Voltage (Icw) acc. to IEC 60947-5-1 and VDE 0110 (Gr. C) 690 V Rated Insulation Voltage acc. to IEC 60947-5-1 and VDE 0110 (Gr. C) 690 V Qu(1) acc. to IEC 60947-5-1 and VDE 0110 (Gr. C) 690 V Qu(1) acc. to IEC 60947-5-1 and VDE 0110 (Gr. C) 690 V Qu(1) acc. to IEC 60947-5-1 and VDE 0110 (Gr. C) 690 V Qu(1) acc. to IEC 60947-5-1 and VDE 0110 (Gr. C) 690 V Qu(1) acc. to IEC 60947-5-1 and VDE 0110 (Gr. C) 690 V Qu(1) acc. to IEC 60947-5-1 and VDE 0110 (Gr. C) 690 V Qu(1) acc. to IEC 60947-5-1 and VDE 0110 (Gr. C) 690 V Qu(1) | Standards | IEC 60947-5-1 and EN 60947-5-1, UL 508, CSA C22.2 №14 |
| Conventional Free-air Thermal Current (In) | · | Auxiliary Circuit 690 V Main Circuit 690 V |
| Thermal Current (Ith) Rated Operational Current AC-15 (Ie) (500 V) NC2 Current AC-15 (Ie) (690 V) 2 A (24 / 127 V) 6 A (260 / 240 V) 4 A (260 / 240 V) 4 A (270 / 214 / 278 V) (110 V) 0.55 A / 69 W (125 V) 0.55 A / 69 W (125 V) 0.55 A / 69 W (125 V) 0.27 A / 60 W (125 V) 0.27 A / 6 | Rated Frequency (f) | Auxiliary Circuit 50 / 60 Hz |
| Current AC-15 (I _e) (500 W) 2 A (690 W) | | acc. to IEC 60947-5-1, Θ = 40 °C 10 A |
| Current DC-13 (le) (48 V) 2.8 A / 134 W (72 V) 1 A / 72 W (11 V) 0.55 A / 69 W (115 V) 0.55 A / 69 W (125 V) 0.27 A / 60 W (125 V) 0.27 A / 60 W (220 V) 0.27 A / 60 W (250 V) 0.27 A / 68 W for 1 s 100 A Withstand Current Low Rated Short-time for 0.1 s 140 A Withstand Current Low Voltage (lcw) for 1 s 100 A Withstand VDE 0110 (Gr. C) 690 V (Ui) Rated Insulation Voltage acc. to IEC 60947-5-1 and VDE 0110 (Gr. C) 690 V (Ui) Rated Impulse Auxiliary Circuit 6 kV Withstand Voltage (Uimp)) Withstand Voltage (Uimp)) (AC-15) 1200 cycles per hour Switching Frequency Maximum Mechanical (AC-15) 1200 cycles per hour Switching Frequency Maximum Mechanical 3600 cycles per hour Switching Frequency Rated Control Circuit DC Operation 220 V Voltage (Uc) Operate Time Between Coil De-energization and NC Contact Closing 15 20 mm Between Coil Energization and NC Contact Opening 31 17 ms Between Coil Energization and NC Contact Opening 31 53 ms Between Coil Energization and NC Contact Closing 36 59 ms Between Coil Energization and NC Contact Closing 37 25 mm² Flexible with Insulated Ferrule 2x 0.75 2.5 mm² Rigid 1/2x 0.75 2.5 mm² Rigi | · | (500 V) NC 2 (500 V) 2 A (690 V) 2 A (24 / 127 V) 6 A (220 / 240 V) 4 A (400 / 440 V) 3 A |
| Withstand Current Low Voltage (Icw) Rated Insulation Voltage (Ui) Rated Insulation Voltage (Ui) Rated Insulation Voltage (Ui) Rated Impulse Auxiliary Circuit 6 kV Withstand Voltage (Uimp) Maximum Electrical (AC-15) 1200 cycles per hour Switching Frequency (DC-13) 900 cycles per hour Switching Frequency Maximum Mechanical 3600 cycles per hour Switching Frequency Rated Control Circuit DC Operation 220 V Voltage (Uc) Operate Time Between Coil De-energization and NC Contact Closing 15 20 ms Between Coil Energization and NO Contact Opening 31 17 ms Between Coil Energization and NO Contact Closing 36 59 ms Between Coil Energization and NO Contact Closing 36 59 ms Flexible with Ferrule 1/2x 0.75 2.5 mm² Flexible with Insulated Ferrule 2x 0.75 1.5 mm² Rigid 1/2x 0.75 2.5 mm² | · | (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 |
| (Ui) Rated Impulse Withstand Voltage (Uimp)) Maximum Electrical Switching Frequency Maximum Mechanical Switching Frequency Rated Control Circuit Voltage (Uc) Operate Time Between Coil De-energization and NC Contact Closing 15 20 ms Between Coil Energization and NC Contact Opening 31 17 ms Between Coil Energization and NC Contact Closing 36 59 ms Connecting Capacity Auxiliary Circuit Flexible with Insulated Ferrule 1x 0.75 2.5 mm² Rigid 1/2x 0.75 2.5 mm² | Withstand Current Low | for 0.1 s 140 A for 1 s 100 A |
