## SIEMENS



| product brand name | SIRIUS |
| :---: | :---: |
| Product designation | reversing contactor assembly 3RA23 |
| Manufacturer article number <br> - 1 of the supplied contactor <br> - 2 of the supplied contactor <br> - of the supplied RH assembly kit | $\frac{\text { 3RT2015-1AF02 }}{\frac{\text { 3RT2015-1AF02 }}{\text { 3RA2913-2AA1 }}}$ |

## General technical data:

## Insulation voltage

- with degree of pollution 3 Rated value

Degree of pollution
Shock resistance
Surge voltage resistance Rated value
kV
$9.8 \mathrm{~g} / 5 \mathrm{~ms}$ and $5.9 \mathrm{~g} / 10 \mathrm{~ms}$

Mechanical service life (switching cycles)

- of the contactor typical
- of the contactor with added auxiliary switch block typical

Protection class IP

- on the front

Equipment marking

- acc. to DIN EN 81346-2


## 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 <br> - at AC-1 |  |  |
| — at 400 V at ambient temperature $40^{\circ} \mathrm{C}$ Rated value | A | 18 |
| — at 400 V at ambient temperature $60^{\circ} \mathrm{C}$ <br> Rated value | A | 16 |
| - at $\mathrm{AC}-2$ at 400 V Rated value <br> - at AC-3 | A | 7 |
| - at 400 V Rated value | A | 7 |
| - at AC-4 at 400 V Rated value | A | 6.5 |
| Operating current with 1 current path <br> - at DC-1 |  |  |
| - at $24 \vee$ Rated value | A | 15 |
| - at 110 V Rated value | A | 1.5 |
| - at DC-3 at DC-5 |  |  |
| - at 24 V Rated value | A | 15 |
| - at 110 V Rated value | A | 0.1 |
| Operating current with 2 current paths in series <br> - at DC-1 |  |  |
| - at 24 V Rated value | A | 15 |
| - at 110 V Rated value | A | 8.4 |
| - at DC-3 at DC-5 |  |  |
| - at 110 V Rated value | A | 0.25 |
| - at 24 V Rated value | A | 15 |
| Operating current with 3 current paths in series <br> - at DC-1 |  |  |
| - at 24 V Rated value | A | 15 |
| - at 110 V Rated value | A | 15 |
| - at DC-3 at DC-5 |  |  |
| - at 110 V Rated value | A | 15 |
| - at 24 V Rated value | A | 15 |
| Operating power |  |  |
| - at AC-2 at 400 V Rated value | kW | 3 |
| - at AC-4 at 400 V Rated value | kW | 3 |
| Operating power <br> - at AC-3 |  |  |
| - at 400 V Rated value | kW | 3 |
| - at 500 V Rated value | kW | 3.5 |
| - at 690 V Rated value | kW | 4 |
| Operating frequency <br> - at AC-3 maximum | 1/h | 750 |


| No-load switching frequency | 1/h | 1500 |
| :---: | :---: | :---: |
| Control circuit/ Control: |  |  |
| Type of voltage of the control supply voltage |  | AC |
| Control supply voltage 1 with AC <br> - at 50 Hz Rated value <br> - at 60 Hz Rated value | $\begin{aligned} & \mathrm{V} \\ & \mathrm{~V} \end{aligned}$ | $\begin{aligned} & 110 \\ & 110 \end{aligned}$ |
| Operating range factor control supply voltage rated value of the magnet coil with AC <br> - at 50 Hz <br> - at 60 Hz |  | $\begin{aligned} & 0.8 \ldots 1.1 \\ & 0.85 \ldots 1.1 \end{aligned}$ |
| Auxiliary circuit: |  |  |
| Number of NC contacts <br> - for auxiliary contacts <br> - per direction of rotation <br> — instantaneous contact <br> — lagging switching |  | $\begin{aligned} & 0 \\ & 0 \\ & 0 \end{aligned}$ |
| Number of NO contacts <br> - for auxiliary contacts <br> - per direction of rotation <br> — instantaneous contact <br> — leading contact |  | $\begin{aligned} & 0 \\ & 0 \\ & 0 \end{aligned}$ |
| Product expansion Auxiliary switch |  | Yes |
| Operating current of the auxiliary contacts at AC-12 maximum | A | 10 |
| Operating current of the auxiliary contacts at AC-15 <br> - at 230 V <br> - at 400 V | $\begin{aligned} & \mathrm{A} \\ & \mathrm{~A} \end{aligned}$ | $\begin{aligned} & 6 \\ & 3 \end{aligned}$ |
| Operating current of the auxiliary contacts at DC-13 <br> - at 24 V <br> - at 60 V <br> - at 110 V <br> - at 220 V | A <br> A <br> A <br> A | $\begin{aligned} & 10 \\ & 2 \\ & 1 \\ & 0.3 \end{aligned}$ |
| Contact reliability of the auxiliary contacts |  | < 1 error per 100 million operating cycles |
| UL/CSA ratings: |  |  |
| Full-load current (FLA) for three-phase AC motor <br> - at 480 V Rated value <br> - at 600 V Rated value | $\begin{aligned} & \text { A } \\ & \text { A } \end{aligned}$ | $\begin{aligned} & 4.8 \\ & 6.1 \end{aligned}$ |
| yielded mechanical performance [hp] <br> - for single-phase AC motor at 110/120 V Rated value | metric hp | 0.25 |

