



Circuit breaker size S0 for motor protection, CLASS 10 A-release 0.45...0.63 A N-release 8.2 A screw terminal Standard switching capacity with transverse auxiliary switches 1 NO+1 NC

product brand name	SIRIUS
product designation	Circuit breaker
design of the product	For motor protection
product type designation	3RV2
<b>General technical data</b>	
size of the circuit-breaker	S0
size of contactor can be combined company-specific	S00, S0
product extension auxiliary switch	Yes
power loss [W] for rated value of the current	
• at AC in hot operating state	7.25 W
• at AC in hot operating state per pole	2.4 W
insulation voltage with degree of pollution 3 at AC rated value	690 V
surge voltage resistance rated value	6 kV
shock resistance according to IEC 60068-2-27	25g / 11 ms
mechanical service life (operating cycles)	
• of the main contacts typical	100 000
• of auxiliary contacts typical	100 000
electrical endurance (operating cycles) typical	100 000
reference code according to IEC 81346-2	Q
Substance Prohibitance (Date)	10/01/2009
SVHC substance name	Lead - 7439-92-1
<b>Ambient conditions</b>	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
• during operation	-20 ... +60 °C
• during storage	-50 ... +80 °C
• during transport	-50 ... +80 °C
relative humidity during operation	10 ... 95 %
<b>Main circuit</b>	
number of poles for main current circuit	3
adjustable current response value current of the current-dependent overload release	0.45 ... 0.63 A
operating voltage	
• rated value	20 ... 690 V
• at AC-3 rated value maximum	690 V
• at AC-3e rated value maximum	690 V
operating frequency rated value	50 ... 60 Hz
operational current rated value	0.63 A
operational current	
• at AC-3 at 400 V rated value	0.63 A

<ul style="list-style-type: none"> <li>● at AC-3e at 400 V rated value</li> </ul>	0.63 A
<b>operating power</b>	
<ul style="list-style-type: none"> <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> <li>● at AC-3e <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>	0.1 kW 0.2 kW 0.2 kW 0.3 kW  0.1 kW 0.2 kW 0.2 kW 0.3 kW
<b>operating frequency</b>	
<ul style="list-style-type: none"> <li>● at AC-3 maximum</li> <li>● at AC-3e maximum</li> </ul>	15 1/h 15 1/h

#### Auxiliary circuit

<b>design of the auxiliary switch</b>	transverse
<b>number of NC contacts for auxiliary contacts</b>	1
<b>number of NO contacts for auxiliary contacts</b>	1
number of CO contacts for auxiliary contacts	0
<b>operational current of auxiliary contacts at AC-15</b>	
<ul style="list-style-type: none"> <li>● at 24 V</li> <li>● at 120 V</li> <li>● at 125 V</li> <li>● at 230 V</li> </ul>	2 A 0.5 A 0.5 A 0.5 A
<b>operational current of auxiliary contacts at DC-13</b>	
<ul style="list-style-type: none"> <li>● at 24 V</li> <li>● at 60 V</li> </ul>	1 A 0.15 A

#### Protective and monitoring functions

<b>product function</b>	
<ul style="list-style-type: none"> <li>● ground fault detection</li> <li>● phase failure detection</li> </ul>	No Yes
<b>trip class</b>	CLASS 10
<b>design of the overload release</b>	thermal
<b>maximum short-circuit current breaking capacity (Icu)</b>	
<ul style="list-style-type: none"> <li>● at AC at 240 V rated value</li> <li>● at AC at 400 V rated value</li> <li>● at AC at 500 V rated value</li> <li>● at AC at 690 V rated value</li> </ul>	100 kA 100 kA 100 kA 100 kA
<b>operating short-circuit current breaking capacity (Ics) at AC</b>	
<ul style="list-style-type: none"> <li>● at 240 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>	100 kA 100 kA 100 kA 100 kA
response value current of instantaneous short-circuit trip unit	8.2 A

