

Circuit breaker size S00 for motor protection, CLASS 10 A-release
1.8...2.5 A N-release 33 A Screw terminal Standard switching
capacity



product brand name	SIRIUS
product designation	Circuit breaker
design of the product	For motor protection
product type designation	3RV1

General technical data	
size of the circuit-breaker	S00
size of contactor can be combined company-specific	S00
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

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protection class IP	
<ul style="list-style-type: none"> on the front 	IP20
<ul style="list-style-type: none"> of the terminal 	IP00
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 IEC 81346-2	Q

Ambient conditions	
<ul style="list-style-type: none"> installation altitude at height above sea level 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 current response value current of the current-dependent overload release	1.8 ... 2.5 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
operational current rated value	2.5 A
operational current	
<ul style="list-style-type: none"> at AC-3 <ul style="list-style-type: none"> — at 400 V rated value 	2.5 A
operating power	
<ul style="list-style-type: none"> at AC-3 <ul style="list-style-type: none"> — at 230 V rated value — at 400 V rated value — at 500 V rated value — at 690 V rated value 	370 W 750 W 1 100 W 1 500 W

operating frequency	
<ul style="list-style-type: none"> • at AC-3 maximum 	15 1/h
Auxiliary circuit	
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
breaking capacity operating short-circuit current (Ics) at AC	
<ul style="list-style-type: none"> • at 240 V rated value 	100 kA
<ul style="list-style-type: none"> • at 400 V rated value 	100 kA
<ul style="list-style-type: none"> • at 500 V rated value 	100 kA
<ul style="list-style-type: none"> • at 690 V rated value 	2 kA
breaking capacity maximum short-circuit current (Icu)	
<ul style="list-style-type: none"> • at AC at 240 V rated value 	100 kA
<ul style="list-style-type: none"> • at AC at 400 V rated value 	100 kA
<ul style="list-style-type: none"> • at AC at 500 V rated value 	10 kA
<ul style="list-style-type: none"> • at AC at 690 V rated value 	2 kA
response value current	
<ul style="list-style-type: none"> • of instantaneous short-circuit trip unit 	33 A
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
<ul style="list-style-type: none"> • at 480 V rated value 	2.5 A
<ul style="list-style-type: none"> • at 600 V rated value 	2.5 A
yielded mechanical performance [hp]	
<ul style="list-style-type: none"> • for single-phase AC motor <ul style="list-style-type: none"> — at 230 V rated value 	0.166 hp
<ul style="list-style-type: none"> • for 3-phase AC motor <ul style="list-style-type: none"> — at 200/208 V rated value 	0.5 hp
<ul style="list-style-type: none"> — at 220/230 V rated value 	0.5 hp
<ul style="list-style-type: none"> — at 460/480 V rated value 	1 hp
<ul style="list-style-type: none"> — at 575/600 V rated value 	1.5 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	

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|------------|---------------|
| • at 240 V | none required |
| • at 400 V | gL/gG 35 A |
| • at 500 V | gL/gG 25 A |
| • at 690 V | gL/gG 25 A |

Installation/ mounting/ dimensions

mounting position	any
fastening method	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715
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 function	
<ul style="list-style-type: none"> 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
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 (0,5 ... 1,5 mm ²), 2x (0,75 ... 2,5 mm ²), 2x (1 ... 4 mm ²) 2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²)
<ul style="list-style-type: none"> type of connectable conductor cross-sections for auxiliary contacts <ul style="list-style-type: none"> — solid or stranded 	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 	0.8 ... 1.2 N·m 0.8 ... 1.2 N·m
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 with high demand rate acc. to SN 31920 	50 % 50 %
failure rate [FIT]	
<ul style="list-style-type: none"> with low demand rate acc. to SN 31920 	50 FIT
display version	
<ul style="list-style-type: none"> for switching status 	Rocker switch

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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[Miscellaneous](#)

[Confirmation](#)

other	Railway
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[Special Test Certificate](#)