| Withstand Voltage (U _{imp}) Maximum Electrical (AC-15) 1200 cycles per hour Switching Frequency (DC-13) 900 cycles per hour Switching Frequency (DC-13) 900 cycles per hour Switching Frequency Maximum Mechanical 3600 cycles per hour Switching Frequency Rated Control Circuit DC Operation 220 V Voltage (U _c) Operate Time Between Coil De-energization and NC Contact Closing 15 20 ms Between Coil De-energization and NC Contact Opening 13 17 ms Between Coil Energization and NC Contact Opening 31 53 ms Between Coil Energization and NO Contact Closing 36 59 ms Connecting Capacity Flexible with Ferrule 1/2x 0.75 2.5 mm² Flexible with Insulated Ferrule 1x 0.75 2.5 mm² Rigid 1/2x 0.75 2.5 mm² Rigid 1/2x 0.75 2.5 mm² Rigid 1/2x 0.75 2.5 mm² | <u> </u> | acc. to IEC 60947-5-1 and VDE 0110 (Gr. C) 690 V acc. to UL/CSA 600 V |
| Switching Frequency Maximum Mechanical Switching Frequency Rated Control Circuit Voltage (Uc) Operate Time Between Coil De-energization and NC Contact Closing 15 20 ms Between Coil De-energization and NC Contact Opening 13 17 ms Between Coil Energization and NC Contact Opening 31 53 ms Between Coil Energization and NO Contact Closing 36 59 ms Connecting Capacity Flexible with Ferrule 1/2x 0.75 2.5 mm² Flexible with Insulated Ferrule 2x 0.75 2.5 mm² Rigid 1/2x 0.75 2.5 mm² Rigid 1/2x 0.75 2.5 mm² | Withstand Voltage (U _{imp} | Auxiliary Circuit 6 kV |
| Switching Frequency Rated Control Circuit Voltage (U _C) Operate Time Between Coil De-energization and NC Contact Closing 15 20 ms Between Coil De-energization and NC Contact Opening 13 17 ms Between Coil Energization and NC Contact Opening 31 53 ms Between Coil Energization and NC Contact Opening 31 53 ms Between Coil Energization and NC Contact Opening 36 59 ms Connecting Capacity Flexible with Ferrule 1/2x 0.75 2.5 mm² Flexible with Insulated Ferrule 1x 0.75 2.5 mm² Flexible with Insulated Ferrule 2x 0.75 1.5 mm² Rigid 1/2x 0.75 2.5 mm² | | (AC-15) 1200 cycles per hour (DC-13) 900 cycles per hour |
| Voltage (U _C) Operate Time Between Coil De-energization and NC Contact Closing 15 20 ms Between Coil De-energization and NC Contact Opening 13 17 ms Between Coil Energization and NC Contact Opening 31 53 ms Between Coil Energization and NC Contact Opening 31 53 ms Between Coil Energization and NO Contact Closing 36 59 ms Connecting Capacity Flexible with Ferrule 1/2x 0.75 2.5 mm² Flexible with Insulated Ferrule 1x 0.75 2.5 mm² Flexible with Insulated Ferrule 2x 0.75 1.5 mm² Rigid 1/2x 0.75 2.5 mm² | | 3600 cycles per hour |
| Between Coil De-energization and NO Contact Opening 13 17 ms Between Coil Energization and NC Contact Opening 31 53 ms Between Coil Energization and NC Contact Opening 31 53 ms Between Coil Energization and NO Contact Closing 36 59 ms Connecting Capacity Flexible with Ferrule 1/2x 0.75 2.5 mm² Flexible with Insulated Ferrule 1x 0.75 2.5 mm² Flexible with Insulated Ferrule 2x 0.75 1.5 mm² Rigid 1/2x 0.75 2.5 mm² | | DC Operation 220 V |
| Auxiliary Circuit Flexible with Insulated Ferrule 1x 0.75 2.5 mm² Flexible with Insulated Ferrule 2x 0.75 1.5 mm² Rigid 1/2x 0.75 2.5 mm² | Operate Time | Between Coil De-energization and NC Contact Closing 15 20 ms Between Coil De-energization and NO Contact Opening 13 17 ms Between Coil Energization and NC Contact Opening 31 53 ms Between Coil Energization and NO Contact Closing 36 59 ms |
| Connecting Capacity Flexible with Ferrule 1/2x 0.75 2.5 mm ² | | 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 1/2x 0.75 2.5 mm ² |
| | Connecting Capacity | Flexible with Ferrule 1/2x 0.75 2.5 mm ² |

