SIEMENS

Data sheet



Circuit breaker size S00 for motor protection, CLASS 10 A-release 10...16 A N-release 208 A screw terminal Standard switching capacity Multi-unit packaging Pack = 12 units

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	S00
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 	9.25 W
at AC in hot operating state per pole	3.1 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 (operating cycles)	
 of the main contacts typical 	100 000
of auxiliary contacts typical	100 000
electrical endurance (operating 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 +60 °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	10 16 A
operating voltage	
rated value	20 690 V
 at AC-3 rated value maximum 	690 V
at AC-3e rated value maximum	690 V
operating frequency rated value	50 60 Hz
operational current rated value	16 A
operational current	

 at AC-3 at 400 V rated value 	16 A
at AC-3e at 400 V rated value	16 A
operating power	
• at AC-3	
— at 230 V rated value	4 kW
— at 400 V rated value	7.5 kW
— at 500 V rated value	7.5 kW
— at 690 V rated value	11 kW
• at AC-3e	
— at 230 V rated value	4 kW
— at 400 V rated value	7.5 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
at AC-3e maximum	15 1/h
Auxiliary circuit	10 I/II
	0
number of NC contacts for auxiliary contacts	0
number of NO contacts for auxiliary contacts	
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
maximum short-circuit current breaking capacity (Icu)	
 at AC at 240 V rated value 	100 kA
 at AC at 400 V rated value 	55 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 (Ics) at AC	
 at 240 V rated value 	100 kA
 at 400 V rated value 	30 kA
 at 500 V rated value 	5 kA
• at 690 V rated value	2 kA
at 690 V rated value response value current of instantaneous short-circuit trip unit	2 kA 208 A
response value current of instantaneous short-circuit trip unit	
response value current of instantaneous short-circuit trip unit UL/CSA ratings	
response value current of instantaneous short-circuit trip unit UL/CSA ratings full-load current (FLA) for 3-phase AC motor	208 A
response value current of instantaneous short-circuit trip unit UL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value	208 A 16 A
response value current of instantaneous short-circuit trip unit UL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 600 V rated value	208 A 16 A
response value current of instantaneous short-circuit trip unit UL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 600 V rated value yielded mechanical performance [hp] • for single-phase AC motor	208 A 16 A 16 A
response value current of instantaneous short-circuit trip unit UL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 600 V rated value yielded mechanical performance [hp] • for single-phase AC motor — at 110/120 V rated value	208 A 16 A 16 A 1 hp
response value current of instantaneous short-circuit trip unit UL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 600 V rated value yielded mechanical performance [hp] • for single-phase AC motor — at 110/120 V rated value — at 230 V rated value	208 A 16 A 16 A
response value current of instantaneous short-circuit trip unit UL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 600 V rated value yielded mechanical performance [hp] • for single-phase AC motor — at 110/120 V rated value — at 230 V rated value • for 3-phase AC motor	208 A 16 A 16 A 1 hp 2 hp
response value current of instantaneous short-circuit trip unit UL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 600 V rated value yielded mechanical performance [hp] • for single-phase AC motor — at 110/120 V rated value — at 230 V rated value • for 3-phase AC motor — at 200/208 V rated value	208 A 16 A 16 A 1 hp 2 hp 3 hp
response value current of instantaneous short-circuit trip unit UL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 600 V rated value yielded mechanical performance [hp] • for single-phase AC motor — at 110/120 V rated value — at 230 V rated value • for 3-phase AC motor — at 200/208 V rated value — at 220/230 V rated value	208 A 16 A 16 A 1 hp 2 hp 3 hp 5 hp
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response value current of instantaneous short-circuit trip unit UL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 600 V rated value yielded mechanical performance [hp] • for single-phase AC motor — at 110/120 V rated value — at 230 V rated value • for 3-phase AC motor — at 200/208 V rated value — at 220/230 V rated value — at 460/480 V rated value Short-circuit protection product function short circuit protection	208 A 16 A 16 A 1 hp 2 hp 3 hp 5 hp 10 hp
response value current of instantaneous short-circuit trip unit UL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 600 V rated value yielded mechanical performance [hp] • for single-phase AC motor — at 110/120 V rated value — at 230 V rated value • for 3-phase AC motor — at 200/208 V rated value — at 220/230 V rated value — at 460/480 V rated value Short-circuit protection product function short circuit protection design of the short-circuit trip	208 A 16 A 16 A 1 hp 2 hp 3 hp 5 hp 10 hp
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response value current of instantaneous short-circuit trip unit UL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 600 V rated value yielded mechanical performance [hp] • for single-phase AC motor — at 110/120 V rated value — at 230 V rated value • for 3-phase AC motor — at 200/208 V rated value — at 220/230 V rated value — at 460/480 V rated value Short-circuit protection product function short circuit protection design of the short-circuit trip design of the fuse link for IT network for short-circuit protection of the main circuit • at 240 V	208 A 16 A 16 A 1 hp 2 hp 3 hp 5 hp 10 hp Yes magnetic gL/gG 80 A
response value current of instantaneous short-circuit trip unit UL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 600 V rated value yielded mechanical performance [hp] • for single-phase AC motor — at 110/120 V rated value — at 230 V rated value • for 3-phase AC motor — at 200/208 V rated value — at 220/230 V rated value — at 460/480 V rated value Short-circuit protection product function short circuit protection design of the short-circuit trip design of the fuse link for IT network for short-circuit protection of the main circuit • at 240 V • at 400 V	208 A 16 A 16 A 1 hp 2 hp 3 hp 5 hp 10 hp Yes magnetic gL/gG 80 A gL/gG 63 A
response value current of instantaneous short-circuit trip unit UL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 600 V rated value yielded mechanical performance [hp] • for single-phase AC motor — at 110/120 V rated value — at 230 V rated value • for 3-phase AC motor — at 200/208 V rated value — at 220/230 V rated value — at 460/480 V rated value Short-circuit protection product function short circuit protection design of the short-circuit trip design of the fuse link for IT network for short-circuit protection of the main circuit • at 240 V • at 400 V • at 500 V	208 A 16 A 16 A 1 hp 2 hp 3 hp 5 hp 10 hp Yes magnetic gL/gG 80 A gL/gG 63 A gL/gG 50 A
response value current of instantaneous short-circuit trip unit UL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 600 V rated value yielded mechanical performance [hp] • for single-phase AC motor — at 110/120 V rated value — at 230 V rated value • for 3-phase AC motor — at 200/208 V rated value — at 220/230 V rated value — at 460/480 V rated value Short-circuit protection product function short circuit protection design of the short-circuit trip design of the fuse link for IT network for short-circuit protection of the main circuit • at 240 V • at 400 V • at 690 V	208 A 16 A 16 A 1 hp 2 hp 3 hp 5 hp 10 hp Yes magnetic gL/gG 80 A gL/gG 63 A
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response value current of instantaneous short-circuit trip unit UL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 600 V rated value yielded mechanical performance [hp] • for single-phase AC motor — at 110/120 V rated value — at 230 V rated value • for 3-phase AC motor — at 200/208 V rated value — at 220/230 V rated value — at 460/480 V rated value Short-circuit protection product function short circuit protection design of the short-circuit trip design of the fuse link for IT network for short-circuit protection of the main circuit • at 240 V • at 400 V • at 690 V	208 A 16 A 16 A 1 hp 2 hp 3 hp 5 hp 10 hp Yes magnetic gL/gG 80 A gL/gG 63 A gL/gG 50 A

