



Circuit breaker size S0 For transformer protection A-release 0.45...0.63 A
Short-circuit release 13 A Screw terminal Standard switching capacity

product brand name	SIRIUS
product designation	Circuit breaker
design of the product	For transformer protection
product type designation	3RV2

General technical data

size of the circuit-breaker	S0
size of contactor can be combined company-specific	S00, S0
product extension auxiliary switch	Yes
power loss [W] for rated value of the current	
• at AC in hot operating state	5.5 W
• at AC in hot operating state per pole	1.8 W
insulation voltage with degree of pollution 3 at AC rated value	690 V
surge voltage resistance rated value	6 kV
shock resistance according to IEC 60068-2-27	25g / 11 ms
mechanical service life (operating cycles)	
• of the main contacts typical	100 000
• of auxiliary contacts typical	100 000
electrical endurance (operating cycles) typical	100 000
reference code according to IEC 81346-2	Q
Substance Prohibitance (Date)	10/01/2009

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
adjustable current response value current of the current-dependent overload release	0.45 ... 0.63 A
operating voltage	
• rated value	20 ... 690 V
• at AC-3 rated value maximum	690 V
• at AC-3e rated value maximum	690 V
operating frequency rated value	50 ... 60 Hz
operational current rated value	0.63 A
operational current	
• at AC-3 at 400 V rated value	0.63 A
• at AC-3e at 400 V rated value	0.63 A
operating power	

• at AC-3 — at 230 V rated value — at 400 V rated value — at 500 V rated value — at 690 V rated value • at AC-3e — at 230 V rated value — at 400 V rated value — at 500 V rated value — at 690 V rated value	0.1 kW 0.2 kW 0.2 kW 0.3 kW
operating frequency	
• at AC-3 maximum • at AC-3e maximum	15 1/h 15 1/h
Auxiliary circuit	
number of NC contacts for auxiliary contacts	0
number of NO contacts for auxiliary contacts	0
number of CO contacts for auxiliary contacts	0
Protective and monitoring functions	
product function	
• ground fault detection • phase failure detection	No Yes
trip class	CLASS 10
design of the overload release	thermal
maximum short-circuit current breaking capacity (Icu)	
• at AC at 240 V rated value • at AC at 400 V rated value • at AC at 500 V rated value • at AC at 690 V rated value	100 kA 100 kA 100 kA 100 kA
operating short-circuit current breaking capacity (Ics) at AC	
• at 240 V rated value • at 400 V rated value • at 500 V rated value • at 690 V rated value	100 kA 100 kA 100 kA 100 kA
response value current of instantaneous short-circuit trip unit	13 A
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
• at 480 V rated value • at 600 V rated value	0.63 A 0.63 A
Short-circuit protection	
product function short circuit protection	Yes
design of the short-circuit trip	magnetic
design of the fuse link for IT network for short-circuit protection of the main circuit	
• at 690 V	gL/gG 6 A
Installation/ mounting/ dimensions	
mounting position	any
fastening method	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715
height	97 mm
width	45 mm
depth	97 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 30 mm 30 mm 9 mm 30 mm 30 mm 9 mm

- for grounded parts at 500 V
 - downwards 30 mm
 - upwards 30 mm
 - at the side 9 mm
- for live parts at 500 V
 - downwards 30 mm
 - upwards 30 mm
 - at the side 9 mm
- for grounded parts at 690 V
 - downwards 50 mm
 - upwards 50 mm
 - backwards 0 mm
 - at the side 30 mm
 - forwards 0 mm
- for live parts at 690 V
 - downwards 50 mm
 - upwards 50 mm
 - backwards 0 mm
 - at the side 30 mm
 - forwards 0 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 or stranded
 - finely stranded with core end processing
- at AWG cables for main contacts

2x (1 ... 2.5 mm²), 2x (2.5 ... 10 mm²)

2x (1 ... 2.5 mm²), 2x (2.5 ... 6 mm²), 1x 10 mm²

2x (16 ... 12), 2x (14 ... 8)

tightening torque

- for main contacts with screw-type terminals

2 ... 2.5 N·m

design of screwdriver shaft

Diameter 5 to 6 mm

size of the screwdriver tip

Pozidriv size 2

design of the thread of the connection screw

- for main contacts

M4

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 y

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

Test Certificates

Marine / Shipping



[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



Marine / Shipping

other



[Confirmation](#)

other

Railway



[Vibration and Shock](#)

[Confirmation](#)

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=3RV2421-0GA10>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2421-0GA10>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2421-0GA10>

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

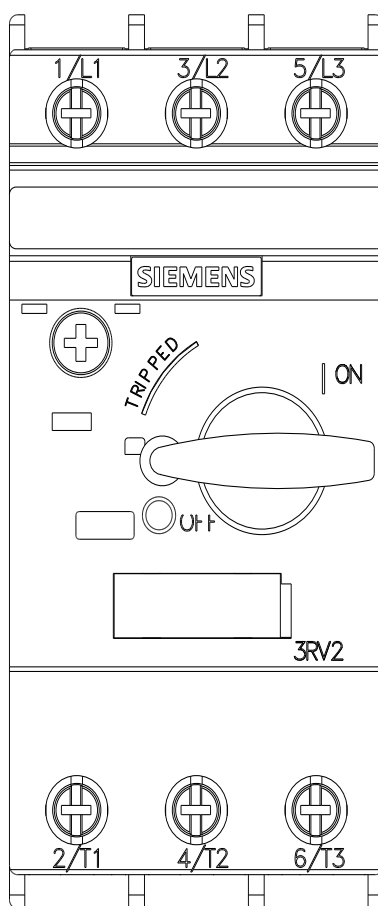
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2421-0GA10&lang=en

Characteristic: Tripping characteristics, I_t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2421-0GA10/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2421-0GA10&objecttype=14&gridview=view1>





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