

Siemens
EcoTech



special type circuit breaker size S2 for motor protection, Class 10 thermal release 9.5...14 A short-circuit release 208 A screw terminal standard switching capacity with transverse auxiliary switch 1 NO+1 NC ambient temperature -50 °C 250 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	S2
size of contactor can be combined company-specific	S2
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 per pole	4.2 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	IP00
shock resistance according to IEC 60068-2-27	25 g / 11 ms Sinus
mechanical service life (operating cycles)	
• of the main contacts typical	250
• of auxiliary contacts typical	250
electrical endurance (operating cycles) typical	250
reference code according to IEC 81346-2	Q
continuous current rated value	14 A
Substance Prohibitance (day/month/year)	10/15/2014
SVHC substance name	Lead CAS-No. 7439-92-1
Net Weight	1.088 kg
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	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	9.5 ... 14 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	14 A
operational current	
• at AC-3 at 400 V rated value	14 A
operating power	
• at AC-3	
— at 230 V rated value	3 kW
— at 400 V rated value	5.5 kW
— at 500 V rated value	7.5 kW
— at 690 V rated value	11 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 230 V	0.5 A
operational current of auxiliary contacts at DC-13	
• at 24 V	1 A
• at 60 V	0.15 A
• at 110 V	0 A
• at 125 V	0 A
• at 220 V	0 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 (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	12 kA
• at AC at 690 V rated value	5 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	6 kA
• at 690 V rated value	3 kA
response value current of instantaneous short-circuit trip unit	208 A

Short-circuit protection	
product function short circuit protection	Yes
design of the short-circuit trip	magnetic
design of the fuse link for short-circuit protection of the auxiliary switch required	fuse 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 - at 240 V - at 690 V	none required gG 63 A
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	140 mm
width	55 mm
depth	149 mm
required spacing - with side-by-side mounting - forwards - backwards - upwards - downwards - at the side - for grounded parts - forwards - backwards - upwards - at the side - downwards - for live parts - forwards - backwards - upwards - downwards - at the side - for grounded parts at 500 V - downwards - upwards - at the side - for live parts at 500 V - downwards - upwards - at the side - for grounded parts at 690 V - downwards - upwards - at the side - for live parts at 690 V - downwards - upwards - at the side	0 mm 0 mm 50 mm 50 mm 0 mm 0 mm 0 mm 50 mm 10 mm 50 mm 0 mm 0 mm 50 mm 50 mm 10 mm 50 mm 50 mm 10 mm 50 mm 50 mm 10 mm 50 mm 50 mm 10 mm
Connections/ Terminals	
product component removable terminal for auxiliary and control circuit	No
type of electrical connection - for main current circuit - for auxiliary and control circuit	screw-type terminals screw-type terminals
arrangement of electrical connectors for main current	Top and bottom

circuit	
type of connectable conductor cross-sections	
- for main contacts — solid or stranded — finely stranded with core end processing	2x (1 ... 25 mm ²), 1x (1 ... 35 mm ²) 2x (1 ... 16 mm ²), 1x (1 ... 25 mm ²)
connectable conductor cross-section for main contacts	
- solid or stranded - finely stranded with core end processing	1 ... 35 mm ² 1 ... 25 mm ²
connectable conductor cross-section for auxiliary contacts	
- 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	
- for auxiliary contacts — 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	
- for main contacts with screw-type terminals - for auxiliary contacts with screw-type terminals	3 ... 4.5 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	
- for main contacts - of the auxiliary and control contacts	M6 M3
IEC 61508	
T1 value	
for proof test interval or service life according to IEC 61508	10 a
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
Approvals Certificates	
Environmental Product Declaration	
- global warming potential [CO₂ eq] / during manufacturing - global warming potential [CO₂ eq] / during sales - global warming potential [CO₂ eq] / during operation - global warming potential [CO₂ eq] / after end of life - global warming potential [CO₂ eq] / total	12.8 kg 0.477 kg 230 kg -3.4 kg 239.877 kg
Environment	General Product Approval

[Environmental Con-
firmations](#)



General Product Approval

Test Certificates

Maritime application



[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



Maritime application

other



[Miscellaneous](#)

other		Railway	
Confirmation	Miscellaneous	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=3RV2031-4SA15-0BA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2031-4SA15-0BA0>

