SIEMENS

Data sheet

3RV2021-1HA20-0BA0



Special type Circuit breaker size S0 for motor protection, Class 10 A-release 5.5...8 A Short-circuit release 104 A Spring-loaded terminal Standard switching capacity Ambient temperature -50 °C 500 switching cycles

Figure similar

product brand name product designation	SIRIUS Circuit breaker
design of the product	For motor protection
product type designation	3RV2
General technical data	31172
size of the circuit-breaker	SO
size of the circuit-breaker	S00, S0
product extension auxiliary switch	Yes
power loss [W] for rated value of the current	163
at AC in hot operating state	9.25 W
at AC in hot operating state at AC in hot operating state per pole	3.1 W
insulation voltage with degree of pollution 3 at AC rated	690 V
value	030 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	500
of auxiliary contacts typical	500
electrical endurance (operating cycles) typical	500
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 	-50 +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	5.5 8 A
operating voltage	
rated value	20 690 V
 at AC-3 rated value maximum 	690 V
operating frequency rated value	50 60 Hz
operational current rated value	8 A
operational current	
at AC-3 at 400 V rated value	8 A
operating power	
• at AC-3	

— at 230 V rated value	1.5 kW
— at 400 V rated value	3 kW
— at 500 V rated value	4 kW
— at 690 V rated value	5.5 kW
operating frequency	4-40
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 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 240 V rated value at AC at 400 V rated value	100 KA
at AC at 500 V rated value at AC at 500 V rated value	42 kA
at AC at 690 V rated value	6 kA
operating short-circuit current breaking capacity (Ics) at AC	
at 240 V rated value	100 kA
at 400 V rated value	100 kA
 at 500 V rated value 	42 kA
 at 690 V rated value 	4 kA
response value current of instantaneous short-circuit trip unit	104 A
Short-circuit protection	
product function short circuit protection	Yes
design of the short-circuit trip	magnetic
Installation/ mounting/ dimensions	magnetic
Installation/ mounting/ dimensions mounting position	any
Installation/ mounting/ dimensions	any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN
Installation/ mounting/ dimensions mounting position fastening method	any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715
Installation/ mounting/ dimensions mounting position fastening method height	any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 119 mm
Installation/ mounting/ dimensions mounting position fastening method height width	any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 119 mm 45 mm
Installation/ mounting/ dimensions mounting position fastening method height width depth	any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 119 mm
Installation/ mounting/ dimensions mounting position fastening method height width	any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 119 mm 45 mm
Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing	any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 119 mm 45 mm 97 mm
Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing • with side-by-side mounting at the side	any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 119 mm 45 mm 97 mm
Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing • with side-by-side mounting at the side • for grounded parts at 400 V — downwards — upwards	any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 119 mm 45 mm 97 mm 0 mm 30 mm 30 mm
Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing • with side-by-side mounting at the side • for grounded parts at 400 V — downwards — upwards — at the side	any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 119 mm 45 mm 97 mm 0 mm
Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing • with side-by-side mounting at the side • for grounded parts at 400 V — downwards — upwards — at the side • for live parts at 400 V	any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 119 mm 45 mm 97 mm 0 mm 30 mm 30 mm 9 mm
Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing • with side-by-side mounting at the side • for grounded parts at 400 V — downwards — upwards — at the side • for live parts at 400 V — downwards	any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 119 mm 45 mm 97 mm 0 mm 30 mm 30 mm 30 mm
Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing • with side-by-side mounting at the side • for grounded parts at 400 V — downwards — upwards — at the side • for live parts at 400 V — downwards — upwards — upwards — upwards — upwards — upwards — upwards	any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 119 mm 45 mm 97 mm 0 mm 30 mm 30 mm 9 mm
Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing • with side-by-side mounting at the side • for grounded parts at 400 V — downwards — upwards — at the side • for live parts at 400 V — downwards — at the side • for live parts at 400 V — downwards — upwards — at the side • at the side	any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 119 mm 45 mm 97 mm 0 mm 30 mm 30 mm 30 mm
Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing • with side-by-side mounting at the side • for grounded parts at 400 V — downwards — upwards — at the side • for live parts at 400 V — downwards — upwards — at the side • for grounded parts at 500 V	any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 119 mm 45 mm 97 mm 0 mm 30 mm 30 mm 9 mm 30 mm 9 mm
Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing • with side-by-side mounting at the side • for grounded parts at 400 V — downwards — upwards — at the side • for live parts at 400 V — downwards — upwards — at the side • for grounded parts at 500 V — downwards — at the side	any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 119 mm 45 mm 97 mm 0 mm 30 mm 30 mm 9 mm 30 mm 30 mm 30 mm 30 mm 30 mm
Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing • with side-by-side mounting at the side • for grounded parts at 400 V — downwards — upwards — at the side • for live parts at 400 V — downwards — upwards — at the side • for grounded parts at 500 V — downwards — upwards — at the side • for grounded parts at 500 V — downwards — upwards — upwards	any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 119 mm 45 mm 97 mm 0 mm 30 mm 30 mm 9 mm 30 mm 30 mm 30 mm 30 mm
Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing • with side-by-side mounting at the side • for grounded parts at 400 V — downwards — upwards — at the side • for live parts at 400 V — downwards — upwards — at the side • for grounded parts at 500 V — downwards — upwards — at the side • for grounded parts at 500 V — downwards — upwards — at the side • at the side	any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 119 mm 45 mm 97 mm 0 mm 30 mm 30 mm 9 mm 30 mm 30 mm 30 mm 30 mm 30 mm
Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing • with side-by-side mounting at the side • for grounded parts at 400 V — downwards — upwards — at the side • for live parts at 400 V — downwards — upwards — at the side • for grounded parts at 500 V — downwards — upwards — at the side • for grounded parts at 500 V — downwards — upwards — upwards	any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 119 mm 45 mm 97 mm 0 mm 30 mm 30 mm 9 mm 30 mm 30 mm 30 mm 30 mm
Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing • with side-by-side mounting at the side • for grounded parts at 400 V — downwards — upwards — at the side • for live parts at 400 V — downwards — upwards — at the side • for grounded parts at 500 V — downwards — at the side • for grounded parts at 500 V — downwards — upwards — at the side • for live parts at 500 V	any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 119 mm 45 mm 97 mm 0 mm 30 mm 30 mm 9 mm 30 mm 9 mm 30 mm 9 mm
Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing • with side-by-side mounting at the side • for grounded parts at 400 V — downwards — upwards — at the side • for live parts at 400 V — downwards — upwards — at the side • for grounded parts at 500 V — downwards — upwards — at the side • for grounded parts at 500 V — downwards — at the side • for live parts at 500 V — downwards — at the side	any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 119 mm 45 mm 97 mm 0 mm 30 mm 30 mm 9 mm 30 mm 9 mm 30 mm 9 mm 30 mm 9 mm
Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing • with side-by-side mounting at the side • for grounded parts at 400 V — downwards — upwards — at the side • for live parts at 400 V — downwards — upwards — at the side • for grounded parts at 500 V — downwards — upwards — at the side • for grounded parts at 500 V — downwards — upwards — at the side • for live parts at 500 V — downwards — upwards — at the side • for live parts at 500 V — downwards — upwards — upwards	any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 119 mm 45 mm 97 mm 0 mm 30 mm 30 mm 9 mm 30 mm 9 mm 30 mm 9 mm 30 mm 30 mm 9 mm
Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing • with side-by-side mounting at the side • for grounded parts at 400 V — downwards — upwards — at the side • for live parts at 400 V — downwards — upwards — at the side • for grounded parts at 500 V — downwards — upwards — at the side • for live parts at 500 V — downwards — upwards — at the side • for live parts at 500 V — downwards — at the side • for live parts at 500 V — downwards — at the side • for live parts at 500 V — downwards — upwards — at the side	any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 119 mm 45 mm 97 mm 0 mm 30 mm 30 mm 9 mm 30 mm 9 mm 30 mm 9 mm 30 mm 30 mm 9 mm
Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing • with side-by-side mounting at the side • for grounded parts at 400 V — downwards — upwards — at the side • for live parts at 400 V — downwards — upwards — at the side • for grounded parts at 500 V — downwards — upwards — at the side • for grounded parts at 500 V — downwards — upwards — at the side • for live parts at 500 V — downwards — at the side • for grounded parts at 500 V — downwards — at the side • for grounded parts at 690 V	any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 119 mm 45 mm 97 mm 0 mm 30 mm 30 mm 9 mm
mounting position fastening method height width depth required spacing • with side-by-side mounting at the side • for grounded parts at 400 V — downwards — upwards — at the side • for live parts at 400 V — downwards — upwards — at the side • for grounded parts at 500 V — downwards — upwards — at the side • for grounded parts at 500 V — downwards — upwards — at the side • for live parts at 500 V — downwards — at the side • for grounded parts at 500 V — downwards — at the side • for grounded parts at 690 V — downwards — upwards — at the side • for grounded parts at 690 V — downwards — upwards — backwards	any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 119 mm 45 mm 97 mm 0 mm 30 mm 30 mm 9 mm 30 mm 9 mm 30 mm 9 mm 30 mm 9 mm 50 mm 9 mm
Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing • with side-by-side mounting at the side • for grounded parts at 400 V — downwards — upwards — at the side • for live parts at 400 V — downwards — upwards — at the side • for grounded parts at 500 V — downwards — upwards — at the side • for live parts at 500 V — downwards — upwards — at the side • for live parts at 500 V — downwards — upwards — at the side • for grounded parts at 690 V — downwards — upwards — at the side • for grounded parts at 690 V — downwards — upwards — upwards — upwards	any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 119 mm 45 mm 97 mm 0 mm 30 mm 30 mm 9 mm 30 mm 9 mm 30 mm 9 mm 30 mm 9 mm 50 mm 50 mm

