



CONTACTOR, AC-3, 5.5KW/400V, 1NC,  
AC110V 50HZ, 120V 60HZ 3-POLE,  
SZ S00 SCREW TERMINAL

| General technical data:                                      |    |                            |
|--|----|----------------------------|
| product brand name   |    | SIRIUS                     |
| Size of the contactor  |    | S00                        |
| Product extension / auxiliary switch                         |    | Yes                        |
| Protection class IP / on the front                           |    | IP20                       |
| Protection against electrical shock                          |    | finger-safe                |
| Degree of pollution  |    | 3                          |
| Installation altitude / at a height over sea level / maximum | m  | 2,000                      |
| Ambient temperature  |    |                            |
| • during storage   | °C | -55 ... +80                |
| • during operating   | °C | -25 ... +60                |
| Shock resistance   |    |                            |
| • at rectangular impulse                                     |    |                            |
| • at AC  |    | 7,3g / 5 ms, 4,7g / 10 ms  |
| • at sine pulse  |    |                            |
| • at AC  |    | 11,4g / 5 ms, 7,3g / 10 ms |
| Impulse voltage resistance / rated value                     | kV | 6                          |
| Insulation voltage / rated value                             | V  | 690                        |
| Mechanical operating cycles as operating time                |    |                            |
| • of the contactor / typical                                 |    | 30,000,000                 |

- of the contactor with added auxiliary switch block / typical
- of the contactor with added electronics-compatible auxiliary switch block / typical

10,000,000

5,000,000

**Main circuit:****Number of NC contacts / for main contacts**

0

**Number of NO contacts / for main contacts**

3

**Operating current**

- at AC-1 / at 400 V
  - at 40 °C ambient temperature / rated value
  - at 60 °C ambient temperature / rated value
- at AC-2 / at 400 V / rated value
- at AC-3 / at 400 V / rated value
- at AC-4 / at 400 V / rated value

|   |     |
|---|-----|
| A | 22  |
| A | 20  |
| A | 12  |
| A | 12  |
| A | 8.5 |

**Operating current**

- with 1 current path / at DC-1
  - at 24 V / rated value
  - at 110 V / rated value
- with 2 current paths in series / at DC-1
  - at 24 V / rated value
  - at 110 V / rated value
- with 3 current paths in series / at DC-1
  - at 24 V / rated value
  - at 110 V / rated value
- with 1 current path / at DC-3 / at DC-5
  - at 24 V / rated value
  - at 110 V / rated value
- with 2 current paths in series / at DC-3 / at DC-5
  - at 24 V / rated value
  - at 110 V / rated value
- with 3 current paths in series / at DC-3 / at DC-5
  - at 24 V / rated value
  - at 110 V / rated value

|   |      |
|---|------|
| A | 20   |
| A | 2.1  |
| A | 20   |
| A | 12   |
| A | 20   |
| A | 20   |
| A | 20   |
| A | 0.1  |
| A | 20   |
| A | 0.35 |
| A | 20   |
| A | 20   |

**Service power**

- at AC-2 / at 400 V / rated value
- at AC-3 / at 400 V / rated value
- at AC-4 / at 400 V / rated value

|    |     |
|----|-----|
| kW | 5.5 |
| kW | 5.5 |
| kW | 4   |

**Active power loss / per conductor / typical**

|   |     |
|---|-----|
| W | 1.2 |
|---|-----|

**Off-load operating frequency**

- at AC

|     |        |
|-----|--------|
| 1/h | 10,000 |
|-----|--------|

|  |     |        |
|--|-----|--------|
| • at DC  | 1/h | 10,000 |
| <b>Frequency of operation / at AC-1 / according to IEC 60947-6-2</b> | 1/h | 1,000  |
| <b>Frequency of operation / at AC-2 / according to IEC 60947-6-2</b> | 1/h | 750    |
| <b>Frequency of operation / at AC-3 / according to IEC 60947-6-2</b> | 1/h | 750    |
| <b>Frequency of operation / at AC-4 / according to IEC 60947-6-2</b> | 1/h | 250    |

| <b>Control circuit:</b>   |     |              |
|---|-----|--------------|
| <b>Type of voltage / of the controlled supply voltage</b>                             |     | AC           |
| <b>Control supply voltage / 1</b>   |     |              |
| • at 50 Hz / for AC / rated value   | V   | 110          |
| • at 60 Hz / for AC / rated value   | V   | 120          |
| <b>Operating range factor control supply voltage rated value / of the magnet coil</b> |     |              |
| • at 50 Hz / for AC   |     | 0.8 ... 1.1  |
| • at 60 Hz / for AC   |     | 0.85 ... 1.1 |
| <b>Apparent pull-in power / of the solenoid / for AC</b>                              | V·A | 43           |
| <b>Apparent holding power / of the solenoid / for AC</b>                              | V·A | 6.5          |
| <b>Inductive power factor</b>   |     |              |
| • with the pull-in power of the coil  |     | 0.8          |
| • with the pull-in power of the coil  |     | 0.25         |
| <b>Closing delay</b>  |     |              |
| • at AC   | ms  | 8 ... 33     |
| <b>Opening delay</b>  |     |              |
| • at AC   | ms  | 4 ... 15     |
| <b>Arcing time</b>  | ms  | 10 ... 15    |

