## **SIEMENS**

Data sheet 3RT2037-1NE34



CONTACTOR,AC3:30KW/400V, 2NO+2NC, 48 - 80V AC/DC, WITH VARISTOR, 3-POLE, SIZE S2, SCREW TERMINAL

Figure similar

| product brand name  | SIRIUS         |
|---------------------|----------------|
| Product designation | 3RT2 contactor |

| Inculation voltage   |    |            |  |
|--|----|------------|--|
| Insulation voltage   |    |            |  |
| Rated value  | V  | 690        |  |
| Degree of pollution  |    | 3          |  |
| Surge voltage resistance Rated value   | kV | 6          |  |
| Mechanical service life (switching cycles)   |    |            |  |
| <ul> <li>of the contactor typical</li> </ul>   |    | 10 000 000 |  |
| <ul> <li>of the contactor with added electronics-<br/>compatible auxiliary switch block typical</li> </ul> |    | 5 000 000  |  |
| <ul> <li>of the contactor with added auxiliary switch<br/>block typical</li> </ul>                         |    | 10 000 000 |  |
| Thermal short-time current restricted to 10 s  | Α  | 520        |  |
| Protection class IP  |    |            |  |
| • on the front   |    | IP20       |  |
| • of the terminal  |    | IP00       |  |
| Equipment marking  |    |            |  |
| • acc. to DIN EN 61346-2   |    | Q          |  |
| ● acc. to DIN EN 81346-2   |    | Q          |  |

| 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                        |   |  |

| <ul> <li>at AC-3 Rated value maximum</li> </ul>                        | V | 690  |
|--|---|------|
| Operating current  |   |      |
| • at AC-1  |   |      |
| — at 400 V at ambient temperature 40 °C<br>Rated value                 | Α | 80   |
| — up to 690 V at ambient temperature 40 $^{\circ}\text{C}$ Rated value | Α | 80   |
| — up to 690 V at ambient temperature 60 °C<br>Rated value              | Α | 70   |
| • at AC-2 at 400 V Rated value   | Α | 65   |
| • at AC-3  |   |      |
| — at 400 V Rated value   | Α | 65   |
| — at 500 V Rated value   | Α | 65   |
| — at 690 V Rated value   | Α | 47   |
| • at AC-4 at 400 V Rated value   | Α | 55   |
| Operating current with 1 current path                                  |   |      |
| • at DC-1  |   |      |
| — at 24 V Rated value  | Α | 70   |
| — at 110 V Rated value   | Α | 4.5  |
| — at 220 V Rated value   | Α | 2    |
| — at 440 V Rated value   | Α | 0.4  |
| — at 600 V Rated value   | Α | 0.25 |
| • at DC-3 at DC-5  |   |      |
| — at 24 V Rated value  | Α | 35   |
| — at 110 V Rated value   | Α | 2.5  |
| — at 220 V Rated value   | Α | 2    |
| — at 440 V Rated value   | Α | 0.1  |
| — at 600 V Rated value   | Α | 0.06 |
| Operating current with 2 current paths in series                       |   |      |
| • at DC-1  |   |      |
| — at 24 V Rated value  | Α | 70   |
| — at 110 V Rated value   | Α | 45   |
| — at 220 V Rated value   | Α | 5    |
| — at 440 V Rated value   | Α | 1    |
| — at 600 V Rated value   | Α | 0.8  |
| • at DC-3 at DC-5  |   |      |
| — at 110 V Rated value   | Α | 25   |
| — at 220 V Rated value   | Α | 5    |
| — at 24 V Rated value  | Α | 55   |
| — at 440 V Rated value   | Α | 0.27 |
| — at 600 V Rated value   | Α | 0.16 |
| Operating current with 3 current paths in series                       |   |      |

| • at DC-1   |     |      |
|---|-----|------|
| — at 24 V Rated value                                 | Α   | 55   |
| — at 110 V Rated value                                | Α   | 45   |
| — at 220 V Rated value                                | Α   | 45   |
| — at 440 V Rated value                                | Α   | 2.9  |
| — at 600 V Rated value                                | Α   | 1.4  |
| • at DC-3 at DC-5                                     |     |      |
| — at 110 V Rated value                                | Α   | 45   |
| — at 220 V Rated value                                | Α   | 25   |
| — at 24 V Rated value                                 | Α   | 55   |
| — at 440 V Rated value                                | Α   | 0.6  |
| — at 600 V Rated value                                | Α   | 0.6  |
| Operating power                                       |     |      |
| • at AC-1 at 400 V Rated value                        | kW  | 53   |
| • at AC-2 at 400 V Rated value                        | kW  | 30   |
| • at AC-4 at 400 V Rated value                        | kW  | 30   |
| Operating power                                       |     |      |
| • at AC-1   |     |      |
| — at 230 V at 60 °C Rated value                       | kW  | 26   |
| — at 230 V Rated value                                | kW  | 30   |
| — at 400 V at 60 °C Rated value                       | kW  | 46   |
| — at 690 V at 60 °C Rated value                       | kW  | 79   |
| — at 690 V Rated value                                | kW  | 91   |
| • at AC-3   |     |      |
| — at 230 V Rated value                                | kW  | 18.5 |
| — at 400 V Rated value                                | kW  | 30   |
| — at 500 V Rated value                                | kW  | 37   |
| — at 690 V Rated value                                | kW  | 37   |
| Operating power for ≥ 200000 operating cycles at AC-4 |     |      |
| • at 400 V Rated value                                | kW  | 14.7 |
| • at 690 V Rated value                                | kW  | 20   |
| Operating frequency                                   |     |      |
| • at AC-3 maximum                                     | 1/h | 700  |
|   |     |      |

