

Circuit breaker size S3 for motor protection, CLASS 10 A-release 65...84 A N-release 1170 A screw terminal Standard switching capacity



Figure similar

<b>Product brand name</b>	SIRIUS
<b>Product designation</b>	Circuit breaker
<b>Design of the product</b>	For motor protection
<b>Product type designation</b>	3RV2
<b>General technical data</b>	
<b>Size of the circuit-breaker</b>	S3
<b>Size of contactor can be combined company-specific</b>	S3
<b>Product extension</b>	Yes
• Auxiliary switch	
<b>Power loss [W] total typical</b>	29 W
<b>Insulation voltage with degree of pollution 3 rated value</b>	1 000 V
<b>Surge voltage resistance rated value</b>	8 kV
<b>maximum permissible voltage for safe isolation</b>	
• in networks with grounded star point between main and auxiliary circuit	400 V
• in networks with grounded star point between main and auxiliary circuit	400 V

<b>Protection class IP</b>	
• on the front	IP20
• of the terminal	IP00
<b>Shock resistance</b>	
• acc. to IEC 60068-2-27	25g / 11 ms Sinus
<b>Mechanical service life (switching cycles)</b>	
• of the main contacts typical	25 000
• of auxiliary contacts typical	25 000
<b>Electrical endurance (switching cycles)</b>	
• typical	25 000
Certificate of suitability ATEX	Yes
<b>Protection against electrical shock</b>	finger-safe when touched vertically from front acc. to IEC 60529
<b>Reference code acc. to DIN EN 81346-2</b>	Q

### Ambient conditions

<b>Installation altitude at height above sea level</b>	
• maximum	2 000 m
<b>Ambient temperature</b>	
• during operation	-20 ... +60 °C
• during storage	-50 ... +80 °C
• during transport	-50 ... +80 °C
<b>Temperature compensation</b>	-20 ... +60 °C
Relative humidity during operation	10 ... 95 %

### Main circuit

<b>Number of poles for main current circuit</b>	3
<b>Adjustable pick-up value current of the current-dependent overload release</b>	65 ... 84 A
<b>Operating voltage</b>	
• rated value	690 V
• at AC-3 rated value maximum	690 V
<b>Operating frequency rated value</b>	50 ... 60 Hz
<b>Operating current rated value</b>	84 A
<b>Operating current</b>	
• at AC-3	
— at 400 V rated value	84 A
<b>Operating power</b>	
• at AC-3	
— at 230 V rated value	22 000 W
— at 400 V rated value	45 000 W
— at 500 V rated value	55 000 W
— at 690 V rated value	75 000 W
<b>Operating frequency</b>	
• at AC-3 maximum	15 1/h

Protective and monitoring functions	
<b>Product function</b>	
• Ground fault detection	No
• Phase failure detection	Yes
<b>Trip class</b>	CLASS 10
<b>Design of the overload release</b>	thermal
<b>Operational short-circuit current breaking capacity (Ics) at AC</b>	
• at 240 V rated value	100 000 A
• at 400 V rated value	30 000 A
• at 500 V rated value	4 000 A
• at 690 V rated value	3 000 A
<b>Maximum short-circuit current breaking capacity (Icu)</b>	
• at AC at 240 V rated value	100 kA
• at AC at 400 V rated value	65 kA
• at AC at 500 V rated value	8 kA
• at AC at 690 V rated value	5 kA
<b>Response value current</b>	
• of instantaneous short-circuit trip unit	1 170 A
UL/CSA ratings	
<b>Full-load current (FLA) for three-phase AC motor</b>	
• at 480 V rated value	84 A
• at 600 V rated value	84 A
<b>Yielded mechanical performance [hp]</b>	
• for single-phase AC motor	
— at 110/120 V rated value	7.5 hp
— at 230 V rated value	15 hp
• for three-phase AC motor	
— at 200/208 V rated value	25 hp
— at 220/230 V rated value	30 hp
— at 460/480 V rated value	60 hp
— at 575/600 V rated value	75 hp
Short-circuit protection	
<b>Product function Short circuit protection</b>	Yes
<b>Design of the short-circuit trip</b>	magnetic
Installation/ mounting/ dimensions	
<b>Mounting position</b>	any
<b>Mounting type</b>	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715
<b>Height</b>	165 mm
<b>Width</b>	70 mm

