

Power contactor, AC-3 40 A, 18.5 kW / 400 V 42 V AC, 50/60 Hz 4-pole, 2 NO + 2 NC, Size S2 Screw terminal !!! Phased-out product !!! Successor is SIRIUS 3RT2



product brand name	SIRIUS
Product designation	power contactor

General technical data

Size of contactor	S2
<ul style="list-style-type: none"> Insulation voltage of main circuit with degree of pollution 3 rated value 	690 V
<ul style="list-style-type: none"> Insulation voltage of auxiliary circuit with degree of pollution 3 rated value 	690 V
Surge voltage resistance	
<ul style="list-style-type: none"> of main circuit rated value 	6 kV
<ul style="list-style-type: none"> of auxiliary circuit rated value 	6 kV
<ul style="list-style-type: none"> protection class IP on the front 	IP20
<ul style="list-style-type: none"> Protection class IP of the terminal 	IP00
Mechanical service life (switching cycles)	
<ul style="list-style-type: none"> of contactor typical 	10 000 000
<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	
Installation altitude at height above sea level	
• maximum	2 000 m
Ambient temperature	
• during operation	-25 ... +60 °C
• during storage	-55 ... +80 °C
Main circuit	
Number of poles for main current circuit	4
Number of NO contacts for main contacts	2
Number of NC contacts for main contacts	2
Operating current	
• at AC-1	
— up to 690 V at ambient temperature 40 °C rated value	60 A
— up to 690 V at ambient temperature 60 °C rated value	55 A
• at AC-2 at AC-3 at 400 V	
— per NO contact rated value	40 A
— per NC contact rated value	40 A
Minimum cross-section in main circuit	
• at maximum AC-1 rated value	16 mm ²
Operating current	
• at 1 current path at DC-1	
— at 24 V rated value	50 A
— at 110 V rated value	4.5 A
— at 220 V rated value	1 A
— at 440 V rated value	0.4 A
• with 2 current paths in series at DC-1	
— at 24 V rated value	50 A
— at 110 V rated value	45 A
— at 220 V rated value	5 A
— at 440 V rated value	1 A
Operating current	
• at 1 current path at DC-3 at DC-5	
— at 24 V per NC contact rated value	35 A
— at 24 V per NO contact rated value	35 A
— at 110 V per NC contact rated value	1.25 A
— at 110 V per NO contact rated value	2.5 A
— at 220 V per NC contact rated value	0.5 A
— at 220 V per NO contact rated value	1 A

— at 440 V per NC contact rated value	0.05 A
— at 440 V per NO contact rated value	0.1 A
• with 2 current paths in series at DC-3 at DC-5	
— at 24 V per NC contact rated value	50 A
— at 24 V per NO contact rated value	50 A
— at 110 V per NC contact rated value	12.5 A
— at 110 V per NO contact rated value	25 A
— at 220 V per NC contact rated value	2.5 A
— at 220 V per NO contact rated value	5 A
— at 440 V per NC contact rated value	0.135 A
— at 440 V per NO contact rated value	0.27 A
Operating power	
• at AC-2 at AC-3	
— at 230 V per NC contact rated value	9.5 kW
— at 230 V per NO contact rated value	9.5 kW
— at 400 V per NC contact rated value	18.5 kW
— at 400 V per NO contact rated value	18.5 kW
Power loss [W] at AC-3 at 400 V for rated value of the operating current per conductor	2.6 W
Operating frequency	
• at AC-1 maximum	1 000 1/h
Control circuit/ Control	
Type of voltage of the control supply voltage	AC
Control supply voltage at AC	
• at 50 Hz rated value	42 V
• at 60 Hz rated value	42 V
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
Apparent pick-up power of magnet coil at AC	170 V·A
• at 50 Hz	170 V·A
Inductive power factor with closing power of the coil	0.76
• at 50 Hz	0.76
Apparent holding power of magnet coil at AC	15 V·A
• at 50 Hz	15 V·A
Inductive power factor with the holding power of the coil	0.35
• at 60 Hz	0.35
Closing delay	
• at AC	4 ... 35 ms
Opening delay	

