



REV. COMB., AC3,
18.5KW/ 400V AC110V 50HZ/120V 60HZ 3-POLE,
SZ S0 SCREW TERMINAL ELECTR. AND MECH.
INTERLOCK 2NO INTEGR.

General technical data:

| | | |
|--|----|---|
| product brand name | | SIRIUS |
| product designation | | star-delta (wye-delta) contactor assembly 3RA24 |
| Product function | | reversing contactor |
| Size of the contactor | | S0 |
| Protection class IP / on the front | | IP20 |
| Degree of pollution | | 3 |
| Insulation voltage / with degree of pollution 3 / rated value | V | 690 |
| Installation altitude / at a height over sea level / maximum | m | 2,000 |
| Ambient temperature | | |
| • during transport | °C | -55 ... +80 |
| • during storage | °C | -55 ... +80 |
| • during operating | °C | -25 ... +60 |
| Resistance against shock | | 12.5g / 5 ms and 7.8g / 10 ms |
| Impulse voltage resistance / rated value | kV | 6 |
| Active power loss / per conductor / typical | W | 1.6 |
| Item designation | | |
| • according to DIN 40719 extendable after IEC 204-2 / according to IEC 750 | | K |
| • according to DIN EN 61346-2 | | Q |

| | | |
|--|--|-------------------------------|
| Manufacturer article number | | |
| • 1 / of the contactor included in the scope of supply | | 3RT2028-1AK60 |
| • 2 / of the contactor included in the scope of supply | | 3RT2028-1AK60 |
| • of the RS applied assembly kit | | 3RA2923-2AA1 |
| Mechanical operating cycles as operating time | | |
| • of the main contacts / typical | | 10,000,000 |
| • of the auxiliary contacts / typical | | 10,000,000 |
| • of the contactor / typical | | 10,000,000 |
| • of the contactor with added auxiliary switch block / typical | | 10,000,000 |

Communication:

| | | |
|---|--|----|
| Product function | | |
| • bus-communication | | No |
| • control circuit interface with IO link | | No |
| Protocol / will be supported / AS interface protocol | | No |

Main circuit:

| | | |
|--|---|------|
| Number of poles / for main current circuit | | 3 |
| Number of NC contacts / for main contacts | | 0 |
| Number of NO contacts / for main contacts | | 3 |
| Operating voltage / at AC-3 / rated value / maximum | V | 690 |
| Operating current | | |
| • at AC-1 / at 400 V | | |
| • at 40 °C ambient temperature / rated value | A | 50 |
| • at 60 °C ambient temperature / rated value | A | 45 |
| • at AC-2 / at 400 V / rated value | A | 38 |
| • at AC-3 / at 400 V / rated value | A | 38 |
| • at AC-4 / at 400 V / rated value | A | 18.5 |
| • with 1 current path / at DC-1 | | |
| • at 24 V / rated value | A | 35 |
| • at 110 V / rated value | A | 4.5 |
| • with 2 current paths in series / at DC-1 | | |
| • at 24 V / rated value | A | 35 |
| • at 110 V / rated value | A | 35 |
| • with 3 current paths in series / at DC-1 | | |
| • at 24 V / rated value | A | 35 |
| • at 110 V / rated value | A | 35 |
| • with 1 current path / at DC-3 / at DC-5 | | |
| • at 24 V / rated value | A | 20 |
| • at 110 V / rated value | A | 2.5 |

| | | |
|--|-----|-------|
| <ul style="list-style-type: none"> with 2 current paths in series / at DC-3 / at DC-5 <ul style="list-style-type: none"> at 24 V / rated value at 110 V / rated value with 3 current paths in series / at DC-3 / at DC-5 <ul style="list-style-type: none"> at 24 V / rated value at 110 V / rated value | A | 35 |
| | A | 15 |
| | A | 35 |
| | A | 35 |
| Service power | | |
| <ul style="list-style-type: none"> at AC-2 / at 400 V / rated value | kW | 18.5 |
| <ul style="list-style-type: none"> at AC-3 <ul style="list-style-type: none"> at 400 V / rated value at 500 V / rated value at 690 V / rated value at AC-4 / at 400 V / rated value | kW | 18.5 |
| | kW | 22 |
| | kW | 18.5 |
| | kW | 9.5 |
| Off-load operating frequency | 1/h | 15 |
| Frequency of operation | | |
| <ul style="list-style-type: none"> at AC-1 / according to IEC 60947-6-2 / maximum | 1/h | 1,000 |
| <ul style="list-style-type: none"> at AC-2 / according to IEC 60947-6-2 / maximum | 1/h | 1,000 |
| <ul style="list-style-type: none"> at AC-3 / according to IEC 60947-6-2 / maximum | 1/h | 1,000 |
| <ul style="list-style-type: none"> at AC-4 / according to IEC 60947-6-2 / maximum | 1/h | 300 |

