



Circuit breaker size S0 for motor protection, CLASS 10 A-release 1.8...2.5 A N-release 33 A Spring-type terminal Standard switching capacity with transverse auxiliary switches 1 NO+1 NC

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	S0
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	7.25 W
• 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 in networks with grounded star point	
• between main and auxiliary circuit	400 V
• between main and auxiliary circuit	400 V
shock resistance according to IEC 60068-2-27	25g / 11 ms
mechanical service life (switching cycles)	
• of the main contacts typical	100 000
• of auxiliary contacts typical	100 000
electrical endurance (switching 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 Prohibition (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
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	1.8 ... 2.5 A

current-dependent overload release	
operating voltage	
<ul style="list-style-type: none"> ● rated value ● rated value ● at AC-3 rated value maximum 	<p>690 V</p> <p>20 ... 690 V</p> <p>690 V</p>
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 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 	<p>0.4 kW</p> <p>0.8 kW</p> <p>1.1 kW</p> <p>1.5 kW</p>
operating frequency	
<ul style="list-style-type: none"> ● 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	
<ul style="list-style-type: none"> ● at 24 V ● at 120 V ● at 125 V ● at 230 V 	<p>2 A</p> <p>0.5 A</p> <p>0.5 A</p> <p>0.5 A</p>
operational current of auxiliary contacts at DC-13	
<ul style="list-style-type: none"> ● at 24 V ● at 60 V 	<p>1 A</p> <p>0.15 A</p>
Protective and monitoring functions	
product function	
<ul style="list-style-type: none"> ● ground fault detection ● phase failure detection 	<p>No</p> <p>Yes</p>
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 ● at 400 V rated value ● at 500 V rated value ● at 690 V rated value 	<p>100 kA</p> <p>100 kA</p> <p>100 kA</p> <p>10 kA</p>
breaking capacity maximum short-circuit current (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 	<p>100 kA</p> <p>100 kA</p> <p>100 kA</p> <p>10 kA</p>
response value current 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 ● at 600 V rated value 	<p>2.5 A</p> <p>2.5 A</p>
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 ● for 3-phase AC motor <ul style="list-style-type: none"> — at 200/208 V rated value — at 220/230 V rated value — at 460/480 V rated value 	<p>0.17 hp</p> <p>0.5 hp</p> <p>0.5 hp</p> <p>1 hp</p>

— at 575/600 V rated value	1.5 hp	
contact rating of auxiliary contacts according to UL	C300 / R300	
Short-circuit protection		
product function short circuit protection	Yes	
design of the short-circuit trip	magnetic	
design of the fuse link	Fuse gL/gG: 10 A, miniature circuit breaker C 6 A (short-circuit current I _k < 400 A)	
<ul style="list-style-type: none"> for short-circuit protection of the auxiliary switch required 		
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	119 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 — at the side 		
<ul style="list-style-type: none"> for live parts at 400 V <ul style="list-style-type: none"> — downwards — upwards — at the side 		
<ul style="list-style-type: none"> for grounded parts at 500 V <ul style="list-style-type: none"> — downwards — upwards — at the side 		
<ul style="list-style-type: none"> for live parts at 500 V <ul style="list-style-type: none"> — downwards — upwards — at the side 		
<ul style="list-style-type: none"> for grounded parts at 690 V <ul style="list-style-type: none"> — downwards — upwards — backwards — at the side — forwards 		
<ul style="list-style-type: none"> for live parts at 690 V <ul style="list-style-type: none"> — downwards — upwards — backwards — at the side — forwards 		
<ul style="list-style-type: none"> for grounded parts at 400 V <ul style="list-style-type: none"> — downwards — upwards — at the side 		
<ul style="list-style-type: none"> for live parts at 400 V <ul style="list-style-type: none"> — downwards — upwards — at the side 		
<ul style="list-style-type: none"> for grounded parts at 500 V <ul style="list-style-type: none"> — downwards — upwards — at the side 		
<ul style="list-style-type: none"> for live parts at 500 V <ul style="list-style-type: none"> — downwards — upwards — at the side 		
<ul style="list-style-type: none"> for grounded parts at 690 V <ul style="list-style-type: none"> — downwards — upwards — backwards — at the side — forwards 		
<ul style="list-style-type: none"> for live parts at 690 V <ul style="list-style-type: none"> — downwards — upwards — backwards — at the side — forwards 		
<ul style="list-style-type: none"> for grounded parts at 690 V <ul style="list-style-type: none"> — downwards — upwards — backwards — at the side — forwards 		
<ul style="list-style-type: none"> for live parts at 690 V <ul style="list-style-type: none"> — downwards — upwards — backwards — at the side — forwards 		
Connections/ Terminals		
product component removable terminal for auxiliary and control circuit		No
type of electrical connection		spring-loaded terminals spring-loaded terminals
<ul style="list-style-type: none"> for main current circuit for auxiliary and control circuit 		
arrangement of electrical connectors for main current circuit	Top and bottom	
type of connectable conductor cross-sections	2x (1 ... 10 mm ²) 2x (1 ... 6 mm ²) 2x (1 ... 6 mm ²) 2x (18 ... 8)	
<ul style="list-style-type: none"> for main contacts <ul style="list-style-type: none"> — solid or stranded — finely stranded with core end processing — finely stranded without core end processing 		
<ul style="list-style-type: none"> at AWG cables for main contacts 		
type of connectable conductor cross-sections		
<ul style="list-style-type: none"> for auxiliary contacts <ul style="list-style-type: none"> — solid or stranded 		

