SIEMENS

Data sheet 3RV2021-4PA10



Circuit breaker size S0 for motor protection, CLASS 10 A-release 30...36 A N-release 432 A screw terminal Standard switching capacity

nuadicat busined incurs	CIDILIC
product brand name	SIRIUS Circuit breaker
product designation	
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 	16.25 W
 at AC in hot operating state per pole 	5.4 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 +40 °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	30 36 A
operating voltage	
rated value	20 690 V
 at AC-3 rated value maximum 	690 V
operating frequency rated value	50 60 Hz
operational current rated value	36 A
operational current	

at AC-3 at 400 V rated value	36 A
operating power	
• at AC-3	
— at 230 V rated value	7.5 kW
— at 400 V rated value	18.5 kW
— at 500 V rated value	22 kW
— at 690 V rated value	30 kW
operating frequency	
at AC-3 maximum	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 	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 	20 kA
at AC at 500 V rated value	6 kA
at AC at 690 V rated value	3 kA
operating short-circuit current breaking capacity (Ics)	
at AC	
at 240 V rated value	100 kA
at 400 V rated value	10 kA
at 500 V rated value	3 kA
at 690 V rated value at 690 V rated value	2 kA
response value current of instantaneous short-circuit trip	432 A
unit	432 A
UL/CSA ratings	
, and the second	
full-load current (FLA) for 3-phase AC motor	00.4
at 480 V rated value	36 A
at 600 V rated value	36 A
yielded mechanical performance [hp]	
 for single-phase AC motor 	
	3 hp
— at 110/120 V rated value	·
— at 110/120 V rated value— at 230 V rated value	5 hp
	·
— at 230 V rated value	·
— at 230 V rated valuefor 3-phase AC motor	5 hp
— at 230 V rated valuefor 3-phase AC motor— at 200/208 V rated value	5 hp 10 hp
 — at 230 V rated value • for 3-phase AC motor — at 200/208 V rated value — at 220/230 V rated value — at 460/480 V rated value 	5 hp 10 hp 10 hp
 — at 230 V rated value ◆ for 3-phase AC motor — at 200/208 V rated value — at 220/230 V rated value — at 460/480 V rated value Short-circuit protection	5 hp 10 hp 10 hp 25 hp
— at 230 V rated value • for 3-phase AC motor — at 200/208 V rated value — at 220/230 V rated value — at 460/480 V rated value Short-circuit protection product function short circuit protection	5 hp 10 hp 10 hp 25 hp Yes
— at 230 V rated value • for 3-phase AC motor — at 200/208 V rated value — at 220/230 V rated value — at 460/480 V rated value Short-circuit protection product function short circuit protection design of the short-circuit trip	5 hp 10 hp 10 hp 25 hp
— at 230 V rated value • for 3-phase AC motor — at 200/208 V rated value — at 220/230 V rated value — at 460/480 V rated value Short-circuit protection product function short circuit protection design of the short-circuit trip design of the fuse link for IT network for short-circuit	5 hp 10 hp 10 hp 25 hp Yes
— at 230 V rated value • for 3-phase AC motor — at 200/208 V rated value — at 220/230 V rated value — at 460/480 V rated value Short-circuit protection product function short circuit protection design of the short-circuit trip design of the fuse link for IT network for short-circuit protection of the main circuit	5 hp 10 hp 10 hp 25 hp Yes magnetic
— at 230 V rated value • for 3-phase AC motor — at 200/208 V rated value — at 220/230 V rated value — at 460/480 V rated value Short-circuit protection product function short circuit protection design of the short-circuit trip design of the fuse link for IT network for short-circuit protection of the main circuit • at 400 V	5 hp 10 hp 10 hp 25 hp Yes magnetic gG 63 A
- at 230 V rated value • for 3-phase AC motor — at 200/208 V rated value — at 220/230 V rated value — at 460/480 V rated value Short-circuit protection product function short circuit protection design of the short-circuit trip design of the fuse link for IT network for short-circuit protection of the main circuit • at 400 V • at 500 V	5 hp 10 hp 10 hp 25 hp Yes magnetic gG 63 A gG 63 A
- at 230 V rated value • for 3-phase AC motor — at 200/208 V rated value — at 220/230 V rated value — at 460/480 V rated value Short-circuit protection product function short circuit protection design of the short-circuit trip design of the fuse link for IT network for short-circuit protection of the main circuit • at 400 V • at 500 V • at 690 V	5 hp 10 hp 10 hp 25 hp Yes magnetic gG 63 A
