



CONTACTOR,AC3:37KW/400V, 1NO+1NC,  
24V AC 50/60HZ, 3-POLE, SIZE S2,  
SCREW TERMINAL

| General technical data:  |    |             |
|--|----|-------------|
| product brand name   |    | SIRIUS      |
| Size of contactor  |    | S2          |
| Product expansion  |    |             |
| • Auxiliary switch   |    | Yes         |
| • function module for communication  |    | No          |
| Protection class IP / on the front   |    | IP20        |
| Degree of pollution  |    | 3           |
| Installation altitude / at height above sea level / maximum  | m  | 2,000       |
| Ambient temperature  |    |             |
| • during storage   | °C | -55 ... +80 |
| • during operation   | °C | -25 ... +60 |
| Surge voltage resistance / Rated value   | kV | 6           |
| Insulation voltage / Rated value   | V  | 690         |
| maximum permissible voltage for safe isolation / between coil and main contacts / acc. to EN 60947-1 | V  | 400         |
| Mechanical service life (switching cycles)   |    |             |
| • of the contactor / typical   |    | 10,000,000  |
| • of the contactor with added auxiliary switch block / typical                                       |    | 10,000,000  |
| • of the contactor with added electronics-compatible auxiliary switch block / typical                |    | 5,000,000   |

| Main circuit:  |                 |      |
|--|-----------------|------|
| Number of NC contacts / for main contacts                        |                 | 0    |
| Number of NO contacts / for main contacts                        |                 | 3    |
| Connectable conductor cross-section / in main circuit            |                 |      |
| • at AC-1  |                 |      |
| • at 40 °C / minimum permissible                                 | mm <sup>2</sup> | 35   |
| • at 60 °C / minimum permissible                                 | mm <sup>2</sup> | 35   |
| Operating current  |                 |      |
| • at AC-1 / up to 690 V  |                 |      |
| • at ambient temperature 40 °C / Rated value                     | A               | 90   |
| • at ambient temperature 60 °C / Rated value                     | A               | 80   |
| • at AC-2 / at 400 V / Rated value                               | A               | 80   |
| • at AC-3  |                 |      |
| • at 400 V / Rated value   | A               | 80   |
| • at 500 V / Rated value   | A               | 80   |
| • at 690 V / Rated value   | A               | 58   |
| • at AC-4 / at 400 V / Rated value                               | A               | 55   |
| Operating current / for $\geq 200000$ operating cycles / at AC-4 |                 |      |
| • at 400 V / Rated value   | A               | 30   |
| • at 690 V / Rated value   | A               | 24   |
| Operating current  |                 |      |
| • with 1 current path / at DC-1                                  |                 |      |
| • at 24 V / Rated value  | A               | 75   |
| • at 110 V / Rated value   | A               | 4.5  |
| • at 220 V / Rated value   | A               | 2    |
| • at 440 V / Rated value   | A               | 0.4  |
| • at 600 V / Rated value   | A               | 0.25 |
| • with 2 current paths in series / at DC-1                       |                 |      |
| • at 24 V / Rated value  | A               | 75   |
| • at 110 V / Rated value   | A               | 45   |
| • at 220 V / Rated value   | A               | 5    |
| • at 440 V / Rated value   | A               | 1    |
| • at 600 V / Rated value   | A               | 0.8  |
| • with 3 current paths in series / at DC-1                       |                 |      |
| • at 24 V / Rated value  | A               | 55   |
| • at 110 V / Rated value   | A               | 45   |
| • at 220 V / Rated value   | A               | 45   |
| • at 440 V / Rated value   | A               | 2.9  |
| • at 600 V / Rated value   | A               | 1.4  |

