



Power contactor, AC-3 50 A, 22 kW / 400 V 110 V AC, 50 Hz, 2 NO + 2 NC, 3-pole, Size S2, Screw terminal !!! Phased-out product !!! Successor is SIRIUS 3RT2 Preferred successor type is >>3RT2036-1AF04<<

<b>product brand name</b>	SIRIUS
<b>product designation</b>	power contactor
<b>General technical data</b>	
<b>size of contactor</b>	S2
insulation voltage rated value	690 V
<b>degree of pollution</b>	3
<b>surge voltage resistance rated value</b>	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
• of the terminal	IP00
<b>shock resistance at rectangular impulse</b>	
• at AC	10g / 5 ms, 5g / 10 ms
<b>shock resistance with sine pulse</b>	
• at AC	15g / 5 ms, 8g / 10 ms
<b>mechanical service life (operating cycles)</b>	
• 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
<b>reference code acc. to IEC 81346-2</b>	Q
Substance Prohibitance (Date)	01.05.2012 00:00:00
<b>Ambient conditions</b>	
installation altitude at height above sea level maximum	2 000 m
<b>ambient temperature</b>	
• during operation	-25 ... +60 °C
• during storage	-55 ... +80 °C
<b>Main circuit</b>	
<b>number of poles for main current circuit</b>	3
<b>number of NO contacts for main contacts</b>	3
<b>number of NC contacts for main contacts</b>	0
<b>operational current</b>	
• at AC-1 at 400 V at ambient temperature 40 °C rated value	60 A
• at AC-1	
— up to 690 V at ambient temperature 40 °C rated value	60 A

<ul style="list-style-type: none"> <li>— up to 690 V at ambient temperature 60 °C rated value</li> </ul>	55 A
<ul style="list-style-type: none"> <li>● at AC-3 <ul style="list-style-type: none"> <li>— at 400 V rated value</li> <li>— at 690 V rated value</li> </ul> </li> </ul>	50 A 24 A
<ul style="list-style-type: none"> <li>● at AC-4 at 400 V rated value</li> </ul>	41 A
<b>connectable conductor cross-section in main circuit at AC-1</b>	
<ul style="list-style-type: none"> <li>● at 60 °C minimum permissible</li> <li>● at 40 °C minimum permissible</li> </ul>	16 mm <sup>2</sup> 16 mm <sup>2</sup>
<b>operational current for approx. 200000 operating cycles at AC-4</b>	
<ul style="list-style-type: none"> <li>● at 400 V rated value</li> <li>● at 690 V rated value</li> </ul>	24 A 12.6 A
<b>operational current</b>	
<ul style="list-style-type: none"> <li>● at 1 current path at DC-1 <ul style="list-style-type: none"> <li>— at 24 V rated value</li> <li>— at 110 V rated value</li> </ul> </li> <li>● with 2 current paths in series at DC-1 <ul style="list-style-type: none"> <li>— at 24 V rated value</li> <li>— at 110 V rated value</li> </ul> </li> <li>● with 3 current paths in series at DC-1 <ul style="list-style-type: none"> <li>— at 24 V rated value</li> <li>— at 110 V rated value</li> </ul> </li> </ul>	55 A 4.5 A 55 A 25 A 55 A 55 A
<b>operational current</b>	
<ul style="list-style-type: none"> <li>● at 1 current path at DC-3 at DC-5 <ul style="list-style-type: none"> <li>— at 24 V rated value</li> <li>— at 110 V rated value</li> </ul> </li> <li>● with 2 current paths in series at DC-3 at DC-5 <ul style="list-style-type: none"> <li>— at 24 V rated value</li> <li>— at 110 V rated value</li> </ul> </li> <li>● with 3 current paths in series at DC-3 at DC-5 <ul style="list-style-type: none"> <li>— at 24 V rated value</li> <li>— at 110 V rated value</li> </ul> </li> </ul>	35 A 2.5 A 55 A 25 A 55 A 55 A
<b>operating power</b>	
<ul style="list-style-type: none"> <li>● at AC-1 <ul style="list-style-type: none"> <li>— at 230 V at 60 °C rated value</li> <li>— at 400 V rated value</li> <li>— at 690 V rated value</li> <li>— at 690 V at 60 °C rated value</li> </ul> </li> <li>● at AC-2 at 400 V rated value</li> <li>● at AC-3 <ul style="list-style-type: none"> <li>— at 230 V rated value</li> <li>— at 400 V rated value</li> <li>— at 500 V rated value</li> <li>— at 690 V rated value</li> </ul> </li> </ul>	22 kW 38 kW 66 kW 66 kW 22 kW 15 kW 22 kW 30 kW 22 kW
<b>operating power for approx. 200000 operating cycles at AC-4</b>	
<ul style="list-style-type: none"> <li>● at 400 V rated value</li> <li>● at 690 V rated value</li> </ul>	12.6 kW 11.4 kW
<b>thermal short-time current limited to 10 s</b>	400 A
<b>no-load switching frequency</b>	
<ul style="list-style-type: none"> <li>● at AC</li> </ul>	5 000 1/h
<b>operating frequency</b>	
<ul style="list-style-type: none"> <li>● at AC-1 maximum</li> <li>● at AC-2 maximum</li> <li>● at AC-3 maximum</li> <li>● at AC-4 maximum</li> </ul>	1 000 1/h 400 1/h 800 1/h 300 1/h
<b>Control circuit/ Control</b>	