<b>Depth</b>	176 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 0 mm</li> <li>— Backwards 0 mm</li> <li>— upwards 150 mm</li> <li>— downwards 150 mm</li> <li>— at the side 0 mm</li> </ul> </li> <li>• for grounded parts <ul style="list-style-type: none"> <li>— forwards 0 mm</li> <li>— Backwards 0 mm</li> <li>— upwards 150 mm</li> <li>— at the side 30 mm</li> <li>— downwards 150 mm</li> </ul> </li> <li>• for live parts <ul style="list-style-type: none"> <li>— forwards 0 mm</li> <li>— Backwards 0 mm</li> <li>— upwards 150 mm</li> <li>— downwards 150 mm</li> <li>— at the side 30 mm</li> </ul> </li> </ul>	




Connections/Terminals	
<b>Product function</b>	
<ul style="list-style-type: none"> <li>• removable terminal for auxiliary and control circuit</li> </ul>	No
<b>Type of electrical connection</b>	
<ul style="list-style-type: none"> <li>• for main current circuit</li> </ul>	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 2x (2.5 ... 16 mm<sup>2</sup>)</li> <li>— single or multi-stranded 2x (2,5 ... 50 mm<sup>2</sup>), 1x (10 ... 70 mm<sup>2</sup>)</li> <li>— finely stranded with core end processing 2x (2.5 ... 35 mm<sup>2</sup>), 2.5 ... 50 mm<sup>2</sup></li> </ul> </li> </ul>	
<b>Tightening torque</b>	
<ul style="list-style-type: none"> <li>• for ring cable lug <ul style="list-style-type: none"> <li>— for main contacts 4.5 ... 6 N·m</li> </ul> </li> </ul>	
<b>Outer diameter of the usable ring cable lug maximum</b>	19 mm
<b>Tightening torque</b>	
<ul style="list-style-type: none"> <li>• for main contacts with screw-type terminals 4.5 ... 6 N·m</li> </ul>	


Safety related data	
<b>B10 value</b>	

• with high demand rate acc. to SN 31920	5 000
<b>Proportion of dangerous failures</b>	
• with low demand rate acc. to SN 31920	50 %
• with high demand rate acc. to SN 31920	50 %
<b>T1 value for proof test interval or service life acc. to IEC 61508</b>	10 y
<b>Display version</b>	
• for switching status	Handle

## Certificates/approvals

General Product Approval	For use in hazardous locations
 CCC	 CSA
 UL	 EAC
	 ATEX
	 IECEX

Declaration of Conformity	Test Certificates	Marine / Shipping	other
 EG-Konf.	<a href="#">Special Test Certificate</a>	<a href="#">Declaration of the Compliance with the order</a>	<a href="#">Confirmation</a>
		 ABS	 DNV-GL DNVGL.COM/AF

other	Railway
 VDE	<a href="#">Miscellaneous</a>
	<a href="#">Vibration and Shock</a>

## Further information

### Information- and Downloadcenter (Catalogs, Brochures,...)

<http://www.siemens.com/industrial-controls/catalogs>

### Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RV2041-4RA10>

### Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2041-4RA10>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2041-4RA10>

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

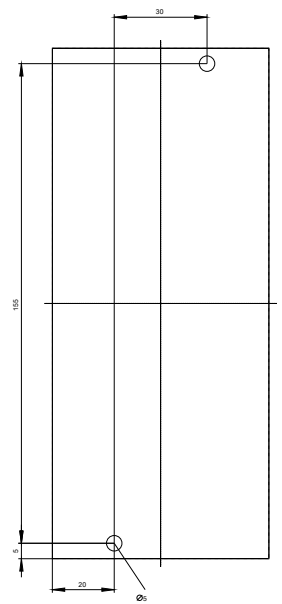
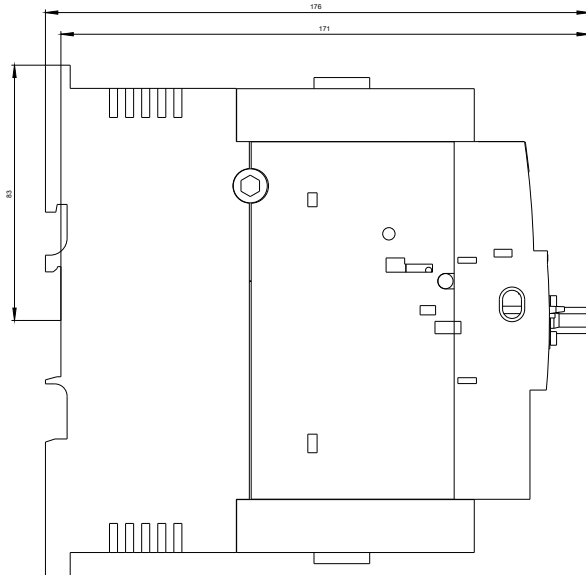
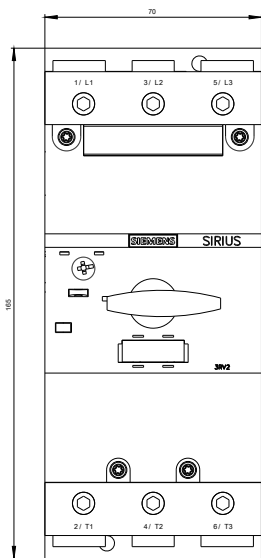
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RV2041-4RA10&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2041-4RA10&lang=en)