- for single-phase AC motor at 230 V Rated value
- for three-phase AC motor at 200/208 V Rated value
- for three-phase AC motor at 220/230 V Rated value
- for three-phase AC motor at 460/480 V Rated value
- for three-phase AC motor at $575 / 600 \mathrm{~V}$ Rated value


## Contact rating of the auxiliary contacts acc. to UL

| metric | 0.75 |
| :--- | :--- |

hp
metric 1.5
hp
metric 2
hp
metric 3
hp
metric 5
hp
A600 / Q600

## Short-circuit:

## Design of the fuse link

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


## Installation/ mounting/ dimensions:

mounting position

## Mounting type

Height
Width
Depth
Required spacing

- with side-by-side mounting
— forwards
- Backwards
— upwards
— downwards
- at the side
- for grounded parts
— forwards
—Backwards
— upwards
— at the side
- downwards
- for live parts
$+/-180^{\circ}$ rotation possible on vertical mounting surface; can be tilted forward and backward by $+/-$ $22.5^{\circ}$ on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail
68
90
73

| mm | 6 |
| :--- | :--- |

$\mathrm{mm} \quad 0$
$\begin{array}{ll}\mathrm{mm} & 6\end{array}$
$\begin{array}{ll}\mathrm{mm} & 6\end{array}$
$\mathrm{mm} \quad 6$
$\mathrm{mm} \quad 6$
$\mathrm{mm} \quad 0$
$\mathrm{mm} \quad 6$
$\mathrm{mm} \quad 6$
$\mathrm{mm} \quad 6$

| - forwards | mm | 6 |
| :--- | :--- | :--- |
| - Backwards | mm | 0 |
| - upwards | mm | 6 |
| - downwards | mm | 6 |
| - at the side | mm | 6 |

## Connections/ Terminals:

| Type of electrical connection <br> - for main current circuit <br> - for auxiliary and control current circuit |  | screw-type terminals screw-type terminals |
| :---: | :---: | :---: |
| Type of connectable conductor cross-section <br> - for main contacts <br> - single or multi-stranded <br> - finely stranded with core end processing <br> - for AWG conductors for main contacts <br> - for auxiliary contacts <br> — single or multi-stranded <br> - finely stranded with core end processing <br> - for AWG conductors for auxiliary contacts |  | $\begin{aligned} & 2 \times\left(0,5 \ldots 1,5 \mathrm{~mm}^{2}\right), 2 \times\left(0,75 \ldots 2,5 \mathrm{~mm}^{2}\right), 2 \times(0,5 \ldots 4 \\ & \left.\mathrm{mm}^{2}\right) \\ & 2 \times\left(0.5 \ldots 1.5 \mathrm{~mm}^{2}\right), 2 \times\left(0.75 \ldots 2.5 \mathrm{~mm}^{2}\right) \\ & 2 \times(20 \ldots 16), 2 x(18 \ldots 14) \\ & 2 \times\left(0,5 \ldots 1,5 \mathrm{~mm}^{2}\right), 2 \times\left(0,75 \ldots 2,5 \mathrm{~mm}^{2}\right) \\ & 2 \times\left(0.5 \ldots 1.5 \mathrm{~mm}^{2}\right), 2 \times\left(0.75 \ldots 2.5 \mathrm{~mm}^{2}\right) \\ & 2 \times(20 \ldots 16), 2 \times(18 \ldots 14) \end{aligned}$ |
| Apparent pick-up power of the magnet coil with AC <br> - at 50 Hz | V-A | 27 |

Safety related data:

| B10 value with high demand rate acc. to SN 31920 |  | 1000000 |
| :--- | :--- | :--- |
| Proportion of dangerous failures <br> $\bullet$ e with low demand rate acc. to SN 31920 | $\%$ | 40 |
| • with high demand rate acc. to SN 31920 | $\%$ | 75 |
| Failure rate [FIT] with low demand rate acc. to SN <br> 31920 | FIT | 100 |
| T1 value for proof test interval or service life acc. to <br> IEC 61508 | y | 20 |
| Protection against electrical shock |  | finger-safe |


| Mechanical data: |  |  |
| :---: | :---: | :---: |
| Size of contactor |  | S00 |
| Communication/ Protocol: |  |  |
| Product function Bus communication |  | No |
| Protocol is supported <br> - AS-interface protocol |  | No |
| Product function Control circuit interface with IO link |  | No |
| Ambient conditions: |  |  |
| Installation altitude at height above sea level maximum | m | 2000 |

## Ambient temperature

| - during operation | ${ }^{\circ} \mathrm{C}$ | $-25 \ldots+60$ |
| :--- | :--- | :--- |
| - during storage | ${ }^{\circ} \mathrm{C}$ | $-55 \ldots+80$ |


| Certificates/ approvals: |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| General Product Approval | Declaration of <br> Conformity | Test Certificates |  |

Shipping Approval



## Further information

Information- and Downloadcenter (Catalogs, Brochures,...)
http://www.siemens.com/industrial-controls/catalogs
Industry Mall (Online ordering system)
http://www.siemens.com/industrymall

## Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3RA23158XB301AF0
Service\&Support (Manuals, Certificates, Characteristics, FAQs,...)
http://support.automation.siemens.com/WW/view/en/3RA23158XB301AF0/al
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA23158XB301AF0\&lang=en



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