



Traction contactor, AC-3 25 A, 11 kW / 400 V 1 NO + 1 NC with electronic drive 125 V DC, 0.7-1.25\* US, with integrated varistor, 3-pole, Size S0, Spring-type terminal

<b>product brand name</b>	SIRIUS
<b>product designation</b>	Contacteur
<b>design of the product</b>	With extended operating range
<b>product type designation</b>	3RT2
<b>General technical data</b>	
<b>size of contactor</b>	S0
<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	4.8 W
• at AC in hot operating state per pole	1.6 W
• without load current share typical	1.6 W
<b>insulation voltage</b>	
• of main circuit with degree of pollution 3 rated value	690 V
• of auxiliary circuit with degree of pollution 3 rated value	690 V
<b>surge voltage resistance</b>	
• of main circuit rated value	6 kV
• of auxiliary circuit rated value	6 kV
maximum permissible voltage for safe isolation between coil and main contacts according to EN 60947-1	400 V
<b>shock resistance at rectangular impulse</b>	
• at DC	10g / 5 ms, 7,5g / 10 ms
<b>shock resistance with sine pulse</b>	
• at DC	15g / 5 ms, 10g / 10 ms
<b>mechanical service life (switching 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 according to IEC 81346-2</b>	Q
<b>Substance Prohibitance (Date)</b>	10/01/2009
<b>Ambient conditions</b>	
installation altitude at height above sea level maximum	2 000 m
<b>ambient temperature</b>	
• during operation	-40 ... +70 °C
• during storage	-55 ... +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>operating voltage</b>	
• at AC-3 rated value maximum	690 V
• at AC-3e rated value maximum	690 V
<b>operational current</b>	
• at AC-1 at 400 V at ambient temperature 40 °C rated value	40 A
• at AC-1	
— up to 690 V at ambient temperature 40 °C rated value	40 A
— up to 690 V at ambient temperature 60 °C rated value	35 A
• at AC-2 at 400 V rated value	25 A
• at AC-3	
— at 400 V rated value	25 A
— at 500 V rated value	18 A
— at 690 V rated value	13 A
• at AC-3e	
— at 400 V rated value	25 A
— at 500 V rated value	18 A
— at 690 V rated value	13 A
• at AC-4 at 400 V rated value	15.5 A
<b>minimum cross-section in main circuit</b>	
• at maximum AC-1 rated value	10 mm <sup>2</sup>
• at maximum Ith rated value	10 mm <sup>2</sup>
<b>operational current for approx. 200000 operating cycles at AC-4</b>	
• at 400 V rated value	9 A
• at 690 V rated value	9 A
<b>operating power</b>	
• at AC-2 at 400 V rated value	11 kW
• at AC-3	
— at 230 V rated value	5.5 kW
— at 400 V rated value	11 kW
— at 500 V rated value	11 kW
— at 690 V rated value	11 kW
• at AC-3e	
— at 230 V rated value	5.5 kW
— at 400 V rated value	11 kW
— at 500 V rated value	11 kW
— at 690 V rated value	11 kW
<b>operating power for approx. 200000 operating cycles at AC-4</b>	
• at 400 V rated value	4.4 kW
• at 690 V rated value	7.7 kW
<b>short-time withstand current in cold operating state up to 40 °C</b>	
• limited to 1 s switching at zero current maximum	375 A; Use minimum cross-section acc. to AC-1 rated value
• limited to 5 s switching at zero current maximum	299 A; Use minimum cross-section acc. to AC-1 rated value
• limited to 10 s switching at zero current maximum	200 A; Use minimum cross-section acc. to AC-1 rated value
• limited to 30 s switching at zero current maximum	128 A; Use minimum cross-section acc. to AC-1 rated value
• limited to 60 s switching at zero current maximum	106 A; Use minimum cross-section acc. to AC-1 rated value
<b>no-load switching frequency</b>	
• at DC	1 500 1/h
<b>operating frequency</b>	
• at AC-1 maximum	750 1/h
• at AC-2 maximum	750 1/h
• at AC-3 maximum	750 1/h

- at AC-3e maximum 750 1/h
- at AC-2 at AC-3e maximum 750 1/h
- at AC-4 maximum 250 1/h

