SIEMENS

Data sheet



Circuit breaker size S0 for motor protection, Class 10 A-release 9...12 A N-release 163 A Screw terminal Standard switching capacity Multi-unit packaging Pack = 24 units

product brand name	SIRIUS	
product designation	Circuit breaker	
design of the product	For motor protection	
product type designation	3RV2	
General technical data	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 (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 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
operating frequency rated value	50 60 Hz 12.5 A
operational current rated value operational current	12.3 A
at AC-3 at 400 V rated value	12.5 A
at AC-3 at 400 V rated value at AC-3e at 400 V rated value	12.5 A
operating power	14.V A
• at AC-3	
— at 230 V rated value	3 kW
— at 400 V rated value	5.5 kW
	7.5 kW
— at 500 V rated value— at 690 V rated value	7.5 kW
	7.5 KVV
• at AC-3e	2 1/1/
— at 230 V rated value	3 kW
— at 400 V rated value	5.5 kW
— at 500 V rated value	7.5 kW
— at 690 V rated value	7.5 kW
operating frequency	4.5.40
• at AC-3 maximum	15 1/h
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	
 ground fault detection 	No
phase failure detection	Yes
trip class	CLASS 10
design of the overload release	thermal
breaking capacity maximum short-circuit current (Icu)	
• at AC at 240 V rated value	100 kA
• at AC at 400 V rated value	100 kA
• at AC at 500 V rated value	42 kA
• at AC at 690 V rated value	6 kA
breaking capacity operating short-circuit current (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	163 A
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
at 480 V rated value	12.5 A
• at 600 V rated value	12.5 A
yielded mechanical performance [hp]	
for single-phase AC motor	
— at 110/120 V rated value	0.5 hp
— at 230 V rated value	2 hp
• for 3-phase AC motor	
— at 200/208 V rated value	3 hp
— at 220/230 V rated value	3 hp
— at 460/480 V rated value	8 hp
— at 575/600 V rated value	10 hp
Short-circuit protection	
product function short circuit protection	Yes
design of the short-circuit trip	magnetic
Installation/ mounting/ dimensions	
	2m/
mounting position	any

fastening method	screw and snap-on mounting onto 35 mm standard mounting rail
lusterining metricu	according to DIN EN 60715
height	97 mm
width	45 mm
depth	97 mm
required spacing	
 for grounded parts at 400 V 	
— downwards	30 mm
— upwards	30 mm
— at the side	9 mm
for live parts at 400 V	
— downwards	30 mm
— upwards	30 mm
— at the side	9 mm
 for grounded parts at 500 V 	
— downwards	30 mm
— upwards	30 mm
— at the side	9 mm
 for live parts at 500 V 	
— downwards	30 mm
— upwards	30 mm
— at the side	9 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
— forwards	0 mm
Connections/ Terminals	
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	
— solid or stranded	2x (1 2.5 mm²), 2x (2.5 10 mm²)
finely stranded with core end processing	2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm²
at AWG cables for main contacts	2x (16 12), 2x (14 8)
tightening torque	, , , , , , , , , , , , , , , , , , , ,
for main contacts with screw-type terminals	2 2.5 N·m
design of screwdriver shaft	
	Diameter 5 to 6 mm
	Pozidriv size 2
size of the screwdriver tip	
size of the screwdriver tip design of the thread of the connection screw • for main contacts	Pozidriv size 2
size of the screwdriver tip design of the thread of the connection screw	Pozidriv size 2
size of the screwdriver tip design of the thread of the connection screw • for main contacts Safety related data B10 value	Pozidriv size 2
size of the screwdriver tip design of the thread of the connection screw • for main contacts Safety related data B10 value • with high demand rate according to SN 31920	Pozidriv size 2 M4
size of the screwdriver tip design of the thread of the connection screw	Pozidriv size 2 M4 5 000
size of the screwdriver tip design of the thread of the connection screw • for main contacts Safety related data B10 value • with high demand rate according to SN 31920 proportion of dangerous failures • with low demand rate according to SN 31920	Pozidriv size 2 M4
size of the screwdriver tip design of the thread of the connection screw	Pozidriv size 2 M4 5 000 50 %
size of the screwdriver tip design of the thread of the connection screw	Pozidriv size 2 M4 5 000 50 %
size of the screwdriver tip design of the thread of the connection screw	Pozidriv size 2 M4 5 000 50 % 50 % 50 FIT
size of the screwdriver tip design of the thread of the connection screw	Pozidriv size 2 M4 5 000 50 % 50 %

60529

touch protection on the front according to IEC 60529

display version for switching status

finger-safe, for vertical contact from the front

Handle

Certificates/ approvals

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=3RV2021-1KA10-Z W96

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2021-1KA10-Z W96

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

https://support.industry.siemens.com/cs/ww/en/ps/3RV2021-1KA10-Z W96

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

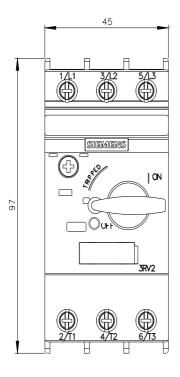
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2021-1KA10-Z W96&lang=en

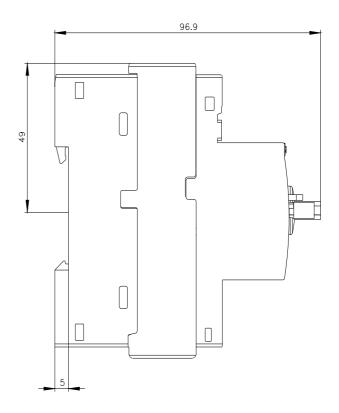
Characteristic: Tripping characteristics, I2t, Let-through current

https://support.industry.siemens.com/cs/ww/en/ps/3RV2021-1KA10-Z W96/char

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

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2021-1KA10-Z W96&objecttype=14&gridview=view1





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