— at 230 V rated value • for 3-phase AC motor — at 200/208 V rated value — at 220/230 V rated value — at 460/480 V rated value Short-circuit protection product function short circuit protection design of the short-circuit trip design of the fuse link for IT network for short-circuit protection of the main circuit • at 400 V • at 500 V • at 690 V Installation/ mounting/ dimensions	5 hp 10 hp 10 hp 25 hp Yes magnetic gG 63 A gG 63 A gG 63 A
- at 230 V rated value • for 3-phase AC motor — at 200/208 V rated value — at 220/230 V rated value — at 460/480 V rated value Short-circuit protection product function short circuit protection design of the short-circuit trip design of the fuse link for IT network for short-circuit protection of the main circuit • at 400 V • at 500 V • at 690 V Installation/ mounting/ dimensions mounting position	5 hp 10 hp 10 hp 25 hp Yes magnetic gG 63 A gG 63 A gG 63 A any
— at 230 V rated value • for 3-phase AC motor — at 200/208 V rated value — at 220/230 V rated value — at 460/480 V rated value Short-circuit protection product function short circuit protection design of the short-circuit trip design of the fuse link for IT network for short-circuit protection of the main circuit • at 400 V • at 500 V • at 690 V Installation/ mounting/ dimensions	5 hp 10 hp 10 hp 25 hp Yes magnetic gG 63 A
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- at 230 V rated value • for 3-phase AC motor — at 200/208 V rated value — at 220/230 V rated value — at 460/480 V rated value Short-circuit protection product function short circuit protection design of the short-circuit trip design of the fuse link for IT network for short-circuit protection of the main circuit • at 400 V • at 500 V • at 690 V Installation/ mounting/ dimensions mounting position fastening method height	5 hp 10 hp 10 hp 25 hp Yes magnetic gG 63 A
- at 230 V rated value • for 3-phase AC motor — at 200/208 V rated value — at 220/230 V rated value — at 460/480 V rated value Short-circuit protection product function short circuit protection design of the short-circuit trip design of the fuse link for IT network for short-circuit protection of the main circuit • at 400 V • at 500 V • at 690 V Installation/ mounting/ dimensions mounting position fastening method height width	5 hp 10 hp 10 hp 25 hp Yes magnetic gG 63 A
- at 230 V rated value • for 3-phase AC motor — at 200/208 V rated value — at 220/230 V rated value — at 460/480 V rated value Short-circuit protection product function short circuit protection design of the short-circuit trip design of the fuse link for IT network for short-circuit protection of the main circuit • at 400 V • at 500 V • at 690 V Installation/ mounting/ dimensions mounting position fastening method height width depth	5 hp 10 hp 10 hp 25 hp Yes magnetic gG 63 A
- at 230 V rated value • for 3-phase AC motor — at 200/208 V rated value — at 220/230 V rated value — at 460/480 V rated value Short-circuit protection product function short circuit protection design of the short-circuit trip design of the fuse link for IT network for short-circuit 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	5 hp 10 hp 10 hp 25 hp Yes magnetic gG 63 A growth and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 97 mm 45 mm 97 mm
- at 230 V rated value • for 3-phase AC motor — at 200/208 V rated value — at 220/230 V rated value — at 460/480 V rated value Short-circuit protection product function short circuit protection design of the short-circuit trip design of the fuse link for IT network for short-circuit 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	5 hp 10 hp 10 hp 25 hp Yes magnetic gG 63 A
- at 230 V rated value • for 3-phase AC motor — at 200/208 V rated value — at 220/230 V rated value — at 460/480 V rated value Short-circuit protection product function short circuit protection design of the short-circuit trip design of the fuse link for IT network for short-circuit 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	5 hp 10 hp 10 hp 25 hp Yes magnetic gG 63 A gO 63 A
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— upwards	30 mm
— at the side	9 mm
 for live parts at 400 V 	
— downwards	30 mm
— upwards	30 mm
— at the side	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	70 mm
— upwards	70 mm
— backwards	0 mm
— at the side	30 mm
— forwards	0 mm
 for live parts at 690 V 	
— downwards	70 mm
— upwards	70 mm
— backwards	0 mm
— at the side	30 mm
— forwards	0 mm
nections/ Terminals	