|  |     |       |
|--|-----|-------|
| <b>Operating current</b>   |     |       |
| • with 1 current path / at DC-3 / at DC-5  |     |       |
| • at 24 V / Rated value  | A   | 35    |
| • at 110 V / Rated value   | A   | 2.5   |
| • at 220 V / Rated value   | A   | 2     |
| • at 440 V / Rated value   | A   | 0.1   |
| • at 600 V / Rated value   | A   | 0.06  |
| • with 2 current paths in series / at DC-3 / at DC-5   |     |       |
| • at 24 V / Rated value  | A   | 55    |
| • at 110 V / Rated value   | A   | 25    |
| • at 220 V / Rated value   | A   | 5     |
| • at 440 V / Rated value   | A   | 0.27  |
| • at 600 V / Rated value   | A   | 0.16  |
| • with 3 current paths in series / at DC-3 / at DC-5   |     |       |
| • at 24 V / Rated value  | A   | 55    |
| • at 110 V / Rated value   | A   | 45    |
| • at 220 V / Rated value   | A   | 25    |
| • at 440 V / Rated value   | A   | 0.6   |
| • at 600 V / Rated value   | A   | 0.6   |
| <b>Operating power</b>   |     |       |
| • at AC-1 / at 230 V / Rated value   | kW  | 34    |
| • at AC-1 / at 400 V / Rated value   | kW  | 59    |
| • at AC-1 / at 690 V / Rated value   | kW  | 102   |
| • at AC-2  |     |       |
| • at 400 V / Rated value   | kW  | 37    |
| • at AC-3  |     |       |
| • at 230 V / Rated value   | kW  | 22    |
| • at 400 V / Rated value   | kW  | 37    |
| • at 500 V / Rated value   | kW  | 37    |
| • at 690 V / Rated value   | kW  | 45    |
| • at AC-4  |     |       |
| • at 400 V / Rated value   | kW  | 30    |
| <b>Operating power / for <math>\geq 200000</math> operating cycles / at AC-4</b>                         |     |       |
| • at 400 V / Rated value   | kW  | 15.8  |
| • at 690 V / Rated value   | kW  | 21.8  |
| <b>Thermal short-time current / restricted to 10 s</b>   |     |       |
|  | A   | 640   |
| <b>Active power loss / at AC-3 / at 400 V / for rated value of the operating current / per conductor</b> |     |       |
|  | W   | 5.7   |
| <b>No-load switching frequency</b>   |     |       |
| • with AC  | 1/h | 5,000 |

|                            |     |     |
|----------------------------|-----|-----|
| <b>Operating frequency</b> |     |     |
| • at AC-1 / maximum        | 1/h | 700 |
| • at AC-2 / maximum        | 1/h | 350 |
| • at AC-3 / maximum        | 1/h | 500 |
| • at AC-4 / maximum        | 1/h | 150 |

| Control circuit/ Control:   |     |              |
|---|-----|--------------|
| <b>Type of voltage / of the control supply voltage</b>                                |     | AC           |
| <b>Control supply voltage</b>   |     |              |
| • with AC / at 50 Hz / Rated value  | V   | 24           |
| • with AC / at 60 Hz / Rated value  | V   | 24           |
| <b>Operating range factor control supply voltage rated value / of the magnet coil</b> |     |              |
| • with AC / at 50 Hz  |     | 0.8 ... 1.1  |
| • with AC / at 60 Hz  |     | 0.85 ... 1.1 |
| <b>Apparent pick-up power / of the magnet coil / with AC</b>                          |     |              |
| • at 50 Hz  | V·A | 210          |
| • at 60 Hz  | V·A | 188          |
| <b>Apparent holding power / of the magnet coil / with AC</b>                          |     |              |
| • at 50 Hz  | V·A | 17.2         |
| • at 60 Hz  | V·A | 16.5         |
| <b>Closing delay</b>  |     |              |
| • with AC   | ms  | 10 ... 80    |
| <b>Opening delay</b>  |     |              |
| • with AC   | ms  | 10 ... 18    |
| <b>Arcing time</b>  | ms  | 10 ... 20    |

