SIEMENS

Data sheet 3RV2021-1DA10



Circuit breaker size S0 for motor protection, CLASS 10 A-release 2.2...3.2 A N release 42 A screw terminal Standard switching capacity

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	
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	2.2 3.2 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 fated value	3.2 A
operational current	
at AC-3 at 400 V rated value	3.2 A
at AC-3e at 400 V rated value	3.2 A
operating power	
• at AC-3	
— at 230 V rated value	0.6 kW
— at 400 V rated value	1.1 kW
— at 500 V rated value	1.5 kW
— at 690 V rated value	2.2 kW
• at AC-3e	
— at 230 V rated value	0.6 kW
— at 400 V rated value	1.1 kW
— at 500 V rated value	1.5 kW
— at 690 V rated value	2.2 kW
operating frequency	
 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	100 kA
at AC at 690 V rated value	10 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	100 kA
• at 690 V rated value	10 kA
response value current of instantaneous short-circuit trip	42 A
unit	
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
at 480 V rated value	3.2 A
at 600 V rated value	3.2 A
yielded mechanical performance [hp]	
for single-phase AC motor	0.41
— at 110/120 V rated value	0.1 hp
— at 230 V rated value	0.25 hp
• for 3-phase AC motor	0.5 ha
— at 200/208 V rated value	0.5 hp
— at 220/230 V rated value	0.75 hp
— at 460/480 V rated value	2 hp
— at 575/600 V rated value	2 hp
Short-circuit protection	Von
product function short circuit protection	Yes
design of the short-circuit trip	magnetic
Installation/ mounting/ dimensions	000
mounting position	any

fastening method	screw and snap-on mounting onto 35 mm standard mounting rail
hoight	according to DIN EN 60715 97 mm
height width	45 mm
depth	97 mm
required spacing	
• for grounded parts at 400 V	22
— 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	V IIIII
type of electrical connection • for main current circuit	corou tuno terminale
	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)
Solid of stranded minely stranded with core end processing	2x (1 2.5 mm²), 2x (2.5 10 mm²) 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	2 25 N.m.
for main contacts with screw-type terminals	2 2.5 N·m
design of screwdriver shaft	Diameter 5 to 6 mm
size of the screwdriver tip	Pozidriv size 2
design of the thread of the connection screw	
for main contacts	M4
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]	
	50 FIT
with low demand rate according to SN 31920 T1 value for proof test interval or service life according to IEC 61508	50 FIT 10 y

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

General Product Approval



Confirmation





<u>KC</u>



For use in hazardous locations

Declaration of Conformity

Test Certificates







Type Test Certificates/Test Report

Special Test Certificate

Marine / Shipping













Marine / Shipping

other

Railway



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=3RV2021-1DA10

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2021-1DA10

 ${\bf Service \& Support~(Manuals,~Certificates,~Characteristics,~FAQs,...)}$

https://support.industry.siemens.com/cs/ww/en/ps/3RV2021-1DA10

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

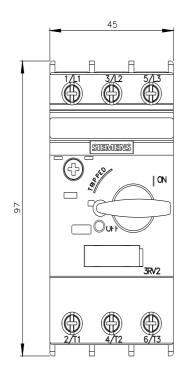
 $\underline{\text{http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2021-1DA10\&lang=en}}$

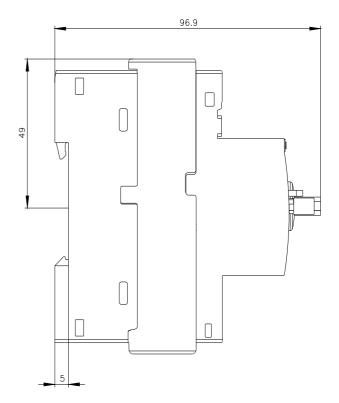
Characteristic: Tripping characteristics, I²t, Let-through current

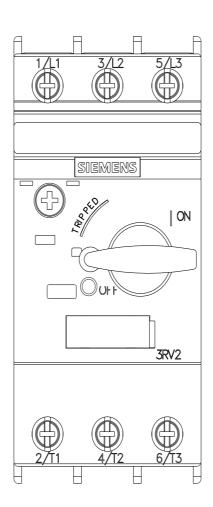
https://support.industry.siemens.com/cs/ww/en/ps/3RV2021-1DA10/char

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

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2021-1DA10&objecttype=14&gridview=view1







last modified: 6/25/2022 🖸