



Vacuum contactor, AC-3 300 A, 160 kW / 400 V AC (50-60 Hz) / DC operation 575-600 V UC Auxiliary contacts 2 NO + 2 NC 3-pole, Size S10 Busbar connections Drive: conventional

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| product brand name | SIRIUS |
| product designation | Vacuum contactor |
| product type designation | 3RT12 |
| General technical data | |
| size of contactor | S10 |
| product extension | |
| <ul style="list-style-type: none"> function module for communication auxiliary switch | <p>No</p> <p>Yes</p> |
| power loss [W] for rated value of the current at AC in hot operating state | 42 W |
| <ul style="list-style-type: none"> per pole | 14 W |
| power loss [W] for rated value of the current without load current share typical | 8.2 W |
| surge voltage resistance | |
| <ul style="list-style-type: none"> of main circuit rated value of auxiliary circuit rated value | <p>8 kV</p> <p>6 kV</p> |
| maximum permissible voltage for safe isolation between coil and main contacts acc. to EN 60947-1 | 690 V |
| shock resistance at rectangular impulse | |
| <ul style="list-style-type: none"> at AC at DC | <p>8,5g / 5 ms, 4,2g / 10 ms</p> <p>8,5g / 5 ms, 4,2g / 10 ms</p> |
| shock resistance with sine pulse | |
| <ul style="list-style-type: none"> at AC at DC | <p>13,4g / 5 ms, 6,5g / 10 ms</p> <p>13,4g / 5 ms, 6,5g / 10 ms</p> |
| mechanical service life (switching cycles) | |
| <ul style="list-style-type: none"> of contactor typical of the contactor with added electronically optimized auxiliary switch block typical of the contactor with added auxiliary switch block typical | <p>10 000 000</p> <p>5 000 000</p> <p>10 000 000</p> |
| reference code acc. to IEC 81346-2 | Q |
| Substance Prohibition (Date) | 01.05.2012 00:00:00 |
| Ambient conditions | |
| installation altitude at height above sea level maximum | 2 000 m |
| <ul style="list-style-type: none"> ambient temperature during operation ambient temperature during storage | <p>-25 ... +60 °C</p> <p>-55 ... +80 °C</p> |
| Main circuit | |
| number of poles for main current circuit | 3 |

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| number of NO contacts for main contacts | 3 |
| <ul style="list-style-type: none"> operating voltage at AC-3 rated value maximum | 1 000 V |
| operational current | |
| <ul style="list-style-type: none"> at AC-1 at 400 V at ambient temperature 40 °C rated value | 330 A |
| <ul style="list-style-type: none"> at AC-1 <ul style="list-style-type: none"> — up to 690 V at ambient temperature 40 °C rated value — up to 690 V at ambient temperature 60 °C rated value — up to 1000 V at ambient temperature 40 °C rated value — up to 1000 V at ambient temperature 60 °C rated value | 330 A 300 A 330 A 300 A |
| <ul style="list-style-type: none"> at AC-3 <ul style="list-style-type: none"> — at 400 V rated value — at 500 V rated value — at 690 V rated value — at 1000 V rated value | 300 A 300 A 300 A 300 A |
| <ul style="list-style-type: none"> at AC-4 at 400 V rated value | 280 A |
| <ul style="list-style-type: none"> at AC-6a <ul style="list-style-type: none"> — up to 230 V for current peak value n=20 rated value — up to 400 V for current peak value n=20 rated value — up to 500 V for current peak value n=20 rated value — up to 690 V for current peak value n=20 rated value — up to 1000 V for current peak value n=20 rated value | 300 A 300 A 300 A 300 A 300 A |
| <ul style="list-style-type: none"> at AC-6a <ul style="list-style-type: none"> — up to 230 V for current peak value n=30 rated value — up to 400 V for current peak value n=30 rated value — up to 500 V for current peak value n=30 rated value — up to 690 V for current peak value n=30 rated value — up to 1000 V for current peak value n=30 rated value | 209 A 209 A 209 A 209 A 209 A |
| minimum cross-section in main circuit at maximum AC-1 rated value | 185 mm ² |
| operational current for approx. 200000 operating cycles at AC-4 | |
| <ul style="list-style-type: none"> at 400 V rated value at 690 V rated value | 140 A 98 A |
| operating power | |
| <ul style="list-style-type: none"> at AC-3 <ul style="list-style-type: none"> — at 230 V rated value — at 400 V rated value — at 500 V rated value — at 690 V rated value — at 1000 V rated value | 90 kW 160 kW 200 kW 250 kW 400 kW |
| operating power for approx. 200000 operating cycles at AC-4 | |
| <ul style="list-style-type: none"> at 400 V rated value at 690 V rated value | 79 kW 138 kW |
| operating apparent power at AC-6a | |
| <ul style="list-style-type: none"> up to 230 V for current peak value n=20 rated value up to 400 V for current peak value n=20 rated value | 120 000 kV·A 200 000 V·A |