#### Ratings for railway applications

##### thermal current (I<sub>th</sub>) up to 690 V

- up to 40 °C according to IEC 60077 rated value 40 A
- up to 70 °C according to IEC 60077 rated value 30 A

#### Control circuit/ Control

**type of voltage** DC

**type of voltage of the control supply voltage** DC

##### control supply voltage at DC

- rated value 125 V

##### operating range factor control supply voltage rated value of magnet coil at DC

- initial value 0.7
- full-scale value 1.25

**design of the surge suppressor** with varistor

**duration of locked-rotor current** 180 ms

**closing power of magnet coil at DC** 13.2 W

**holding power of magnet coil at DC** 1.3 W

##### closing delay

- at DC 50 ... 75 ms

##### opening delay

- at DC 30 ... 50 ms

**arcing time** 10 ... 10 ms

**control version of the switch operating mechanism** Standard A1 - A2

#### Auxiliary circuit

**number of NC contacts for auxiliary contacts** 1

- instantaneous contact 1

**number of NO contacts for auxiliary contacts** 1

- instantaneous contact 1

operational current at AC-12 maximum 10 A

##### operational current at AC-15

- at 230 V rated value 10 A
- at 400 V rated value 3 A
- at 500 V rated value 2 A
- at 690 V rated value 1 A

##### operational current at DC-12

- at 24 V rated value 10 A
- at 48 V rated value 6 A
- at 60 V rated value 6 A
- at 110 V rated value 3 A
- at 125 V rated value 2 A
- at 220 V rated value 1 A
- at 600 V rated value 0.15 A

##### operational current at DC-13

- at 24 V rated value 10 A
- 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 0.9 A
- at 220 V rated value 0.3 A
- at 600 V rated value 0.1 A

