## **SIEMENS**

## Datasheet

## 3RV2021-0KA10



CIRCUIT-BREAKER SZ S0, FOR MOTOR PROTECTION, CLASS 10, A-REL. 0.9...1.25A, N-REL. 16A SCREW CONNECTION, STANDARD SW. CAPACITY

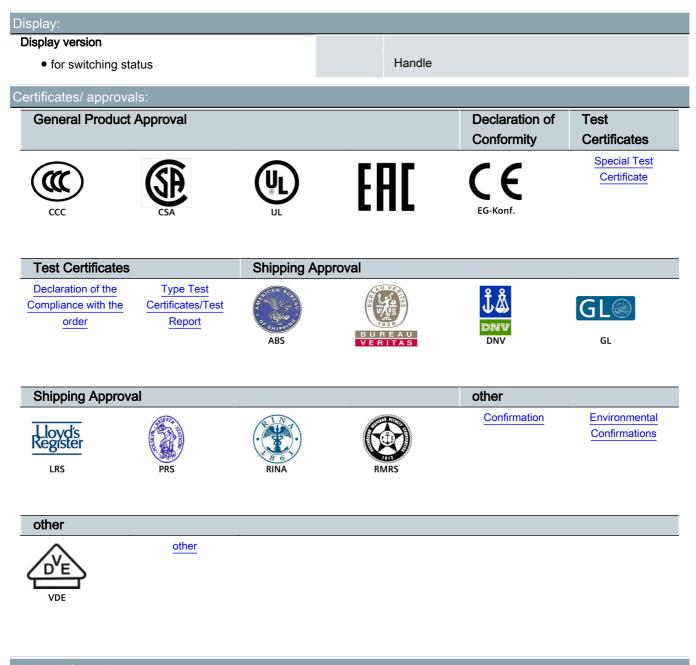
Figure similar		
product brand name		SIRIUS
Product designation		3RV2 circuit breaker
General technical data:		
Active power loss total typical	W	6
Insulation voltage		
<ul> <li>with degree of pollution 3 Rated value</li> </ul>	V	690
Shock resistance	_	
• acc. to IEC 60068-2-27		25g / 11 ms
Surge voltage resistance Rated value	kV	6
Mechanical service life (switching cycles)	_	
<ul> <li>of the main contacts typical</li> </ul>		100 000
<ul> <li>of the auxiliary contacts typical</li> </ul>		100 000
Electrical endurance (switching cycles)	-	
• typical		100 000
Temperature compensation	°C	-20 +60
Size of contactor can be combined company-specific		S2
Protection class IP	_	
• on the front		IP20
• of the terminal		IP20
Type of protection		Increased safety
Reference code		
• acc. to DIN EN 81346-2		Q
Main circuit:		
Number of poles for main current circuit		3

