



SOLID-STATE CONTACTOR 3-PH 3RF3 AC53 3.8A 40 DEGREES C 48-480V / 110-230V AC REVERSE SWITCHING INSTANTANEOUS SCREW TERMINALS

| General technical data: | | |
|--|----|---------------------------------|
| product brand name | | SIRIUS |
| product designation | | solid-state reversing contactor |
| | | Link module |
| | | Connection adapter |
| Manufacturer article number | | |
| | | 3RA2921-1BA00 |
| | | 3RF3900-0QA88 |
| Protection class IP | | IP20 |
| Insulation voltage / rated value | V | 600 |
| Installation altitude / at a height over sea level / maximum | m | 1,000 |
| Ambient temperature | | |
| | °C | -55 ... +80 |
| | °C | -25 ... +60 |
| Resistance against shock | | |
| | | 15g / 11 ms |
| Resistance against vibration | | |
| | | 2g |
| Resistance against the impulse current / rated value | A | 600 |
| Active power loss / total / typical | W | 7 |

| | | |
|--|--|------------------|
| Item designation • according to DIN 40719 extendable after IEC 204-2 / according to IEC 750 • according to DIN EN 61346-2 | | K |
| | | Q |
| Product function | | reversing switch |

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 | | 2 |
| Operating frequency • rated value | Hz | 60 ... 50 |
| Operating voltage • at 60 Hz / at AC / rated value • at 50 Hz / at AC / rated value | V | 48 ... 480 |
| | V | 48 ... 480 |
| Operating current • minimum • at AC-3 / at 400 V / rated value | mA | 500 |
| | A | 3.8 |
| Working area related to the operating voltage • at 50 Hz / for AC • at 60 Hz / for AC | V | 40 ... 506 |
| | V | 40 ... 506 |
| Service power / at AC-3 / at 400 V • rated value | kW | 1.5 |
| Derating temperature | °C | 40 |
| Tolerance of the line frequency | Hz | 5 |
| Relative symmetrical tolerance / of the operation frequency | % | 10 |
| I²t-level / maximum | A ² ·s | 1,800 |
| Voltage slew rate / at the thyristor / for main contacts • maximum permissible | V/μs | 1,000 |
| Block voltage / at the thyristor / for main contacts • maximum permissible | V | 1,200 |
| Reverse current / of the thyristor | mA | 10 |

Control circuit:

| | | |
|---|----|----|
| Type of voltage / of the controlled supply voltage | | AC |
| Control supply voltage frequency • 1 / rated value • 2 / rated value | Hz | 50 |
| | Hz | 60 |
| Relative symmetrical tolerance • of the control supply voltage frequency • of the supply voltage frequency | % | 10 |
| | % | 10 |

| | | |
|---|----|-----|
| Control supply voltage <ul style="list-style-type: none"> • 1 <ul style="list-style-type: none"> • at 50 Hz / for AC <ul style="list-style-type: none"> • initial rated value • final rated value • at 60 Hz / for AC <ul style="list-style-type: none"> • initial rated value • final rated value • at 50 Hz / for AC / final value for signal<0>-recognition • at 60 Hz / for AC / final value for signal<0>-recognition | | |
| | V | 90 |
| | V | 253 |
| | | |
| | V | 90 |
| | V | 253 |
| | V | 40 |
| Control current <ul style="list-style-type: none"> • for AC / rated value • at minimum control supply voltage / for AC | mA | 15 |
| | mA | 2 |
| | | |

| | | |
|--|--|---|
| Auxiliary circuit: | | |
| Number of NC contacts / for auxiliary contacts | | 0 |
| Number of NO contacts / for auxiliary contacts | | 0 |
| Number of change-over switches / for auxiliary contacts | | 0 |

| | | |
|---|-----|--|
| Installation/mounting/dimensions: | | |
| Built in orientation | | vertical |
| Type of mounting | | screw and snap-on mounting onto 35 mm standard mounting rail |
| Type of fixing/fixation / series installation | | Yes |
| Tightening torque / of the screw for fastening of the operating resource | N·m | 1.5 |
| Design of the thread / of the screw for fastening of the operating resource | | M4 |
| Width | mm | 45 |
| Height | mm | 95 |
| Depth | mm | 114.3 |
| Distance, to be maintained, to the ranks assembly <ul style="list-style-type: none"> • upwards • downwards | mm | 70 |
| | mm | 50 |
| | | |

| | | |
|--|--|----------------------|
| Connections: | | |
| Design of the electrical connection <ul style="list-style-type: none"> • for main current circuit • for auxiliary and control current circuit | | screw-type terminals |
| | | screw-type terminals |
| | | |
| Design of the thread / of the connection screw <ul style="list-style-type: none"> • for main contacts • of the auxiliary and control pins | | M4 |
| | | M3 |
| | | |

