



Circuit breaker size S0 for motor protection, CLASS 10 A-release 1.4...2 A
N-release 26 A Spring-type terminal Standard switching capacity with
transverse auxiliary switches 1 NO+1 NC

product brand name	SIRIUS
product designation	Circuit breaker
design of the product	For motor 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	7.25 W
• at AC in hot operating state per pole	2.4 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
type of protection according to ATEX directive 2014/34/EU	Ex II (2) GD
certificate of suitability according to ATEX directive 2014/34/EU	DMT 02 ATEX F 001
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	1.4 ... 2 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	2 A

operational current	
• at AC-3 at 400 V rated value	2 A
• at AC-3e at 400 V rated value	2 A
operating power	
• at AC-3	
— at 230 V rated value	0.4 kW
— at 400 V rated value	0.8 kW
— at 500 V rated value	0.8 kW
— at 690 V rated value	1.1 kW
• at AC-3e	
— at 230 V rated value	0.4 kW
— at 400 V rated value	0.8 kW
— at 500 V rated value	0.8 kW
— at 690 V rated value	1.1 kW
operating frequency	
• at AC-3 maximum	15 1/h
• at AC-3e maximum	15 1/h
Auxiliary circuit	
design of the auxiliary switch	transverse
number of NC contacts for auxiliary contacts	1
number of NO contacts for auxiliary contacts	1
number of CO contacts for auxiliary contacts	0
operational current of auxiliary contacts at AC-15	
• at 24 V	2 A
• at 120 V	0.5 A
• at 125 V	0.5 A
• at 230 V	0.5 A
operational current of auxiliary contacts at DC-13	
• at 24 V	1 A
• at 60 V	0.15 A
Protective and monitoring functions	
product function	
• ground fault detection	No
• phase failure detection	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	100 kA
• at AC at 400 V rated value	100 kA
• at AC at 500 V rated value	100 kA
• at AC at 690 V rated value	10 kA
operating short-circuit current breaking capacity (Ics) at AC	
• at 240 V rated value	100 kA
• at 400 V rated value	100 kA
• at 500 V rated value	100 kA
• at 690 V rated value	10 kA
response value current of instantaneous short-circuit trip unit	26 A
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
• at 480 V rated value	2 A
• at 600 V rated value	2 A
yielded mechanical performance [hp]	
• for single-phase AC motor	
— at 230 V rated value	0.13 hp
• for 3-phase AC motor	
— at 460/480 V rated value	1 hp
— at 575/600 V rated value	1 hp
contact rating of auxiliary contacts according to UL	C300 / R300
Short-circuit protection	
product function short circuit protection	Yes
design of the short-circuit trip	magnetic

design of the fuse link

- for short-circuit protection of the auxiliary switch required

Fuse gL/gG: 10 A, miniature circuit breaker C 6 A (short-circuit current $I_k < 400 \text{ A}$)

Installation/ mounting/ dimensions**mounting position**

any

fastening method

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

height

119 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
- for grounded parts at 500 V
 - downwards
 - upwards
 - at the side
- for live parts at 500 V
 - downwards
 - upwards
 - at the side
- for grounded parts at 690 V
 - downwards
 - upwards
 - backwards
 - at the side
 - forwards
- for live parts at 690 V
 - downwards
 - upwards
 - backwards
 - at the side
 - forwards

0 mm
30 mm
30 mm
9 mm
30 mm
30 mm
9 mm
30 mm
30 mm
9 mm
50 mm
50 mm
0 mm
30 mm
0 mm
50 mm
50 mm
0 mm
30 mm
0 mm

Connections/ Terminals**type of electrical connection**

- for main current circuit
- for auxiliary and control circuit

spring-loaded terminals
spring-loaded terminals
Top and bottom

arrangement of electrical connectors for main current circuit**type of connectable conductor cross-sections**

- for main contacts
 - solid or stranded
 - finely stranded with core end processing
 - finely stranded without core end processing
- at AWG cables for main contacts