| <b>Auxiliary circuit:</b>   |   |   |
|---|---|---|
| <b>Contact reliability / of the auxiliary contacts</b>                          |   | 1 faulty switching per 100 million (17 V, 1 mA) |
| <b>Number of NC contacts / for auxiliary contacts / instantaneous switching</b> |   | 1   |
| <b>Number of NO contacts / for auxiliary contacts / instantaneous switching</b> |   | 0   |
| <b>Operating current / of the auxiliary contacts</b>                            |   |   |
| • at AC-12 / maximum  | A | 10  |
| • at AC-15  |   |   |
| • at 230 V  | A | 10  |
| • at 400 V  | A | 3   |
| • at DC-12  |   |   |
| • at 48 V   | A | 6   |
| • at 60 V   | A | 6   |
| • at 110 V  | A | 3   |

- at 220 V
- at DC-13
  - at 24 V
  - at 48 V
  - at 60 V
  - at 110 V
  - at 220 V

|   |     |
|---|-----|
| A | 1   |
| A | 10  |
| A | 2   |
| A | 2   |
| A | 1   |
| A | 0.3 |

### Short-circuit:

#### Design of the fuse link

- for short-circuit protection of the auxiliary switch / required
- for short-circuit protection of the main circuit
  - with type of assignment 1 / required
  - at type of coordination 2 / required

fuse gL/gG: 10 A

gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 35 A

gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 20A

### Installation/mounting/dimensions:

#### mounting position

+/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface

#### Type of mounting

screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022

#### Type of fixing/fixation / series installation

Yes

#### Width

mm 45

#### Height

mm 57.5

#### Depth

mm 73

#### Distance, to be maintained, to the ranks assembly / sideways

mm 0

#### Distance, to be maintained, to earthed part / sideways

mm 6

### Connections:

#### Design of the electrical connection

- for main current circuit
- for auxiliary and control current circuit

screw-type terminals

screw-type terminals

#### Type of the connectable conductor cross-section

- for main contacts
  - solid
  - finely stranded
    - with conductor end processing
- for AWG conductors / for main contacts
- for auxiliary contacts
  - solid
  - finely stranded

2x (0.5 ... 1.5 mm<sup>2</sup>), 2x (0.75 ... 2.5 mm<sup>2</sup>), 2x 4 mm<sup>2</sup>

2x (0.5 ... 1.5 mm<sup>2</sup>), 2x (0.75 ... 2.5 mm<sup>2</sup>)

2x (20 ... 16), 2x (18 ... 14), 2x 12

2x (0.5 ... 1.5 mm<sup>2</sup>), 2x (0.75 ... 2.5 mm<sup>2</sup>), 2x 4 mm<sup>2</sup>

- with conductor end processing
- for AWG conductors / for auxiliary contacts

2x (0.5 ... 1.5 mm<sup>2</sup>), 2x (0.75 ... 2.5 mm<sup>2</sup>)

2x (20 ... 16), 2x (18 ... 14), 2x 12

### Certificates/approvals:

#### General Product Approval



[Special Test Certificate](#)

#### Shipping Approval



#### Shipping Approval other



[Confirmation](#)



### UL/CSA ratings:

#### yielded mechanical performance (hp)

- for single-phase squirrel cage motors
  - at 110/120 V / rated value
  - at 230 V / rated value
- for three-phase squirrel cage motors
  - at 200/208 V / rated value
  - at 220/230 V / rated value
  - at 460/480 V / rated value
  - at 575/600 V / rated value

|    |     |
|----|-----|
| hp | 0.5 |
| hp | 2   |
| hp | 3   |
| hp | 3   |
| hp | 7.5 |
| hp | 10  |

#### Operating current (FLA) / for three-phase squirrel cage motors

- at 480 V / rated value
- at 600 V / rated value

|   |    |
|---|----|
| A | 11 |
| A | 11 |

#### Contact rating designation / for auxiliary contacts / according to UL

A600 / Q600

### Sicherheitsrelevante Kenngrößen:

#### B10 value / with high demand rate

- according to SN 31920

1,000,000

#### T1 value / for proof test interval or service life

- according to IEC 61508

|   |    |
|---|----|
| a | 20 |
|---|----|

#### Proportion of dangerous failures

- with low demand rate / according to SN 31920
- with high demand rate / according to SN 31920

