SIEMENS

Data sheet

3RV2021-0CA10



Circuit breaker size S0 for motor protection, Class 10 A-release 0.18...0.25 A Short-circuit release 3.3 A Screw terminal Standard switching capacity

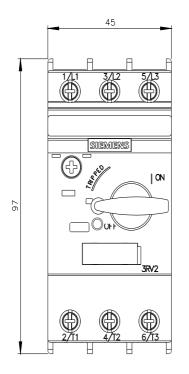
4/12 6/15	
product brand name	SIRIUS
product designation	Circuit breaker
design of the product	For motor protection
product type designation	3RV2
General technical data	
size of the circuit-breaker	S0
size of contactor can be combined company-specific	S00, S0
product extension auxiliary switch	Yes
power loss [W] for rated value of the current	
 at AC in hot operating state 	5.5 W
 at AC in hot operating state per pole 	1.8 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	0.18 0.25 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	0.25 A
operational current	

• at AC-3 at 400 V rated value	0.25 A
 at AC-3e at 400 V rated value 	0.25 A
operating power	
• at AC-3	
— at 230 V rated value	0 kW
— at 400 V rated value	0.1 kW
— at 500 V rated value	0.1 kW
— at 690 V rated value	0.1 kW
• at AC-3e	
— at 230 V rated value	0 kW
— at 400 V rated value	0.1 kW
— at 500 V rated value	0.1 kW
— at 690 V rated value	0.1 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 (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	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	3.3 A
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
• at 480 V rated value	0.25 A
• at 600 V rated value	0.25 A
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	97 mm
width	45 mm
depth	97 mm
required spacing	
with side-by-side mounting at the side	0 mm
 for grounded parts at 400 V 	
for grounded parts at 400 v downwards	30 mm
	30 mm
— upwards	
— at the side	9 mm
• for live parts at 400 V	
— downwards	30 mm
— upwards	30 mm
— at the side	9 mm

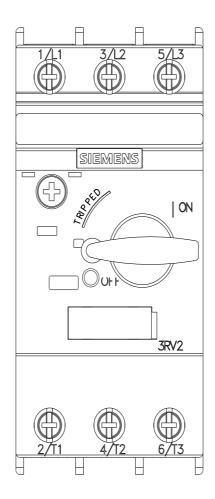
T1 value for proof test interval or service life according to IEC 61508 protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529 display version for switching status Certificates/ approvals General Product Approval Confirmation	50 FIT 10 a IP20 finger-safe, for vertical contact from the front Handle For use in hazard- ous locations KC EFRE KC ATEX			
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T1 value for proof test interval or service life according to IEC 61508	10 a			
	50 FIT			
with low demand rate according to SN 31920				
failure rate [FIT]				
with high demand rate according to SN 31920	50 %			
with low demand rate according to SN 31920	50 %			
proportion of dangerous failures				
 B10 value with high demand rate according to SN 31920 	5 000			
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				
for 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				
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			
for live parts at 690 v — downwards	50 mm			
 forwards for live parts at 690 V 	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			
— upwards	30 mm			
— downwards	30 mm			
• for live parts at 500 V				
— at the side	9 mm			
— upwards	30 mm			
dominidado				
 for grounded parts at 500 V downwards 	30 mm			

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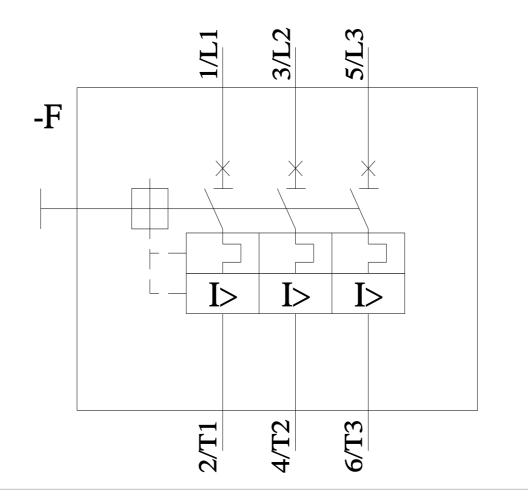
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