depending voltageImage: state		٩	0.0 4.05
Operating voltagev690• at AC-3 Rated value maximumV690Operating frequencyFatted valueFatted value• Rated valueHz5060Operating ourrent Rated valueA1.25• at AC-3 at 400 V Rated valueA1.25Operating power• at AC-3 at 230 V Rated valueW180- at 230 V Rated valueW370- at 500 V Rated valueW370- at 500 V Rated valueW370- at 500 V Rated valueW370- at 600 V Rated valueW370- at 500 V Rated valueW370- at 500 V Rated valueW370- at 600 V Rated valueM15villary circlatsNumber of NC contacts-0• for auxiliary contacts0-• for auxiliary contacts-0• for auxiliary contacts• for auxil	Adjustable response value current of the current-	A	0.9 1.25
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uxiliary circuit:Number of NC contacts0• for auxiliary contacts0Number of NO contacts0• for auxiliary contactsCLASS 10• for auxiliary contacts0• for auxiliary contacts0• at 240 V Rated valuekA• at 690 V Rated valuekA• with AC at 690 V Rated valuekA		1/h	15
Number of NC contacts       0         • for auxiliary contacts       0         Number of NO contacts       0         • for auxiliary contacts       0         Number of CO contacts       0         • for auxiliary contacts       0         Product expansion Auxiliary switch       Yes         Product expansion Auxiliary switch       Yes         Protective and monitoring functions:       CLASS 10         Design of the overload circuit breaker       thermal         Operational short-circuit current breaking capacity (ics) with AC       at 240 V Rated value         • at 240 V Rated value       kA       100         • at 690 V Rated value       kA       100         • at 690 V Rated value       kA       100         • with AC at 240 V Rated value       kA       100         • at 690 V Rated value       kA       100         • with AC at 240 V Rated value       kA       100         • with AC at 240 V Rated value       kA       100         • with AC at 240 V Rated value       kA       100         • with AC at 400 V Rated value       kA       100         • with AC at 400 V Rated value       kA       100         • with AC at 500 V Rated value       kA       100			
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Operational short-circuit current breaking capacity (Ics) with ACImage: Constraint of the state s	Trip class		CLASS 10
(ics) with ACImage: Sector of the	•		thermal
• at 400 V Rated valuekA100• at 500 V Rated valuekA100• at 690 V Rated valuekA100Maximum short-circuit current breaking capacity (Icu)			
• at 500 V Rated valuekA100• at 690 V Rated valuekA100Maximum short-circuit current breaking capacity (Icu)• with AC at 240 V Rated valuekA100• with AC at 400 V Rated valuekA100• with AC at 500 V Rated valuekA100• with AC at 690 V Rated valuekA100• with AC at 690 V Rated valuekA100	• at 240 V Rated value	kA	100
• at 690 V Rated valuekA100Maximum short-circuit current breaking capacity (lcu)·• with AC at 240 V Rated valuekA100• with AC at 400 V Rated valuekA100• with AC at 400 V Rated valuekA100• with AC at 500 V Rated valuekA100• with AC at 690 V Rated valuekA100	• at 400 V Rated value	kA	100
Maximum short-circuit current breaking capacity (Icu)KA100• with AC at 240 V Rated valuekA100• with AC at 400 V Rated valuekA100• with AC at 500 V Rated valuekA100• with AC at 690 V Rated valuekA100	• at 500 V Rated value	kA	100
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• with AC at 400 V Rated valuekA100• with AC at 500 V Rated valuekA100• with AC at 690 V Rated valuekA100	Maximum short-circuit current breaking capacity (Icu)		
• with AC at 500 V Rated valuekA100• with AC at 690 V Rated valuekA100	• with AC at 240 V Rated value	kA	100
• with AC at 690 V Rated value kA 100	<ul> <li>with AC at 400 V Rated value</li> </ul>	kA	100
	• with AC at 500 V Rated value	kA	100
Breaking capacity short-circuit current (Icn)	• with AC at 690 V Rated value	kA	100
	Breaking capacity short-circuit current (Icn)		

<ul> <li>with 1 current path for DC at 150 V Rated value</li> </ul>	kA	10
<ul> <li>with 2 current paths in series for DC at 300 V</li> <li>Rated value</li> </ul>	kA	10
<ul> <li>with 3 current paths in series for DC at 450 V</li> <li>Rated value</li> </ul>	kA	10
Response value current of the instantaneous short- circuit release	A	16
JL/CSA ratings:		
Full-load current (FLA) for three-phase AC motor		
• at 480 V Rated value	А	1.25
• at 600 V Rated value	А	1.25
yielded mechanical performance [hp]		
<ul> <li>for three-phase AC motor at 460/480 V Rated value</li> </ul>	metric hp	0.5
<ul> <li>for three-phase AC motor at 575/600 V Rated value</li> </ul>	metric hp	0.5
Short-circuit:		
Product function Short circuit protection		Yes
Design of the short-circuit trip		magnetic
nstallation/ mounting/ dimensions:		
mounting position	_	any
Mounting type		screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715
Height	mm	97
Width	mm	45
Depth	mm	96
Spacing required		
<ul> <li>with side-by-side mounting</li> </ul>		
— forwards	mm	0
— Backwards	mm	0
— upwards	mm	50
— downwards	mm	50
— at the side	mm	0
<ul> <li>for grounded parts</li> </ul>		
— forwards	mm	0
— Backwards	mm	0
— upwards	mm	50
— at the side	mm	30
— downwards	mm	50
• for live parts		
— forwards	mm	0
	mm	0
— Backwards		v

