



Circuit breaker size S3 for system protection with approval circuit breaker UL 489, CSA C22.2 No.5-02 A-release 50 A N-release 650 A screw terminal

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

General technical data

size of the circuit-breaker	S3
size of contactor can be combined company-specific	S3
product extension auxiliary switch	Yes
power loss [W] for rated value of the current	
• at AC in hot operating state	23.5 W
• at AC in hot operating state per pole	7.8 W
insulation voltage with degree of pollution 3 at AC rated value	1 000 V
surge voltage resistance rated value	8 kV
shock resistance according to IEC 60068-2-27	25g / 11 ms Sinus
mechanical service life (operating cycles)	
• of the main contacts typical	25 000
• of auxiliary contacts typical	25 000
electrical endurance (operating cycles) typical	25 000
reference code according to IEC 81346-2	Q
Substance Prohibition (Date)	03/01/2017

Ambient conditions

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 %

Main circuit

number of poles for main current circuit	3
operating voltage	
• rated value	20 ... 480 V
• at AC-3 rated value maximum	400 V
operating frequency rated value	50 ... 60 Hz
operational current rated value	50 A
operational current	
• at AC-3 at 400 V rated value	50 A
operating power	
• at AC-3	
— at 400 V rated value	22 kW
operating frequency	
• at AC-3 maximum	15 1/h

Protective and monitoring functions

product function

- ground fault detection
- phase failure detection

No
No
thermal

design of the overload release

maximum short-circuit current breaking capacity (Icu)

- at AC at 240 V rated value
- at AC at 400 V rated value
- at 480 AC Y/277 V according to UL 489 rated value

100 kA
100 kA
65 kA

operating short-circuit current breaking capacity (Ics) at AC

- at 240 V rated value
- at 400 V rated value

100 kA
50 kA
650 A

response value current of instantaneous short-circuit trip unit

Short-circuit protection

product function short circuit protection

Yes

design of the short-circuit trip

magnetic

Installation/ mounting/ dimensions

mounting position

any

fastening method

screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715

height

170 mm

width

70 mm

depth

176 mm

required spacing

- with side-by-side mounting at the side
- for grounded parts at 400 V
 - downwards
 - upwards
 - at the side
- for live parts at 400 V
 - downwards
 - upwards
 - at the side

0 mm
70 mm
70 mm
10 mm
70 mm
70 mm
10 mm

Connections/ Terminals

type of electrical connection

- for main current circuit

screw-type terminals

arrangement of electrical connectors for main current circuit

Top and bottom

type of connectable conductor cross-sections

- for main contacts
 - solid
 - solid or stranded
 - finely stranded with core end processing
 - finely stranded without core end processing
- at AWG cables for main contacts for box terminal using the front clamping point

2x (2.5 ... 16 mm²)
2x (2.5 ... 50 mm²), 1x (10 ... 70 mm²)
2x (2.5 ... 35 mm²), 1x (2.5 ... 50 mm²)
2x (10 ... 35 mm²), 1x (10 ... 50 mm²)
8

tightening torque

- for main contacts with screw-type terminals

4.5 ... 6 N·m

design of the thread of the connection screw

- for main contacts

M8

Safety related data

B10 value

- with high demand rate according to SN 31920

5 000

proportion of dangerous failures

- with low demand rate according to SN 31920
- with high demand rate according to SN 31920

50 %
50 %

failure rate [FIT]

- 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

protection class IP on the front according to IEC 60529

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=3RV2742-5JD10>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2742-5JD10>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2742-5JD10>

