



AC-3 CONTACTOR, 45 KW / 400 V,
230 V 50 / 60 HZ AC, 3-POLE, SIZE S3,
SCREW TERMINAL UPRIGHT ASSEMBLY POSITION

General technical data:

| | | |
|---|----|-------------|
| product brand name | | SIRIUS |
| Size of the contactor | | S3 |
| Protection class IP / on the front | | IP20 |
| Degree of pollution | | 3 |
| Installation altitude / at a height over sea level / maximum | m | 2,000 |
| Ambient temperature / during operating | °C | -25 ... +60 |
| Mechanical operating cycles as operating time | | |
| <ul style="list-style-type: none"> • of the contactor / typical | | 10,000,000 |
| <ul style="list-style-type: none"> • of the contactor with added auxiliary switch block / typical | | 10,000,000 |
| <ul style="list-style-type: none"> • 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 |
| Operating current | | |
| <ul style="list-style-type: none"> • at AC-1 / at 400 V <ul style="list-style-type: none"> • at 40 °C ambient temperature / rated value | A | 120 |
| <ul style="list-style-type: none"> • at AC-3 / at 400 V / rated value | A | 95 |
| <ul style="list-style-type: none"> • at AC-4 / at 400 V / rated value | A | 80 |

| | | |
|--|----|--------|
| • with 1 current path / at DC-1 | A | 100 |
| • at 24 V / rated value | A | 9 |
| • at 110 V / rated value | | |
| • with 2 current paths in series / at DC-1 | A | 100 |
| • at 24 V / rated value | A | 100 |
| • at 110 V / rated value | | |
| • with 3 current paths in series / at DC-1 | A | 100 |
| • at 24 V / rated value | A | 100 |
| • at 110 V / rated value | | |
| • with 1 current path / at DC-3 / at DC-5 | A | 40 |
| • at 24 V / rated value | A | 2.5 |
| • at 110 V / rated value | | |
| • with 2 current paths in series / at DC-3 / at DC-5 | A | 100 |
| • at 24 V / rated value | A | 100 |
| • at 110 V / rated value | | |
| • with 3 current paths in series / at DC-3 / at DC-5 | A | 100 |
| • at 24 V / rated value | A | 100 |
| • at 110 V / rated value | | |
| Service power | | |
| • at AC-2 / at 400 V / rated value | kW | 45 |
| • at AC-3 / at 400 V / rated value | kW | 45 |
| • at AC-4 / at 400 V / rated value | W | 45,000 |

| Control circuit: | | |
|---|-----|-------------|
| Voltage type / of control feed voltage | | AC |
| Operating range factor control supply voltage rated value / of the magnet coil | | |
| • at 50 Hz | | |
| • for AC | | 0.8 ... 1.1 |
| • at 60 Hz | | |
| • for AC | | 0.8 ... 1.1 |
| Apparent pull-in power / of the solenoid / for AC | V·A | 298 |
| Apparent holding power / of the solenoid / for AC | V·A | 27 |
| Inductive power factor / with the pull-in power of the coil | | 0.7 |
| Inductive power factor / with the pull-in power of the coil | | 0.29 |

| Auxiliary circuit: | | |
|---|--|---|
| Contact reliability / of the auxiliary contacts | | 1 faulty switching per 100 million (17 V, 1 mA) |
| Number of NC contacts / for auxiliary contacts / instantaneous switching | | 0 |
| Number of NO contacts / for auxiliary contacts / instantaneous switching | | 0 |

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

fuse gL/gG: 250 A

fuse gL/gG: 160 A

Installation/mounting/dimensions:**Mounting type**

screw and snap-on mounting onto 35 mm and 75 mm standard mounting rail

series installation

Yes

Width

mm

70

Height

mm

146

Depth

mm

139

Distance, to be maintained, to earthed part / sideways

mm

6

Connection type:**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
 - stranded
 - finely stranded
 - with conductor end processing
 - without conductor final cutting
- for AWG conductors / for main contacts
- for auxiliary contacts
 - solid
 - finely stranded
 - with conductor end processing
- for AWG conductors / for auxiliary contacts

2x (2.5 ... 16 mm²)2x (10 ... 50 mm²)2x (2.5 ... 35 mm²)2x (10 ... 35 mm²)

2x (10 ... 1/0)

2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²), max. 2x (0.75 ... 4 mm²)2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)

2x (20 ... 16), 2x (18 ... 14), 1x 12

Certificates/approvals:

General Product Approval

**Functional Safety /
Safety of
Machinery**

**Declaration of
Conformity**



CCC



CSA



UL

[Type Examination](#)



EG-Konf.

