



Circuit breaker size S3 for system protection with approval circuit breaker UL 489, CSA C22.2 No.5-02 A-release 40 A N-release 520 A screw terminal

<b>product brand name</b>	SIRIUS
<b>product designation</b>	Circuit breaker
<b>design of the product</b>	For system protection according to UL 489/CSA C22.2 No. 5
<b>product type designation</b>	3RV2

### General technical data

<b>size of the circuit-breaker</b>	S3
<b>size of contactor can be combined company-specific</b>	S3
product extension auxiliary switch	Yes
<b>power loss [W] for rated value of the current</b>	
• at AC in hot operating state	18 W
• at AC in hot operating state per pole	6 W
insulation voltage with degree of pollution 3 at AC rated value	1 000 V
<b>surge voltage resistance rated value</b>	8 kV
<b>shock resistance according to IEC 60068-2-27</b>	25g / 11 ms Sinus
<b>mechanical service life (operating cycles)</b>	
• of the main contacts typical	25 000
• of auxiliary contacts typical	25 000
electrical endurance (operating cycles) typical	25 000
<b>reference code according to IEC 81346-2</b>	Q
<b>Substance Prohibitance (Date)</b>	03/01/2017

### Ambient conditions

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

### Main circuit

<b>number of poles for main current circuit</b>	3
<b>operating voltage</b>	
• rated value	20 ... 480 V
• at AC-3 rated value maximum	400 V
<b>operating frequency rated value</b>	50 ... 60 Hz
<b>operational current rated value</b>	40 A
<b>operational current</b>	
• at AC-3 at 400 V rated value	40 A
<b>operating power</b>	
• at AC-3	
— at 400 V rated value	18.5 kW
<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	No
<b>design of the overload release</b>	thermal
<b>maximum short-circuit current breaking capacity (I<sub>cu</sub>)</b>	
• at AC at 240 V rated value	100 kA
• at AC at 400 V rated value	100 kA
• at 480 AC Y/277 V according to UL 489 rated value	65 kA
<b>operating short-circuit current breaking capacity (I<sub>cs</sub>) at AC</b>	
• at 240 V rated value	100 kA
• at 400 V rated value	50 kA
response value current of instantaneous short-circuit trip unit	520 A

## 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>fastening method</b>	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715
<b>height</b>	170 mm
<b>width</b>	70 mm
<b>depth</b>	176 mm
<b>required spacing</b>	
• with side-by-side mounting at the side	0 mm
• for grounded parts at 400 V	
— downwards	70 mm
— upwards	70 mm
— at the side	10 mm
• for live parts at 400 V	
— downwards	70 mm
— upwards	70 mm
— at the side	10 mm

## Connections/ Terminals

<b>type of electrical connection</b>	screw-type terminals
• for main current circuit	Top and bottom
<b>arrangement of electrical connectors for main current circuit</b>	
<b>type of connectable conductor cross-sections</b>	
• for main contacts	
— solid	2x (2.5 ... 16 mm <sup>2</sup> )
— solid or stranded	2x (2,5 ... 50 mm <sup>2</sup> ), 1x (10 ... 70 mm <sup>2</sup> )
— finely stranded with core end processing	2x (2.5 ... 35 mm <sup>2</sup> ), 1x (2.5 ... 50 mm <sup>2</sup> )
— finely stranded without core end processing	2x (10 ... 35 mm <sup>2</sup> ), 1x (10 ... 50 mm <sup>2</sup> )
• at AWG cables for main contacts for box terminal using the front clamping point	8
<b>tightening torque</b>	
• for main contacts with screw-type terminals	4.5 ... 6 N·m
<b>design of the thread of the connection screw</b>	
• for main contacts	M8

## Safety related data

<b>B10 value</b>	
• with high demand rate according to SN 31920	5 000
<b>proportion of dangerous failures</b>	
• with low demand rate according to SN 31920	50 %
• with high demand rate according to SN 31920	50 %
<b>failure rate [FIT]</b>	
• with low demand rate according to SN 31920	50 FIT
T1 value for proof test interval or service life according to IEC 61508	10 a
<b>protection class IP on the front according to IEC 60529</b>	IP20

touch protection on the front according to IEC 60529  
display version for switching status

finger-safe, for vertical contact from the front  
Handle

## Certificates/ approvals

### General Product Approval



[Confirmation](#)



[KC](#)



### Declaration of Conformity



EG-Konf.