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=3RV1011-1CA10>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV1011-1CA10>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV1011-1CA10>

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

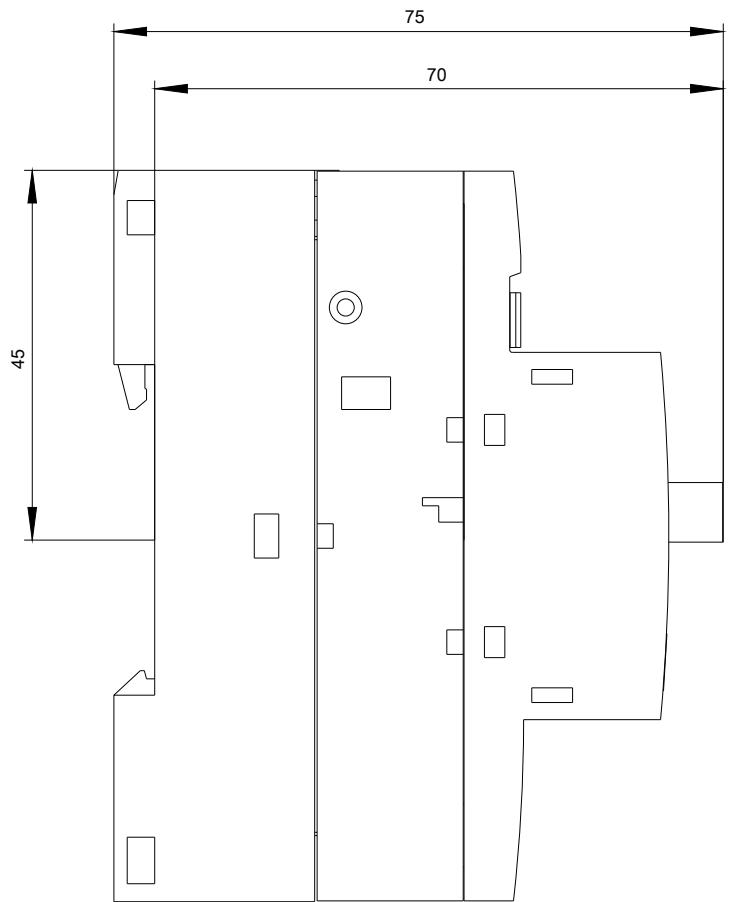
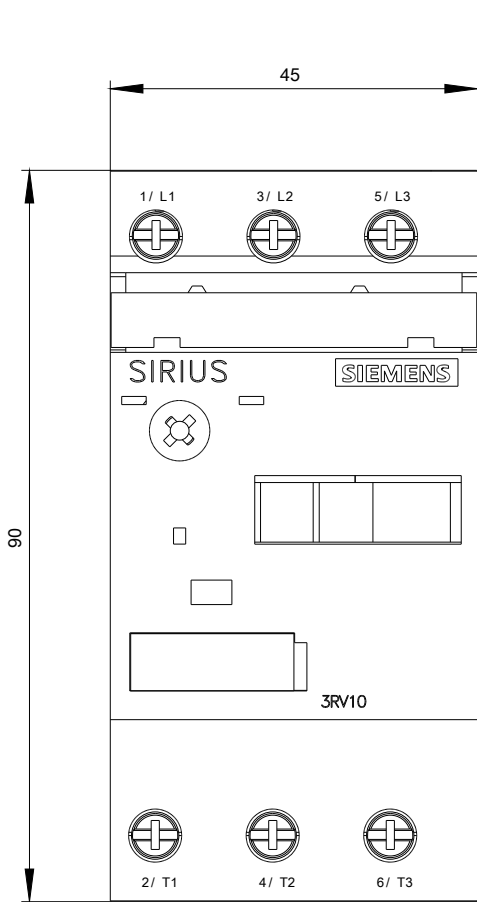
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV1011-1CA10&lang=en

Characteristic: Tripping characteristics, I²t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RV1011-1CA10/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV1011-1CA10&objecttype=14&gridview=view1>





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