| Auxiliary circuit:  |   |    |
|---|---|----|
| <b>Number of NC contacts / for auxiliary contacts / instantaneous contact</b> |   | 1  |
| <b>Number of NO contacts / for auxiliary contacts / instantaneous contact</b> |   | 1  |
| <b>Operating current</b>  |   |    |
| • at AC-12 / maximum  | A | 10 |
| • at AC-15  |   |    |
| • at 230 V / Rated value  | A | 10 |
| • at 400 V / Rated value  | A | 3  |
| • at 500 V / Rated value  | A | 2  |
| • at 690 V / Rated value  | A | 1  |
| <b>Operating current / at DC-12</b>   |   |    |
| • at 24 V / Rated value   | A | 10 |

|                                     |   |      |
|-------------------------------------|---|------|
| • at 48 V / Rated value             | A | 6    |
| • at 60 V / Rated value             | A | 6    |
| • at 110 V / Rated value            | A | 3    |
| • at 125 V / Rated value            | A | 2    |
| • at 220 V / Rated value            | A | 1    |
| • at 440 V / Rated value            | A | 0.3  |
| • at 600 V / Rated value            | A | 0.15 |
| <b>Operating current / at DC-13</b> |   |      |
| • at 24 V / Rated value             | A | 10   |
| • at 48 V / Rated value             | A | 2    |
| • at 60 V / Rated value             | A | 2    |
| • at 110 V / Rated value            | A | 1    |
| • at 125 V / Rated value            | A | 0.9  |
| • at 220 V / Rated value            | A | 0.3  |
| • at 440 V / Rated value            | A | 0.14 |
| • at 600 V / Rated value            | A | 0.1  |

#### UL/CSA ratings:

##### yielded mechanical performance [hp]

|                              |    |    |
|------------------------------|----|----|
| • for single-phase AC motor  |    |    |
| • at 110/120 V / Rated value | hp | 5  |
| • at 230 V / Rated value     | hp | 15 |
| • for three-phase AC motor   |    |    |
| • at 200/208 V / Rated value | hp | 20 |
| • at 220/230 V / Rated value | hp | 25 |
| • at 460/480 V / Rated value | hp | 50 |
| • at 575/600 V / Rated value | hp | 60 |

##### Full-load current (FLA) / for three-phase AC motor

|                          |   |    |
|--------------------------|---|----|
| • at 480 V / Rated value | A | 65 |
| • at 600 V / Rated value | A | 62 |

##### Contact rating / of the auxiliary contacts / acc. to UL

A600 / P600

#### Short-circuit:

##### Design of the fuse link

- for short-circuit protection of the auxiliary switch / required

fuse gL/gG: 10 A

#### Installation/ mounting/ dimensions:

|                   |  |  |
|-------------------|--|--|
| mounting position |  | +/-180° rotation possible on vertical mounting surface;<br>can be tilted forward and backward by +/- 22.5° on<br>vertical mounting surface |
| Mounting type     |  | screw and snap-on mounting onto 35 mm standard<br>mounting rail according to DIN EN 50022  |

|   |    |       |
|---|----|-------|
| Width   | mm | 55    |
| Height  | mm | 113.4 |
| Depth   | mm | 130   |
| Spacing required / with side-by-side mounting | mm | 0     |

#### Connections/ terminals:

|  |  |  |
|--|--|--|
| <b>Design of the electrical connection</b> <ul style="list-style-type: none"> <li>• for main current circuit</li> <li>• for auxiliary and control current circuit</li> </ul>   |  | screw-type terminals<br>screw-type terminals   |
| <b>Type of connectable conductor cross-section</b> <ul style="list-style-type: none"> <li>• for main contacts <ul style="list-style-type: none"> <li>• single or multi-stranded</li> <li>• finely stranded / with core end processing</li> </ul> </li> <li>• for AWG conductors / for main contacts</li> </ul>           |  | 2x (1 ... 35 mm²), 1x (1 ... 50 mm²)<br>2x (1 ... 25 mm²), 1x (1 ... 35 mm²)<br>2x (18 ... 2), 1x (18 ... 1)                 |
| <b>Type of connectable conductor cross-section</b> <ul style="list-style-type: none"> <li>• for auxiliary contacts <ul style="list-style-type: none"> <li>• single or multi-stranded</li> <li>• finely stranded / with core end processing</li> </ul> </li> <li>• for AWG conductors / for auxiliary contacts</li> </ul> |  | 2x (0,5 ... 1,5 mm²), 2x (0,75 ... 2,5 mm²)<br>2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)<br>2x (20 ... 16), 2x (18 ... 14) |