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| <ul style="list-style-type: none"> • up to 500 V for current peak value n=20 rated value • up to 690 V for current peak value n=20 rated value • up to 1000 V for current peak value n=20 rated value | 260 000 V·A 350 000 V·A 520 000 V·A |
| operating apparent power at AC-6a <ul style="list-style-type: none"> • up to 230 V for current peak value n=30 rated value • up to 400 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 1000 V for current peak value n=30 rated value | 80 000 V·A 140 000 V·A 180 000 V·A 250 000 V·A 360 000 V·A |
| no-load switching frequency <ul style="list-style-type: none"> • at AC • at DC | 2 000 1/h 2 000 1/h |
| operating frequency <ul style="list-style-type: none"> • at AC-1 maximum • at AC-2 maximum • at AC-3 maximum • at AC-4 maximum | 750 1/h 250 1/h 750 1/h 250 1/h |
| Control circuit/ Control | |
| type of voltage of the control supply voltage | AC/DC |
| control supply voltage at AC <ul style="list-style-type: none"> • at 50 Hz rated value • at 60 Hz rated value | 575 ... 600 V 575 ... 600 V |
| control supply voltage at DC <ul style="list-style-type: none"> • rated value | 575 ... 600 V |
| operating range factor control supply voltage rated value of magnet coil at DC <ul style="list-style-type: none"> • initial value • full-scale value | 0.8 1.1 |
| operating range factor control supply voltage rated value of magnet coil at AC <ul style="list-style-type: none"> • at 50 Hz • at 60 Hz | 0.8 ... 1.1 0.8 ... 1.1 |
| design of the surge suppressor | with varistor |
| apparent pick-up power of magnet coil at AC <ul style="list-style-type: none"> • at 50 Hz | 590 V·A |
| inductive power factor with closing power of the coil <ul style="list-style-type: none"> • at 50 Hz | 0.9 |
| apparent holding power of magnet coil at AC <ul style="list-style-type: none"> • at 50 Hz | 6.1 V·A |
| inductive power factor with the holding power of the coil <ul style="list-style-type: none"> • at 50 Hz | 0.9 |
| closing power of magnet coil at DC | 700 W |
| holding power of magnet coil at DC | 8.2 W |
| closing delay <ul style="list-style-type: none"> • at AC • at DC | 30 ... 95 ms 30 ... 95 ms |
| opening delay <ul style="list-style-type: none"> • at AC • at DC | 40 ... 80 ms 40 ... 80 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 instantaneous contact | 2 |
| number of NO contacts for auxiliary contacts instantaneous contact | 2 |
| operational current at AC-12 maximum | 10 A |