2x (1 ... 10 mm²)
2x (1 ... 6 mm²)
2x (1 ... 6 mm²)
2x (18 ... 8)

type of connectable conductor cross-sections

- for auxiliary contacts
 - solid or stranded
 - finely stranded with core end processing
 - finely stranded without core end processing
- at AWG cables for auxiliary contacts

2x (0.5 ... 2.5 mm²)
2x (0.5 ... 1.5 mm²)
2x (0.5 ... 1.5 mm²)
2x (20 ... 14)

design of screwdriver shaft

Diameter 3 mm

size of the screwdriver tip

3,0 x 0,5 mm

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

For use in hazard-
ous locations



[Confirmation](#)



[KC](#)



For use in hazard-
ous locations

Declaration of Conformity

Test Certificates

Marine / Shipping



[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



Marine / Shipping



other

Railway

[Confirmation](#)



[Vibration and Shock](#)

[Confirmation](#)

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=3RV2021-1BA25>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2021-1BA25>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2021-1BA25>

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

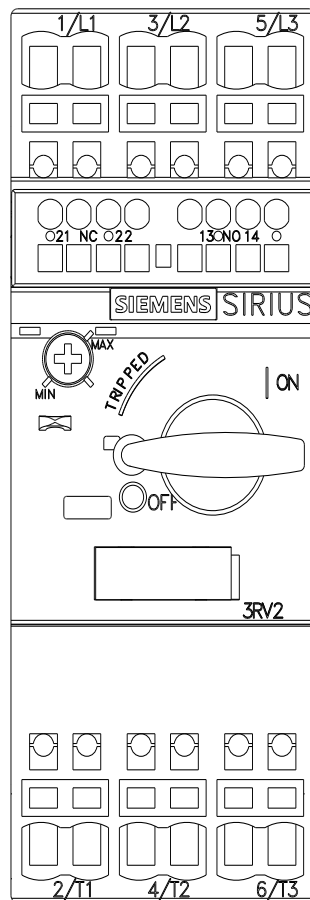
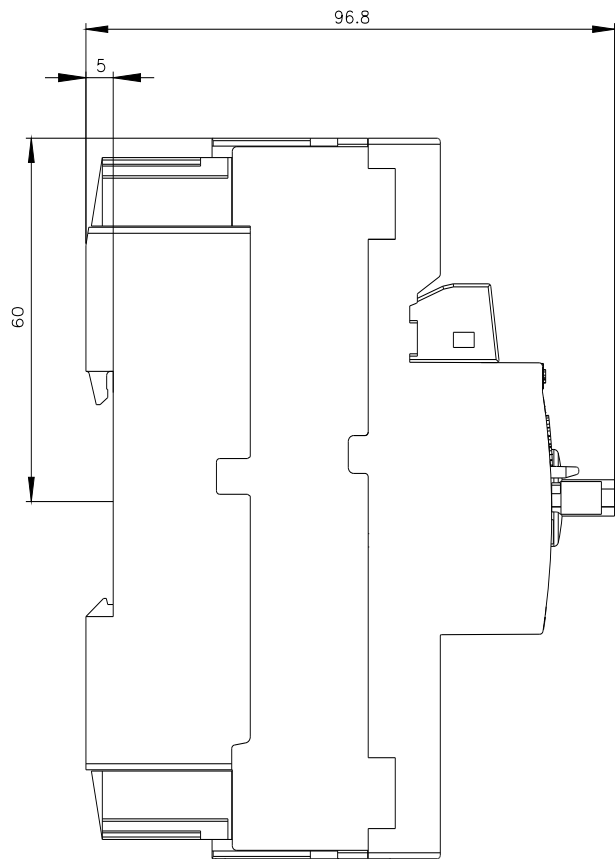
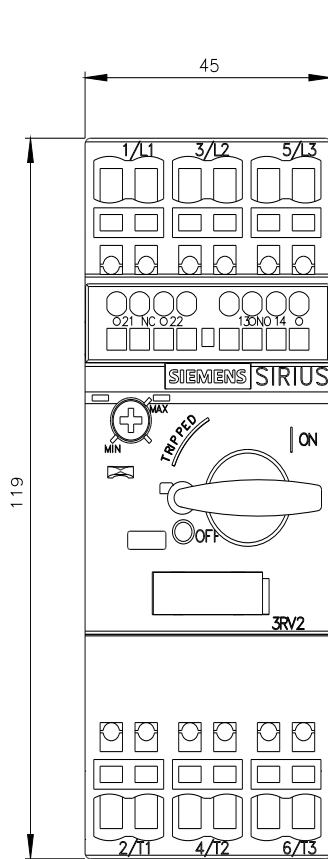
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2021-1BA25&lang=en