type of electrical connection

• for main current circuit

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

• at AWG cables for main contacts

tightening torque

• for main contacts with screw-type terminals

design of screwdriver shaft size of the screwdriver tip

design of the thread of the connection screw

• for main contacts

screw-type terminals

Top and bottom

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)

2 ... 2.5 N·m Diameter 5 to 6 mm

Pozidriv size 2

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

failure rate [FIT]

• with low demand rate according to SN 31920

T1 value for proof test interval or service life according to IEC 61508

protection class IP on the front according to IEC

touch protection on the front according to IEC 60529 display version for switching status

50 % 50 %

50 FIT 10 y

IP20

finger-safe, for vertical contact from the front

Handle

Certificates/ approvals

General Product Approval



Confirmation





KC



For use in hazardous locations

Declaration of Conformity

Test Certificates











Special Test Certificate

Type Test Certificates/Test Report

Marine / Shipping













Marine / Shipping

other

Railway



Confirmation



Confirmation

Vibration and Shock

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=3RV2021-4PA10

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2021-4PA10

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

https://support.industry.siemens.com/cs/ww/en/ps/3RV2021-4PA10

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

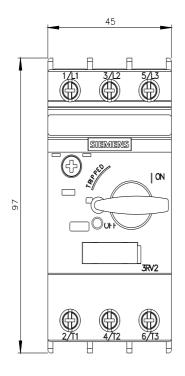
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2021-4PA10&lang=en

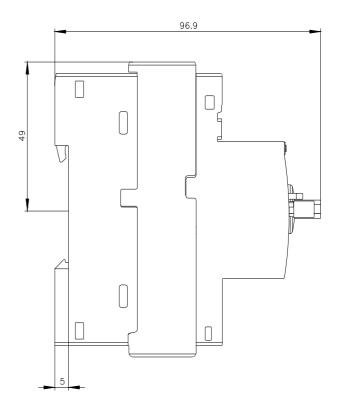
Characteristic: Tripping characteristics, I2t, Let-through current

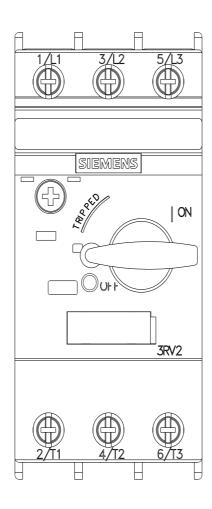
https://support.industry.siemens.com/cs/ww/en/ps/3RV2021-4PA10/char

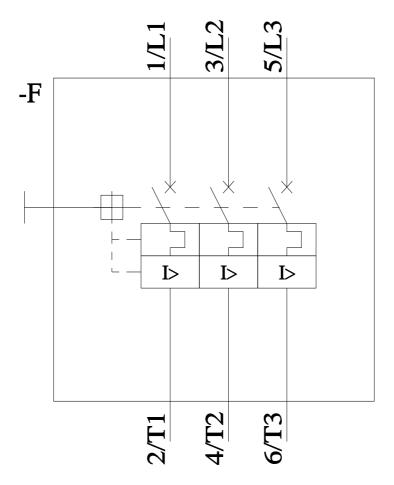
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2021-4PA10&objecttype=14&gridview=view1









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