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| operational current at AC-15 | |
| <ul style="list-style-type: none"> ● at 230 V rated value ● at 400 V rated value ● at 500 V rated value ● at 690 V rated value | <p>6 A 3 A 2 A 1 A</p> |
| operational current at DC-12 | |
| <ul style="list-style-type: none"> ● at 24 V rated value ● at 48 V rated value ● at 60 V rated value ● at 110 V rated value ● at 125 V rated value ● at 220 V rated value ● at 600 V rated value | <p>10 A 6 A 6 A 3 A 2 A 1 A 0.15 A</p> |
| operational current at DC-13 | |
| <ul style="list-style-type: none"> ● at 24 V rated value ● at 48 V rated value ● at 60 V rated value ● at 110 V rated value ● at 125 V rated value ● at 220 V rated value ● at 600 V rated value | <p>10 A 2 A 2 A 1 A 0.9 A 0.3 A 0.1 A</p> |
| contact reliability of auxiliary contacts | 1 faulty switching per 100 million (17 V, 1 mA) |
| UL/CSA ratings | |
| full-load current (FLA) for 3-phase AC motor | |
| <ul style="list-style-type: none"> ● at 480 V rated value ● at 600 V rated value | <p>302 A 289 A</p> |
| yielded mechanical performance [hp] | |
| <ul style="list-style-type: none"> ● for 3-phase AC motor <ul style="list-style-type: none"> — at 200/208 V rated value — at 220/230 V rated value — at 460/480 V rated value — at 575/600 V rated value | <p>100 hp 125 hp 250 hp 300 hp</p> |
| contact rating of auxiliary contacts according to UL | A600 / Q600 |
| Short-circuit protection | |
| design of the fuse link | |
| <ul style="list-style-type: none"> ● for short-circuit protection of the main circuit <ul style="list-style-type: none"> — with type of coordination 1 required — with type of assignment 2 required ● for short-circuit protection of the auxiliary switch required | <p>gG: 500 A (690 V, 100 kA) gG: 500 A (690 V, 100 kA), aM: 400 A (690 V, 50 kA), BS88: 450 A (415 V, 50 kA) gG: 10 A (500 V, 1 kA)</p> |
| Installation/ mounting/ dimensions | |
| mounting position | +/-22,5° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface; standing, on horizontal mounting surface |
| fastening method | screw fixing |
| <ul style="list-style-type: none"> ● side-by-side mounting | Yes |
| height | 210 mm |
| width | 145 mm |
| depth | 206 mm |
| required spacing | |
| <ul style="list-style-type: none"> ● with side-by-side mounting <ul style="list-style-type: none"> — forwards — upwards — downwards — at the side ● for grounded parts <ul style="list-style-type: none"> — forwards — upwards | <p>20 mm 10 mm 10 mm 0 mm 20 mm 10 mm</p> |

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| — 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

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| width of connection bar | 25 mm |
| thickness of connection bar | 6 mm |
| diameter of holes | 11 mm |
| number of holes | 1 |
| type of electrical connection | |
| <ul style="list-style-type: none"> • for main current circuit • for auxiliary and control circuit • at contactor for auxiliary contacts • of magnet coil | Connection bar screw-type terminals Screw-type terminals Screw-type terminals |
| type of connectable conductor cross-sections | |
| <ul style="list-style-type: none"> • at AWG cables for main contacts | 2/0 ... 500 kcmil |
| connectable conductor cross-section for main contacts | |
| <ul style="list-style-type: none"> • stranded | 70 ... 240 mm ² |
| connectable conductor cross-section for auxiliary contacts | |
| <ul style="list-style-type: none"> • solid or stranded • finely stranded with core end processing | 0.5 ... 4 mm ² 0.5 ... 2.5 mm ² |
| type of connectable conductor cross-sections | |
| <ul style="list-style-type: none"> • for auxiliary contacts <ul style="list-style-type: none"> — solid — solid or stranded — finely stranded with core end processing • at AWG cables for auxiliary contacts | 2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²), max. 2x (0.75 ... 4 mm ²) 2x (0,5 ... 1,5 mm ²), 2x (0,75 ... 2,5 mm ²), max. 2x (0,75 ... 4 mm ²) 2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²) 2x (20 ... 16), 2x (18 ... 14), 1x 12 |
| <ul style="list-style-type: none"> • AWG number as coded connectable conductor cross section for auxiliary contacts | 18 ... 14 |

Safety related data

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| product function | |
| <ul style="list-style-type: none"> • mirror contact acc. to IEC 60947-4-1 • positively driven operation acc. to IEC 60947-5-1 | Yes No |
| protection class IP on the front acc. to IEC 60529 | IP00; IP20 with box terminal/cover |
| touch protection on the front acc. to IEC 60529 | finger-safe, for vertical contact from the front with box terminal/cover |
| suitability for use safety-related switching OFF | Yes |

Certificates/ approvals

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|---------------------------------|------------|
| General Product Approval | EMC |
|---------------------------------|------------|



[KC](#)



Declaration of Conformity

Test Certificates

Marine / Shipping



EG-Konf.