height	97 mm
width	45 mm
depth	97 mm
required spacing	OF HILL
with side-by-side mounting at the side	0 mm
• for grounded parts at 400 V	O Hilli
— downwards	30 mm
— upwards	30 mm
•	9 mm
— at the side	9 mm
• for live parts at 400 V	00
— downwards	30 mm
— upwards	30 mm
— at the side	9 mm
for grounded parts at 500 V	
— downwards	30 mm
— upwards	30 mm
— at the side	9 mm
for live parts at 500 V	
— downwards	30 mm
— upwards	30 mm
— at the side	9 mm
 for grounded parts at 690 V 	
— downwards	50 mm
— upwards	50 mm
— backwards	0 mm
— at the side	30 mm
— forwards	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	
type of electrical connection	
for main current circuit	screw-type terminals
arrangement of electrical connectors for main current circuit	Top and bottom
type of connectable conductor cross-sections	
for main contacts	
— solid or stranded	2x (0,75 2,5 mm²), 2x 4 mm²
 finely stranded with core end processing 	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
• for AWG cables for main contacts	2x (18 14), 2x 12
tightening torque	
for main 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
Safety related data	
B10 value	
with high demand rate according to SN 31920	5 000
proportion of dangerous failures	
with low demand rate according to SN 31920	50 %
-	50 %
with high demand rate according to SN 31920 failure rate [EIT]	JU 70
failure rate [FIT]	50 EIT
with low demand rate according to SN 31920 T1 value for proof test interval or service life according to IEC 61508	50 FIT 10 a
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

Certificates/ approvals

Further information

Siemens has decided to exit the Russian market (see here).

https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business

Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

Information on the packaging

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

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=3RV2011-4AA10-Z W97

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2011-4AA10-Z W97

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

https://support.industry.siemens.com/cs/ww/en/ps/3RV2011-4AA10-2

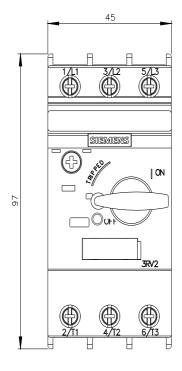
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

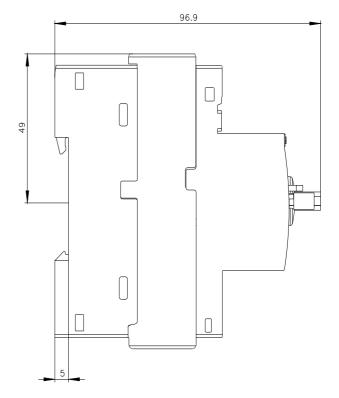
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2011-4AA10-Z W97&lang=en

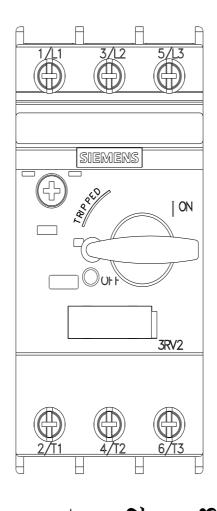
Characteristic: Tripping characteristics, I²t, Let-through current

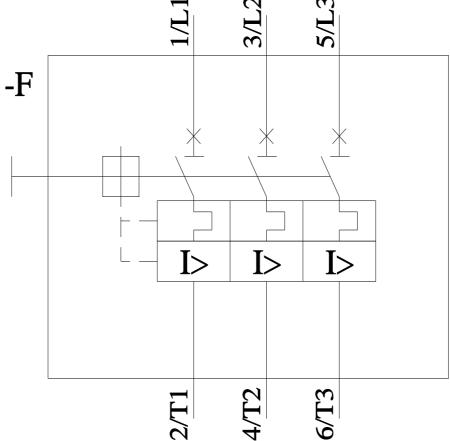
https://support.industry.siemens.com/cs/ww/en/ps/3RV2011-4AA10-Z

Further characteristics (e.g. electrical endurance, switching frequency)
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2011-4AA10-Z W97&objecttype=14&gridview=view1









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