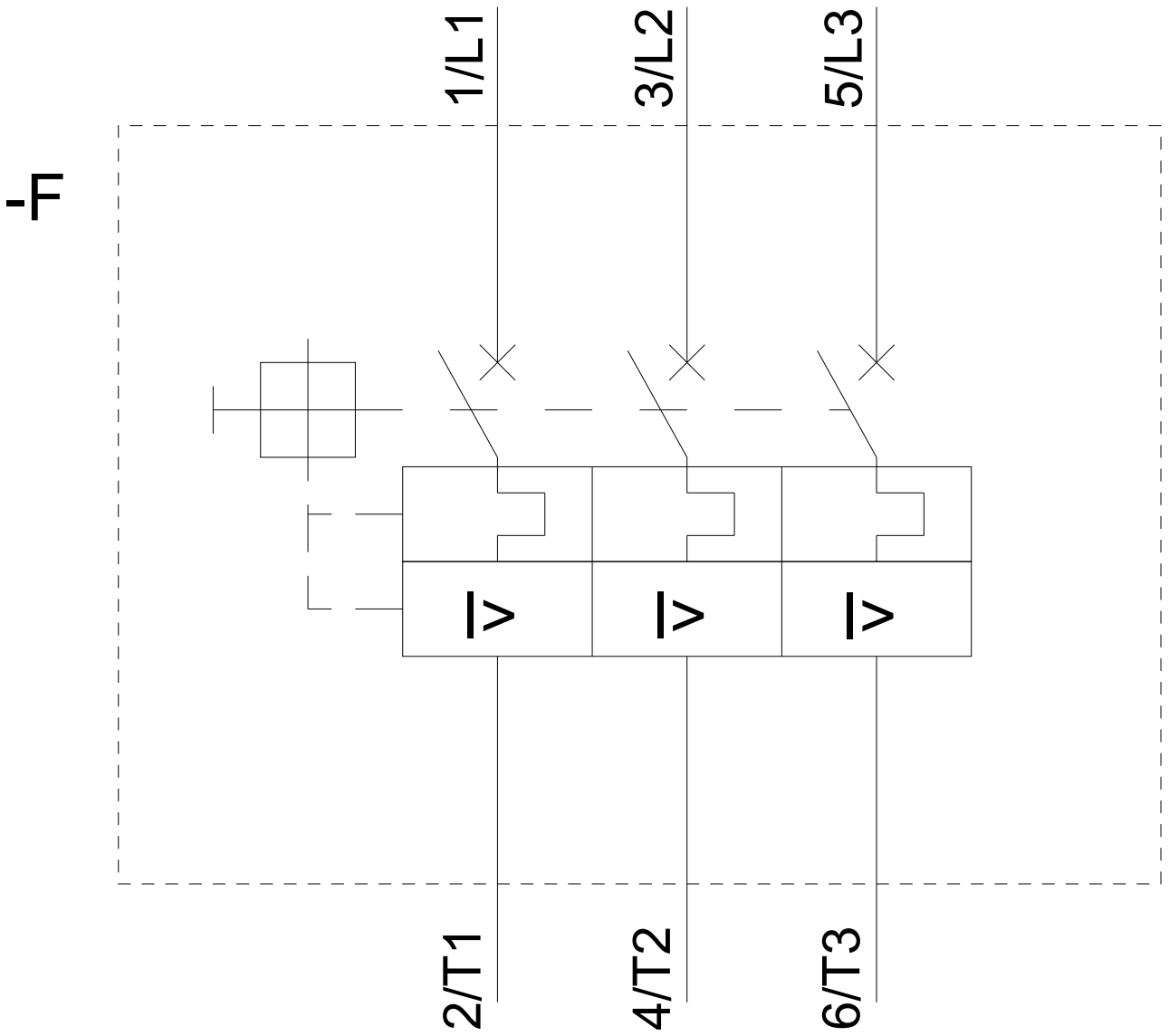
### Characteristic: Tripping characteristics, I<sup>2</sup>t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2041-4RA10/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2041-4RA10&objecttype=14&gridview=view1>





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