# **SIEMENS**

Data sheet 3RT1456-6NB36

CONTACTOR, 275A/AC-1



Figure similar

| product brand name  | SIRIUS          |
|---------------------|-----------------|
| Product designation | power contactor |

| General technical data:  |    |            |  |
|--|----|------------|--|
| Insulation voltage   |    |            |  |
| Rated value  | V  | 1 000      |  |
| Degree of pollution  |    | 3          |  |
| Surge voltage resistance Rated value   | kV | 8          |  |
| 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  | 1 480      |  |
| Protection class IP  |    |            |  |
| • on the front   |    | IP00       |  |
| <ul><li>of the terminal</li></ul>  |    | 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 current                        |   |

| • at AC-1   |    |     |
|---|----|-----|
| — at 400 V at ambient temperature 40 °C   | Α  | 275 |
| Rated value   | ^  | 275 |
| <ul> <li>up to 690 V at ambient temperature 40 °C</li> <li>Rated value</li> </ul> | Α  | 275 |
| — up to 690 V at ambient temperature 60 °C  | Α  | 250 |
| Rated value   |    |     |
| • at AC-3   |    |     |
| — at 400 V Rated value  | Α  | 97  |
| — at 690 V Rated value  | Α  | 97  |
| Operating current with 1 current path   |    |     |
| • at DC-1   |    |     |
| — at 24 V Rated value   | Α  | 250 |
| — at 110 V Rated value  | Α  | 18  |
| • at DC-3 at DC-5   |    |     |
| — at 24 V Rated value   | Α  | 250 |
| — at 110 V Rated value  | Α  | 2.5 |
| Operating current with 2 current paths in series                                  |    |     |
| • at DC-1   |    |     |
| — at 24 V Rated value   | Α  | 250 |
| — at 110 V Rated value  | Α  | 250 |
| • at DC-3 at DC-5   |    |     |
| — at 110 V Rated value  | Α  | 250 |
| — at 24 V Rated value   | Α  | 250 |
| Operating current with 3 current paths in series                                  |    |     |
| • at DC-1   |    |     |
| — at 24 V Rated value   | Α  | 250 |
| — at 110 V Rated value  | Α  | 250 |
| • at DC-3 at DC-5   |    |     |
| — at 110 V Rated value  | Α  | 250 |
| — at 24 V Rated value   | Α  | 250 |
| Operating power   |    |     |
| • at AC-1 at 400 V Rated value  | kW | 165 |
| • at AC-2 at 400 V Rated value  | kW | 55  |
| Operating power   |    |     |
| • at AC-1   |    |     |
| — at 230 V at 60 °C Rated value   | kW | 95  |
| — at 690 V at 60 °C Rated value   | kW | 285 |
| — at 690 V Rated value  | kW | 285 |
| • at AC-3   |    |     |
| — at 230 V Rated value  | kW | 30  |
| — at 400 V Rated value  | kW | 55  |
|   |    |     |

| — at 500 V Rated value | kW | 55 |
|------------------------|----|----|
| — at 690 V Rated value | kW | 90 |

| Control circuit/ Control:  |     |               |
|--|-----|---------------|
| Type of voltage of the control supply voltage  |     | AC/DC         |
| Control supply voltage with AC   |     |               |
| • at 50 Hz Rated value   | V   | 21 27.3       |
| • at 60 Hz Rated value   | V   | 21 27.3       |
| Control supply voltage for DC  |     |               |
| Rated value  | V   | 21 27.3       |
| Rated value  | Hz  | 40            |
| Control supply voltage frequency 2 Rated value                                       | Hz  | 60            |
| 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 value of the magnet coil for DC  |     | 0.8 1.1       |
| Design of the surge suppressor   |     | with varistor |
| Apparent pick-up power of the magnet coil with AC                                    | V·A | 280           |
| Apparent holding power of the magnet coil with AC                                    | V·A | 7             |
| Closing power of the magnet coil for DC  | W   | 320           |
| Holding power of the magnet coil for DC  | W   | 2.8           |
| Inductive power factor   |     |               |
| <ul><li>with closing power of the coil</li></ul>                                     |     | 0.8           |
| <ul><li>with the holding power of the coil</li></ul>                                 |     | 0.4           |
| Auxiliary circuit:   |     |               |
| Number of NC contacts  |     |               |
| • for auxiliary contacts   |     |               |
| — instantaneous contact  |     | 2             |
| Number of NO contacts  |     |               |
| • for auxiliary contacts   |     |               |
| — instantaneous contact  |     | 2             |
| Operating current at AC-15   |     |               |
| • at 230 V Rated value   | Α   | 6             |
| ● at 400 V Rated value   | Α   | 3             |
| Operating current  |     |               |
| • at DC-12 at 220 V Rated value  | Α   | 1             |
| • at DC-13 at 220 V Rated value  | Α   | 0.3           |
| Operating current  |     |               |

