

## PRODUCT-DETAILS

# NS22ES-20

## NS22ES-20 24V50/60HZ Contactor Relay



### General Information

|                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Extended Product Type | NS22ES-20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Product ID            | 1SBH101004R2022                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| EAN                   | 3471523008205                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Catalog Description   | NS22ES-20 24V50/60HZ Contactor Relay                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Long Description      | NS... contactor relays are used for switching auxiliary circuits and control circuits. The NS..S contactor relays are the spring terminal version of the NS... range. - Poles and auxiliary contacts blocks: 4-pole contactor relays, front-mounted add-on auxiliary contact blocks (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: AC operated with laminated magnet circuit - Accessories: a wide range of accessories is available. |

### Classifications

|                                    |                            |
|------------------------------------|----------------------------|
| Object Classification Code         | K                          |
| ETIM 4                             | EC000196 - Contactor relay |
| ETIM 5                             | EC000196 - Contactor relay |
| ETIM 6                             | EC000196 - Contactor relay |
| ETIM 7                             | EC000196 - Contactor relay |
| UNSPSC                             | 39121529                   |
| IDEA Granular Category Code (IGCC) | 4755 >> Contactors         |

## Container Information

|                                |               |
|--------------------------------|---------------|
| Package Level 1 Units          | 1 piece       |
| Package Level 1 Width          | 78 mm         |
| Package Level 1 Depth / Length | 80 mm         |
| Package Level 1 Height         | 48 mm         |
| Package Level 1 Gross Weight   | 0.22 kg       |
| Package Level 1 EAN            | 3471523008205 |
| Package Level 2 Units          | 40 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   | 8.8 kg        |
| Package Level 3 Units          | 960 piece     |

## Certificates and Declarations (Document Number)

|                                |                           |
|--------------------------------|---------------------------|
| CB Certificate                 | CB_CN_32453               |
| CCC Certificate                | CCC_2007010305248106      |
| Declaration of Conformity - CE | 1SBD250016U1000           |
| Environmental Information      | 1SBD250159E1000           |
| GOST Certificate               | GOST_POCCCNME77B07821.pdf |
| Instructions and Manuals       | 1SBC101020M9701           |
| RoHS Information               | 1SBD251007E1000           |
| UL Certificate                 | UL_220108-E312527A        |

## Environmental

|                                                |                                                                                                                                                                                                                           |
|------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ambient Air Temperature                        | Close to Contactor for Storage -60 ... +80 °C<br>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 3 g Closed position / 2 g Open position                                                                                                                                                                      |
| Resistance to Shock acc. to IEC 60068-2-27     | Closed, Shock Direction: C1 19 g<br>Closed, Shock Direction: C2 16 g<br>Open, Shock Direction: C1 8 g<br>Open, Shock Direction: C2 13 g<br>Shock Direction: A 20 g<br>Shock Direction: B1 5 g<br>Shock Direction: B2 15 g |
| RoHS Status                                    | Following EU Directive 2002/95/EC August 18, 2005 and amendment                                                                                                                                                           |

## Technical

|                                 |                                                        |
|---------------------------------|--------------------------------------------------------|
| Number of Auxiliary Contacts NO | 2                                                      |
| Number of Auxiliary Contacts NC | 2                                                      |
| Standards                       | IEC 60947-5-1 and EN 60947-5-1, UL 508, CSA C22.2 N°14 |
| Rated Operational Voltage       | Auxiliary Circuit 690 V<br>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 10 A                                                                                                                                                                                                                              |
| Rated Operational Current AC-15 (I <sub>e</sub> )        | (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                                                                                                                                                                           |
| Rated Short-time Withstand Current (I <sub>cw</sub> )    | for 0.1 s 140 A<br>for 1 s 100 A                                                                                                                                                                                                                                   |
| Maximum Electrical Switching Frequency                   | AC-15 1200 cycles per hour<br>DC-13 900 cycles per hour                                                                                                                                                                                                            |
| Rated Operational Current DC-13 (I <sub>e</sub> )        | (110 V) 0.55 A / 60 W<br>(220 V) 0.27 A / 60 W<br>(125 V) 0.55 A / 69 W<br>(24 V) 6 A / 144 W<br>(250 V) 0.27 A / 68 W<br>(48 V) 2.8 A / 134 W<br>(72 V) 1 A / 72 W                                                                                                |
| Rated Insulation Voltage (U <sub>i</sub> )               | acc. to UL/CSA 600 V<br>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                   | 3600 cycles per hour                                                                                                                                                                                                                                               |
| Rated Control Circuit Voltage (U <sub>c</sub> )          | 50 Hz 24 V<br>60 Hz 24 V                                                                                                                                                                                                                                           |
| Operate Time                                             | Between Coil De-energization and NC Contact Closing 7 ... 22 ms<br>Between Coil De-energization and NO Contact Opening 5 ... 19 ms<br>Between Coil Energization and NC Contact Opening 6 ... 18 ms<br>Between Coil Energization and NO Contact Closing 9 ... 24 ms |
| Connecting Capacity Auxiliary Circuit                    | Flexible with Ferrule 1/2x 0.75 ... 2.5 mm <sup>2</sup><br>Flexible with Insulated Ferrule 1/2x 0.75 ... 1.5 mm <sup>2</sup><br>Rigid 1/2x 0.75 ... 2.5 mm <sup>2</sup>                                                                                            |
| Connecting Capacity Control Circuit                      | Flexible with Ferrule 1/2x 0.75 ... 2.5 mm <sup>2</sup><br>Flexible with Insulated Ferrule 1/2x 0.75 ... 1.5 mm <sup>2</sup><br>Rigid 1/2x 0.75 ... 2.5 mm <sup>2</sup>                                                                                            |
| Wire Stripping Length                                    | Auxiliary Circuit 10 mm<br>Control Circuit 10 mm                                                                                                                                                                                                                   |
| Degree of Protection                                     | acc. to IEC 60529, IEC 60947-1, EN 60529 Auxiliary Terminals IP20<br>acc. to IEC 60529, IEC 60947-1, EN 60529 Coil Terminals IP20                                                                                                                                  |
| Terminal Type                                            | Spring Terminals                                                                                                                                                                                                                                                   |

## Dimensions

|                            |         |
|----------------------------|---------|
| Product Net Width          | 45 mm   |
| Product Net Depth / Length | 72.5 mm |
| Product Net Height         | 68 mm   |
| Product Net Weight         | 0.22 kg |

## Popular Downloads

|                                   |                 |
|-----------------------------------|-----------------|
| Data Sheet, Technical Information | 1SBC100173C0201 |
| Instructions and Manuals          | 1SBC101020M9701 |

## Ordering

|                        |          |
|------------------------|----------|
| Minimum Order Quantity | 40 piece |
| Customs Tariff Number  | 85364900 |

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## Categories

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Low Voltage Products and Systems → Control Products → Contactors → Block Contactors