| Control circuit: | | |
|---|-----|--------------|
| Design of activation | | conventional |
| Type of voltage / of the controlled supply voltage | | AC |
| Control supply voltage frequency | | |
| <ul style="list-style-type: none"> 1 / rated value | Hz | 50 |
| <ul style="list-style-type: none"> 2 / rated value | Hz | 60 |
| Control supply voltage / 1 | | |
| <ul style="list-style-type: none"> at 50 Hz / for AC / rated value | V | 110 |
| <ul style="list-style-type: none"> at 60 Hz / for AC / rated value | V | 120 |
| Operating range factor control supply voltage rated value / of the magnet coil | | |
| <ul style="list-style-type: none"> at 50 Hz / for AC | | 0.8 ... 1.1 |
| <ul style="list-style-type: none"> at 60 Hz / for AC | | 0.8 ... 1.1 |
| Apparent pull-in power / of the solenoid / for AC | V·A | 77 |
| Apparent holding power / of the solenoid / for AC | V·A | 9.8 |
| Inductive power factor | | |
| <ul style="list-style-type: none"> with the pull-in power of the coil | | 0.82 |
| <ul style="list-style-type: none"> with the pull-in power of the coil | | 0.27 |

| Auxiliary circuit: | | |
|---|--|-----|
| Product extension / auxiliary switch | | Yes |

| | | |
|--|---|--|
| Contact reliability / of the auxiliary contacts | | < 1 error per 100 million operating cycles |
| Number of NC contacts / for auxiliary contacts | | |
| • per direction of rotation | | 0 |
| • instantaneous switching | | 0 |
| • lagging switching | | 0 |
| Number of NO contacts / for auxiliary contacts | | |
| • per direction of rotation | | 0 |
| • instantaneous switching | | 0 |
| • leading switching | | 0 |
| Operating current / of the auxiliary contacts | | |
| • at AC-12 / maximum | A | 10 |
| • at AC-15 | | |
| • at 230 V | A | 6 |
| • 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 | A | 1 |
| • at DC-13 | | |
| • at 24 V | A | 10 |
| • at 48 V | A | 2 |
| • at 60 V | A | 2 |
| • at 110 V | A | 1 |
| • at 220 V | A | 0.3 |

Short-circuit:

Design of the fuse link

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

gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 100 A

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

fuse gL/gG: 10 A

Installation/mounting/dimensions:

| | | |
|-----------------------------|----|--|
| Built in orientation | | any |
| Type of mounting | | screw and snap-on mounting onto 35 mm standard mounting rail |
| Width | mm | 90 |
| Height | mm | 101 |
| Depth | mm | 97 |

| | | |
|--|----|---|
| Distance, to be maintained, to the ranks assembly | | |
| • forwards | mm | 6 |
| • backwards | mm | 0 |
| • upwards | mm | 6 |
| • downwards | mm | 6 |
| • sideways | mm | 6 |
| Distance, to be maintained, to earthed part | | |
| • forwards | mm | 6 |
| • backwards | mm | 0 |
| • upwards | mm | 6 |
| • downwards | mm | 6 |
| • sideways | mm | 6 |
| Distance, to be maintained, conductive elements | | |
| • forwards | mm | 6 |
| • backwards | mm | 0 |
| • upwards | mm | 6 |
| • downwards | mm | 6 |
| • sideways | mm | 6 |

Connections:

| | |
|--|---|
| Design of the electrical connection | |
| • 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 (1 ... 2.5 mm ²), 2x (2.5 ... 10 mm ²) |
| • stranded | 2x (1 ... 2.5 mm ²), 2x (2.5 ... 10 mm ²) |
| • finely stranded | |
| • with conductor end processing | 2x (1 ... 2.5 mm ²), 2x (2.5 ... 6 mm ²), 1x 10 mm ² |
| • for AWG conductors / for main contacts | 2x (16 ... 12), 2x (14 ... 8) |
| • for auxiliary contacts | |
| • solid | 2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²) |
| • finely stranded | |
| • with conductor end processing | 2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²) |
| • for AWG conductors / for auxiliary contacts | 2x (20 ... 16), 2x (18 ... 14) |

Certificates/approvals:

| | |
|------------------------------------|---------------------|
| Verification of suitability | CE / UL / CSA / CCC |
|------------------------------------|---------------------|

General Product Approval



Declaration of Conformity

[Special Test Certificate](#)

Shipping Approval



Shipping Approval other



[other](#)

