

Circuit breaker size S00 for motor protection, CLASS 10 A-release
0.7...1 A N-release 13 A screw terminal Standard switching capacity

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	Yes
<ul style="list-style-type: none"> Auxiliary switch 	Yes
Power loss [W] for rated value of the current	
<ul style="list-style-type: none"> at AC in hot operating state 	7.25 W
<ul style="list-style-type: none"> at AC in hot operating state per pole 	2.4 W
Insulation voltage with degree of pollution 3 at AC rated value	690 V
Surge voltage resistance rated value	6 kV
maximum permissible voltage for safe isolation	
<ul style="list-style-type: none"> in networks with grounded star point between main and auxiliary circuit 	400 V
<ul style="list-style-type: none"> in networks with grounded star point between main and auxiliary circuit 	400 V
Protection class IP	
<ul style="list-style-type: none"> on the front 	IP20
<ul style="list-style-type: none"> of the terminal 	IP20
Shock resistance	
<ul style="list-style-type: none"> acc. to IEC 60068-2-27 	25g / 11 ms
Mechanical service life (switching cycles)	
<ul style="list-style-type: none"> of the main contacts typical 	100 000
<ul style="list-style-type: none"> of auxiliary contacts typical 	100 000
Electrical endurance (switching cycles)	
<ul style="list-style-type: none"> 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 acc. to DIN EN 81346-2	Q

Ambient conditions

Installation altitude at height above sea level	
<ul style="list-style-type: none"> • maximum 	2 000 m
Ambient temperature	
<ul style="list-style-type: none"> • during operation 	-20 ... +60 °C
<ul style="list-style-type: none"> • during storage 	-50 ... +80 °C
<ul style="list-style-type: none"> • 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 pick-up value current of the current-dependent overload release	0.7 ... 1 A
Operating voltage	
<ul style="list-style-type: none"> • rated value 	690 V
<ul style="list-style-type: none"> • at AC-3 rated value maximum 	690 V
Operating frequency rated value	50 ... 60 Hz
Operating current rated value	1 A
Operating current	
<ul style="list-style-type: none"> • at AC-3 	
<ul style="list-style-type: none"> — at 400 V rated value 	1 A
Operating power	
<ul style="list-style-type: none"> • at AC-3 	
<ul style="list-style-type: none"> — at 230 V rated value 	180 W
<ul style="list-style-type: none"> — at 400 V rated value 	250 W
<ul style="list-style-type: none"> — at 500 V rated value 	370 W
<ul style="list-style-type: none"> — at 690 V rated value 	550 W
Operating frequency	
<ul style="list-style-type: none"> • at AC-3 maximum 	15 1/h

Auxiliary circuit

Number of NC contacts for auxiliary contacts	0
Number of NO contacts for auxiliary contacts	0
Number of CO contacts	
<ul style="list-style-type: none"> • for auxiliary contacts 	0

Protective and monitoring functions

Product function	
<ul style="list-style-type: none"> • Ground fault detection 	No
<ul style="list-style-type: none"> • Phase failure detection 	Yes
Trip class	CLASS 10
Design of the overload release	thermal
Operational short-circuit current breaking capacity (Ics) at AC	

<ul style="list-style-type: none"> • at 240 V rated value • at 400 V rated value • at 500 V rated value • at 690 V rated value 	100 kA 100 kA 100 kA 100 kA
Maximum short-circuit current breaking capacity (Icu)	
<ul style="list-style-type: none"> • at AC at 240 V rated value • at AC at 400 V rated value • at AC at 500 V rated value • at AC at 690 V rated value 	100 kA 100 kA 100 kA 100 kA
Response value current	
<ul style="list-style-type: none"> • of instantaneous short-circuit trip unit 	13 A

UL/CSA ratings

Full-load current (FLA) for three-phase AC motor	
<ul style="list-style-type: none"> • at 480 V rated value • at 600 V rated value 	1 A 1 A
Yielded mechanical performance [hp]	
<ul style="list-style-type: none"> • for three-phase AC motor <ul style="list-style-type: none"> — at 575/600 V rated value 	0.5 hp

Short-circuit protection

Product function Short circuit protection	Yes
Design of the short-circuit trip	magnetic
Design of the fuse link for IT network for short-circuit protection of the main circuit	
<ul style="list-style-type: none"> • at 500 V • at 690 V 	gL/gG 10 A gL/gG 10 A

Installation/ mounting/ dimensions

Mounting position	any
Mounting type	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 — upwards — Backwards — at the side — forwards • for live parts at 400 V <ul style="list-style-type: none"> — downwards 	30 mm 30 mm 0 mm 9 mm 0 mm 30 mm

— upwards	30 mm
— Backwards	0 mm
— at the side	9 mm
— forwards	0 mm
• for grounded parts at 500 V	
— downwards	30 mm
— upwards	30 mm
— Backwards	0 mm
— at the side	9 mm
— forwards	0 mm
• for live parts at 500 V	
— downwards	30 mm
— upwards	30 mm
— Backwards	0 mm
— at the side	9 mm
— forwards	0 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

Connections/ Terminals

Product function	
• removable terminal for auxiliary and control circuit	No
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	
— single or multi-stranded	2x (0,75 ... 2,5 mm ²), 2x 4 mm ²
— finely stranded with core end processing	2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²)
• at AWG conductors for main contacts	2x (18 ... 14), 2x 12
Tightening torque	

<ul style="list-style-type: none"> • 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 2
Design of the thread of the connection screw	
<ul style="list-style-type: none"> • for main contacts 	M3

Safety related data

B10 value	
<ul style="list-style-type: none"> • with high demand rate acc. to SN 31920 	5 000
Proportion of dangerous failures	
<ul style="list-style-type: none"> • with low demand rate acc. to SN 31920 	50 %
<ul style="list-style-type: none"> • with high demand rate acc. to SN 31920 	50 %
Failure rate [FIT]	
<ul style="list-style-type: none"> • with low demand rate acc. to SN 31920 	50 FIT
T1 value for proof test interval or service life acc. to IEC 61508	10 y
Display version	
<ul style="list-style-type: none"> • for switching status 	Handle

Certificates/ approvals

General Product Approval	For use in hazardous locations
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Declaration of Conformity	Test Certificates	Marine / Shipping
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[Miscellaneous](#)

[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



Marine / Shipping	other
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[Confirmation](#)

other	Railway
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[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=3RV2011-0JA10>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2011-0JA10>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2011-0JA10>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2011-0JA10&lang=en

Characteristic: Tripping characteristics, I²t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2011-0JA10/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2011-0JA10&objecttype=14&gridview=view1>

last modified:

03/25/2020