• at DC-12

- at 60 V Rated value

- at 110 V Rated value

6

3

Α

| • at DC-13   |     |   |
|--|-----|---|
| — at 24 V Rated value  | Α   | 10  |
| — at 60 V Rated value  | Α   | 2   |
| — at 110 V Rated value   | Α   | 1   |
| — at 110 v Nateu value   | , , | · ·   |
| UL/CSA ratings:  |     |   |
| 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>             |     | fuse gL/gG: 355 A   |
| <ul> <li>— with type of assignment 2 required</li> </ul>             |     | fuse gL/gG: 350 A   |
| • for short-circuit protection of the auxiliary switch               |     | fuse gL/gG: 10 A  |
| required   |     |   |
| Installation/ mounting/ dimensions:                                  |     |   |
| Mounting type  |     | screw fixing  |
| Side-by-side mounting  |     | Yes   |
| Height   | mm  | 172   |
| Width  | mm  | 120   |
| Depth  | mm  | 170   |
| Required spacing   |     |   |
| • for grounded parts   |     |   |
| — at the side  | mm  | 10  |
| 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                          |     |   |
| <ul> <li>for AWG conductors for main contacts</li> </ul>             |     | 4 250 kcmil   |
| • for auxiliary contacts   |     |   |
| — solid  |     | 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), max. 2x (0.75 4 mm²) |
| <ul> <li>finely stranded with core end processing</li> </ul>         |     | 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)                       |
| • for AWG conductors for auxiliary contacts                          |     | 2x (20 16), 2x (18 14), 1x 12                             |
| Mechanical data:   |     |   |
| Size of contactor  |     | \$6   |
|  |     |   |
| Ambient conditions:  | m   | 2,000   |
| Installation altitude at height above sea level maximum              | m   | 2 000   |
| Ambient temperature  |     |   |
| during operation   | °C  | -25 +55   |
|  |     |   |

°C -55 ... +80 • during storage

## Certificates/ approvals:

| General Product Approval | Functional    | Declaration of | Test         |  |
|--------------------------|---------------|----------------|--------------|--|
|                          | Safety/Safety | Conformity     | Certificates |  |
|                          | of Machinery  |                |              |  |







Type Examination



other

**Special Test** Certificate

## **Shipping Approval**







GL



Environmental Confirmations

other

#### other

Confirmation

# Further information

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

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

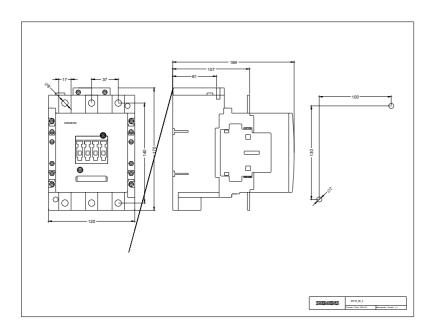
Industry Mall (Online ordering system) http://www.siemens.com/industrymall

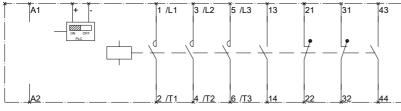
#### Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT14566NB36

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3RT14566NB36/all

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT14566NB36&lang=en





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