#### UL/CSA ratings

<b>full-load current (FLA) for 3-phase AC motor</b>	
<ul style="list-style-type: none"> <li>● at 480 V rated value</li> <li>● at 600 V rated value</li> </ul>	0.63 A 0.63 A
<b>contact rating of auxiliary contacts according to UL</b>	C300 / R300

#### Short-circuit protection

<b>product function short circuit protection</b>	Yes
<b>design of the short-circuit trip</b>	magnetic
<b>design of the fuse link</b>	
<ul style="list-style-type: none"> <li>● for short-circuit protection of the auxiliary switch required</li> </ul>	Fuse gL/gG: 10 A, miniature circuit breaker C 6 A (short-circuit current I <sub>k</sub> < 400 A)

#### Installation/ mounting/ dimensions

<b>mounting position</b>	any
<b>fastening method</b>	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715
<b>height</b>	97 mm
<b>width</b>	45 mm

<b>depth</b>	97 mm
<b>required spacing</b>	
<ul style="list-style-type: none"> <li>● with side-by-side mounting at the side</li> </ul>	0 mm
<ul style="list-style-type: none"> <li>● for grounded parts at 400 V <ul style="list-style-type: none"> <li>— downwards</li> <li>— upwards</li> <li>— at the side</li> </ul> </li> </ul>	30 mm 30 mm 9 mm
<ul style="list-style-type: none"> <li>● for live parts at 400 V <ul style="list-style-type: none"> <li>— downwards</li> <li>— upwards</li> <li>— at the side</li> </ul> </li> </ul>	30 mm 30 mm 9 mm
<ul style="list-style-type: none"> <li>● for grounded parts at 500 V <ul style="list-style-type: none"> <li>— downwards</li> <li>— upwards</li> <li>— at the side</li> </ul> </li> </ul>	30 mm 30 mm 9 mm
<ul style="list-style-type: none"> <li>● for live parts at 500 V <ul style="list-style-type: none"> <li>— downwards</li> <li>— upwards</li> <li>— at the side</li> </ul> </li> </ul>	30 mm 30 mm 9 mm
<ul style="list-style-type: none"> <li>● for grounded parts at 690 V <ul style="list-style-type: none"> <li>— downwards</li> <li>— upwards</li> <li>— backwards</li> <li>— at the side</li> <li>— forwards</li> </ul> </li> </ul>	50 mm 50 mm 0 mm 30 mm 0 mm
<ul style="list-style-type: none"> <li>● for live parts at 690 V <ul style="list-style-type: none"> <li>— downwards</li> <li>— upwards</li> <li>— backwards</li> <li>— at the side</li> <li>— forwards</li> </ul> </li> </ul>	50 mm 50 mm 0 mm 30 mm 0 mm

### Connections/ Terminals





<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> </ul>	screw-type terminals screw-type terminals
<b>arrangement of electrical connectors for main current circuit</b>	Top and bottom
<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 or stranded</li> <li>— finely stranded with core end processing</li> </ul> </li> <li>● for AWG cables for main contacts</li> </ul>	2x (1 ... 2.5 mm <sup>2</sup> ), 2x (2.5 ... 10 mm <sup>2</sup> ) 2x (1 ... 2.5 mm <sup>2</sup> ), 2x (2.5 ... 6 mm <sup>2</sup> ), 1x 10 mm <sup>2</sup> 2x (16 ... 12), 2x (14 ... 8)
<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> </ul> </li> <li>● for AWG cables for auxiliary contacts</li> </ul>	2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 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)
<b>tightening torque</b>	
<ul style="list-style-type: none"> <li>● for main contacts with screw-type terminals</li> <li>● for auxiliary contacts with screw-type terminals</li> </ul>	2 ... 2.5 N·m 0.8 ... 1.2 N·m
<b>design of screwdriver shaft</b>	Diameter 5 to 6 mm
<b>size of the screwdriver tip</b>	Pozidriv size 2
<b>design of the thread of the connection screw</b>	
<ul style="list-style-type: none"> <li>● for main contacts</li> <li>● of the auxiliary and control contacts</li> </ul>	M4 M3