— finely stranded with core end processing	2x (0.5 ... 1.5 mm ²)
— finely stranded without core end processing	2x (0.5 ... 1.5 mm ²)
• at AWG cables for auxiliary contacts	2x (20 ... 14)
design of screwdriver shaft	Diameter 3 mm
size of the screwdriver tip	3,0 x 0,5 mm

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 %
• with high demand rate according to SN 31920	50 %
failure rate [FIT]	
• with low demand rate according to SN 31920	50 FIT
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 version for switching status	Handle

Certificates/ approvals

General Product Approval



[Confirmation](#)



[KC](#)



For use in hazardous locations	Declaration of Conformity	Test Certificates
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[UK Declaration of Conformity](#)

[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)

Marine / Shipping



Marine / Shipping	other	Railway
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[Confirmation](#)



[Confirmation](#)

[Vibration and Shock](#)

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=3RV2021-1CA25>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2021-1CA25>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2021-1CA25>

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

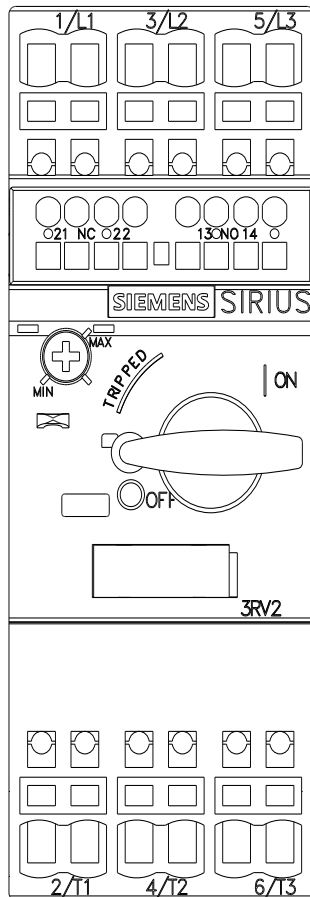
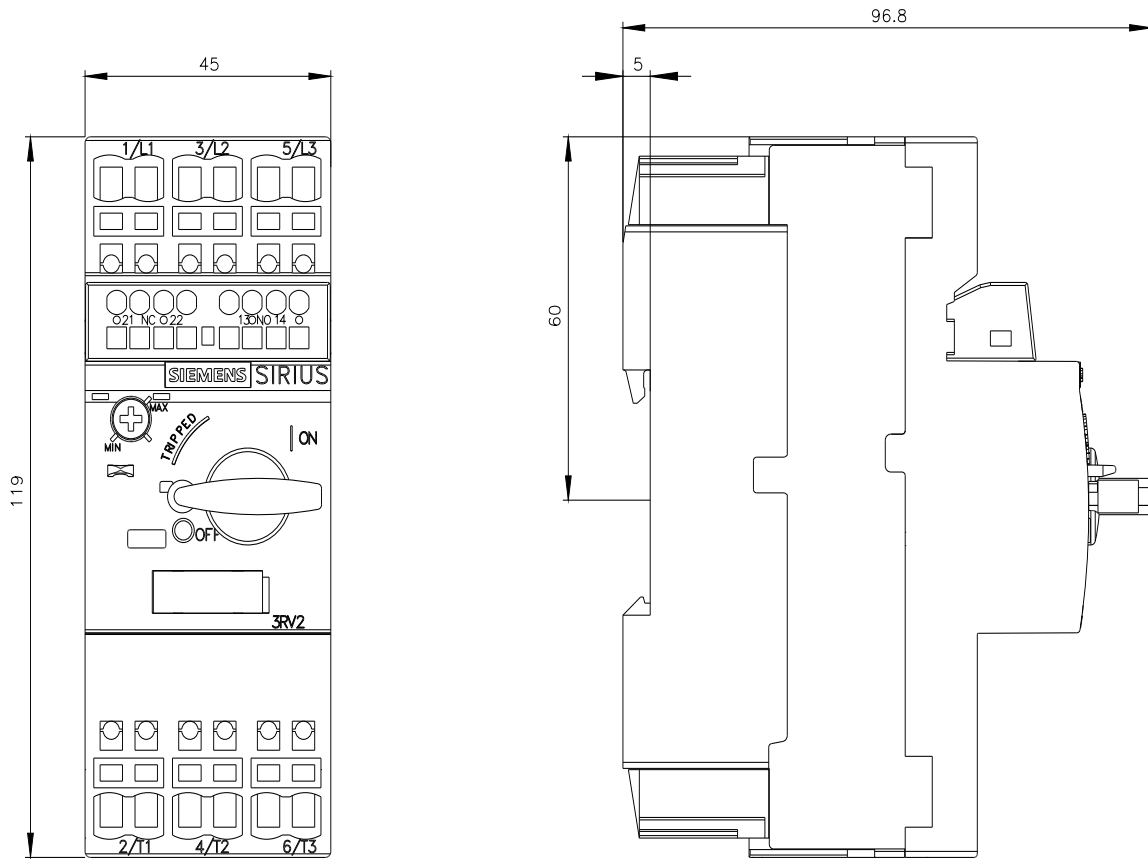
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2021-1CA25&lang=en

