

power contactor AC-1 2100 A / 690 V / 40 °C 3-pole, Uc: 100-240 V AC(50-60 Hz) / 100-220 V DC, drive: conventional auxiliary contacts 2 NO + 2 NC main circuit: busbar control and auxiliary circuit: screw terminal

<b>product brand name</b>	SIRIUS
<b>product designation</b>	Contacteur
<b>product type designation</b>	3RT14
<b>General technical data</b>	
<b>product extension</b>	
• function module for communication	No
• auxiliary switch	Yes
<b>power loss [W] for rated value of the current</b>	
• at AC in hot operating state	1 050 W
• at AC in hot operating state per pole	350 W
• without load current share typical	11 W
<b>type of calculation of power loss depending on pole</b>	quadratic
<b>insulation voltage</b>	
• of main circuit with degree of pollution 3 rated value	1 000 V
• of auxiliary circuit with degree of pollution 3 rated value	600 V
<b>surge voltage resistance</b>	
• of main circuit rated value	8 kV
• of auxiliary circuit rated value	6 kV
<b>shock resistance with sine pulse</b>	
• at AC	8g / 11 ms
• at DC	8g / 11 ms
<b>mechanical service life (operating cycles)</b>	
• of contactor typical	500 000
<b>Substance Prohibition (Date)</b>	03/27/2020
<b>Net Weight</b>	40 kg
<b>Ambient conditions</b>	
installation altitude at height above sea level maximum	2 000 m
<b>ambient temperature</b>	
• during operation	-25 ... +55 °C
• during storage	-40 ... +80 °C
<b>relative humidity minimum</b>	10 %
<b>relative humidity at 55 °C according to IEC 60068-2-30 maximum</b>	95 %
<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>type of voltage for main current circuit</b>	AC
<b>operational current</b>	
• at AC-1	
— up to 690 V at ambient temperature 40 °C rated value	2 100 A
— up to 690 V at ambient temperature 55 °C rated value	2 100 A
— up to 1000 V at ambient temperature 40 °C rated value	2 100 A
— up to 1000 V at ambient temperature 55 °C rated value	2 100 A
minimum cross-section in main circuit at maximum AC-1 rated value	2 000 mm <sup>2</sup>

<b>no-load switching frequency</b>	
• at AC	300 1/h
• at DC	300 1/h
operating frequency at AC-1 maximum	300 1/h
<b>Control circuit/ Control</b>	
<b>type of voltage of the control supply voltage</b>	AC/DC
<b>control supply voltage at AC</b>	
• at 50 Hz rated value	100 ... 240 V
• at 60 Hz rated value	100 ... 240 V
<b>control supply voltage at DC rated value</b>	100 ... 220 V
<b>operating range factor control supply voltage rated value of magnet coil at DC</b>	
• initial value	0.85
• full-scale value	1.1
<b>operating range factor control supply voltage rated value of magnet coil at AC</b>	
• at 50 Hz	0.85 ... 1.1
• at 60 Hz	0.85 ... 1.1
<b>design of the surge suppressor</b>	with varistor
<b>apparent pick-up power of magnet coil at AC</b>	
• at 50 Hz	1 800 VA
• at 60 Hz	1 800 VA
<b>apparent holding power of magnet coil at AC</b>	
• at 50 Hz	33 VA
• at 60 Hz	33 VA
<b>closing power of magnet coil at DC</b>	2 800 W
<b>holding power of magnet coil at DC</b>	11 W
<b>closing delay</b>	
• at AC	80 ms
• at DC	80 ms
<b>opening delay</b>	
• at AC	70 ms
• at DC	70 ms
<b>control version of the switch operating mechanism</b>	Standard A1 - A2
<b>Auxiliary circuit</b>	
<b>number of NC contacts for auxiliary contacts</b>	2
• attachable	4
• instantaneous contact	2
<b>number of NO contacts for auxiliary contacts</b>	2
• attachable	4
• instantaneous contact	2
operational current at AC-12 maximum	16 A
<b>operational current at AC-15</b>	
• at 230 V rated value	3 A
• at 400 V rated value	1.5 A
• at 500 V rated value	1.4 A
<b>operational current at DC-13</b>	
• 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	0.55 A
• at 220 V rated value	0.27 A
• at 600 V rated value	0.1 A
<b>Short-circuit protection</b>	
<b>design of the fuse link</b>	
• for short-circuit protection of the main circuit — with type of coordination 2 required	aR: 2500 A (1000 V, 42 kA)
• for short-circuit protection of the auxiliary switch required	gG: 16 A (600 V, 1 kA)
<b>Installation/ mounting/ dimensions</b>	

<b>mounting position</b>	+/-30° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 30° on vertical mounting surface
fastening method side-by-side mounting	No
<b>fastening method</b>	screw fixing
<b>height</b>	403 mm
<b>width</b>	431 mm
<b>depth</b>	246 mm
<b>required spacing</b>	
• for grounded parts	
— forwards	245 mm
— at the side	215 mm
<b>net weight</b>	35 kg

### Connections/ Terminals

<b>type of electrical connection</b>	
• for main current circuit	busbar connection
• for auxiliary and control circuit	screw-type terminals
• at contactor for auxiliary contacts	Screw-type terminals
• of magnet coil	Screw-type terminals
<b>width of connection bar</b>	103 mm
<b>thickness of connection bar</b>	10 mm
<b>diameter of holes</b>	15 mm
<b>connectable conductor cross-section for auxiliary contacts</b>	
• solid or stranded	1 ... 2.5 mm <sup>2</sup>
• finely stranded with core end processing	1 ... 2.5 mm <sup>2</sup>
<b>type of connectable conductor cross-sections</b>	
• for auxiliary contacts	
— solid	2x (1 ... 2,5 mm <sup>2</sup> )
— solid or stranded	2x (1 ... 2.5 mm <sup>2</sup> )
— finely stranded with core end processing	2x (1 ... 2,5 mm <sup>2</sup> )
• for AWG cables for auxiliary contacts	2x (16 ... 14)
<b>AWG number as coded connectable conductor cross section for auxiliary contacts</b>	16 ... 14

### Safety related data

<b>product function</b>	
• mirror contact according to IEC 60947-4-1	Yes
• positively driven operation according to IEC 60947-5-1	No
<b>service life maximum</b>	20 a

### Electrical Safety

<b>protection class IP on the front according to IEC 60529</b>	IP00
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### Approvals Certificates

<b>Environment</b>	<b>General Product Approval</b>
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[Environmental Confirmations](#)



<b>EMV</b>	<b>other</b>	<b>Railway</b>
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[Confirmation](#)

[Miscellaneous](#)

[Special Test Certificate](#)

### Further information

- Information on the packaging  
<https://support.industry.siemens.com/cs/ww/en/view/109813875>
- Information for data generation and storage  
<https://support.industry.siemens.com/cs/ww/en/view/109995012>
- 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=3RT1486-6AP36>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT1486-6AP36>

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

[https://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RT1486-6AP36&lang=en](https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT1486-6AP36&lang=en)

**Cax online generator**

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT1486-6AP36>

**Characteristic curves**

[https://curves.simaris.siemens.com/curves/<mmp\\_prod\\_noCOMP="HAUPT"></mmp\\_prod\\_no>](https://curves.simaris.siemens.com/curves/<mmp_prod_noCOMP=)

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