

Power contactor, AC-3 40 A, 18.5 kW / 400 V 110 V AC, 50 Hz / 120 V, 60 Hz, 3-pole, Size S2, Screw terminal !!! Phased-out product !!!
 Successor is SIRIUS 3RT2 Preferred successor type is >>3RT2028-1AK60<<



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

| General technical data | |
|---|------------------------|
| Size of contactor | S2 |
| • Insulation voltage rated value | 690 V |
| Degree of pollution | 3 |
| Surge voltage resistance rated value | 6 kV |
| maximum permissible voltage for safe isolation | |
| • between coil and main contacts acc. to EN 60947-1 | 400 V |
| • protection class IP on the front | IP20 |
| • Protection class IP of the terminal | IP00 |
| Shock resistance at rectangular impulse | |
| • at AC | 10g / 5 ms, 5g / 10 ms |
| Shock resistance with sine pulse | |
| • at AC | 15g / 5 ms, 8g / 10 ms |
| Mechanical service life (switching cycles) | |
| • of contactor typical | 10 000 000 |

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|---|------------|
| <ul style="list-style-type: none"> • of the contactor with added electronics-compatible auxiliary switch block typical | 5 000 000 |
| <ul style="list-style-type: none"> • of the contactor with added auxiliary switch block typical | 10 000 000 |
| Reference code acc. to DIN EN 81346-2 | Q |

Ambient conditions

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| Installation altitude at height above sea level | |
| <ul style="list-style-type: none"> • maximum | 2 000 m |
| Ambient temperature | |
| <ul style="list-style-type: none"> • during operation | -25 ... +60 °C |
| <ul style="list-style-type: none"> • during storage | -55 ... +80 °C |

Main circuit

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|---|--|
| Number of poles for main current circuit | 3 |
| Number of NO contacts for main contacts | 3 |
| Number of NC contacts for main contacts | 0 |
| Operating current | |
| <ul style="list-style-type: none"> • at AC-1 at 400 V <ul style="list-style-type: none"> — at ambient temperature 40 °C rated value | 60 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 | 60 A 55 A |
| <ul style="list-style-type: none"> • at AC-3 <ul style="list-style-type: none"> — at 400 V rated value — at 690 V rated value | 40 A 24 A |
| <ul style="list-style-type: none"> • at AC-4 at 400 V rated value | 35 A |
| Connectable conductor cross-section in main circuit at AC-1 | |
| <ul style="list-style-type: none"> • at 60 °C minimum permissible • at 40 °C minimum permissible | 16 mm ² 16 mm ² |
| Operating 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 | 18.5 A 12.6 A |
| Operating current | |
| <ul style="list-style-type: none"> • at 1 current path at DC-1 <ul style="list-style-type: none"> — at 24 V rated value — at 110 V rated value • with 2 current paths in series at DC-1 <ul style="list-style-type: none"> — at 24 V rated value — at 110 V rated value | 55 A 4.5 A 55 A 25 A |

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| <ul style="list-style-type: none"> • with 3 current paths in series at DC-1 <ul style="list-style-type: none"> — at 24 V rated value — at 110 V rated value | <p>55 A</p> <p>55 A</p> |
| Operating current | |
| <ul style="list-style-type: none"> • at 1 current path at DC-3 at DC-5 <ul style="list-style-type: none"> — at 24 V rated value — at 110 V rated value • with 2 current paths in series at DC-3 at DC-5 <ul style="list-style-type: none"> — at 24 V rated value — at 110 V rated value • with 3 current paths in series at DC-3 at DC-5 <ul style="list-style-type: none"> — at 24 V rated value — at 110 V rated value | <p>35 A</p> <p>2.5 A</p> <p>55 A</p> <p>25 A</p> <p>55 A</p> <p>55 A</p> |
| Operating power | |
| <ul style="list-style-type: none"> • at AC-1 <ul style="list-style-type: none"> — at 230 V at 60 °C rated value — at 400 V rated value — at 690 V rated value — at 690 V at 60 °C rated value • at AC-2 at 400 V rated value • 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 | <p>22 kW</p> <p>38 kW</p> <p>66 kW</p> <p>66 kW</p> <p>18.5 kW</p> <p>11 kW</p> <p>18.5 kW</p> <p>22 kW</p> <p>22 kW</p> |
| 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 | <p>9.5 kW</p> <p>11.4 kW</p> |
| Thermal short-time current limited to 10 s | 400 A |
| No-load switching frequency | |
| <ul style="list-style-type: none"> • at AC | 5 000 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 | <p>1 200 1/h</p> <p>600 1/h</p> <p>1 000 1/h</p> <p>300 1/h</p> |
| Control circuit/ Control | |
| Type of voltage of the control supply voltage | AC |
| Control supply voltage at AC | |
| <ul style="list-style-type: none"> • at 50 Hz rated value | 110 V |

| | |
|---|--------------|
| <ul style="list-style-type: none"> • at 60 Hz rated value | 120 V |
| control supply voltage frequency | |
| <ul style="list-style-type: none"> • 1 rated value | 50 Hz |
| <ul style="list-style-type: none"> • 2 rated value | 60 Hz |
| Operating range factor control supply voltage rated value of magnet coil at AC | |
| <ul style="list-style-type: none"> • at 50 Hz | 0.8 ... 1.1 |
| <ul style="list-style-type: none"> • at 60 Hz | 0.8 ... 1.1 |
| Apparent pick-up power of magnet coil at AC | 166 V·A |
| Inductive power factor with closing power of the coil | 0.71 |
| Apparent holding power of magnet coil at AC | 12.6 V·A |
| Inductive power factor with the holding power of the coil | 0.37 |
| Closing delay | |
| <ul style="list-style-type: none"> • at AC | 10 ... 24 ms |
| Opening delay | |
| <ul style="list-style-type: none"> • at AC | 7 ... 20 ms |
| Arcing time | 10 ... 15 ms |

