SIEMENS

Data sheet

3RV2021-1AA10



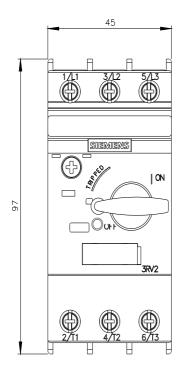
Circuit breaker size S0 for motor protection, CLASS 10 A-release 1.1...1.6 A N-release 21 A screw terminal Standard switching capacity

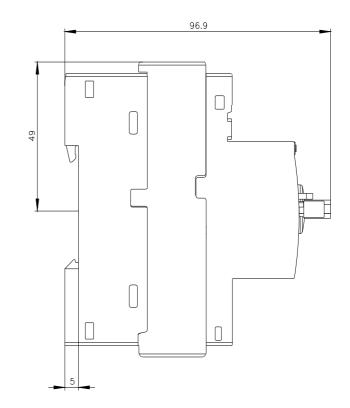
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product brand name	SIRIUS
product designation	Circuit breaker
design of the product	For motor protection
product type designation	3RV2
General technical data	
size of the circuit-breaker	SO
size of contactor can be combined company-specific	S00, S0
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 (operating cycles)	
 of the main contacts typical 	100 000
 of auxiliary contacts typical 	100 000
electrical endurance (operating 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	1.1 1.6 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	1.6 A

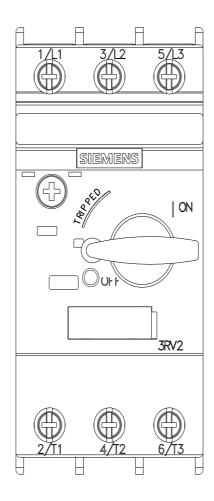
energianal autrent	
operational current	1.6 A
 at AC-3 at 400 V rated value at AC-3e at 400 V rated value 	1.6 A
	1.0 A
• at AC-3	
- at 230 V rated value	0.3 kW
— at 400 V rated value	0.6 kW
— at 500 V rated value	0.8 kW
— at 690 V rated value	1.1 kW
• at AC-3e	
— at 230 V rated value	0.3 kW
— at 400 V rated value	0.6 kW
— at 500 V rated value	0.8 kW
— at 690 V rated value	1.1 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
maximum short-circuit current breaking capacity (lcu)	
 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 	100 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	100 kA
• at 690 V rated value	100 kA
response value current of instantaneous short-circuit trip unit	21 A
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
 at 480 V rated value 	1.6 A
• at 600 V rated value	1.6 A
yielded mechanical performance [hp]	
for single-phase AC motor	0.4 hz
— at 230 V rated value	0.1 hp
for 3-phase AC motor at 460/480 V reted value	1 hn
— at 460/480 V rated value	1 hp
— at 575/600 V rated value	0.8 hp
Short-circuit protection	
product function short circuit protection	Yes
design of the short-circuit trip	magnetic
Installation/ mounting/ dimensions	
mounting position fastening method	any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN
height	60715 97 mm
height width	97 mm 45 mm
depth	45 mm 97 mm
required spacing	
with side-by-side mounting at the side	0 mm
 for grounded parts at 400 V 	

	Handlo	
60529 touch protection on the front according to IEC 60529 display version for switching status	finger-safe, for vertical contact from the front Handle	
IEC 61508 protection class IP on the front according to IEC	IP20	
T1 value for proof test interval or service life according to	10 a	
 failure rate [FIT] with low demand rate according to SN 31920 	50 FIT	
with high demand rate according to SN 31920 failure rate [EIT]	50 %	
with low demand rate according to SN 31920	50 %	
proportion of dangerous failures	50.0/	
with high demand rate according to SN 31920	5 000	
B10 value		
Safety related data		
for main contacts	M4	
design of the thread of the connection screw		
size of the screwdriver tip	Pozidriv size 2	
design of screwdriver shaft	Diameter 5 to 6 mm	
 for main contacts with screw-type terminals 	2 2.5 N·m	
tightening torque		
 at AWG cables for main contacts 	2x (16 12), 2x (14 8)	
 — finely stranded with core end processing 	2x (1 2.5 mm ²), 2x (2.5 6 mm ²), 1x 10 mm ²	
— solid or stranded	2x (1 2.5 mm²), 2x (2.5 10 mm²)	
for main contacts		
type of connectable conductor cross-sections		
circuit		
arrangement of electrical connectors for main current	Top and bottom	
for main current circuit	screw-type terminals	
type of electrical connection		
Connections/ Terminals		
— forwards	0 mm	
— at the side	30 mm	
— backwards	0 mm	
— upwards	50 mm	
— downwards	50 mm	
• for live parts at 690 V		
— forwards	0 mm	
— at the side	30 mm	
— backwards	0 mm	
— upwards	50 mm	
— downwards	50 mm	
 for grounded parts at 690 V 		
— at the side	9 mm	
— downwards — upwards	30 mm	
 for live parts at 500 V — downwards 	30 mm	
— at the side	9 mm	
— upwards	30 mm	
— downwards	30 mm	
for grounded parts at 500 V	20 mm	
— at the side	9 mm	
— upwards	30 mm	
— downwards	30 mm	
 for live parts at 400 V 		
— at the side	9 mm	
— upwards	30 mm	
— downwards	30 mm	

	<u>Confirmation</u>	(UL) III	<u>KC</u>	EAC	IECEx			
For use in hazard- ous locations	Declaration of Conf	ormity	Test Certificates		Marine / Shipping			
K ATEX	CE EG-Konf.	UK CA	Special Test Certific- ate	<u>Type Test Certific-</u> ates/Test Report	ABS			
Marine / Shipping					other			
B U R E A U VERITAS		Hoyds Register urs	PRS	RINA	<u>Confirmation</u>			
other	Railway							
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=3RV2021-1AA10 Cax online generator http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2021-1AA10								
Service&Support (Manuals, Certificates, Characteristics, FAQs,) https://support.industry.siemens.com/cs/ww/en/ps/3RV2021-1AA10								
Image database (pro	Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros,) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2021-1AA10⟨=en							
Characteristic: Tripping characteristics, I ² t, Let-through current https://support.industry.siemens.com/cs/ww/en/ps/3RV2021-1AA10/char Further characteristics (e.g. electrical endurance, switching frequency) http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2021-1AA10&objecttype=14&gridview=view1								

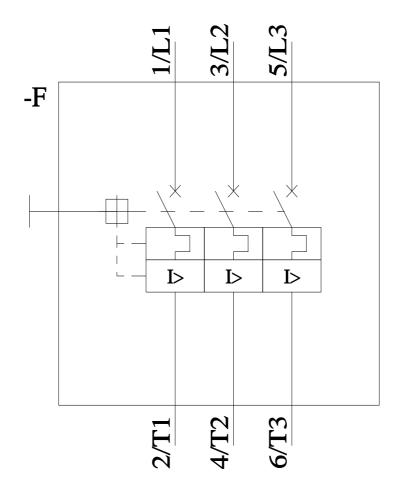






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