SIEMENS

Product data sheet 3RT1045-1AC20



CONTACTOR, AC-3 37 KW/400 V, AC 24V 50/60HZ, 3-POLE, SIZE S3, SCREW CONNECTION

| 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 | | |
| 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 |
| Operating current | | |
| • at AC-1 / at 400 V | | |
| • at 40 °C ambient temperature / rated value | Α | 120 |
| • at 60 °C ambient temperature / rated value | Α | 100 |
| • at AC-3 / at 400 V / rated value | Α | 80 |

| • at AC-4 / at 400 V / rated value | Α | 66 |
|--|----|--------|
| • with 1 current path / at DC-1 | | |
| • at 24 V / rated value | Α | 100 |
| at 110 V / rated value | Α | 9 |
| with 2 current paths in series / at DC-1 | | |
| • at 24 V / rated value | Α | 100 |
| • at 110 V / rated value | Α | 100 |
| with 3 current paths in series / at DC-1 | | |
| • at 24 V / rated value | Α | 100 |
| • at 110 V / rated value | Α | 100 |
| with 1 current path / at DC-3 / at DC-5 | | |
| • at 24 V / rated value | Α | 40 |
| • at 110 V / rated value | Α | 2.5 |
| with 2 current paths in series / at DC-3 / at DC-5 | | |
| • at 24 V / rated value | Α | 100 |
| • at 110 V / rated value | Α | 100 |
| with 3 current paths in series / at DC-3 / at DC-5 | | |
| • at 24 V / rated value | Α | 100 |
| at 110 V / rated value | Α | 100 |
| Service power | | |
| • at AC-2 / at 400 V / rated value | kW | 37 |
| • at AC-3 / at 400 V / rated value | kW | 37 |
| • at AC-4 / at 400 V / rated value | W | 37,000 |
| Active power loss / per conductor / typical | W | 7.7 |

| Control circuit: | | |
|--|-----|---------|
| Type of voltage / of the controlled supply voltage | | AC |
| Control supply voltage / 1 | | |
| • at 50 Hz / for AC | | |
| • rated value | V | 24 |
| • at 60 Hz / for AC | | |
| • rated value | V | 24 |
| 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 |
| Operating current / of the auxiliary contacts | | |
| • at AC-12 / maximum | Α | 10 |
| • at AC-15 | | |
| • at 230 V | Α | 6 |
| • at 400 V | Α | 3 |
| • at DC-12 | | |
| • at 60 V | Α | 6 |
| • at 110 V | Α | 3 |
| • at 220 V | Α | 1 |
| • at DC-13 | | |
| • at 24 V | Α | 10 |
| • at 60 V | Α | 2 |
| • at 110 V | Α | 1 |
| • at 220 V | Α | 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 fuse gL/gG: 250 A

fuse gL/gG: 160 A

| Installation/mounting/dimensions: | | |
|---|----|--|
| Type of mounting | | 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 / sidewards | mm | 6 |

| Connection type: | |
|-------------------------------------|--|
| Design of the electrical connection | |

• at type of coordination 2 / required

| for main current circuit | screw-type terminals |
|---|-------------------------------------|
| • for auxiliary and control current circuit | screw-type terminals |
| Type of the connectable conductor cross-section | |
| • for main contacts | |
| • solid | 2x (2.5 16 mm²) |
| for auxiliary contacts | |
| • finely stranded | |
| with conductor end processing | 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) |
| • for AWG conductors / for auxiliary contacts | 2x (20 16), 2x (18 14), 1x 12 |

Certificates/approvals:

General Product Approval

Functional Safety / Safety of Machinery **Declaration of Conformity**









Type Examination



Test Certificates

Special Test Certificate

Shipping Approval













other

Confirmation

other



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:

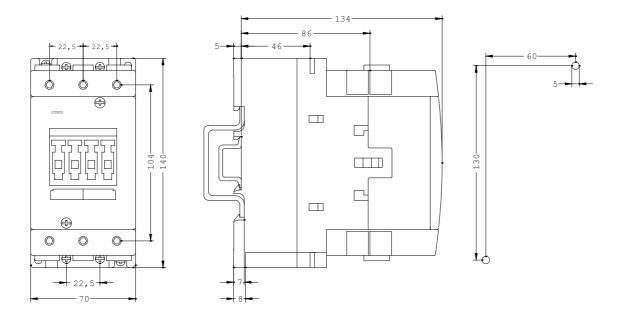
http://www.siemens.com/cax

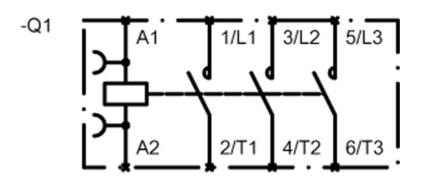
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

http://support.automation.siemens.com/WW/view/en/3RT1045-1AC20/all

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RT1045-1AC20





last change: Jul 27, 2012