#### Safety related data:

|   |        |           |
|---|--------|-----------|
| <b>Proportion of dangerous failures</b> <ul style="list-style-type: none"> <li>• with low demand rate / acc. to SN 31920</li> <li>• with high demand rate / acc. to SN 31920</li> </ul> | %<br>% | 40<br>73  |
| <b>Product function</b> <ul style="list-style-type: none"> <li>• Mirror contact acc. to IEC 60947-4-1</li> <li>• positively driven operation acc. to IEC 60947-5-1</li> </ul>           |        | Yes<br>No |

#### Certificates/ approvals:

General Product Approval

other



[Confirmation](#)

#### Further information:

Information- and Downloadcenter (Catalogs, Brochures,...)

<http://www.siemens.com/industrial-controls/catalogs>

Industry Mall (Online ordering system)

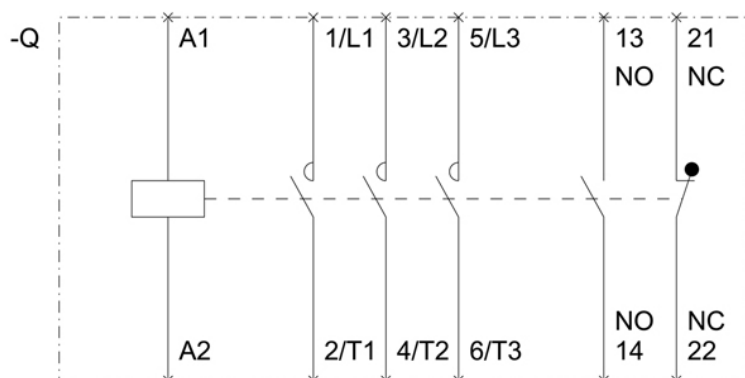
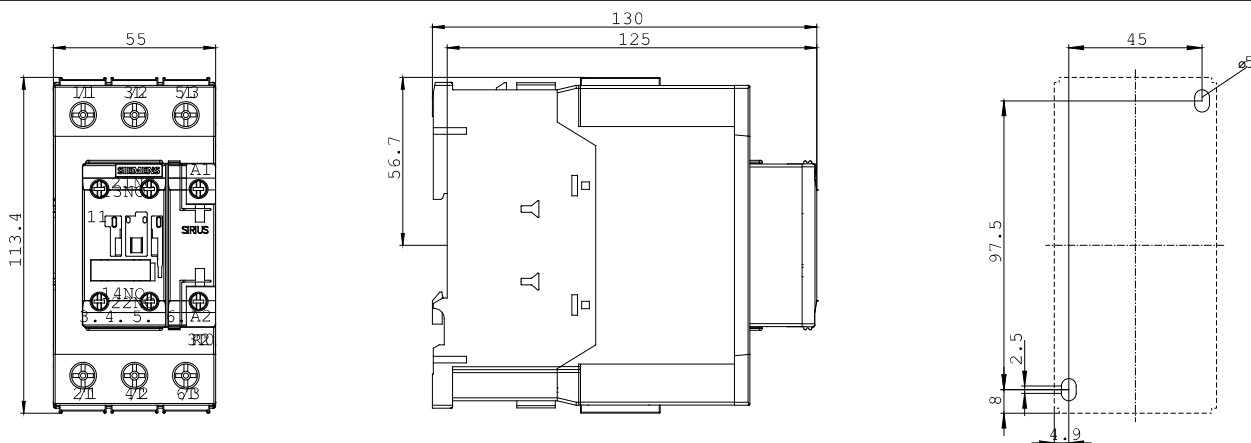
<http://www.siemens.com/industrymall>

Cax online generator

<http://www.siemens.com/cax>

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<http://support.automation.siemens.com/WW/view/en/3RT2038-1AC20/all>



last change:

Dec 17, 2014