



Circuit breaker size S0 for motor protection, CLASS 10 A-release 30...36 A N-release 432 A screw 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	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	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	
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
breaking capacity maximum short-circuit current (I_{cu})	
• 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 (I_{cs}) 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 unit	432 A
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
• at 480 V rated value	36 A
• at 600 V rated value	36 A
yielded mechanical performance [hp]	
• for single-phase AC motor	
— at 110/120 V rated value	3 hp
— at 230 V rated value	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	25 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	

<ul style="list-style-type: none"> for short-circuit protection of the auxiliary switch required 	Fuse gL/gG: 10 A, miniature circuit breaker C 6 A (short-circuit current $I_k < 400$ A)
design of the fuse link for IT network for short-circuit protection of the main circuit <ul style="list-style-type: none"> at 400 V at 500 V at 690 V 	gG 63 A gG 63 A 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 <ul style="list-style-type: none"> for grounded parts at 400 V <ul style="list-style-type: none"> downwards 30 mm upwards 30 mm at the side 9 mm for live parts at 400 V <ul style="list-style-type: none"> downwards 30 mm upwards 30 mm at the side 9 mm for grounded parts at 500 V <ul style="list-style-type: none"> downwards 30 mm upwards 30 mm at the side 9 mm for live parts at 500 V <ul style="list-style-type: none"> downwards 30 mm upwards 30 mm at the side 9 mm for grounded parts at 690 V <ul style="list-style-type: none"> downwards 70 mm upwards 70 mm backwards 0 mm at the side 30 mm forwards 0 mm for live parts at 690 V <ul style="list-style-type: none"> downwards 70 mm upwards 70 mm backwards 0 mm at the side 30 mm forwards 0 mm 	
Connections/ Terminals	
type of electrical connection <ul style="list-style-type: none"> for main current circuit for auxiliary and control circuit 	screw-type terminals screw-type terminals
arrangement of electrical connectors for main current circuit	Top and bottom
type of connectable conductor cross-sections <ul style="list-style-type: none"> for main contacts <ul style="list-style-type: none"> 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 at AWG cables for main contacts 2x (16 ... 12), 2x (14 ... 8) 	
type of connectable conductor cross-sections <ul style="list-style-type: none"> for auxiliary contacts <ul style="list-style-type: none"> solid or stranded 2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²) finely stranded with core end processing 2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²) at AWG cables for auxiliary contacts 2x (20 ... 16), 2x (18 ... 14) 	
tightening torque <ul style="list-style-type: none"> for main contacts with screw-type terminals 	2 ... 2.5 N·m

<ul style="list-style-type: none"> for auxiliary contacts with screw-type terminals 	0.8 ... 1.2 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	
<ul style="list-style-type: none"> for main contacts 	M4
<ul style="list-style-type: none"> of the auxiliary and control contacts 	M3

Safety related data

B10 value	
<ul style="list-style-type: none"> with high demand rate according to SN 31920 	5 000
proportion of dangerous failures	
<ul style="list-style-type: none"> with low demand rate according to SN 31920 	50 %
<ul style="list-style-type: none"> with high demand rate according to SN 31920 	50 %
failure rate [FIT]	
<ul style="list-style-type: none"> 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	finger-safe, for vertical contact from the front
display version for switching status	Handle

Certificates/ approvals

General Product Approval



[Confirmation](#)



[KC](#)



For use in hazardous locations	Declaration of Conformity	Test Certificates
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[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)

Marine / Shipping



Marine / Shipping	other	Railway
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[Confirmation](#)



[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=3RV2021-4PA15>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2021-4PA15>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2021-4PA15>

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

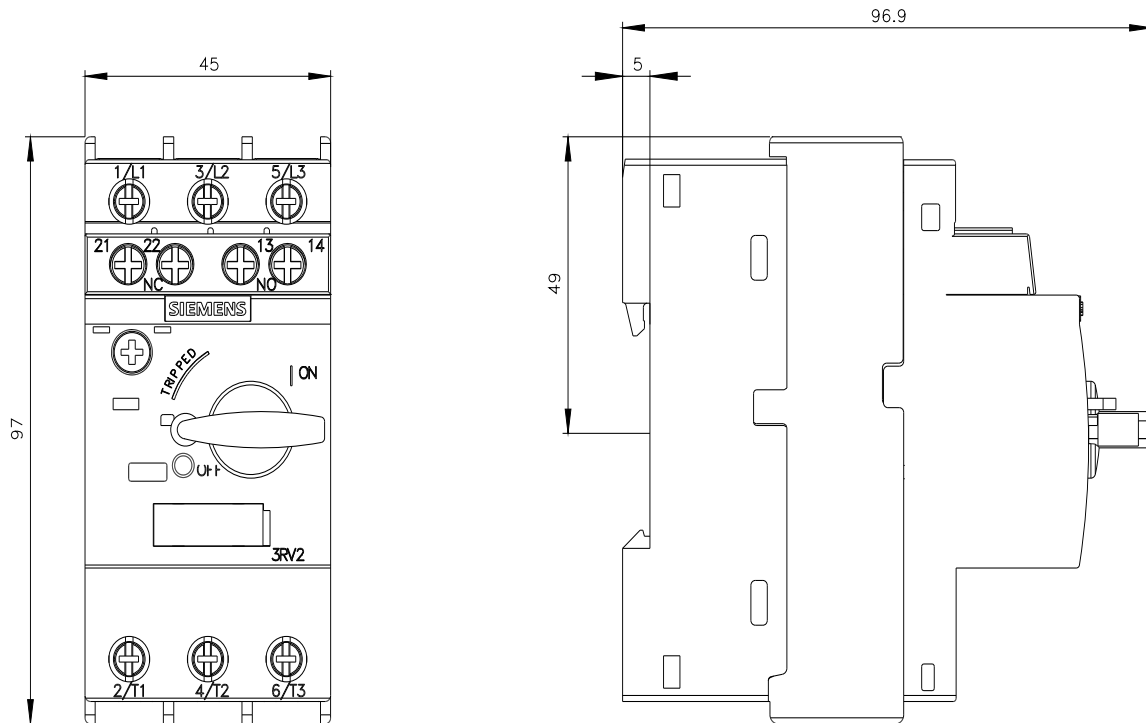
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2021-4PA15&lang=en

Characteristic: Tripping characteristics, I^2t , Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2021-4PA15/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2021-4PA15&objecttype=14&gridview=view1>



last modified:

6/25/2022 