Auxiliary circuit

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|---|---|
| Number of NC contacts for auxiliary contacts | |
| <ul style="list-style-type: none"> • instantaneous contact | 0 |
| Number of NO contacts for auxiliary contacts | |
| <ul style="list-style-type: none"> • instantaneous contact | 0 |
| Operating current at AC-12 maximum | 10 A |
| Operating current at AC-15 | |
| <ul style="list-style-type: none"> • at 230 V rated value | 6 A |
| <ul style="list-style-type: none"> • at 400 V rated value | 3 A |
| Operating current at DC-12 | |
| <ul style="list-style-type: none"> • at 60 V rated value | 6 A |
| <ul style="list-style-type: none"> • at 110 V rated value | 3 A |
| <ul style="list-style-type: none"> • at 220 V rated value | 1 A |
| Operating current at DC-13 | |
| <ul style="list-style-type: none"> • at 24 V rated value | 10 A |
| <ul style="list-style-type: none"> • at 60 V rated value | 2 A |
| <ul style="list-style-type: none"> • at 110 V rated value | 1 A |
| <ul style="list-style-type: none"> • at 220 V rated value | 0.3 A |
| contact reliability of auxiliary contacts | 1 faulty switching per 100 million (17 V, 1 mA) |

UL/CSA ratings

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|---|-------------|
| Contact rating of auxiliary contacts according to UL | A600 / Q600 |
|---|-------------|

Short-circuit protection

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| Design of the fuse link | |
|--------------------------------|--|

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

fuse gL/gG: 125 A
 fuse gL/gG: 63 A
 fuse gL/gG: 10 A

Installation/ mounting/ dimensions

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|---|--|
| Mounting type | screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022 |
| <ul style="list-style-type: none"> • Side-by-side mounting | Yes |
| Height | 112 mm |
| Width | 55 mm |
| Depth | 115 mm |
| Required spacing | |
| <ul style="list-style-type: none"> • for grounded parts <ul style="list-style-type: none"> — at the side | 6 mm |

Connections/ Terminals

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|--|--|
| <ul style="list-style-type: none"> • Type of electrical connection for main current circuit | screw-type terminals |
| <ul style="list-style-type: none"> • Type of electrical connection for auxiliary and control current circuit | screw-type terminals |
| Type of connectable conductor cross-sections | |
| <ul style="list-style-type: none"> • for main contacts <ul style="list-style-type: none"> — solid — stranded — single or multi-stranded — finely stranded with core end processing — finely stranded without core end processing • at AWG conductors for main contacts | 2x (0.75 ... 16 mm ²) 2x (0.75 ... 25 mm ²) 2x (0,75 ... 16 mm ²) 2x (0.75 ... 16 mm ²) 2x (0.75 ... 16 mm ²) 2x (18 ... 2) |
| Type of connectable conductor cross-sections | |
| <ul style="list-style-type: none"> • for auxiliary contacts <ul style="list-style-type: none"> — solid — finely stranded with core end processing • at AWG conductors 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) 2x (20 ... 16), 2x (18 ... 14), 1x 12 |

Certificates/ approvals

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|--------------------------|-----|---------------------------------------|
| General Product Approval | EMC | Functional Safety/Safety of Machinery |
|--------------------------|-----|---------------------------------------|



[Type Examination Certificate](#)

| | | |
|---------------------------|-------------------|-------------------|
| Declaration of Conformity | Test Certificates | Marine / Shipping |
|---------------------------|-------------------|-------------------|



[Miscellaneous](#)

[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)

[Miscellaneous](#)



| | |
|-------------------|-------|
| Marine / Shipping | other |
|-------------------|-------|



[Miscellaneous](#)

[Confirmation](#)

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| Railway |
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[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=3RT1035-1AK60>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT1035-1AK60>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT1035-1AK60>

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

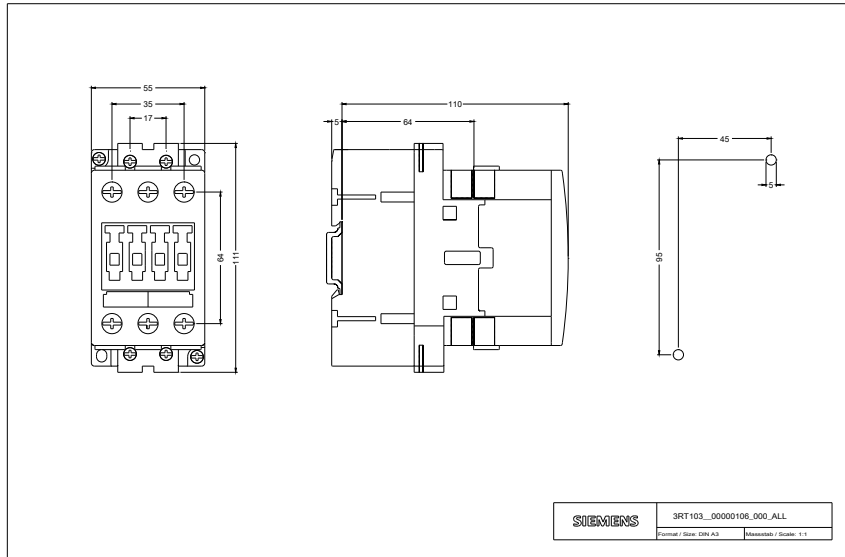
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT1035-1AK60&lang=en

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT1035-1AK60/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT1035-1AK60&objecttype=14&gridview=view1>





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