[Miscellaneous](#)

[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



ABS



RMRS

[Confirmation](#)[Miscellaneous](#)[Confirmation](#)[Special Test Certificate](#)

Further information

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=3RT1266-6AT36>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT1266-6AT36>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT1266-6AT36>

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

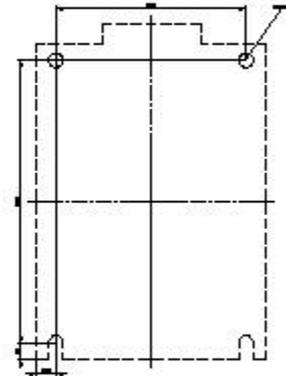
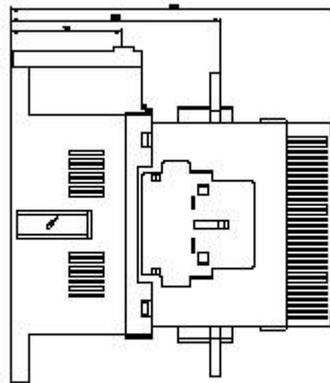
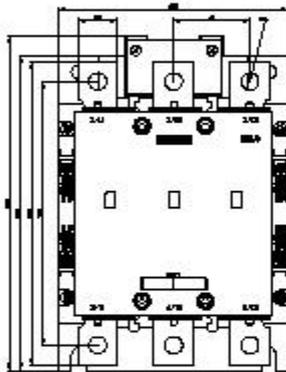
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT1266-6AT36&lang=en

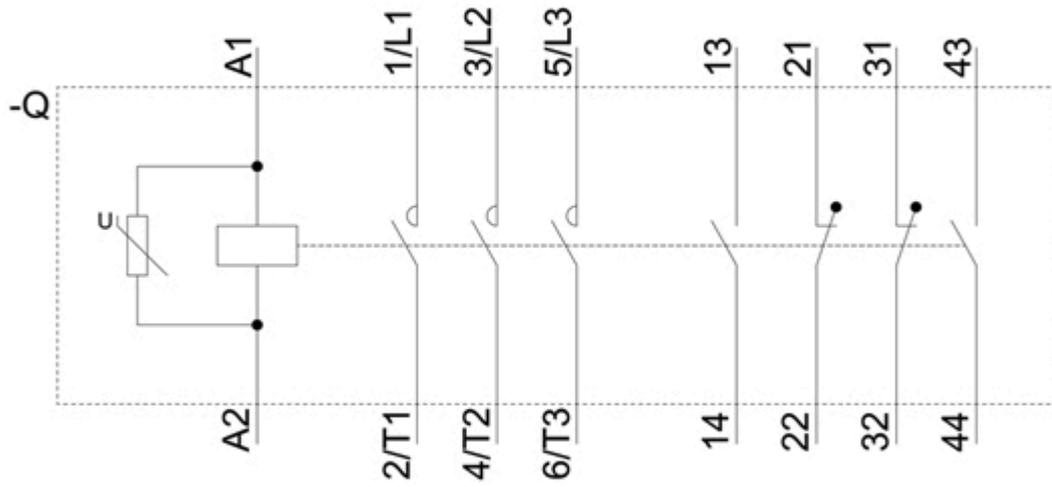
Characteristic: Tripping characteristics, I^t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RT1266-6AT36/char>

Further characteristics (e.g. electrical endurance, switching frequency)

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT1266-6AT36&objecttype=14&gridview=view1>





last modified:

12/18/2020 