



Circuit breaker size S3 for system protection with approval circuit breaker UL 489, CSA C22.2 No.5-02 A-release 70 A N-release 910 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 (switching cycles)	
• of the main contacts typical	25 000
• of auxiliary contacts typical	25 000
electrical endurance (switching 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	70 A
operational current	
• at AC-3 at 400 V rated value	70 A
operating power	
• at AC-3	
— at 400 V rated value	37 kW
operating frequency	
• at AC-3 maximum	15 1/h

Protective and monitoring functions	
product function • ground fault detection • phase failure detection design of the overload release	No No thermal
breaking capacity maximum short-circuit current (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 breaking capacity operating short-circuit current (Ics) at AC • at 240 V rated value • at 400 V rated value response value current of instantaneous short-circuit trip unit	100 kA 100 kA 65 kA 100 kA 50 kA 910 A
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 standard mounting 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 arrangement of electrical connectors for main current circuit	screw-type terminals 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 tightening torque • for main contacts with screw-type terminals design of the thread of the connection screw • for main contacts	2x (2.5 ... 16 mm ²) 2x (2,5 ... 50 mm ²), 1x (10 ... 70 mm ²) 2x (2.5 ... 35 mm ²), 1x (2.5 ... 50 mm ²) 2x (10 ... 35 mm ²), 1x (10 ... 50 mm ²) 2x (14 ... 4) 4.5 ... 6 N·m M8
Safety related data	
B10 value • with high demand rate according to SN 31920 proportion of dangerous failures • with low demand rate according to SN 31920 • with high demand rate according to SN 31920 failure rate [FIT] • with low demand rate according to SN 31920 T1 value for proof test interval or service life according to IEC 61508	5 000 50 % 50 % 50 FIT 10 y
protection class IP on the front according to IEC 60529	IP20
touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front

Certificates/ approvals

General Product Approval


[Confirmation](#)

[KC](#)


Declaration of Conformity

Test Certificates

Marine / Shipping

other


[Special Test Certificate](#)
[Type Test Certificates/Test Report](#)

[Confirmation](#)

other



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?mlfb=3RV2742-5QD10>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2742-5QD10>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2742-5QD10>

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

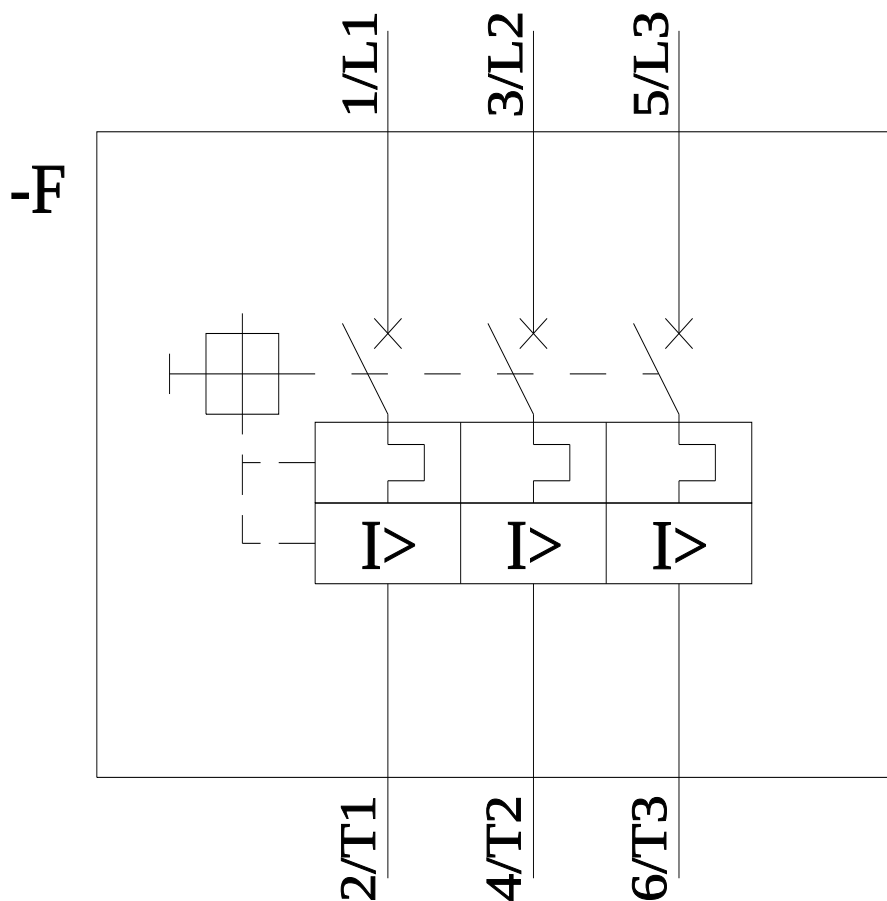
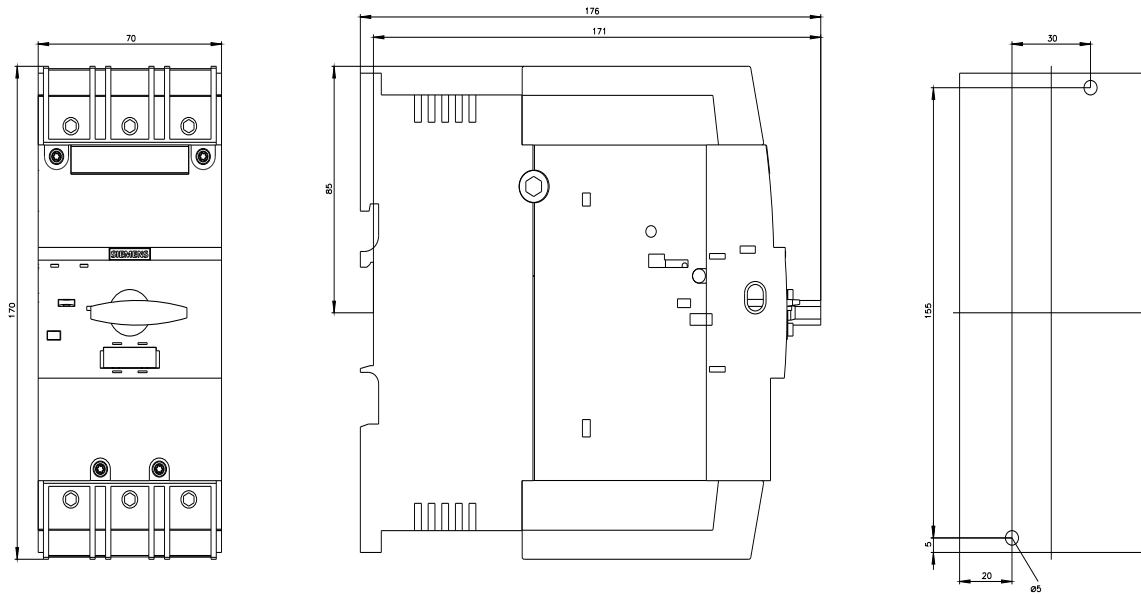
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2742-5QD10&lang=en

Characteristic: Tripping characteristics, I_t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2742-5QD10/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2742-5QD10&objecttype=14&gridview=view1>



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