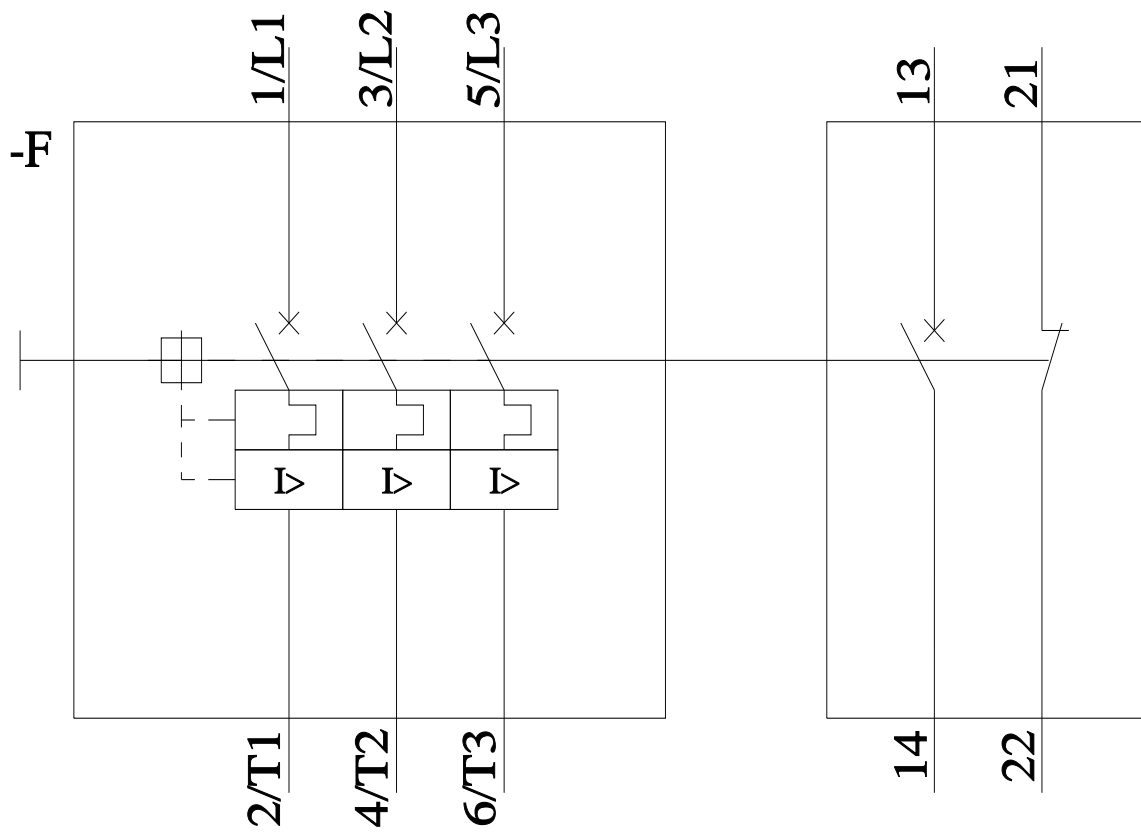
Characteristic: Tripping characteristics, I²t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2021-1CA25/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mfb=3RV2021-1CA25&objecttype=14&gridview=view1>





last modified:

11/16/2021 