UL/CSA ratings

| | | |
|---|----|-------------|
| yielded mechanical performance (hp) | | |
| <ul style="list-style-type: none"> for single-phase squirrel cage motors <ul style="list-style-type: none"> at 110/120 V / rated value at 230 V / rated value for three-phase squirrel cage motors <ul style="list-style-type: none"> at 220/230 V / rated value at 460/480 V / rated value at 575/600 V / rated value | hp | 3 |
| | hp | 5 |
| | hp | 10 |
| | hp | 25 |
| | hp | 25 |
| Operating current (FLA) / for three-phase squirrel cage motors | | |
| <ul style="list-style-type: none"> at 480 V / rated value at 600 V / rated value | A | 34 |
| | A | 27 |
| Contact rating designation / for auxiliary contacts / according to UL | | A600 / Q600 |

Safety:

| | | |
|---|-----|-------------|
| B10 value / with high demand rate | | |
| <ul style="list-style-type: none"> according to SN 31920 | | 1,000,000 |
| Failure rate (FIT value) / with low demand rate | | |
| <ul style="list-style-type: none"> according to SN 31920 | FIT | 100 |
| Proportion of dangerous failures | | |
| <ul style="list-style-type: none"> with low demand rate / according to SN 31920 with high demand rate / according to SN 31920 | % | 40 |
| | % | 75 |
| T1 value / for proof test interval or service life | | |
| <ul style="list-style-type: none"> according to IEC 61508 | a | 20 |
| Protection against electrical shock | | finger-safe |

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

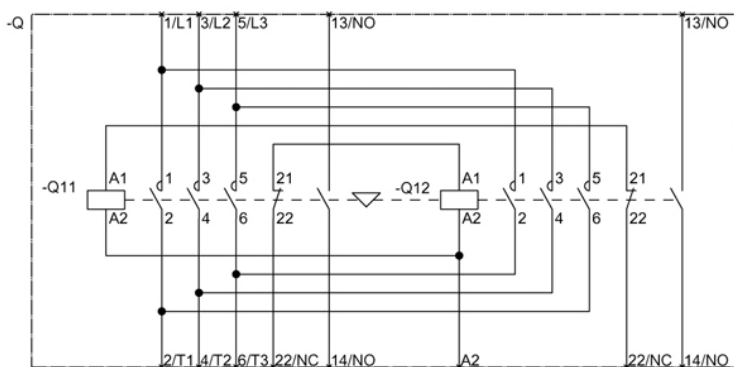
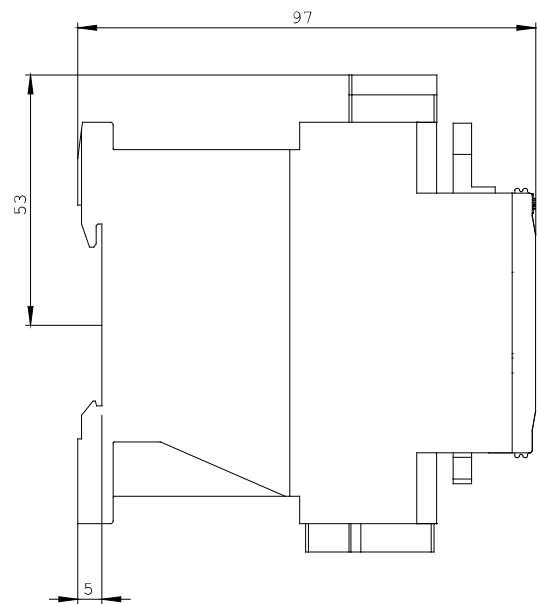
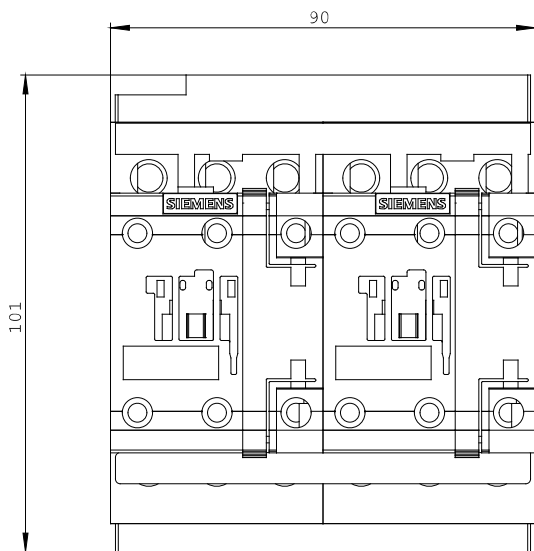
<http://www.siemens.com/cax>

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

<http://support.automation.siemens.com/WW/view/en/3RA2328-8XB30-1AK6/all>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RA2328-8XB30-1AK6



last change:

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