#### UL/CSA ratings

##### full-load current (FLA) for 3-phase AC motor

- at 480 V rated value 21 A
- at 600 V rated value 22 A

##### yielded mechanical performance [hp]

- for single-phase AC motor  
— at 110/120 V rated value 2 hp

<ul style="list-style-type: none"> <li>— at 230 V rated value</li> <li>● for 3-phase AC motor <ul style="list-style-type: none"> <li>— at 200/208 V rated value</li> <li>— at 220/230 V rated value</li> <li>— at 460/480 V rated value</li> <li>— at 575/600 V rated value</li> </ul> </li> </ul>	<p>3 hp</p> <p>5 hp</p> <p>7.5 hp</p> <p>15 hp</p> <p>20 hp</p>
<b>contact rating of auxiliary contacts according to UL</b>	A600 / Q600
<b>Short-circuit protection</b>	
<b>product function short circuit protection</b>	No
<b>design of the fuse link</b>	
<ul style="list-style-type: none"> <li>● for short-circuit protection of the main circuit <ul style="list-style-type: none"> <li>— with type of coordination 1 required</li> <li>— with type of assignment 2 required</li> </ul> </li> <li>● for short-circuit protection of the auxiliary switch required</li> </ul>	<p>gG: 100 A (690 V, 100 kA), aM: 50 A (690 V, 100 kA), BS88: 100 A (415 V, 80 kA)</p> <p>gG: 35A (690V, 100kA), aM: 20A (690V, 100kA), BS88: 35A (415V, 80kA)</p> <p>gG: 10 A (500 V, 1 kA)</p>
<b>Installation/ mounting/ dimensions</b>	
<b>mounting position</b>	+/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface
<b>fastening method</b>	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715
<ul style="list-style-type: none"> <li>● side-by-side mounting</li> </ul>	Yes
<b>height</b>	102 mm
<b>width</b>	45 mm
<b>depth</b>	107 mm
<b>required spacing</b>	
<ul style="list-style-type: none"> <li>● with side-by-side mounting <ul style="list-style-type: none"> <li>— forwards</li> <li>— upwards</li> <li>— downwards</li> <li>— at the side</li> </ul> </li> <li>● for grounded parts <ul style="list-style-type: none"> <li>— forwards</li> <li>— upwards</li> <li>— at the side</li> <li>— downwards</li> </ul> </li> <li>● for live parts <ul style="list-style-type: none"> <li>— forwards</li> <li>— upwards</li> <li>— downwards</li> <li>— at the side</li> </ul> </li> </ul>	<p>10 mm</p> <p>10 mm</p> <p>10 mm</p> <p>0 mm</p> <p>10 mm</p> <p>10 mm</p> <p>6 mm</p> <p>10 mm</p> <p>10 mm</p> <p>10 mm</p> <p>6 mm</p>
<b>Connections/ Terminals</b>	
<b>type of electrical connection</b>	
<ul style="list-style-type: none"> <li>● for main current circuit</li> <li>● for auxiliary and control circuit</li> <li>● at contactor for auxiliary contacts</li> <li>● of magnet coil</li> </ul>	<p>spring-loaded terminals</p> <p>spring-loaded terminals</p> <p>Spring-type terminals</p> <p>Spring-type terminals</p>
<b>type of connectable conductor cross-sections</b>	
<ul style="list-style-type: none"> <li>● for main contacts <ul style="list-style-type: none"> <li>— solid</li> <li>— solid or stranded</li> <li>— finely stranded with core end processing</li> <li>— finely stranded without core end processing</li> </ul> </li> <li>● at AWG cables for main contacts</li> </ul>	<p>2x (1 ... 10 mm<sup>2</sup>)</p> <p>2x (1 ... 10 mm<sup>2</sup>)</p> <p>2x (1 ... 6 mm<sup>2</sup>)</p> <p>2x (1 ... 6 mm<sup>2</sup>)</p> <p>2x (18 ... 8)</p>
<b>type of connectable conductor cross-sections</b>	
<ul style="list-style-type: none"> <li>● for auxiliary contacts <ul style="list-style-type: none"> <li>— solid or stranded</li> <li>— finely stranded with core end processing</li> <li>— finely stranded without core end processing</li> </ul> </li> <li>● at AWG cables for auxiliary contacts</li> </ul>	<p>2x (0.5 ... 2.5 mm<sup>2</sup>)</p> <p>2x (0.5 ... 1.5 mm<sup>2</sup>)</p> <p>2x (0.5 ... 2.5 mm<sup>2</sup>)</p> <p>2x (20 ... 14)</p>

<b>AWG number as coded connectable conductor cross section</b>	
<ul style="list-style-type: none"> <li>• for main contacts</li> <li>• for auxiliary contacts</li> </ul>	18 ... 8 20 ... 14

**Safety related data**

<b>product function</b>	
<ul style="list-style-type: none"> <li>• mirror contact according to IEC 60947-4-1</li> <li>• positively driven operation according to IEC 60947-5-1</li> </ul>	Yes No
B10 value with high demand rate according to SN 31920	450 000
<b>proportion of dangerous failures</b>	
<ul style="list-style-type: none"> <li>• with low demand rate according to SN 31920</li> <li>• with high demand rate according to SN 31920</li> </ul>	40 % 73 %
failure rate [FIT] with low demand rate according to SN 31920	100 FIT
T1 value for proof test interval or service life according to IEC 61508	20 y
<b>protection class IP on the front according to IEC 60529</b>	IP20
<b>touch protection on the front according to IEC 60529</b>	finger-safe, for vertical contact from the front

**Communication/ Protocol**

<b>product function bus communication</b>	No
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**Certificates/ approvals**

**General Product Approval**



[Confirmation](#)



[KC](#)



<b>EMC</b>	<b>Functional Safety/Safety of Machinery</b>	<b>Declaration of Conformity</b>	<b>Test Certificates</b>	
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[Type Examination Certificate](#)



EG-Konf.

[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)

**Marine / Shipping**



<b>Marine / Shipping</b>	<b>other</b>	<b>Railway</b>	<b>Dangerous Good</b>	
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[Confirmation](#)



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**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?mfb=3RT2026-2XG40-0LA2>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2026-2XG40-0LA2>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT2026-2XG40-0LA2>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RT2026-2XG40-0LA2&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2026-2XG40-0LA2&lang=en)

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT2026-2XG40-0LA2/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2026-2XG40-0LA2&objecttype=14&gridview=view1>

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