## **SIEMENS**

Data sheet 3RV2742-5HD10





Circuit breaker size S3 for system protection with approval circuit breaker UL 489, CSA C22.2 No.5-02 A-release 45 A N-release 585 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
product extension auxiliary switch	Yes
power loss [W] for rated value of the current	
<ul> <li>at AC in hot operating state</li> </ul>	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
surge voltage resistance rated value	8 kV
shock resistance according to IEC 60068-2-27	25 g / 11 ms (rectangular impulse and sine pulse)
mechanical service life (operating cycles)	
<ul> <li>of the main contacts typical</li> </ul>	25 000
of auxiliary contacts typical	25 000
electrical endurance (operating cycles) typical	25 000
reference code according to IEC 81346-2	Q
Substance Prohibitance (Date)	03/01/2017
SVHC substance name	Lead - 7439-92-1
Weight	2.262 kg
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
<ul> <li>during operation</li> </ul>	-20 +60 °C
during storage	-50 +80 °C
during transport	-50 +80 °C
relative humidity during operation	10 95 %
Environmental footprint	
global warming potential [CO2 eq] total	283.24 kg
global warming potential [CO2 eq] during manufacturing	18.5 kg
global warming potential [CO2 eq] during sales	1.24 kg
global warming potential [CO2 eq] during operation	265 kg
global warming potential [CO2 eq] after end of life	-1.5 kg
Siemens Eco Profile (SEP)	Siemens EcoTech
Main circuit	
number of poles for main current circuit	3

operating voltage	
rated value	20 600 V
operating frequency rated value	50 60 Hz
operational current rated value	45 A
Protective and monitoring functions	
product function	
ground fault detection	No
phase failure detection	No
design of the overload release	thermal
maximum short-circuit current breaking capacity (Icu)	
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
operating short-circuit current breaking capacity (lcs) at AC	400 1-4
• at 240 V rated value	100 kA
at 400 V rated value	50 kA
response value current of instantaneous short-circuit trip unit	585 A
Short-circuit protection	V
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 width	170 mm 70 mm
	176 mm
depth required spacing	170 111111
• for grounded parts at 400 V	
— downwards	90 mm
— upwards	90 mm
— at the side	10 mm
• for live parts at 400 V	10 111111
— downwards	90 mm
— upwards	90 mm
— at the side	10 mm
Connections/ Terminals	
type of electrical connection	
for main current circuit	screw-type terminals
arrangement of electrical connectors for main current	Top and bottom
circuit	·
type of connectable conductor cross-sections	
• for main contacts	
— solid	2x (2.5 16 mm²)
— solid or stranded	2x (2,5 50 mm²), 1x (10 70 mm²)
— finely stranded with core end processing	2x (2.5 35 mm²), 1x (2.5 50 mm²)
— finely stranded without core end processing	2x (10 35 mm²), 1x (10 50 mm²)
for AWG cables for main contacts	8
<ul> <li>for AWG cables for main contacts for box terminal using the front clamping point</li> </ul>	8
tightening torque	
for main contacts with screw-type terminals	4.5 6 N·m
design of screwdriver shaft	Hexagonal socket
size of the screwdriver tip	4 mm
design of the thread of the connection screw	
for main contacts	M8
Safety related data	
product function suitable for safety function	Yes
suitability for use	
safety-related switching on	No
safety-related switching OFF	Yes
service life maximum	10 a

Yes
40 %
50 %
5 000
50 FIT
3
Yes
Type A
10 a
IP20
finger-safe, for vertical contact from the front
Handle







Confirmation



<u>KC</u>

**General Product Ap**proval

**Test Certificates** 

Marine / Shipping

other



**Special Test Certific-**<u>ate</u>

Type Test Certificates/Test Report



**Miscellaneous** 

Confirmation

other

Environment









**Environmental Con**firmations

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=3RV2742-5HD10

Cax online generator

 $\underline{\text{http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3RV2742-5HD10}\\$ 

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3RV2742-5HD10

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

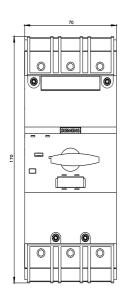
http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RV2742-5HD10&lang=en

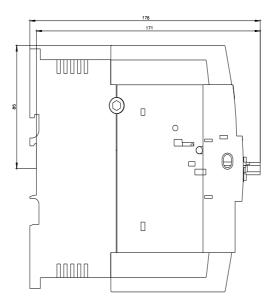
Characteristic: Tripping characteristics, I²t, Let-through current

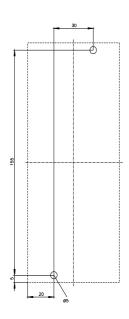
https://support.industry.siemens.com/cs/ww/en/ps/3RV2742-5HD10/char

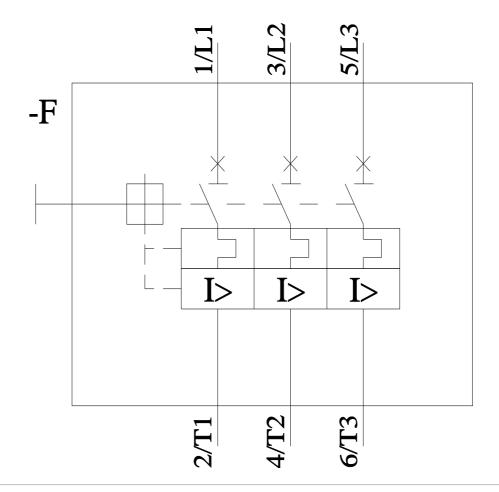
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2742-5HD10&objecttype=14&gridview=view1









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