



special type circuit breaker frame size S0 for motor protection, Class 10 thermal release 27...32 A short-circuit release 400 A screw terminal standard switching capacity with transverse auxiliary switch 1 NO+1 NC ambient temperature -50 °C 500 operating cycles

product brand name	SIRIUS
product designation	Circuit breaker
design of the product	For motor protection
product type designation	3RV2
General technical data	
Product equipment of circuit breaker for motor protection complete unit with protection device	Yes
size of the circuit-breaker	S0
size of contactor can be combined company-specific	S00, S0
product function disconnecter functionality	Yes
product extension auxiliary switch	Yes
power loss [W] for rated value of the current	
• at AC in hot operating state	13.25 W
• at AC in hot operating state per pole	4.4 W
type of calculation of power loss current-dependent	quadratic
insulation voltage with degree of pollution 3 at AC rated value	690 V
surge voltage resistance rated value	6 kV
maximum permissible voltage for protective separation	
• in networks with ungrounded star point between main and auxiliary circuit	400 V
• in networks with grounded star point between main and auxiliary circuit	400 V
protection class IP	
• on the front according to IEC 60529	IP20
• on the front	IP20
• of the terminal	IP20
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
continuous current rated value	32 A
Substance Prohibitance (day/month/year)	10/01/2009
Net Weight	400 g
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
temperature compensation	-20 ... +60 °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	27 ... 32 A
type of voltage for main current circuit	AC
operating voltage	
• rated value	690 V
• rated value	20 ... 690 V
• at AC-3 rated value maximum	690 V
operating frequency rated value	50 ... 60 Hz
operational current rated value	32 A
operational current	
• at AC-3 at 400 V rated value	32 A
operating power	
• at AC-3	
— at 230 V rated value	7.5 kW
— at 400 V rated value	15 kW
— at 500 V rated value	18.5 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
type of voltage for auxiliary and control circuit	AC/DC
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
protection function thermal overload protection (ANSI 49)	Yes
maximum short-circuit current breaking capacity (I_{cu})	
• at AC at 240 V rated value	25 kA
• at AC at 400 V rated value	25 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 (I_{cs}) at AC	
• at 240 V rated value	10 kA
• at 400 V rated value	10 kA
• at 500 V rated value	5 kA
• at 690 V rated value	2 kA
response value current of instantaneous short-circuit trip unit	400 A

Short-circuit protection		
product function short circuit protection	Yes	
design of the short-circuit trip	magnetic	
design of the fuse link	fuse gG: 10 A, miniature circuit breaker C 6 A (short-circuit current $I_k < 400$ A)	
<ul style="list-style-type: none"> for short-circuit protection of the auxiliary switch required 		
design of the fuse link for IT network for short-circuit protection of the main circuit	gG 63 A	
<ul style="list-style-type: none"> at 400 V 		
<ul style="list-style-type: none"> at 500 V 		
<ul style="list-style-type: none"> at 690 V 		
Installation/ mounting/ dimensions		
mounting position	any	
fastening method	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715	
Mounting method of circuit breaker for Transformer protection, Generator protection and system protection optional standard bar mounting	Yes	
height	97 mm	
width	45 mm	
depth	97 mm	
required spacing		
<ul style="list-style-type: none"> with side-by-side mounting <ul style="list-style-type: none"> forwards backwards upwards downwards at the side 		
<ul style="list-style-type: none"> for grounded parts <ul style="list-style-type: none"> forwards backwards upwards at the side downwards 		
<ul style="list-style-type: none"> for live parts <ul style="list-style-type: none"> forwards backwards upwards downwards at the side 		
<ul style="list-style-type: none"> for grounded parts at 400 V <ul style="list-style-type: none"> downwards upwards at the side 		
<ul style="list-style-type: none"> for live parts at 400 V <ul style="list-style-type: none"> downwards upwards at the side 		
<ul style="list-style-type: none"> for grounded parts at 500 V <ul style="list-style-type: none"> downwards upwards at the side 		
<ul style="list-style-type: none"> for live parts at 500 V <ul style="list-style-type: none"> downwards upwards at the side 		
<ul style="list-style-type: none"> for grounded parts at 690 V <ul style="list-style-type: none"> downwards upwards backwards at the side forwards 		
		0 mm
		0 mm
		50 mm
		50 mm
		0 mm
		0 mm
		0 mm
		50 mm
		30 mm
		50 mm
		0 mm
		0 mm
		50 mm
		50 mm
		30 mm
		30 mm
		9 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	

