



Circuit breaker size S0 for motor protection, CLASS 10 A-release 9...12 A N-release 163 A Spring-type terminal switching capacity 30 kA at 600 V according to UL/CSA

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	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
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	9 ... 12.5 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	12.5 A
operational current	
• at AC-3 at 400 V rated value	12.5 A
• at AC-3e at 400 V rated value	12.5 A

operating power	
<ul style="list-style-type: none"> at AC-3 <ul style="list-style-type: none"> at 690 V rated value at AC-3e <ul style="list-style-type: none"> at 690 V rated value 	7.5 kW
operating frequency	
<ul style="list-style-type: none"> at AC-3 maximum at AC-3e 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 for auxiliary contacts	0
Protective and monitoring functions	
product function	
<ul style="list-style-type: none"> ground fault detection phase failure detection 	No Yes
trip class	CLASS 10
design of the overload release	thermal
maximum short-circuit current breaking capacity (Icu)	
<ul style="list-style-type: none"> at AC at 690 V rated value 	6 kA
operating short-circuit current breaking capacity (Ics) at AC	
<ul style="list-style-type: none"> at 690 V rated value 	4 kA
response value current of instantaneous short-circuit trip unit	163 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 	12.5 A 12.5 A
yielded mechanical performance [hp]	
<ul style="list-style-type: none"> for single-phase AC motor <ul style="list-style-type: none"> at 110/120 V rated value 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 at 575/600 V rated value 	0.5 hp 2 hp 3 hp 3 hp 8 hp 10 hp
Short-circuit protection	
product function short circuit protection	Yes
design of the short-circuit trip	magnetic
Installation/ mounting/ dimensions	
mounting position	any
fastening method	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715
height	119 mm
width	45 mm
depth	97 mm
required spacing	
<ul style="list-style-type: none"> with side-by-side mounting at the side for grounded parts at 690 V <ul style="list-style-type: none"> downwards upwards backwards at the side forwards for live parts at 690 V <ul style="list-style-type: none"> downwards upwards backwards at the side forwards 	0 mm 50 mm 50 mm 0 mm 30 mm 0 mm 50 mm 50 mm 0 mm 30 mm 0 mm
Connections/ Terminals	

type of electrical connection • for main current circuit	spring-loaded terminals
arrangement of electrical connectors for main current circuit	Top and bottom
type of connectable conductor cross-sections • for main contacts — solid or stranded — finely stranded with core end processing — finely stranded without core end processing • for AWG cables for main contacts	2x (1 ... 10 mm ²) 2x (1 ... 6 mm ²) 2x (1 ... 6 mm ²) 2x (18 ... 8)
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 • with high demand rate according to SN 31920	50 % 50 %
failure rate [FIT] • with low demand rate according to SN 31920	50 FIT
T1 value for proof test interval or service life according to IEC 61508	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
display version for switching status	Handle

Certificates/ approvals

General Product Approval	Declaration of Conformity
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[Confirmation](#)



Test Certificates

Marine / Shipping

[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



Marine / Shipping

other

Railway



[Confirmation](#)



[Vibration and Shock](#)

[Confirmation](#)

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=3RV2023-1KA20>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2023-1KA20>