Test Certificates

[Special Test
Certificate](#)

Shipping Approval



ABS



BUREAU
VERITAS



GL



LRS



RINA



RMRS

other

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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:

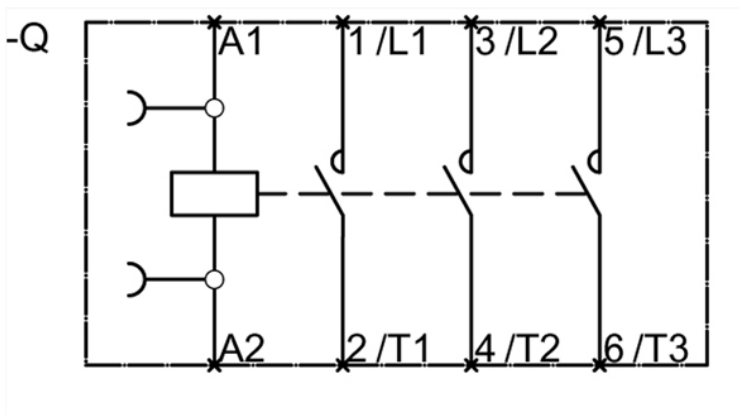
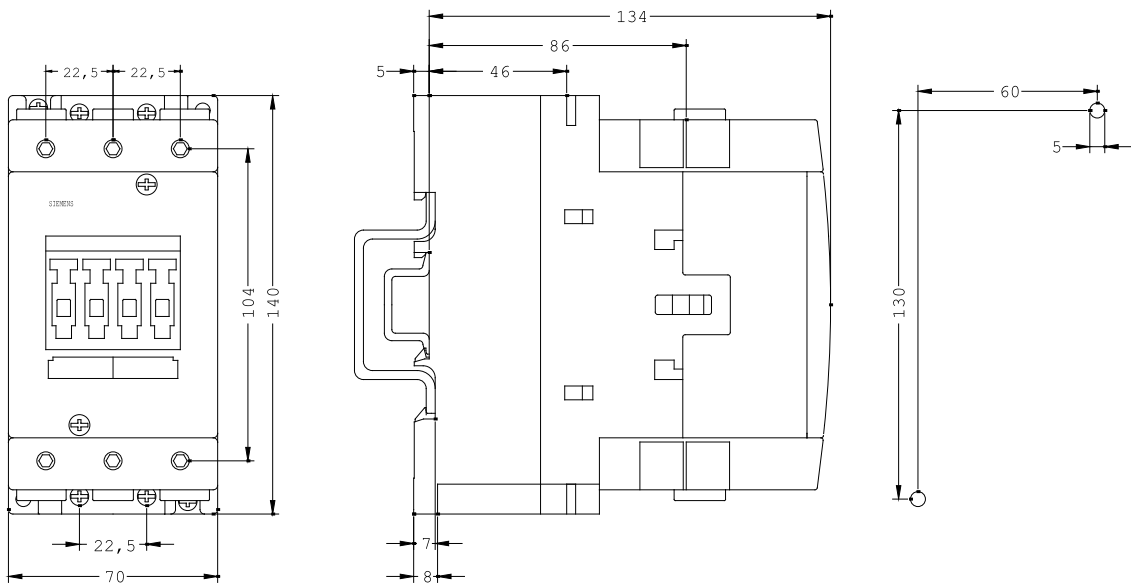
<http://www.siemens.com/cax>

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

<http://support.automation.siemens.com/WW/view/en/3RT1046-1AL20-1AA0/all>

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RT1046-1AL20-1AA0



last change:

Jul 28, 2014