



voltage transformer circuit breaker frame size S00 3 A, short-circuit release 20 A, 1 CO with transverse auxiliary switch

product brand name	SIRIUS
product designation	Circuit breaker
design of the product	for distance protection
product type designation	3RV1
General technical data	
Product equipment of circuit breaker for motor protection complete unit with protection device	Yes
size of the circuit-breaker	S00
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	7.25 W
• at AC in hot operating state per pole	2.4 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	IP00
mechanical service life (operating cycles)	
• of the main contacts typical	10 000
• of auxiliary contacts typical	10 000
electrical endurance (operating cycles) typical	10 000
reference code according to IEC 81346-2	Q
continuous current rated value	3 A
Substance Prohibitance (day/month/year)	01/01/2013
SVHC substance name	Lead CAS-No. 7439-92-1
Net Weight	298 g
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
• during operation	-20 ... +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
type of voltage for main current circuit	AC
operating voltage	
• rated value	400 V
• rated value	20 ... 690 V
• at AC-3 rated value maximum	400 V
• at AC-3e rated value maximum	400 V
operating frequency rated value	50 ... 60 Hz
operational current rated value	3 A
operational current	
• at AC-3 at 400 V rated value	3 A
• at AC-3e at 400 V rated value	3 A
operating frequency	
• at AC-3 maximum	15 1/h
• at AC-3e 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	1
operational current of auxiliary contacts at DC-13	
• at 24 V	0.3 A
• at 60 V	0.3 A
Protective and monitoring functions	
product function	
• ground fault detection	No
• phase failure detection	Yes
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	100 kA
• at AC at 400 V rated value	50 kA
operating short-circuit current breaking capacity (I_{cs}) at AC	
• at 240 V rated value	100 kA
• at 400 V rated value	50 kA
response value current of instantaneous short-circuit trip unit	20 A
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
• at 480 V rated value	3 A
• at 600 V rated value	3 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	2A FF 250V/1.1kA
design of the fuse link for IT network for short-circuit protection of the main circuit	
• at 240 V	none required
• at 400 V	gG 40 A
• at 500 V	gG 35 A
• at 690 V	gG 35 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	Yes

protection, Generator protection and system protection optional standard bar mounting	
height	90 mm
width	45 mm
depth	75 mm
required spacing	
<ul style="list-style-type: none"> ● for grounded parts at 400 V <ul style="list-style-type: none"> — downwards 20 mm — upwards 20 mm — at the side 9 mm ● for live parts at 400 V <ul style="list-style-type: none"> — downwards 20 mm — upwards 20 mm — at the side 9 mm ● for grounded parts at 500 V <ul style="list-style-type: none"> — downwards 20 mm — upwards 20 mm — at the side 9 mm ● for live parts at 500 V <ul style="list-style-type: none"> — downwards 20 mm — upwards 20 mm — at the side 9 mm ● for grounded parts at 690 V <ul style="list-style-type: none"> — downwards 20 mm — upwards 20 mm — backwards 0 mm — at the side 9 mm — forwards 0 mm ● for live parts at 690 V <ul style="list-style-type: none"> — downwards 20 mm — upwards 20 mm — backwards 0 mm — at the side 9 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 screw-type terminals ● for auxiliary and control circuit 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 (0,5 ... 1,5 mm²), 2x (0,75 ... 2,5 mm²), 2x (1 ... 4 mm²) — finely stranded with core end processing 2x (0,5 ... 1,5 mm²), 2x (0,75 ... 2,5 mm²) 	
connectable conductor cross-section for main contacts	
<ul style="list-style-type: none"> ● solid or stranded 0,5 ... 4 mm² ● finely stranded with core end processing 0,5 ... 2,5 mm² 	
connectable conductor cross-section for auxiliary contacts	
<ul style="list-style-type: none"> ● solid or stranded 0,5 ... 2,5 mm² ● finely stranded with core end processing 0,5 ... 2,5 mm² 	
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) 	
AWG number as coded connectable conductor cross section for main contacts	18 ... 14
AWG number as coded connectable conductor cross section for auxiliary contacts	18 ... 14
tightening torque	

• for main contacts with screw-type terminals	0.8 ... 1.2 N·m
• 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	
• for main contacts	M3
• of the auxiliary and control contacts	M3

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	Rocker switch

Approvals Certificates

Environment	General Product Approval
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[Environmental Confirmations](#)



General Product Approval	Test Certificates	Maritime application
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[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



Maritime application	other	Railway
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[Miscellaneous](#)

[Confirmation](#)

[Miscellaneous](#)



[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=3RV1611-1DG14>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV1611-1DG14>

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

https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV1611-1DG14&lang=en

Cax online generator

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV1611-1DG14>

Characteristic curves

https://curves.simaris.siemens.com/curves/<mmp_prod_noCOMP='HAUPT'></mmp_prod_no>