### Test Certificates

[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)

### Marine / Shipping



### other

[Confirmation](#)

### other



## 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=3RV2742-5GD10>

### Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2742-5GD10>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2742-5GD10>

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

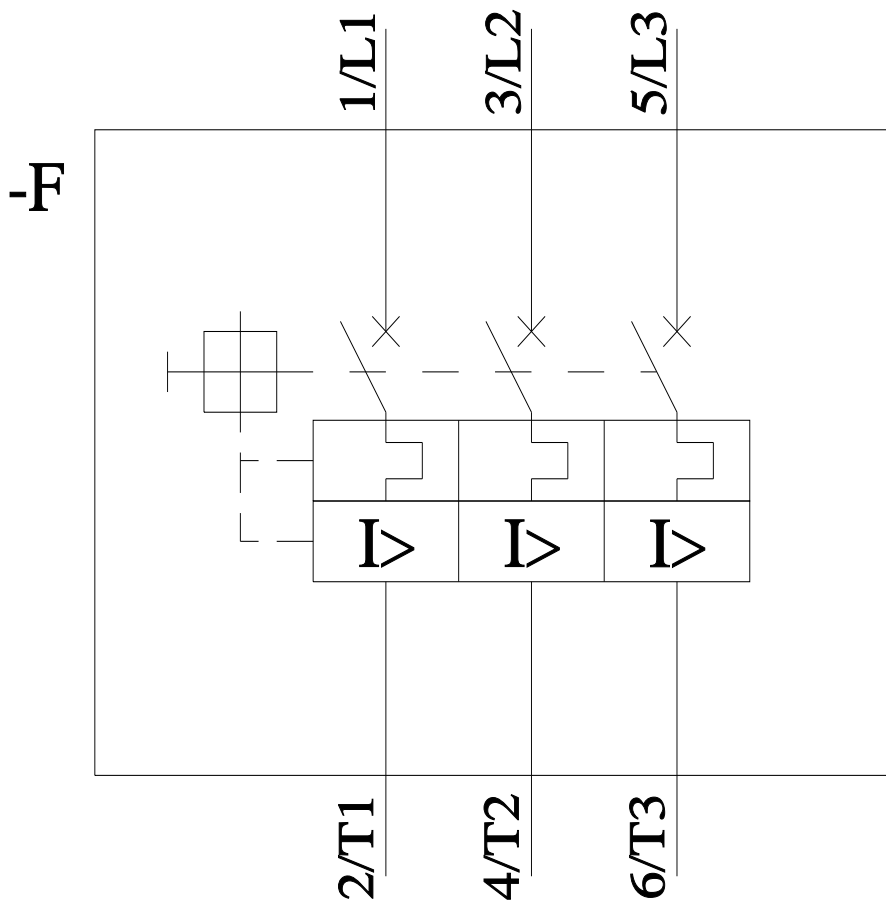
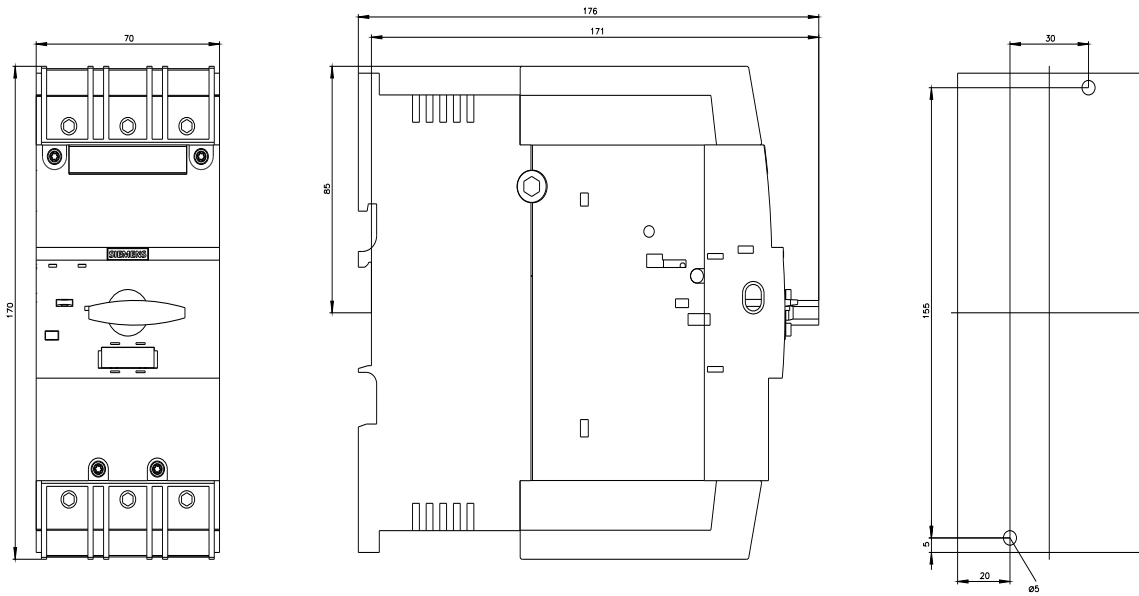
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RV2742-5GD10&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2742-5GD10&lang=en)

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2742-5GD10/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2742-5GD10&objecttype=14&gridview=view1>



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