

REV. COMB., AC3, 7.5KW/ 400V AC110V,
50/60HZ, 3-POLE,
SZ S00 SCREW TERMINAL ELECTR. AND MECH.
INTERLOCK



General technical data:

| | | |
|--|----|--|
| Product brand name | | SIRIUS |
| product designation | | reversing contactor assembly 3RA23 |
| Product function | | reversing contactor |
| Size of the contactor | | S00 |
| 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 <ul style="list-style-type: none"> during transport during storage during operating | °C | -55 ... 80 -55 ... 80 -25 ... 60 |
| Resistance against shock | | 9.8g / 5 ms and 5.9g / 10 ms |
| Impulse voltage resistance / rated value | kV | 6 |
| Active power loss / per conductor / typical | W | 1.3 |
| Item designation <ul style="list-style-type: none"> according to DIN 40719 extendable after IEC 204-2 / according to IEC 750 according to DIN EN 61346-2 | | K Q |

| | | |
|--|--|-------------------------------|
| Manufacturer article number | | |
| • 1 / of the contactor included in the scope of supply | | 3RT2018-1AF02 |
| • 2 / of the contactor included in the scope of supply | | 3RT2018-1AF02 |
| • of the RS applied assembly kit | | 3RA2913-2AA1 |
| 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 | 18 |
| • at 60 °C ambient temperature / rated value | A | 16 |
| • at AC-2 / at 400 V / rated value | A | 7 |
| • at AC-3 / at 400 V / rated value | A | 16 |
| • at AC-4 / at 400 V / rated value | A | 6.5 |
| • with 1 current path / at DC-1 | | |
| • at 24 V / rated value | A | 20 |
| • at 110 V / rated value | A | 2.1 |
| • with 2 current paths in series / at DC-1 | | |
| • at 24 V / rated value | A | 20 |
| • at 110 V / rated value | A | 12 |
| • with 3 current paths in series / at DC-1 | | |
| • at 24 V / rated value | A | 20 |
| • at 110 V / rated value | A | 20 |
| • with 1 current path / at DC-3 / at DC-5 | | |
| • at 24 V / rated value | A | 20 |
| • at 110 V / rated value | A | 0.15 |

| | | |
|--|-----|-------|
| <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 | 20 |
| | A | 0.35 |
| | A | 20 |
| | A | 20 |
| Service power | | |
| <ul style="list-style-type: none"> • at AC-2 / at 400 V / rated value | kW | 7.5 |
| <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 | 7.5 |
| | kW | 7.5 |
| | kW | 7.5 |
| | kW | 3.5 |
| 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 | 110 |
| Operating range factor control supply voltage rated value / of the solenoid | | |
| <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 | | 0.85 ... 1.1 |
| Apparent pull-in power / of the solenoid / for AC | V·A | 37 |
| Apparent holding power / of the solenoid / for AC | V·A | 5.7 |
| Inductive power factor | | |
| <ul style="list-style-type: none"> • with the pull-in power of the coil | | 0.8 |
| <ul style="list-style-type: none"> • with the pull-in power of the coil | | 0.28 |
| 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: 35 A
gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 20 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 | 68 |
| Depth | mm | 73 |

| | | |
|--|----|---|
| 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 | | 2 x (0.5 ... 1.5 mm ²), 2 x (0.75 ... 2.5 mm ²), 2 x (0.5 ... 4 mm ²) |
| • stranded | | 2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²), 2x (0.5 ... 4 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 main contacts | | 2x (20 ... 16), 2x (18 ... 14) |
| • 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



[ROSTEST](#)



Test Certificates

[Manufacturer](#)

Shipping Approval



GL



LRS



PRS



RINA

Shipping Approval other

[other](#)



RMRS

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 | 1 |
| hp | 2 |
| hp | 3 |
| hp | 5 |
| hp | 10 |
| hp | 10 |

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

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

| | |
|---|----|
| A | 14 |
| A | 11 |

Contact rating designation / for auxiliary contacts / according to UL

A600 / Q600

Safety:

B10 value / with high demand rate

- according to SN 31920

1,000,000

Failure rate (FIT value) / with low demand rate

- according to SN 31920

FIT 100

Proportion of dangerous failures

- 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

- 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

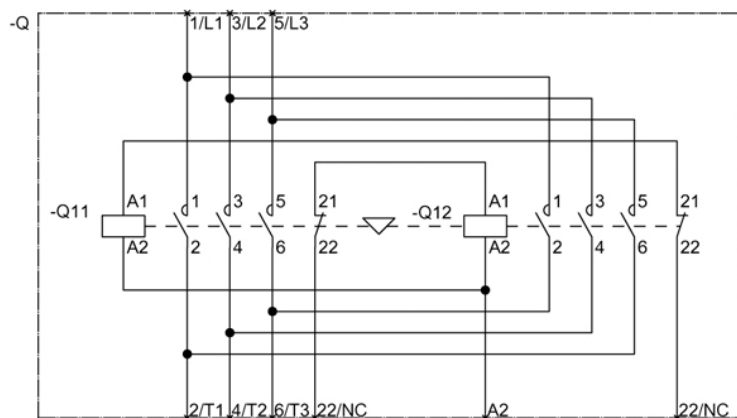
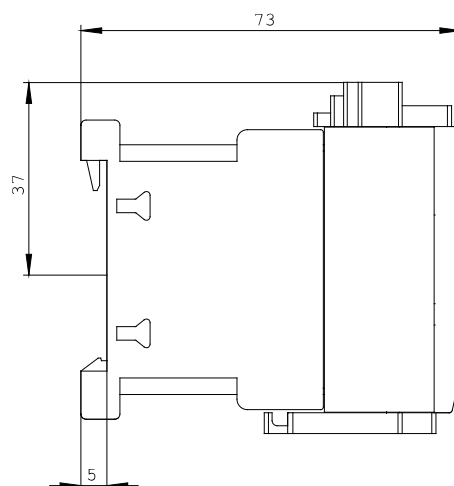
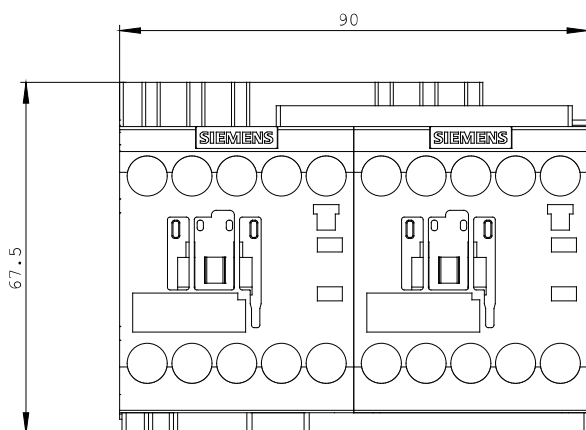
<http://www.siemens.com/cax>

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

<http://support.automation.siemens.com/WW/view/en/3RA2318-8XB30-1AF0/all>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RA2318-8XB30-1AF0



last change:

Oct 24, 2011