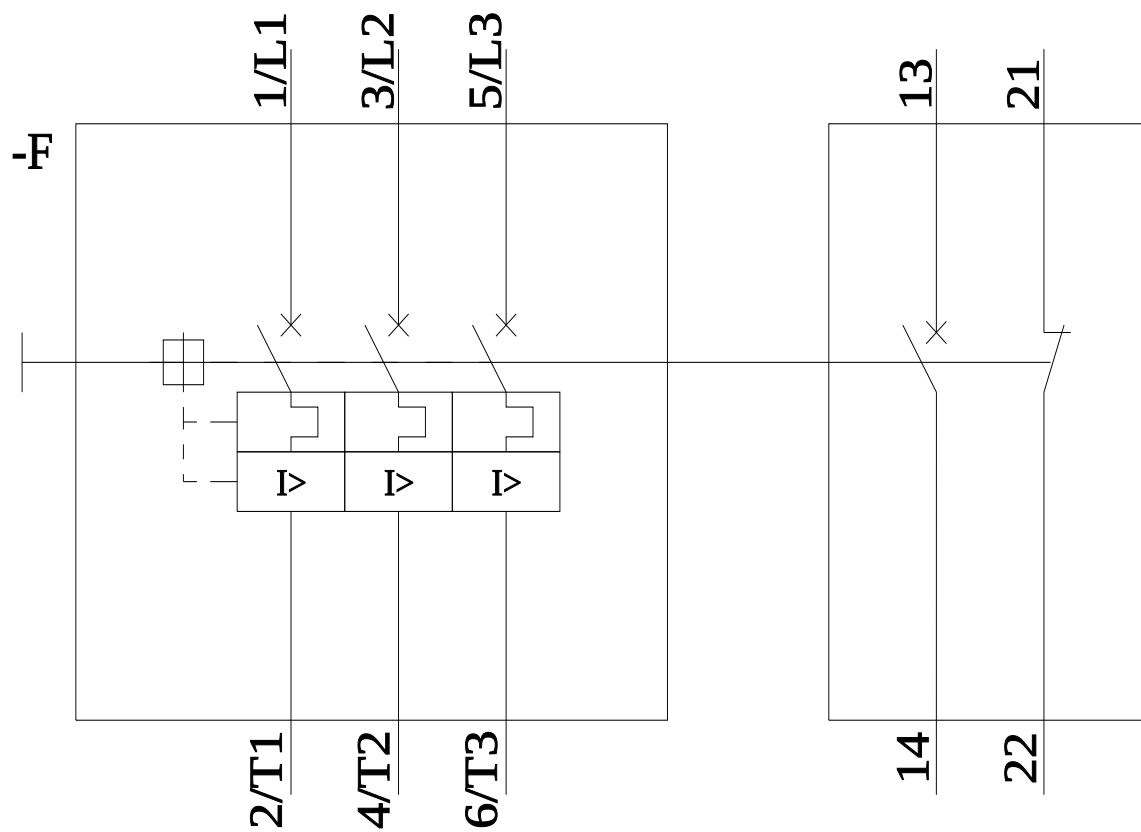
Characteristic: Tripping characteristics, I²t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2021-1BA25/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2021-1BA25&objecttype=14&gridview=view1>





last modified:

11/21/2022