SIEMENS

Data sheet 3RV2021-4FA10



Circuit breaker size S0 for motor protection, CLASS 10 A-release 34...40 A N-release 480 A screw terminal Standard switching capacity

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 	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 (switching cycles)	
 of the main contacts typical 	100 000
of auxiliary contacts typical	100 000
electrical endurance (switching 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	34 40 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	40 A
operational current	
at AC-3 at 400 V rated value	40 A
operating power	
• at AC-3	
— at 230 V rated value	11 kW
— at 400 V rated value	18.5 kW
— at 500 V rated value	22 kW
— at 690 V rated value	39 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
breaking capacity maximum short-circuit current (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
breaking capacity operating short-circuit current (Ics)	J MA
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	2 kA
response value current of instantaneous short-circuit trip	480 A
unit	
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
at 480 V rated value	40 A
at 600 V rated value	40 A
yielded mechanical performance [hp]	
 for single-phase AC motor 	
 at 110/120 V rated value 	3 hp
— at 230 V rated value	7.5 hp
• for 3-phase AC motor	
— at 200/208 V rated value	10 hp
— at 220/230 V rated value	10 hp
— at 460/480 V rated value	30 hp
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 400 V	gG 63 A
• at 500 V	gG 63 A
• at 690 V	gG 63 A
Installation/ mounting/ dimensions	
mounting position	any
fastening method	screw and snap-on mounting onto 35 mm standard mounting rail
	according to DIN EN 60715
height	97 mm
width	45 mm

depth	97 mm
required spacing	
• for grounded parts at 400 V	
— downwards	30 mm
— 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	3 111111
— downwards	30 mm
— upwards	30 mm
— at the side	9 mm
• for live parts at 500 V	3 111111
— downwards	30 mm
— upwards	30 mm
•	GG
— at the side	9 mm
for grounded parts at 690 V	70 mm
— downwards	
— upwards	70 mm
backwardsat the side	0 mm
	30 mm
— forwards	0 mm
• for live parts at 690 V	70
— downwards	70 mm
— upwards	70 mm
— backwards	0 mm
— at the side	30 mm
— forwards	0 mm
Connections/ Terminals	
type of electrical connection	perow type terminals
type of electrical connection • for main current circuit	screw-type terminals
type of electrical connection	screw-type terminals Top and bottom
type of electrical connection • for main current circuit arrangement of electrical connectors for main current	
type of electrical connection • for main current circuit arrangement of electrical connectors for main current circuit	
type of electrical connection • for main current circuit arrangement of electrical connectors for main current circuit type of connectable conductor cross-sections	Top and bottom 2x (1 2.5 mm²), 2x (2.5 10 mm²)
type of electrical connection	Top and bottom
type of electrical connection	Top and bottom 2x (1 2.5 mm²), 2x (2.5 10 mm²)
type of electrical connection	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)
type of electrical connection	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
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	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)
type of electrical connection	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
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	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
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type of electrical connection	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
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Certificates/ approvals

General Product Approval





Confirmation



<u>KC</u>



For use in hazardous locations

Declaration of Conformity

Test Certificates









Type Test Certificates/Test Report

Special Test Certificate

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=3RV2021-4FA10

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2021-4FA10

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

https://support.industry.siemens.com/cs/ww/en/ps/3RV2021-4FA10

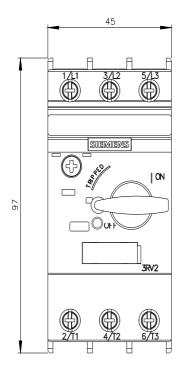
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

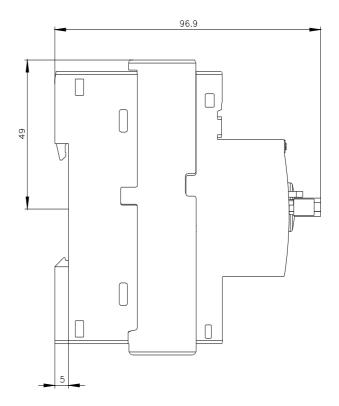
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2021-4FA10&lang=en

Characteristic: Tripping characteristics, I2t, Let-through current

https://support.industry.siemens.com/cs/ww/en/ps/3RV2021-4FA10/char

Further characteristics (e.g. electrical endurance, switching frequency) http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2021-4FA10&objecttype=14&gridview=view1





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