| Control circuit/ Control:                     |   |       |  |
|---|---|-------|--|
| Type of voltage of the control supply voltage |   | AC/DC |  |
| Control supply voltage with AC                |   |       |  |
| • at 50 Hz Rated value                        | V | 48 80 |  |
| • at 60 Hz Rated value                        | V | 48 80 |  |
| Control supply voltage for DC                 |   |       |  |
| Rated value                                   | V | 48 80 |  |

|  | _ |   |
|--|---|---|
| Operating range factor control supply voltage rated value of the magnet coil with AC |   |   |
| • at 50 Hz   |   | 0.8 1.1   |
| • at 60 Hz   |   | 0.8 1.1   |
| Operating range factor control supply voltage rated                                  |   | 0.8 1.1   |
| value of the magnet coil for DC  |   |   |
| Design of the surge suppressor   |   | with varistor                                   |
| Closing power of the magnet coil for DC  | W | 23  |
| Holding power of the magnet coil for DC  | W | 1   |
| Auxiliary circuit:   |   |   |
| Number of NC contacts  |   |   |
| for auxiliary contacts   |   |   |
| — instantaneous contact  |   | 2   |
| Number of NO contacts  |   |   |
| for auxiliary contacts   |   |   |
| <ul><li>instantaneous contact</li></ul>  |   | 2   |
| Product expansion Auxiliary switch   |   | No  |
| Operating current at AC-15   |   |   |
| ● at 230 V Rated value   | Α | 6   |
| ● at 400 V Rated value   | Α | 3   |
| ● at 690 V Rated value   | Α | 1   |
| Operating current  |   |   |
| • at DC-12 at 125 V Rated value  | Α | 2   |
| • at DC-12 at 220 V Rated value  | Α | 1   |
| • at DC-12 at 600 V Rated value  | Α | 0.15  |
| ● at DC-13 at 125 V Rated value  | Α | 0.9   |
| • at DC-13 at 220 V Rated value  | Α | 0.3   |
| • at DC-13 at 600 V Rated value  | Α | 0.1   |
| Operating current  |   |   |
| ● at DC-12   |   |   |
| — at 60 V Rated value  | Α | 6   |
| — at 110 V Rated value   | Α | 3   |
| • at DC-13   |   |   |
| — at 24 V Rated value  | Α | 6   |
| — at 60 V Rated value  | Α | 2   |
| — at 110 V Rated value   | Α | 1   |
| Contact reliability of the auxiliary contacts  |   | 1 faulty switching per 100 million (17 V, 1 mA) |
| UL/CSA ratings:  |   |   |
| Full-load current (FLA) for three-phase AC motor                                     |   |   |
| ● at 480 V Rated value   | Α | 65  |
|  |   |   |

• at 600 V Rated value

52

Α

| yielded mechanical performance [hp]                                    |              |             |
|--|--------------|-------------|
| <ul> <li>for single-phase AC motor at 110/120 V Rated value</li> </ul> | metric<br>hp | 5           |
| <ul> <li>for single-phase AC motor at 230 V Rated value</li> </ul>     | metric<br>hp | 10          |
| <ul> <li>for three-phase AC motor at 200/208 V Rated value</li> </ul>  | metric<br>hp | 20          |
| <ul> <li>for three-phase AC motor at 220/230 V Rated value</li> </ul>  | metric<br>hp | 20          |
| • for three-phase AC motor at 460/480 V Rated value                    | metric<br>hp | 50          |
| • for three-phase AC motor at 575/600 V Rated value                    | metric<br>hp | 50          |
| Contact rating of the auxiliary contacts acc. to UL                    |              | A600 / Q600 |

| Short-circuit:   |   |
|--|---|
| Design of the fuse link  |   |
| <ul> <li>for short-circuit protection of the main circuit</li> </ul> |   |
| <ul> <li>— with type of assignment 1 required</li> </ul>             | gL/gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 250 A |
| — with type of assignment 2 required                                 | gL/gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 125 A |
| • for short-circuit protection of the auxiliary switch               | fuse gL/gG: 10 A                            |
| required   |   |