• at AC	10 ... 30 ms
Arcing time	10 ... 15 ms
Control version of the switch operating mechanism	conventional
Residual current of the electronics for control with signal <0>	
• at AC at 230 V maximum permissible	0.018 A

Auxiliary circuit	
Number of NC contacts for auxiliary contacts	
• instantaneous contact	0
Number of NO contacts for auxiliary contacts	
• instantaneous contact	0
Operating current at AC-12 maximum	10 A
Operating current at AC-15	
• at 230 V rated value	6 A
• at 400 V rated value	3 A
Operating current at DC-12	
• at 60 V rated value	6 A
• at 110 V rated value	3 A
• at 220 V rated value	1 A
Operating current at DC-13	
• at 24 V rated value	10 A
• at 60 V rated value	2 A
• at 110 V rated value	1 A
• at 220 V rated value	0.3 A
contact reliability of auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)

Short-circuit protection	
Design of the fuse link	
• for short-circuit protection of the main circuit	
— with type of coordination 1 required	fuse gL/gG: 160 A
— with type of assignment 2 required	fuse gL/gG: 80 A
• for short-circuit protection of the auxiliary switch required	fuse gL/gG: 10 A

Installation/ mounting/ dimensions	
• mounting position	with vertical mounting surface +/-180° rotatable, with vertical mounting surface +/- 30° tiltable to the front and back
Mounting type	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022
• Side-by-side mounting	Yes
Height	112 mm
Width	73 mm
Depth	115 mm
Required spacing	

- for grounded parts
 - at the side

6 mm

Connections/ Terminals

- Type of electrical connection for main current circuit
- Type of electrical connection for auxiliary and control current circuit

screw-type terminals

screw-type terminals

Type of connectable conductor cross-sections

- for main contacts
 - 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 mm²)

2x (0.75 ... 25 mm²)

2x (0,75 ... 16 mm²)

2x (0.75 ... 16 mm²)

2x (0.75 ... 16 mm²)

2x (18 ... 2)

Type of connectable conductor cross-sections

- for auxiliary contacts
 - solid
 - single or multi-stranded
 - finely stranded with core end processing
- at AWG conductors for auxiliary contacts

2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²), max. 2x (0.75 ... 4 mm²)

2x (0,5 ... 1,5 mm²), 2x (0,75 ... 2,5 mm²), max. 2x (0,75 ... 4 mm²)

2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)

2x (20 ... 16), 2x (18 ... 14), 1x 12

Safety related data

Protection against electrical shock

finger-safe

Certificates/ approvals

General Product Approval	EMC	Functional Safety/Safety of Machinery
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[Type Examination Certificate](#)

Declaration of Conformity	Test Certificates	Marine / Shipping
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[Miscellaneous](#)

[Special Test Certificate](#)



Marine / Shipping	other	Railway
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[Confirmation](#)

[Miscellaneous](#)

[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=3RT1535-1AD20>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT1535-1AD20>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT1535-1AD20>