|   |    |
|---|----|
| % | 40 |
| % | 73 |

**Failure rate (FIT value) / with low demand rate**

- according to SN 31920

FIT

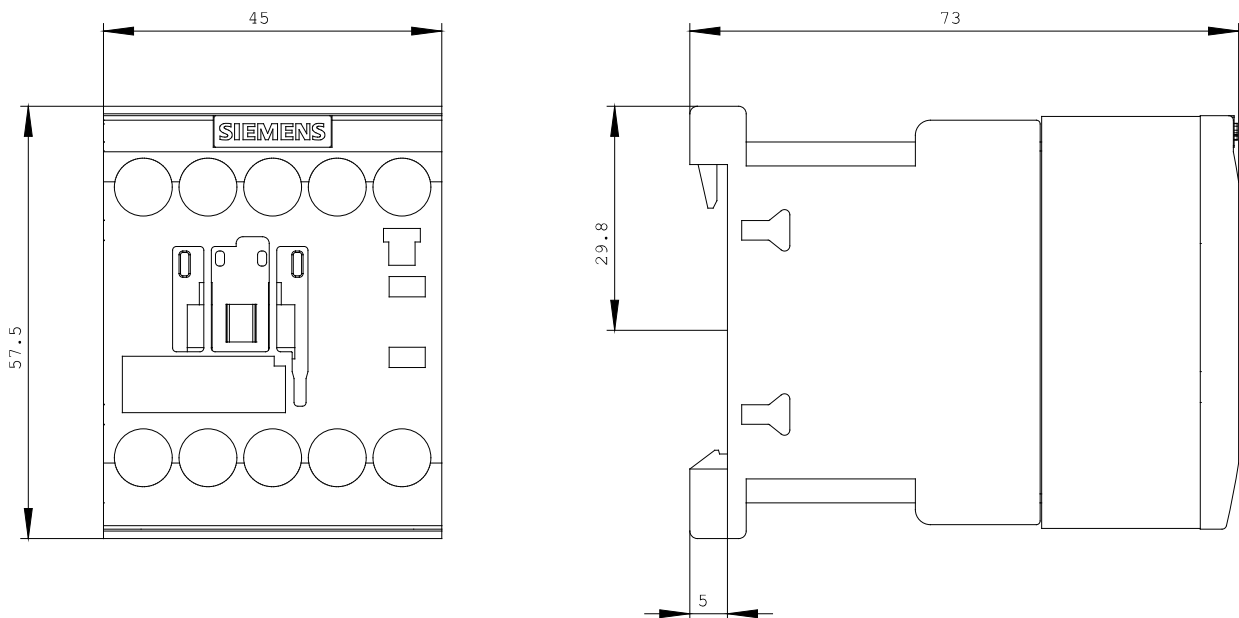
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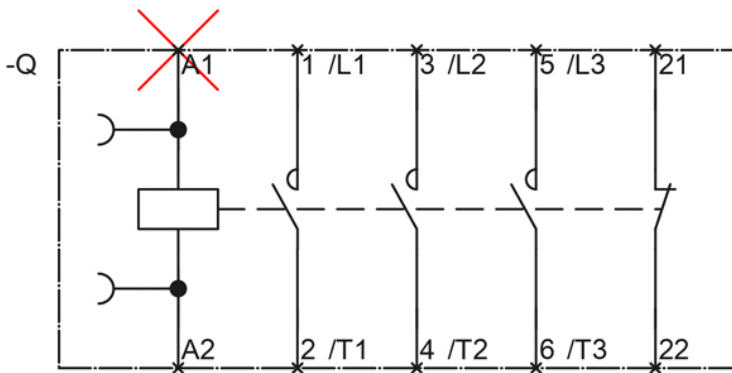
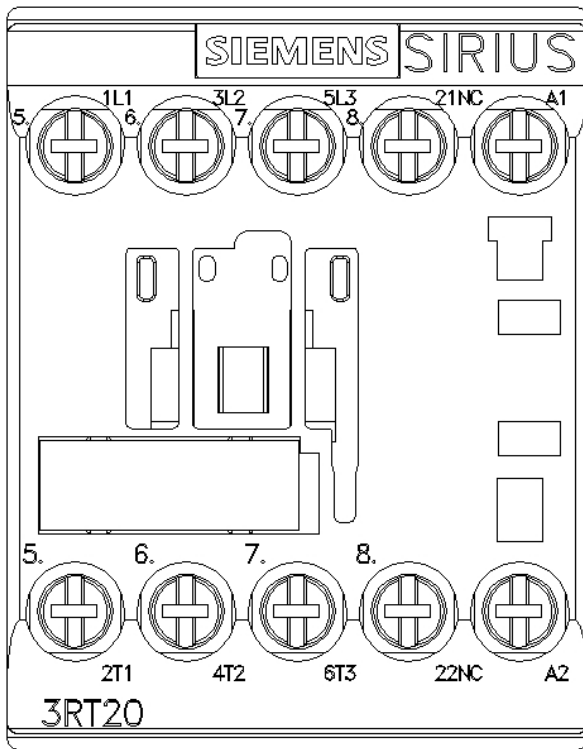
**Product function**

- mirror contact to IEC 60947-4-1
- positively driven operation to IEC 60947-5-1

Yes

No

**Further information:****Information- and Downloadcenter (Catalogs, Brochures,...)**<http://www.siemens.com/industrial-controls/catalogs>**Industry Mall (Online ordering system)**<http://www.siemens.com/industrial-controls/mall>**Cax online generator:**<http://www.siemens.com/cax>**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**<http://support.automation.siemens.com/WW/view/en/3RT2017-1AK62/all>**Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)**[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3RT2017-1AK62](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RT2017-1AK62)



last change:

Jul 26, 2012