— upwards	mm	50
— downwards	mm	50
— at the side	mm	30

Connections/ Terminals:		
Design of the electrical connection		
<ul> <li>for main current circuit</li> </ul>		screw-type terminals
Arrangement of electrical connectors for main current circuit		Top and bottom
Product function		
<ul> <li>removable terminal for auxiliary and control circuit</li> </ul>		No
Type of connectable conductor cross-section	-	
<ul> <li>for main contacts</li> </ul>		
— single or multi-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
<ul> <li>for AWG conductors for main contacts</li> </ul>		2x (16 12), 2x (14 8)
Tightening torque		
<ul> <li>for main contacts with screw-type terminals</li> </ul>	N∙m	2 2.5
Design of screwdriver shaft	-	Diameter 5 to 6 mm
Design of the thread of the connection screw	-	
• for main contacts		M4
Safety related data:		
B10 value with high demand rate acc. to SN 31920		50 000
Proportion of dangerous failures	-	
• with low demand rate acc. to SN 31920	%	40
<ul> <li>with high demand rate acc. to SN 31920</li> </ul>	%	40
Failure rate [FIT] with low demand rate acc. to SN 31920	FIT	50
T1 value for proof test interval or service life acc. to IEC 61508	У	10
Protection against electrical shock	-	finger-safe
Mechanical data:		
Size of the circuit-breaker		S0
Ambient conditions:		
Installation altitude at height above sea level	m	2 000
maximum		
Ambient temperature		
<ul> <li>during operation</li> </ul>	°C	-20 +60
• during storage	°C	-50 +80
<ul> <li>during transport</li> </ul>	°C	-50 +80
Relative humidity during operation	%	10 95



## Further information

Information- and Downloadcenter (Catalogs, Brochures,...) http://www.siemens.com/industrial-controls/catalogs

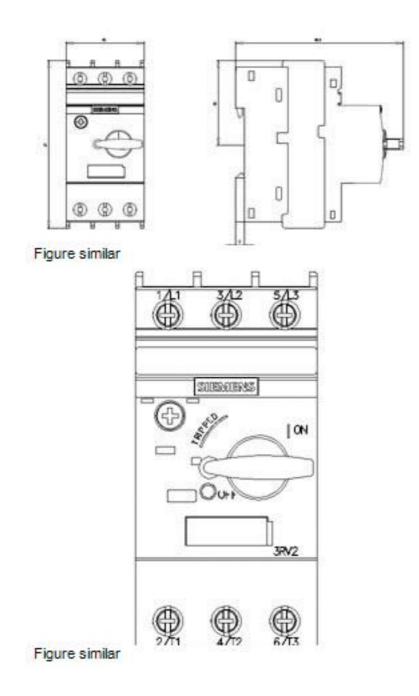
Industry Mall (Online ordering system) http://www.siemens.com/industrymall

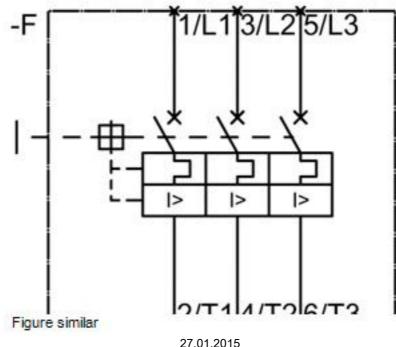
Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV20210KA10

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3RV20210KA10/all

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RV20210KA10&lang=en





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