- 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

product component removable terminal for auxiliary and control circuit	No
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 — finely stranded with core end processing 	2x (1 ... 2.5 mm ²), 2x (2.5 ... 10 mm ²) 2x (1 ... 2.5 mm ²), 2x (2.5 ... 6 mm ²), 1x 10 mm ²
connectable conductor cross-section for main contacts <ul style="list-style-type: none"> • solid or stranded • finely stranded with core end processing 	1 ... 10 mm ² 1 ... 10 mm ²
connectable conductor cross-section for auxiliary contacts <ul style="list-style-type: none"> • solid or stranded • finely stranded with core end processing 	0.5 ... 2.5 mm ² 0.5 ... 2.5 mm ²
type of connectable conductor cross-sections <ul style="list-style-type: none"> • for auxiliary contacts <ul style="list-style-type: none"> — solid or stranded — finely stranded with core end processing 	2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²) 2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²)
tightening torque <ul style="list-style-type: none"> • for main contacts with screw-type terminals • for auxiliary contacts with screw-type terminals 	2 ... 2.5 N·m 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 • of the auxiliary and control contacts 	M4 M3

IEC 61508

T1 value <ul style="list-style-type: none"> • for proof test interval or service life according to IEC 61508 	10 a
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Electrical Safety

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

display version for switching status	Handle
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Approvals Certificates

Environmental Product Declaration	
• global warming potential [CO2 eq] / during manufacturing	2.68 kg
• global warming potential [CO2 eq] / during sales	0.143 kg
• global warming potential [CO2 eq] / during operation	72.7 kg
• global warming potential [CO2 eq] / after end of life	-0.445 kg
• global warming potential [CO2 eq] / total	75.078 kg

Environment General Product Approval

[Environmental Con-
firmations](#)



General Product Approval Test Certificates



EG-Konf.



[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)

Maritime application



ABS



BUREAU VERITAS



DNV



LRS



PRS



RINA

other

[Miscellaneous](#)

[Confirmation](#)

[Miscellaneous](#)



Railway

[Confirmation](#)

[Special Test Certificate](#)

Further information

Information on the packaging

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

Information for data generation and storage

<https://support.industry.siemens.com/cs/ww/en/view/109995012>

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=3RV2021-4EA15-0BA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2021-4EA15-0BA0>

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

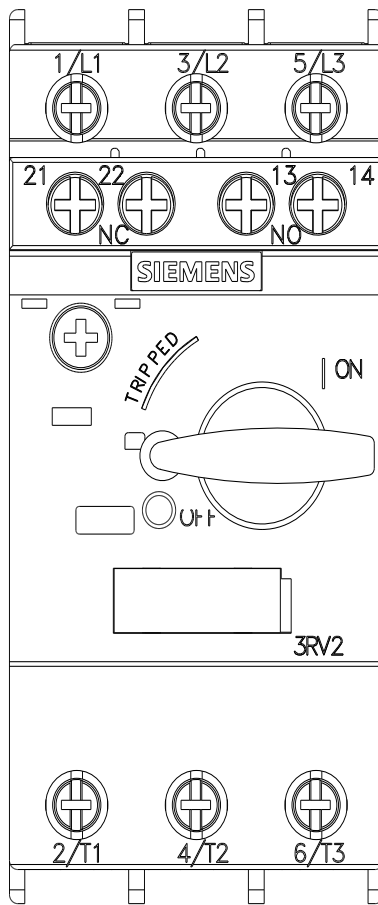
https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2021-4EA15-0BA0&lang=en

Cax online generator

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2021-4EA15-0BA0>

Characteristic curves

[https://curves.simaris.siemens.com/curves/<mmp_prod_noCOMP="HAUPT"></mmp_prod_no>](https://curves.simaris.siemens.com/curves/<mmp_prod_noCOMP=)





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