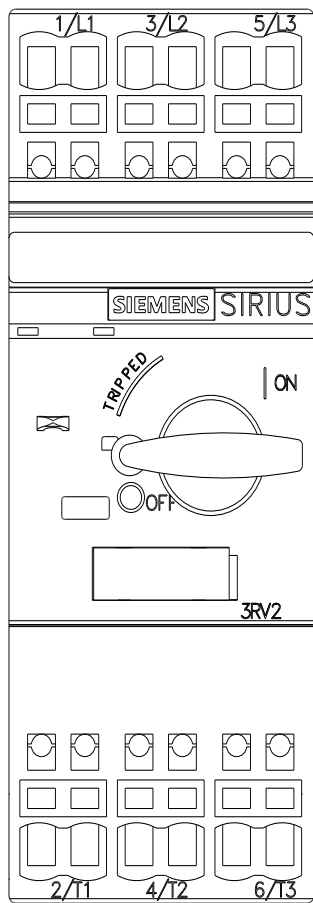
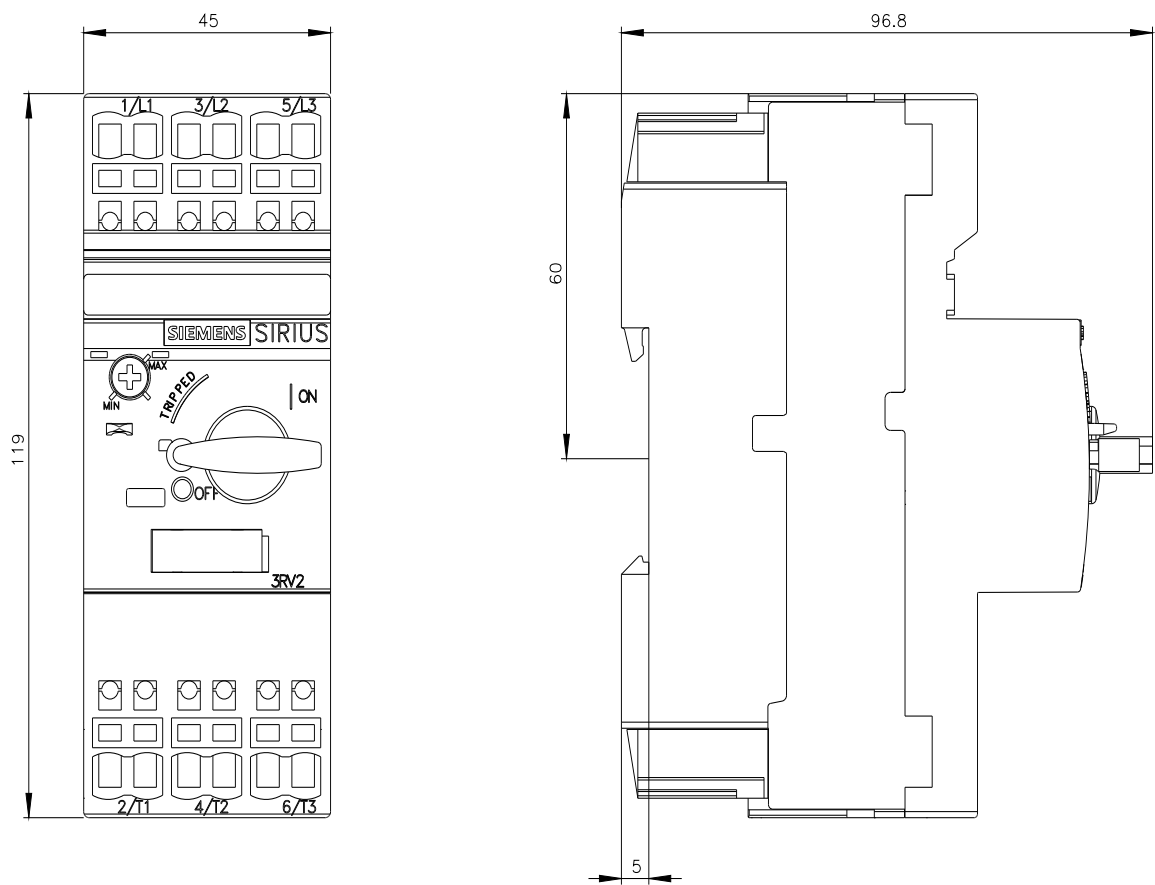
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

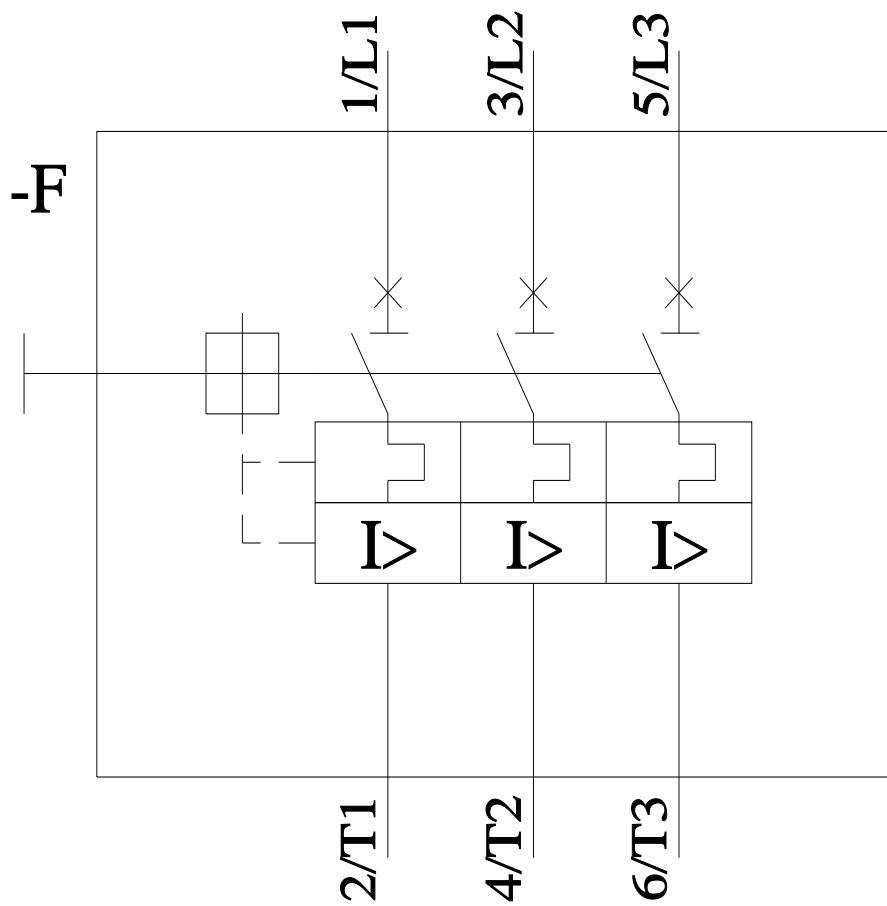
<https://support.industry.siemens.com/cs/ww/en/ps/3RV2023-1KA20>

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


http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2023-1KA20&lang=en

Characteristic: Tripping characteristics, I²t, Let-through current
<https://support.industry.siemens.com/cs/ww/en/ps/3RV2023-1KA20/char>
Further characteristics (e.g. electrical endurance, switching frequency)
<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2023-1KA20&objecttype=14&gridview=view1>





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