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

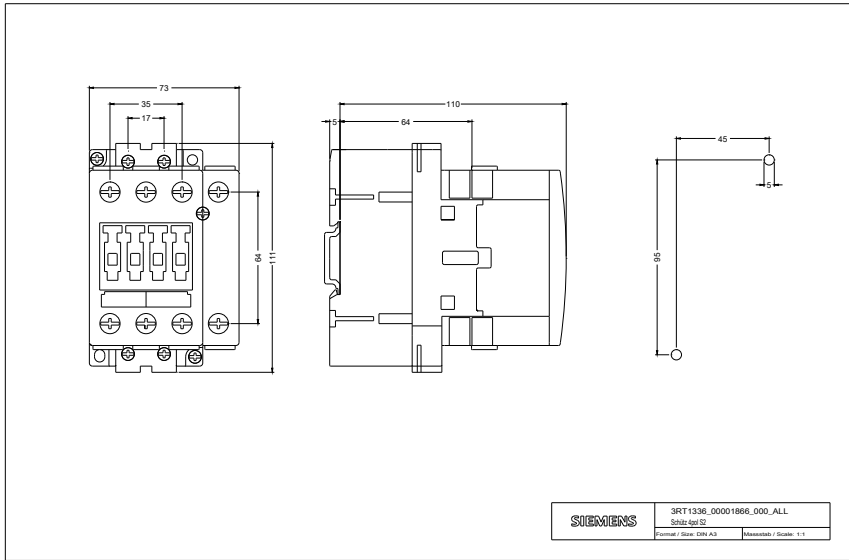
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT1535-1AD20&lang=en

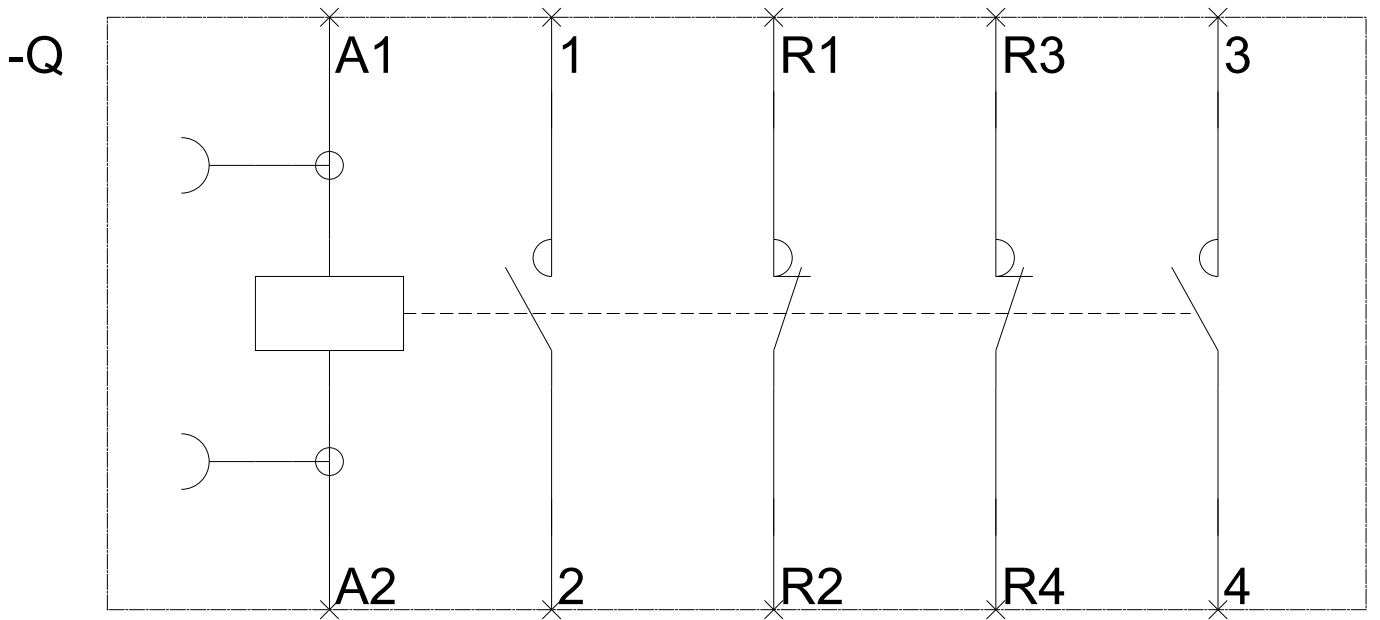
Characteristic: Tripping characteristics, I²t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RT1535-1AD20/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT1535-1AD20&objecttype=14&gridview=view1>





last modified:

08/13/2020