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

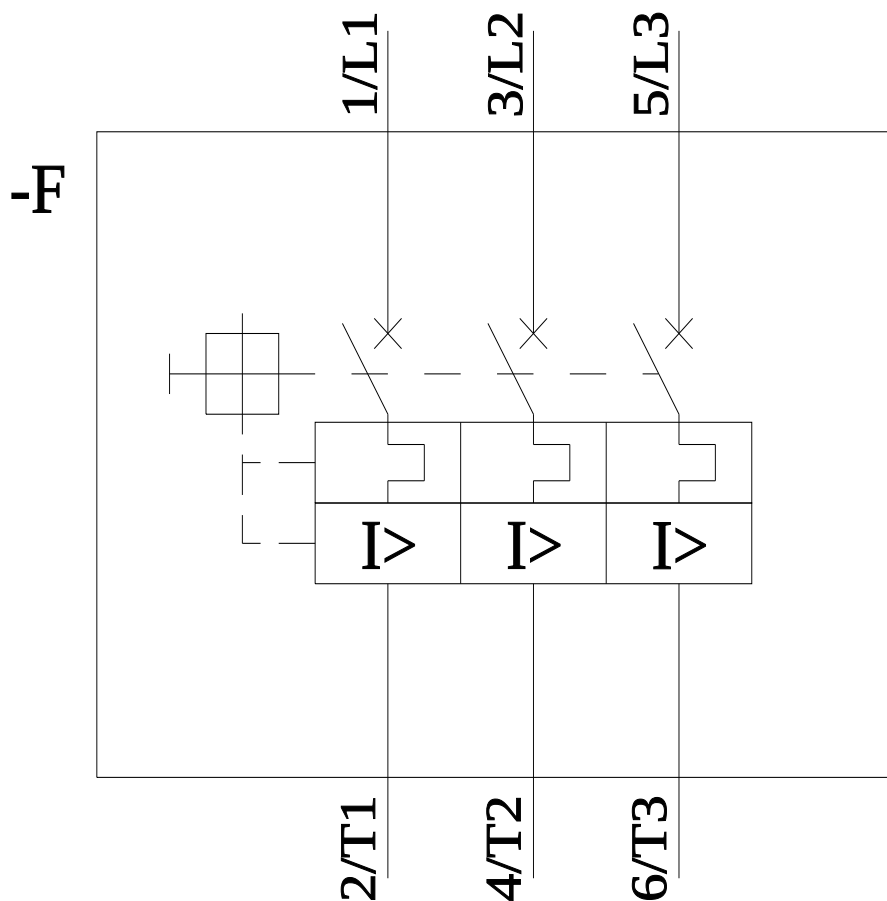
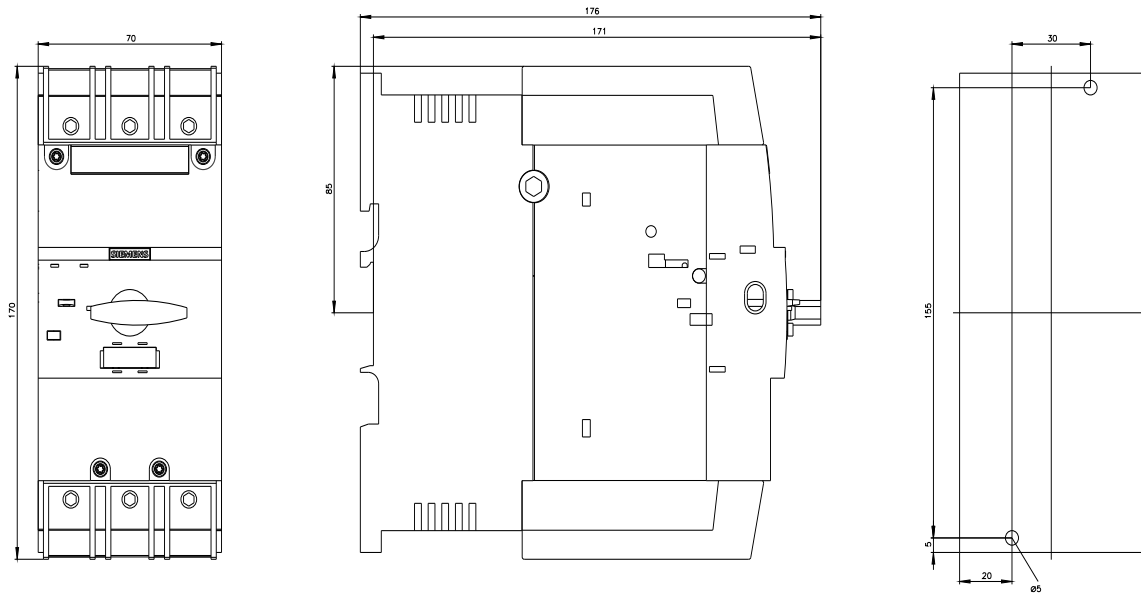
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2742-5JD10&lang=en

Characteristic: Tripping characteristics, I²t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2742-5JD10/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2742-5JD10&objecttype=14&gridview=view1>



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11/21/2022