• for live parts at 690 V - downwards

50 mm upwards 50 mm backwards 0 mm - at the side 30 mm

- forwards

type of electrical connection

• for main current circuit arrangement of electrical connectors for main current

circuit

type of connectable conductor cross-sections

• for main contacts - solid or stranded

2x (1 ... 10 mm²) - finely stranded with core end processing 2x (1 ... 6 mm²) - finely stranded without core end processing 2x (1 ... 6 mm²) design of screwdriver shaft Diameter 3 mm

size of the screwdriver tip

Safety related data

T1 value for proof test interval or service life according to IEC 61508

protection class IP on the front according to IEC 60529

touch protection on the front according to IEC 60529 display version for switching status

10 a

3.0 x 0.5 mm

0 mm

spring-loaded terminals

Top and bottom

IP20

finger-safe, for vertical contact from the front

Handle

Certificates/ approvals

General Product Approval

Declaration of Conformity

Test Certificates

Confirmation

<u>KC</u>





Type Test Certificates/Test Report

Test Certificates

Marine / Shipping

Special Test Certific-<u>ate</u>











Marine / Shipping

other

Railway





Confirmation



Confirmation

Vibration and Shock

Further information

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=3RV2021-1HA20-0BA0

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2021-1HA20-0BA0

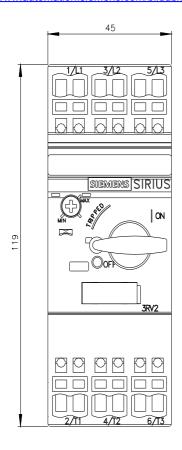
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

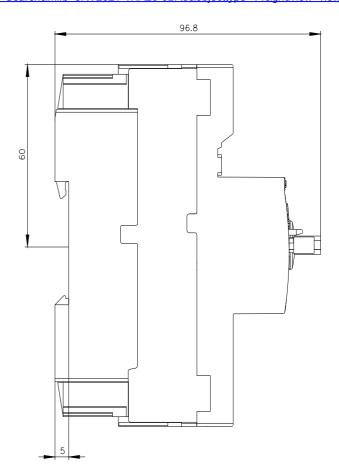
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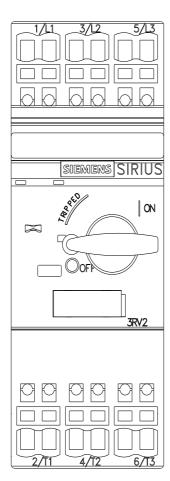
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

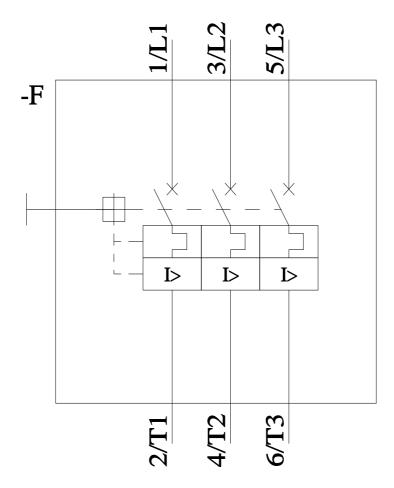
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Characteristic: Tripping characteristics, I2t, Let-through current









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