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

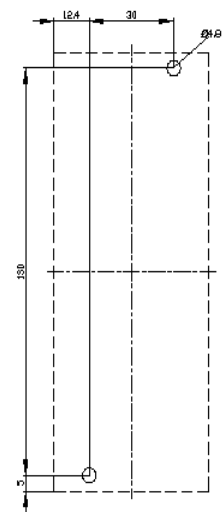
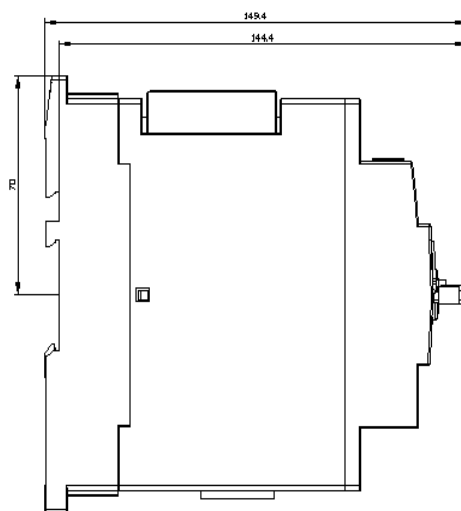
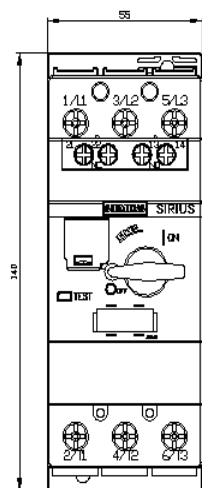
https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2031-4SA15-0BA0&lang=en

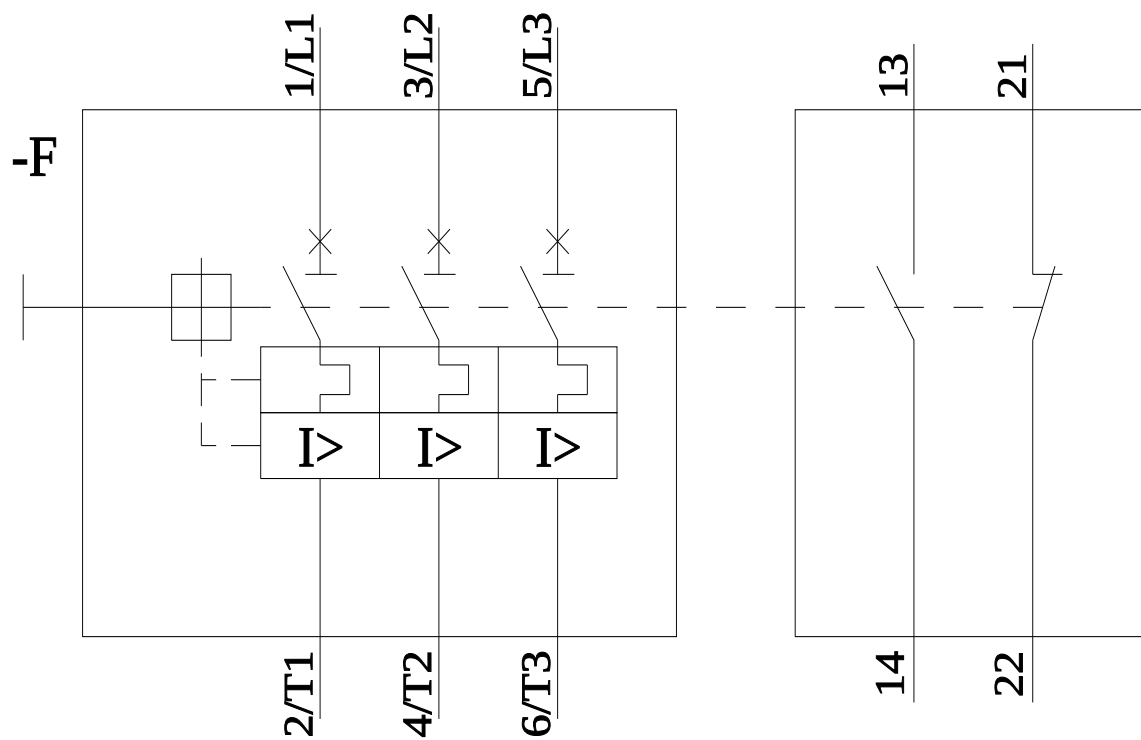
Cax online generator

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2031-4SA15-0BA0>

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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