SIEMENS

## Data sheet 3RT1476-2AP36

power contactor AC-1 690 A / 690 V / 40 °C 3-pole, Uc: 220-240 V AC(50-60 Hz) / DC drive: conventional auxiliary contacts 2 NO + 2 NC main circuit: busbar control and auxiliary circuit: spring-loaded terminal

| | |
|---|---|
| **product brand name** | SIRIUS |
| **product designation** | Contactor |
| **product type designation** | 3RT14 |
| **General technical data** | |
| **size of contactor** | S12 |
| **product extension** | |
| ● function module for communication | No |
| ● auxiliary switch | Yes |
| **power loss [W] for rated value of the current** | |
| ● at AC in hot operating state | 185.7 W |
| ● at AC in hot operating state per pole | 61.9 W |
| ● without load current share typical | 10 W |
| **type of calculation of power loss depending on pole** | quadratic |
| **insulation voltage** | |
| ● of main circuit with degree of pollution 3 rated value | 1 000 V |
| ● of auxiliary circuit with degree of pollution 3 rated value | 500 V |
| **surge voltage resistance** | |
| ● of main circuit rated value | 8 kV |
| ● of auxiliary circuit rated value | 6 kV |
| **shock resistance at rectangular impulse** | |
| ● at AC | 8,5g / 5 ms, 4,2g / 10 ms |
| ● at DC | 8,5g / 5 ms, 4,2g / 10 ms |
| **shock resistance with sine pulse** | |
| ● at AC | 13,4g / 5 ms, 6,5g / 10 ms |
| ● at DC | 13,4g / 5 ms, 6,5g / 10 ms |
| **mechanical service life (operating cycles)** | |
| ● of contactor typical | 10 000 000 |
| ● of the contactor with added electronically optimized auxiliary switch block typical | 5 000 000 |
| ● of the contactor with added auxiliary switch block typical | 10 000 000 |
| **reference code according to IEC 81346-2** | Q |
| **Substance Prohibitance (Date)** | 05/01/2012 |
| **SVHC substance name** | Lead - 7439-92-1 |
| **Weight** | 10.346 kg |
| **Ambient conditions** | |
| installation altitude at height above sea level maximum | 2 000 m |
| **ambient temperature** | |
| ● during operation | -25 ... +60 °C |
| ● during storage | -55 ... +80 °C |
| **relative humidity minimum** | 10 % |

| | |
|---|---|
| **relative humidity at 55 °C according to IEC 60068-2-30 maximum** | 95 % |
| **Main circuit** | |
| **number of poles for main current circuit** | 3 |
| **number of NO contacts for main contacts** | 3 |
| **number of NC contacts for main contacts** | 0 |
| **type of voltage for main current circuit** | AC |
| **operational current** | |
| ● at AC-1 | |
| — up to 690 V at ambient temperature 40 °C rated value | 690 A |
| — up to 690 V at ambient temperature 55 °C rated value | 650 A |
| — up to 690 V at ambient temperature 60 °C rated value | 650 A |
| ● at AC-3 | |
| — at 400 V rated value | 170 A |
| — at 690 V rated value | 170 A |
| minimum cross-section in main circuit at maximum AC-1 rated value | 480 mm² |
| **operational current** | |
| **● at 1 current path at DC-1** | |
| — at 24 V rated value | 500 A |
| — at 60 V rated value | 500 A |
| — at 110 V rated value | 33 A |
| — at 220 V rated value | 3.8 A |
| — at 440 V rated value | 0.9 A |
| — at 600 V rated value | 0.6 A |
| **● with 2 current paths in series at DC-1** | |
| — at 24 V rated value | 500 A |
| — at 60 V rated value | 500 A |
| — at 110 V rated value | 500 A |
| — at 220 V rated value | 500 A |
| — at 440 V rated value | 4 A |
| — at 600 V rated value | 2 A |
| **● with 3 current paths in series at DC-1** | |
| — at 24 V rated value | 500 A |
| — at 60 V rated value | 500 A |
| — at 110 V rated value | 500 A |
| — at 220 V rated value | 500 A |
| — at 440 V rated value | 11 A |
| — at 600 V rated value | 5.2 A |
| **● at 1 current path at DC-3 at DC-5** | |
| — at 24 V rated value | 500 A |
| — at 60 V rated value | 11 A |
| — at 110 V rated value | 3 A |
| — at 220 V rated value | 0.6 A |
| — at 440 V rated value | 0.18 A |
| — at 600 V rated value | 0.125 A |
| **● with 2 current paths in series at DC-3 at DC-5** | |
| — at 24 V rated value | 500 A |
| — at 60 V rated value | 500 A |
| — at 110 V rated value | 500 A |
| — at 220 V rated value | 2.5 A |
| — at 440 V rated value | 0.65 A |
| — at 600 V rated value | 0.37 A |
| **● with 3 current paths in series at DC-3 at DC-5** | |
| — at 24 V rated value | 500 A |
| — at 60 V rated value | 500 A |
| — at 110 V rated value | 500 A |
| — at 220 V rated value | 500 A |
| — at 440 V rated value | 1.4 A |

