SIEMENS

Data sheet



Special type Circuit breaker size S0 for motor protection, CLASS 10 A-release 18...25 A N-release 325 A Screw terminal Standard switching capacity Ambient temperature -50 $^{\circ}$ C 500 switching cycles

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	SO
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 	10.5 W
 at AC in hot operating state per pole 	3.5 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 	500
of auxiliary contacts typical	500
electrical endurance (operating cycles) typical	500
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 	-50 +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	18 25 A
operating voltage	
• rated value	20 690 V
rated valueat AC-3 rated value maximum	20 690 V 690 V
• at AC-3 rated value maximum	690 V
at AC-3 rated value maximum operating frequency rated value	690 V 50 60 Hz
at AC-3 rated value maximum operating frequency rated value operational current rated value	690 V 50 60 Hz
at AC-3 rated value maximum operating frequency rated value operational current rated value operational current	690 V 50 60 Hz 25 A
at AC-3 rated value maximum operating frequency rated value operational current rated value operational current at AC-3 at 400 V rated value	690 V 50 60 Hz 25 A

— at 230 V rated value	5.5 kW
— at 400 V rated value	11 kW
— at 500 V rated value	15 kW
— at 690 V rated value	22 kW
operating frequency	ZZ NVV
at AC-3 maximum	15 1/h
Auxiliary circuit	10 1/11
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	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 	50 kA
• at AC at 400 V rated value	50 kA
• at AC at 500 V rated value	10 kA
at AC at 690 V rated value	4 kA
operating short-circuit current breaking capacity (Ics) at AC	
• at 240 V rated value	25 kA
• at 400 V rated value	25 kA
• at 500 V rated value	5 kA
at 690 V rated value	2 kA
response value current of instantaneous short-circuit trip unit	325 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	nG 63 A
protection of the main circuit ● at 400 V	gG 63 A aG 50 A
protection of the main circuit	gG 63 A gG 50 A gG 50 A
protection of the main circuit ■ at 400 V ■ at 500 V	gG 50 A
protection of the main circuit • at 400 V • at 500 V • at 690 V Installation/ mounting/ dimensions	gG 50 A
protection of the main circuit at 400 V at 500 V at 690 V	gG 50 A gG 50 A
protection of the main circuit • at 400 V • at 500 V • at 690 V Installation/ mounting/ dimensions mounting position	gG 50 A gG 50 A any
protection of the main circuit at 400 V at 500 V at 690 V Installation/ mounting/ dimensions mounting position fastening method	gG 50 A gG 50 A any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715
protection of the main circuit • at 400 V • at 500 V • at 690 V Installation/ mounting/ dimensions mounting position fastening method height	gG 50 A gG 50 A any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 97 mm
protection of the main circuit • at 400 V • at 500 V • at 690 V Installation/ mounting/ dimensions mounting position fastening method height width	gG 50 A gG 50 A any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 97 mm 45 mm
protection of the main circuit at 400 V at 500 V at 690 V Installation/ mounting/ dimensions mounting position fastening method height width depth	gG 50 A gG 50 A any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 97 mm 45 mm
protection of the main circuit at 400 V at 500 V at 690 V Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing	gG 50 A gG 50 A any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 97 mm 45 mm 97 mm
protection of the main circuit at 400 V at 500 V at 690 V Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing with side-by-side mounting at the side	gG 50 A gG 50 A any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 97 mm 45 mm 97 mm
protection of the main circuit at 400 V at 500 V at 690 V Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing with side-by-side mounting at the side for grounded parts at 400 V	gG 50 A gG 50 A any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 97 mm 45 mm 97 mm 0 mm
protection of the main circuit at 400 V at 500 V at 690 V Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing with side-by-side mounting at the side for grounded parts at 400 V — downwards	gG 50 A gG 50 A any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 97 mm 45 mm 97 mm 0 mm 30 mm
protection of the main circuit at 400 V at 500 V at 690 V Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing with side-by-side mounting at the side for grounded parts at 400 V — downwards — upwards	gG 50 A gG 50 A any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 97 mm 45 mm 97 mm 0 mm 30 mm 30 mm
protection of the main circuit at 400 V at 500 V at 690 V Installation/ mounting/ dimensions mounting position fastening method height width depth 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	gG 50 A gG 50 A any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 97 mm 45 mm 97 mm 0 mm 30 mm 30 mm 9 mm
protection of the main circuit at 400 V at 500 V at 690 V Installation/ mounting/ dimensions mounting position fastening method height width depth 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 upwards upwards upwards upwards upwards	gG 50 A gG 50 A any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 97 mm 45 mm 97 mm 0 mm 30 mm 9 mm 30 mm 9 mm
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— 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