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| Control Circuit | Flexible with Insulated Ferrule 1x 0.75 2.5 mm² Flexible with Insulated Ferrule 2x 0.75 1.5 mm² Rigid 1/2x 0.75 2.5 mm² |
|-----------------------|---|
| Wire Stripping Length | Auxiliary Circuit 9 mm Control Circuit 9 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 N·m Control Circuit 1 N·m |
| Terminal Type | Screw Terminals |
| Product Name | Block Contactor Relay |

Technical UL/CSA

| Tightening Torque | Auxiliary Circuit 9 in lb |
|-------------------|---------------------------|
| UL/CSA | Control Circuit 9 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: A 20 g Closed, Shock Direction: B1 15 g Closed, Shock Direction: C1 19 g Closed, Shock Direction: C2 14 g Open, Shock Direction: A 10 g Open, Shock Direction: B1 5 g Open, Shock Direction: C1 8 g Open, Shock Direction: C2 8 g Shock Direction: B2 10 g |
| Resistance to Vibrations | 3g Closed Position & 2g Open Position 5 300 Hz |

| Material Compliance | |
|---|--|
| Conflict Minerals Reporting Template (CMRT) | 9AKK108467A5658 |
| REACH Declaration | 2CMT2021-006202 |
| RoHS Information | 2CMT2021-006277 |
| RoHS Status | Following EU Directive 2011/65/EU and Amendment 2015/863 July 22, 2019 |
| 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 | |
|-----------------------------------|----------------------|
| CB Certificate | CB_CN_32453 |
| CCC Certificate | CCC_2007010305248106 |
| CQC Certificate | CQC2007010305248106 |
| Declaration of Conformity - CCC | 2020980304001219 |
| Declaration of Conformity - CE | 1SBD250016U1000 |

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| Declaration of | 1SBD250051U1000 |
|-------------------|---------------------------|
| Conformity - UKCA | |
| GOST Certificate | GOST_POCCCNME77B07821.pdf |
| UL Certificate | UL_220108-E312527A |
| UL Listing Card | NOA E312527.pdf |

| Container Information | |
|---------------------------------|---------------|
| Package Level 1 Units | box 1 piece |
| Package Level 1 Width | 72 mm |
| Package Level 1 Depth / Length | 115 mm |
| Package Level 1 Height | 48 mm |
| Package Level 1 Gross Weight | 0.32 kg |
| Package Level 1 EAN | 3471523056688 |
| Package Level 2 Units | 32 piece |
| Package Level 2 Width | 250 mm |
| Package Level 2 Depth / Length | 315 mm |
| Package Level 2 Height | 195 mm |
| Package Level 2 Gross Weight | 10.24 kg |
| Package Level 3 Units | 768 piece |

| External Classifications and Standards | |
|--|----------------------------|
| Object Classification Code | К |
| 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) | 4755 >> Contactors |

Categories

 $Low\ Voltage\ Products\ \rightarrow\ Control\ Products\ \rightarrow\ Contactors\ \rightarrow\ Block\ Contactors\ \rightarrow\ NS\ Contactor\ Relays\ \rightarrow\ NSL$

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