| | |
|---|---|
| — at 600 V rated value | 0.75 A |
| **no-load switching frequency** | |
| ● at AC | 2 000 1/h |
| ● at DC | 2 000 1/h |
| operating frequency at AC-1 maximum | 600 1/h |
| **Control circuit/ Control** | |
| **type of voltage** | AC/DC |
| **type of voltage of the control supply voltage** | AC/DC |
| **control supply voltage at AC** | |
| ● at 50 Hz rated value | 220 ... 240 V |
| ● at 60 Hz rated value | 220 ... 240 V |
| **control supply voltage at DC rated value** | 220 ... 240 V |
| **operating range factor control supply voltage rated value of magnet coil at DC** | |
| ● initial value | 0.8 |
| ● full-scale value | 1.1 |
| **operating range factor control supply voltage rated value of magnet coil at AC** | |
| ● at 50 Hz | 0.8 ... 1.1 |
| ● at 60 Hz | 0.8 ... 1.1 |
| **design of the surge suppressor** | with varistor |
| **apparent pick-up power** | |
| ● **at minimum rated control supply voltage at AC** | |
| — at 50 Hz | 700 VA |
| — at 60 Hz | 700 VA |
| ● **at maximum rated control supply voltage at AC** | |
| — at 60 Hz | 830 VA |
| — at 50 Hz | 830 VA |
| **apparent pick-up power of magnet coil at AC** | |
| ● at 50 Hz | 830 VA |
| **inductive power factor with closing power of the coil** | |
| ● at 50 Hz | 0.9 |
| **apparent holding power** | |
| ● at minimum rated control supply voltage at DC | 8.5 VA |
| ● at maximum rated control supply voltage at DC | 10 VA |
| **apparent holding power** | |
| ● **at minimum rated control supply voltage at AC** | |
| — at 50 Hz | 7.6 VA |
| — at 60 Hz | 7.6 VA |
| ● **at maximum rated control supply voltage at AC** | |
| — at 50 Hz | 9.2 VA |
| — at 60 Hz | 9.2 VA |
| **apparent holding power of magnet coil at AC** | |
| ● at 50 Hz | 9.2 VA |
| **inductive power factor with the holding power of the coil** | |
| ● at 50 Hz | 0.9 |
| **closing power of magnet coil at DC** | 920 W |
| **holding power of magnet coil at DC** | 10 W |
| **closing delay** | |
| ● at AC | 45 ... 100 ms |
| ● at DC | 45 ... 100 ms |
| **opening delay** | |
| ● at AC | 60 ... 100 ms |
| ● at DC | 60 ... 100 ms |
| **arcing time** | 10 ... 15 ms |
| **control version of the switch operating mechanism** | Standard A1 - A2 |
| **Auxiliary circuit** | |
| **number of NC contacts for auxiliary contacts** | 2 |
| ● attachable | 4 |
| ● instantaneous contact | 2 |
| **number of NO contacts for auxiliary contacts** | 2 |