— lorwards	O HIIII
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 	2x (1 2.5 mm²), 2x (2.5 10 mm²)
 finely stranded with core end processing 	2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm²
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	
T1 value for proof test interval or service life according to IEC	10 a

Safety related data	
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	finger-safe, for vertical contact from the front
display version for switching status	Handle

Certificates/ approvals

General Product Approval Declaration of Conformity Test Certificates

Confirmation







Special Test Certificate

Test Certificates

Marine / Shipping

<u>KC</u>

Type Test Certificates/Test Report











Marine / Shipping

other

Railway



Confirmation



Vibration and Shock

Confirmation

Further information

Siemens has decided to exit the Russian market (see here).

https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business

Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

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=3RV2021-4DA10-0BA0

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2021-4DA10-0BA0

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

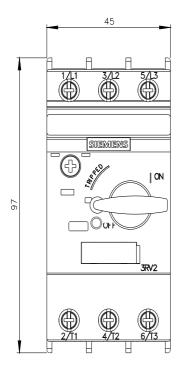
https://support.industry.siemens.com/cs/ww/en/ps/3RV2021-4DA10-0BA0

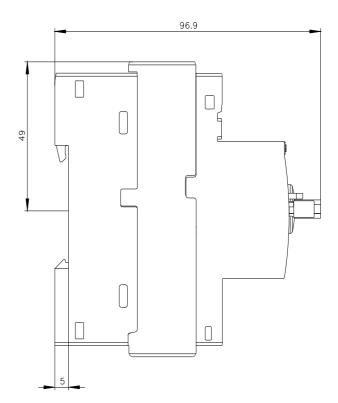
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2021-4DA10-0BA0&lang=en

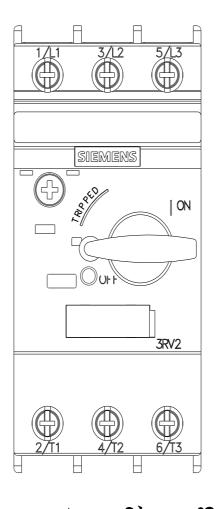
Characteristic: Tripping characteristics, I2t, Let-through current

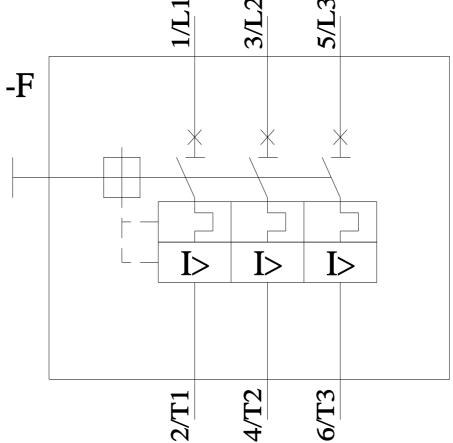
https://support.industry.siemens.com/cs/ww/en/ps/3RV2021-4DA10-0BA0/char

Further characteristics (e.g. electrical endurance, switching frequency)
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2021-4DA10-0BA0&objecttype=14&gridview=view1









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