### Safety related data





<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>	50 % 50 %
<b>B10 value with high demand rate according to SN 31920</b>	5 000
<b>failure rate [FIT] with low demand rate according to SN</b>	50 FIT

<b>31920</b>	
IEC 61508	
<b>T1 value</b>	
<ul style="list-style-type: none"> <li>for proof test interval or service life according to IEC 61508</li> </ul>	10 a
<b>Electrical Safety</b>	
<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
display version for switching status	Handle

**Approvals Certificates**

<b>General Product Approval</b>					
			<a href="#">Confirmation</a>		<a href="#">KC</a>



<b>General Product Approval</b>	<b>For use in hazardous locations</b>	<b>Test Certificates</b>	<b>Marine / Shipping</b>
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			<a href="#">Special Test Certificate</a>	<a href="#">Type Test Certificates/Test Report</a>	
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<b>Marine / Shipping</b>	<b>other</b>
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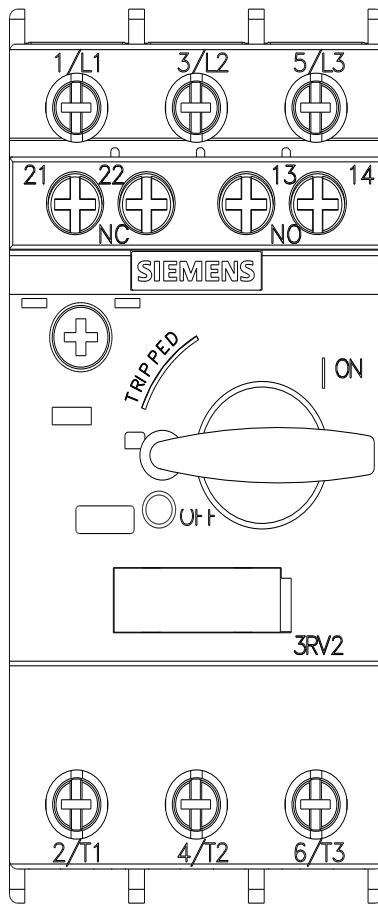
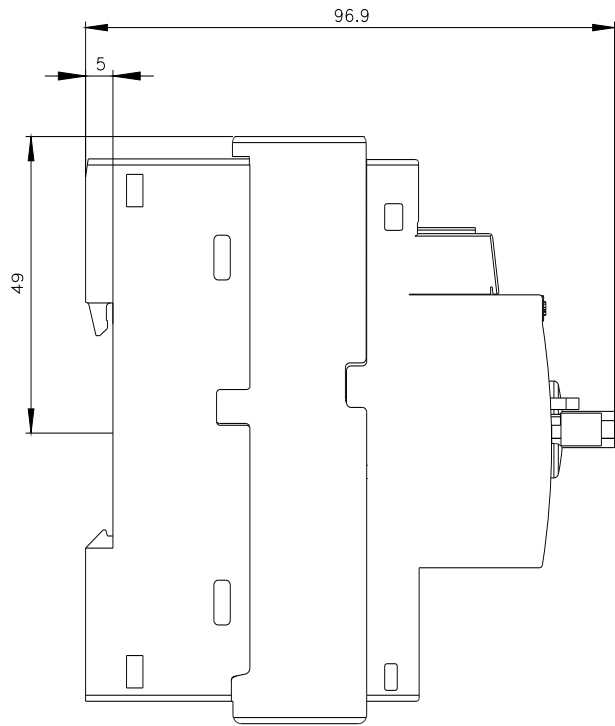
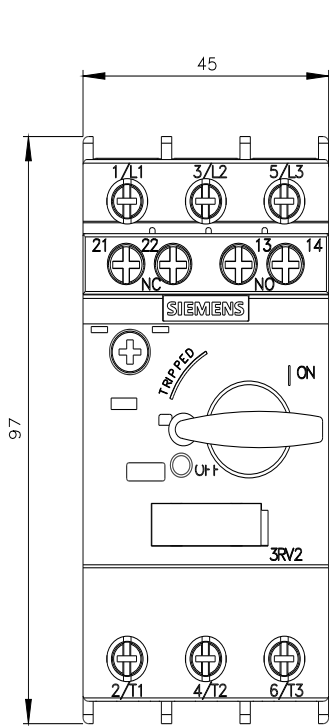
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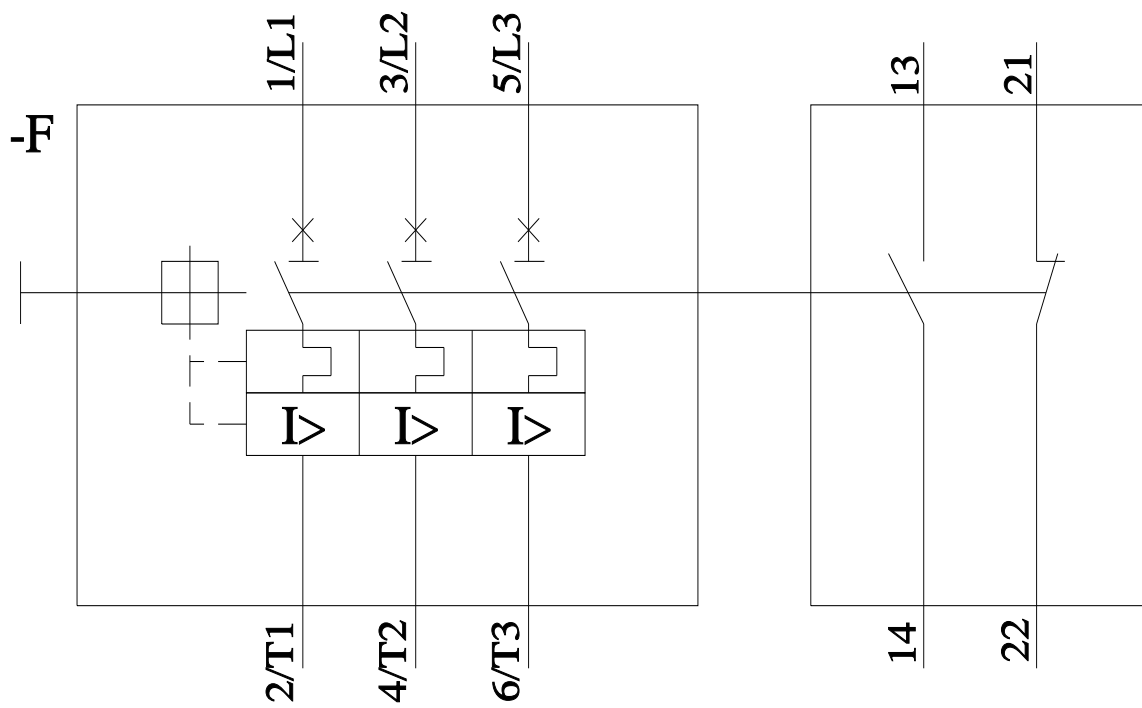
<b>other</b>	<b>Railway</b>	<b>Environment</b>
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<a href="#">Confirmation</a>		<a href="#">Special Test Certificate</a>	<a href="#">Confirmation</a>		<a href="#">Environmental Confirmations</a>
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**Further information**

Information on the packaging  
<https://support.industry.siemens.com/cs/ww/en/view/109813875>  
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=3RV2021-0GA15>  
Cax online generator  
<http://support.automation.siemens.com/WWW/CAXorder/default.aspx?lang=en&mlfb=3RV2021-0GA15>  
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)  
<https://support.industry.siemens.com/cs/ww/en/ps/3RV2021-0GA15>  
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)  
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RV2021-0GA15&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2021-0GA15&lang=en)  
Characteristic: Tripping characteristics, I<sup>t</sup>, Let-through current  
<https://support.industry.siemens.com/cs/ww/en/ps/3RV2021-0GA15/char>  
Further characteristics (e.g. electrical endurance, switching frequency)  
<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2021-0GA15&objecttype=14&gridview=view1>





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