| | |
|---|---|
| ● attachable | 4 |
| ● instantaneous contact | 2 |
| operational current at AC-12 maximum | 10 A |
| **operational current at AC-15** | |
| ● at 230 V rated value | 6 A |
| ● at 400 V rated value | 3 A |
| ● at 500 V rated value | 2 A |
| ● at 690 V rated value | 1 A |
| **operational current at DC-13** | |
| ● at 24 V rated value | 10 A |
| ● at 48 V rated value | 2 A |
| ● at 60 V rated value | 2 A |
| ● at 110 V rated value | 1 A |
| ● at 125 V rated value | 0.9 A |
| ● at 220 V rated value | 0.3 A |
| ● at 600 V rated value | 0.1 A |
| **contact reliability of auxiliary contacts** | 1 faulty switching per 100 million (17 V, 1 mA) |
| **Short-circuit protection** | |
| design of the miniature circuit breaker for short-circuit protection of the auxiliary circuit up to 230 V | C characteristic: 10 A; 0.4 kA |
| **design of the fuse link** | |
| ● for short-circuit protection of the main circuit | |
| — with type of coordination 1 required | gG: 800 A (690 V, 50 kA) |
| — with type of assignment 2 required | gR: 710 A (690 V, 100 kA) |
| ● for short-circuit protection of the auxiliary switch required | gG: 10 A (500 V, 1 kA) |
| **Installation/ mounting/ dimensions** | |
| **mounting position** | with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back |
| fastening method side-by-side mounting | Yes |
| **fastening method** | screw fixing |
| **height** | 214 mm |
| **width** | 160 mm |
| **depth** | 225 mm |
| **required spacing** | |
| ● with side-by-side mounting | |
| — forwards | 20 mm |
| — upwards | 10 mm |
| — downwards | 10 mm |
| — at the side | 0 mm |
| ● for grounded parts | |
| — forwards | 20 mm |
| — upwards | 10 mm |
| — at the side | 10 mm |
| — downwards | 10 mm |
| ● for live parts | |
| — forwards | 20 mm |
| — upwards | 10 mm |
| — downwards | 10 mm |
| — at the side | 10 mm |
| **Connections/ Terminals** | |
| **type of electrical connection** | |
| ● for main current circuit | Connection bar |
| ● for auxiliary and control circuit | spring-loaded terminals |
| ● at contactor for auxiliary contacts | Spring-type terminals |
| ● of magnet coil | Spring-type terminals |
| **connectable conductor cross-section for main contacts** | |
| ● solid or stranded | 70 ... 240 mm² |
| ● stranded | 70 ... 240 mm² |
| **connectable conductor cross-section for auxiliary contacts** | |
| ● solid or stranded | 0.25 ... 2.5 mm² |
| ● finely stranded with core end processing | 0.25 ... 1.5 mm² |

| | |
|---|---|
| • finely stranded without core end processing | 0.25 ... 2.5 mm² |
| **type of connectable conductor cross-sections** | |
| • for auxiliary contacts | |
| — solid | 2x (0.25 ... 2.5 mm²) |
| — solid or stranded | 2x (0,25 ... 2,5 mm²) |
| — finely stranded with core end processing | 2x (0.25 ... 1.5 mm²) |
| — finely stranded without core end processing | 2x (0.25 ... 2.5 mm²) |
| • for AWG cables for auxiliary contacts | 2x (24 ... 14) |
| **Safety related data** | |
| **product function** | |
| • mirror contact according to IEC 60947-4-1 | Yes |
| • positively driven operation according to IEC 60947-5-1 | No |
| suitability for use safety-related switching OFF | No |
| **service life maximum** | 20 a |
| Electrical Safety | |
| **protection class IP on the front according to IEC 60529** | IP00; IP20 with box terminal/cover |
| **touch protection on the front according to IEC 60529** | finger-safe, for vertical contact from the front with box terminal/cover |

**Approvals Certificates**

| General Product Approval | | | | | EMV |
|---|---|---|---|---|---|
| CCC | UKCA | CE EG-Konf. | UL | EAC | RCM |