| nstallation/ mounting/ dimensions:           |    |  |
|--|----|--|
| mounting position                            |    | +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface |
| Mounting type                                |    | screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022   |
| <ul> <li>Side-by-side mounting</li> </ul>    |    | Yes  |
| Height                                       | mm | 113.4  |
| Width  | mm | 55   |
| Depth  | mm | 173.5  |
| Required spacing                             |    |  |
| <ul><li>with side-by-side mounting</li></ul> |    |  |
| — forwards                                   | mm | 0  |
| — Backwards                                  | mm | 0  |
| — upwards                                    | mm | 0  |
| — downwards                                  | mm | 0  |
| — at the side                                | mm | 0  |
| • for grounded parts                         |    |  |
| — forwards                                   | mm | 0  |
| — Backwards                                  | mm | 0  |
| — upwards                                    | mm | 50   |
| — at the side                                | mm | 6  |

| — downwards   | mm  | 50                                  |
|---|-----|-------------------------------------|
| • for live parts  |     |                                     |
| — forwards  | mm  | 0                                   |
| — Backwards   | mm  | 0                                   |
| — upwards   | mm  | 50                                  |
| — downwards   | mm  | 50                                  |
| — at the side   | mm  | 6                                   |
| Connections/ Terminals:                                       |     |                                     |
| Type of electrical connection                                 |     |                                     |
| • for main current circuit                                    |     | screw-type terminals                |
| <ul> <li>for auxiliary and control current circuit</li> </ul> |     | screw-type terminals                |
| Type of connectable conductor cross-section                   |     |                                     |
| • for main contacts   |     |                                     |
| <ul> <li>— single or multi-stranded</li> </ul>                |     | 2x (1 35 mm²), 1x (1 50 mm²)        |
| <ul> <li>finely stranded with core end processing</li> </ul>  |     | 2x (1 25 mm²), 1x (1 35 mm²)        |
| <ul> <li>for AWG conductors for main contacts</li> </ul>      |     | 2x (18 2), 1x (18 1)                |
| • for auxiliary contacts                                      |     |                                     |
| <ul> <li>— single or multi-stranded</li> </ul>                |     | 2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²) |
| <ul> <li>finely stranded with core end processing</li> </ul>  |     | 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) |
| <ul> <li>for AWG conductors for auxiliary contacts</li> </ul> |     | 2x (20 16), 2x (18 14)              |
| Apparent pick-up power of the magnet coil with AC             |     |                                     |
| ● at 50 Hz  | V·A | 40                                  |
| ● at 60 Hz  | V·A | 40                                  |
| Safety related data:  |     |                                     |
| Proportion of dangerous failures                              |     |                                     |
| <ul> <li>with low demand rate acc. to SN 31920</li> </ul>     | %   | 40                                  |
| <ul> <li>with high demand rate acc. to SN 31920</li> </ul>    | %   | 73                                  |
| Product function Mirror contact acc. to IEC 60947-4-1         |     | Yes                                 |

| Safety related data:                                      |   |  |
|---|---|--|
| Proportion of dangerous failures                          |   |  |
| <ul> <li>with low demand rate acc. to SN 31920</li> </ul> | % | 40   |
| • with high demand rate acc. to SN 31920                  | % | 73   |
| Product function Mirror contact acc. to IEC 60947-4-1     |   | Yes  |
| Protection against electrical shock                       |   | finger-safe when touched vertically from front acc. to IEC 60529 |
| Mechanical data:  |   |  |

| Size of contactor                               |    | S2              |
|---|----|-----------------|
| Ambient conditions:                             |    |                 |
| Installation altitude at height above sea level | m  | 2 000           |
| maximum   |    |                 |
| Ambient temperature                             |    |                 |
| during operation                                | °C | -25 <b>+</b> 60 |

°C

## Certificates/ approvals:

• during storage

-55 ... +80

## **General Product Approval**

other







Confirmation

Environmental Confirmations

## Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

http://www.siemens.com/industrial-controls/catalogs

Industry Mall (Online ordering system)

http://www.siemens.com/industrymall

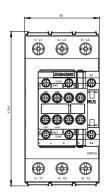
Cax online generator

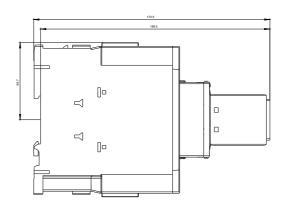
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT20371NE34

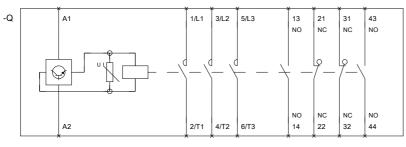
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

http://support.automation.siemens.com/WW/view/en/3RT20371NE34/all

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) <a href="http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT20371NE34&lang=en">http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT20371NE34&lang=en</a>







last modified: 11.03.2015