| | | |
|--|------------------|---|
| Product function / removable terminal for auxiliary and control circuit | | Yes |
| Type of the connectable conductor cross-section <ul style="list-style-type: none"> • for main contacts <ul style="list-style-type: none"> • solid • finely stranded <ul style="list-style-type: none"> • with conductor end processing • for AWG conductors / for main contacts • for auxiliary and control contacts <ul style="list-style-type: none"> • solid • finely stranded <ul style="list-style-type: none"> • with conductor end processing • without conductor final cutting • for AWG conductors / for auxiliary and control contacts | | 2x (1.5 ... 2.5 mm ²), 2x (2.5 ... 6 mm ²) 2x (1 ... 2.5 mm ²), 2x (2.5 ... 6 mm ²), 1x 10 mm ² 2x (14 ... 10) 1x (0.5 ... 2.5 mm ²), 2x (0.5 ... 1.0 mm ²) 1x (0.5 ... 2.5 mm ²), 2x (0.5 ... 1.0 mm ²) 1x (0.5 ... 2.5 mm ²), 2x (0.5 ... 1.0 mm ²) 1x (AWG 20 ... 12) |
| Tightening torque <ul style="list-style-type: none"> • for main contacts / with screw-type terminals • for auxiliary and control contacts / with screw-type terminals | N·m N·m | 2 ... 2.5 0.5 ... 0.6 |
| Tightening torque (lbf·in) <ul style="list-style-type: none"> • for main contacts / with screw-type terminals • for auxiliary and control contacts / with screw-type terminals | lbf·in lbf·in | 18 ... 22 7.5 ... 5.3 |
| Skinning length / of the cable <ul style="list-style-type: none"> • for main contacts • for auxiliary and control contacts | mm mm | 10 7 |

Certificates/approvals:

Verification of suitability

CE / UL / CSA / CCC / C-TICK

General Product Approval

other



[Declaration of Conformity](#)

UL/CSA ratings

yielded mechanical performance (hp) / for three-phase squirrel cage motors

- at 200/208 V / rated value
- at 220/230 V / rated value
- at 460/480 V / rated value

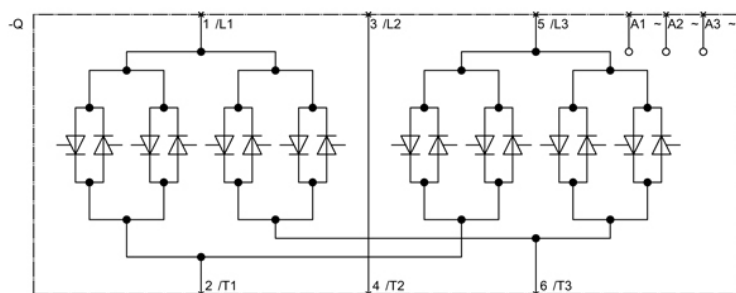
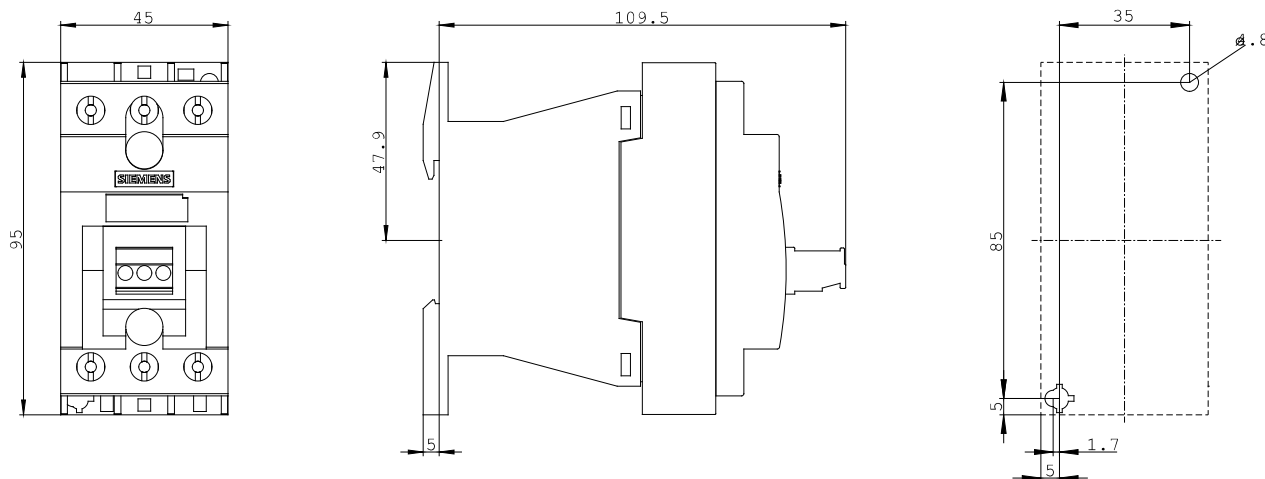
hp 0.5
hp 0.75
hp 2

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

- at 480 V / rated value

A 3.4

Further information:



last change:

May 14, 2012