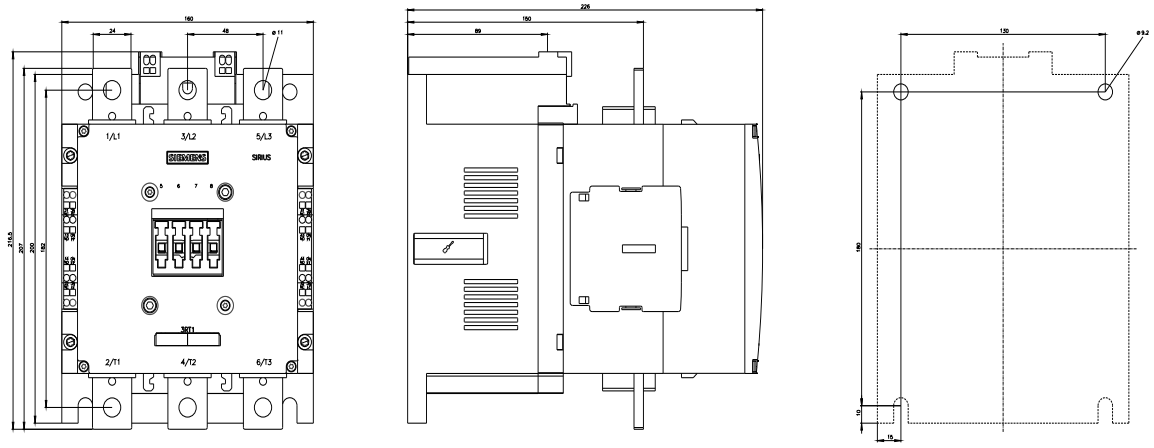
| Functional Saftey | Test Certificates | | Marine / Shipping | | |
|---|---|---|---|---|---|
| Type Examination Certificate | Type Test Certificates/Test Report | Special Test Certificate | ABS | DNV | LRS |

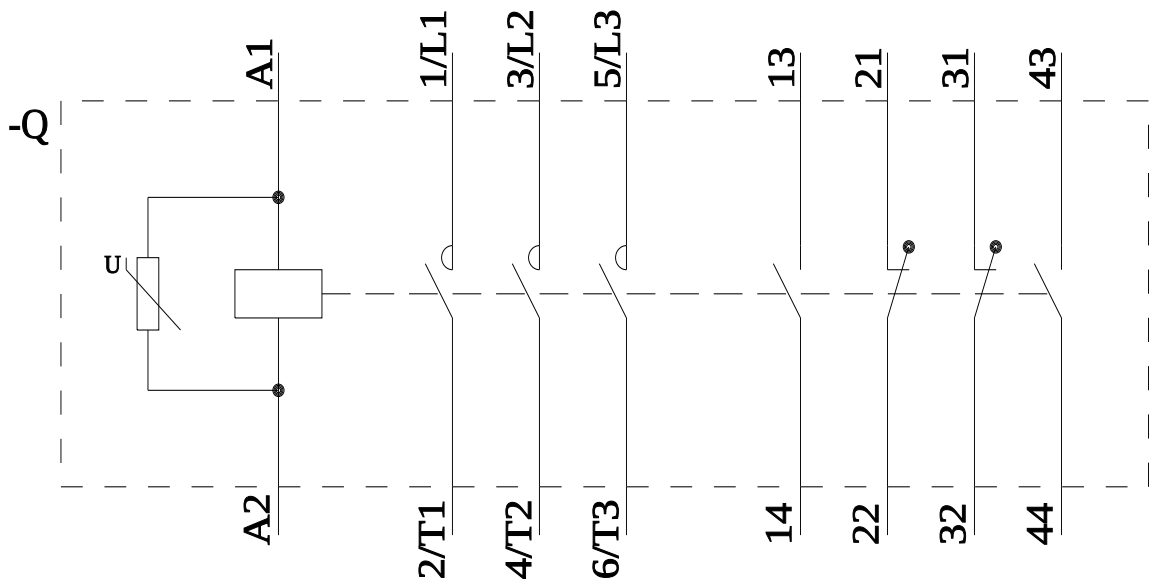
| Marine / Shipping | | other | | | Railway |
|---|---|---|---|---|---|
| PRS | RMRS | Confirmation | Miscellaneous | Confirmation | Special Test Certificate |

| Environment |
|---|
| Environmental Confirmations |

**Further information**

**Information on the packaging**
https://support.industry.siemens.com/cs/ww/en/view/109813875
**Information- and Downloadcenter (Catalogs, Brochures,…)**
https://www.siemens.com/ic10
**Industry Mall (Online ordering system)**
https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RT1476-2AP36
**Cax online generator**
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT1476-2AP36
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**
https://support.industry.siemens.com/cs/ww/en/ps/3RT1476-2AP36
**Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)**
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT1476-2AP36&lang=en
**Characteristic: Tripping characteristics, I²t, Let-through current**
https://support.industry.siemens.com/cs/ww/en/ps/3RT1476-2AP36/char
**Further characteristics (e.g. electrical endurance, switching frequency)**
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT1476-2AP36&objecttype=14&gridview=view1

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