<b>type of voltage of the control supply voltage</b>	AC
<b>control supply voltage at AC</b>	
• at 50 Hz rated value	110 V
<b>control supply voltage frequency</b>	
• 1 rated value	50 Hz
<b>operating range factor control supply voltage rated value of magnet coil at AC</b>	
• at 50 Hz	0.8 ... 1.1
<b>apparent pick-up power of magnet coil at AC</b>	145 V·A
<b>inductive power factor with closing power of the coil</b>	0.79
<b>apparent holding power of magnet coil at AC</b>	12.5 V·A
<b>inductive power factor with the holding power of the coil</b>	0.36
<b>closing delay</b>	
• at AC	10 ... 24 ms
<b>opening delay</b>	
• at AC	7 ... 20 ms
<b>arcing time</b>	10 ... 15 ms
<b>Auxiliary circuit</b>	
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
<b>operational current at AC-15</b>	
• at 230 V rated value	6 A
• at 400 V rated value	3 A
<b>operational current at DC-12</b>	
• at 60 V rated value	6 A
• at 110 V rated value	3 A
• at 220 V rated value	1 A
<b>operational current at DC-13</b>	
• 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
<b>contact reliability of auxiliary contacts</b>	1 faulty switching per 100 million (17 V, 1 mA)
<b>UL/CSA ratings</b>	
<b>contact rating of auxiliary contacts according to UL</b>	A600 / Q600
<b>Short-circuit protection</b>	
<b>design of the fuse link</b>	
• 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
<b>Installation/ mounting/ dimensions</b>	
<b>fastening method</b>	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022
• side-by-side mounting	Yes
<b>height</b>	112 mm
<b>width</b>	55 mm
<b>depth</b>	164 mm
required spacing for grounded parts at the side	6 mm
<b>Connections/ Terminals</b>	
<b>type of electrical connection</b>	
• for main current circuit	screw-type terminals
• for auxiliary and control circuit	screw-type terminals
<b>type of connectable conductor cross-sections</b>	

- for main contacts
  - solid
  - stranded
  - solid or stranded
  - finely stranded with core end processing
  - finely stranded without core end processing
- at AWG cables for main contacts

2x (0.75 ... 16 mm<sup>2</sup>)  
 2x (0.75 ... 25 mm<sup>2</sup>)  
 2x (0,75 ... 16 mm<sup>2</sup>)  
 2x (0.75 ... 16 mm<sup>2</sup>)  
 2x (0.75 ... 16 mm<sup>2</sup>)  
 2x (18 ... 2)

**type of connectable conductor cross-sections**

- for auxiliary contacts
  - solid
  - finely stranded with core end processing
- at AWG cables for auxiliary contacts

2x (0.5 ... 1.5 mm<sup>2</sup>), 2x (0.75 ... 2.5 mm<sup>2</sup>), max. 2x (0.75 ... 4 mm<sup>2</sup>)  
 2x (0.5 ... 1.5 mm<sup>2</sup>), 2x (0.75 ... 2.5 mm<sup>2</sup>)  
 2x (20 ... 16), 2x (18 ... 14), 1x 12

**Certificates/ approvals**

General Product Approval	EMC	Declaration of Conformity
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Declaration of Conformity	Test Certificates	Marine / Shipping
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[Miscellaneous](#)

[Miscellaneous](#)

[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



Marine / Shipping	other
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[Miscellaneous](#)

[Confirmation](#)

[Confirmation](#)

other	Railway
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[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=3RT1036-1AF04>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT1036-1AF04>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT1036-1AF04>

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

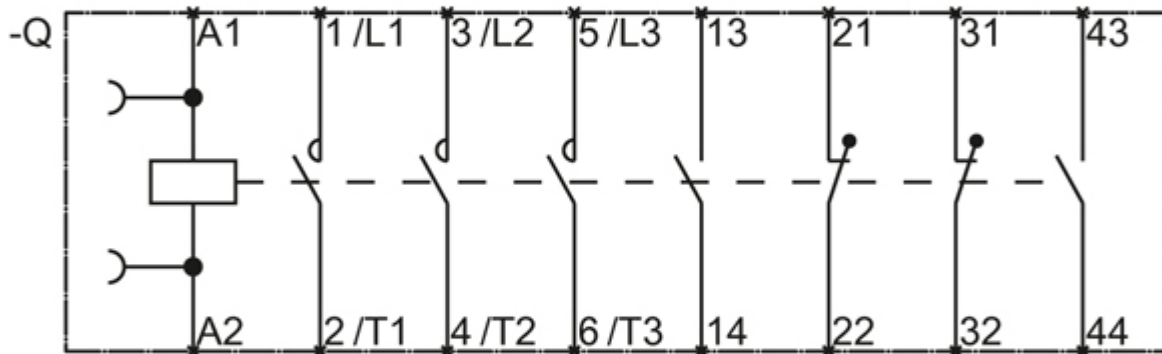
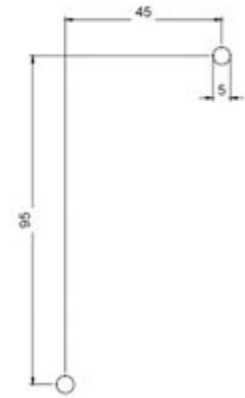
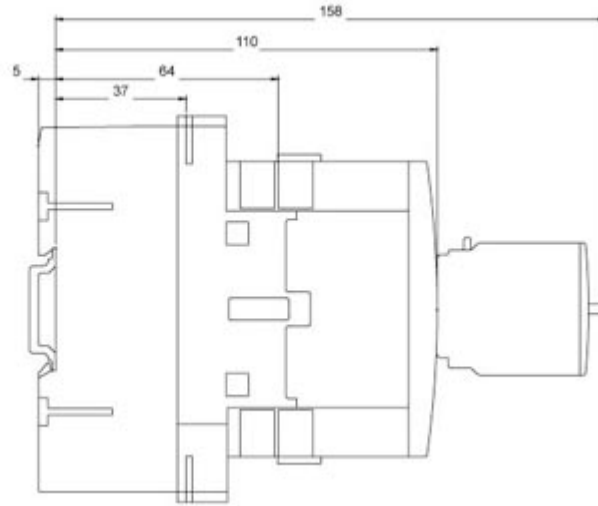
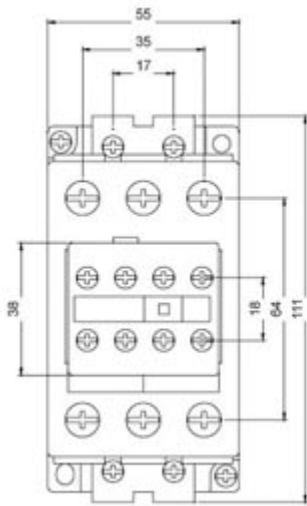
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RT1036-1AF04&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT1036-1AF04&lang=en)

Characteristic: Tripping characteristics, I<sup>2</sup>t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RT1036-1AF04/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT1036-1AF04&objecttype=14&gridview=view1>



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