## **SIEMENS**

## Data sheet

## 3RV2021-1BA20



CIRCUIT-BREAKER SZ S0, FOR MOTOR PROTECTION, CLASS 10, A-REL. 1.4...2A, N-RELEASE 26A, SPRING-L. 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
Equipment marking		
• acc. to DIN EN 81346-2		Q
Main circuit:		
Number of poles for main current circuit		3

Adjustable response value current of the current-	A	1.4 2
dependent overload release		1.7 2
Operating voltage	-	
Rated value	V	690
<ul> <li>at AC-3 Rated value maximum</li> </ul>	V	690
Operating frequency Rated value	Hz	50 60
Operating current Rated value	A	2
Operating current		
• at AC-3		
— at 400 V Rated value	А	2
Operating power		
• at AC-3		
— at 230 V Rated value	W	370
— at 400 V Rated value	W	750
— at 500 V Rated value	W	750
— at 690 V Rated value	W	1 100
Operating frequency		
• at AC-3 maximum	1/h	15
Auxiliary circuit:		
Number of NC contacts		
<ul> <li>for auxiliary contacts</li> </ul>		0
Number of NO contacts		
<ul> <li>for auxiliary contacts</li> </ul>	_	0
Number of CO contacts		
<ul> <li>for auxiliary contacts</li> </ul>		0
Product expansion Auxiliary switch		Yes
Protective and monitoring functions:		
Trip class		CLASS 10
Design of the overload circuit breaker		thermal
Operational short-circuit current breaking capacity (Ics) with AC		
at 240 V Rated value	kA	100
at 240 V Rated value     at 400 V Rated value	kA	100
	kA kA	100
at 500 V Rated value	kA kA	10
at 690 V Rated value     Maximum short-circuit current breaking capacity (Icu)		
with AC at 240 V Rated value	kA	100
<ul> <li>with AC at 240 V Rated value</li> <li>with AC at 400 V Rated value</li> </ul>	kA	100
	kA	100
• with AC at 500 V Rated value	kA kA	10
with AC at 690 V Rated value		
Breaking capacity short-circuit current (Icn)	kA	10
<ul> <li>with 1 current path for DC at 150 V Rated value</li> </ul>		

<ul> <li>with 2 current paths in series for DC at 300 V Rated value</li> </ul>	kA	10
<ul> <li>with 3 current paths in series for DC at 450 V Rated value</li> </ul>	kA	10
Response value current of the instantaneous short- circuit release	A	26
UL/CSA ratings:		
Full-load current (FLA) for three-phase AC motor		
• at 480 V Rated value	А	2
• at 600 V Rated value	А	2
yielded mechanical performance [hp]		
<ul> <li>for single-phase AC motor at 230 V Rated value</li> </ul>	metric hp	0.125
<ul> <li>for three-phase AC motor at 460/480 V Rated value</li> </ul>	metric hp	0.75
<ul> <li>for three-phase AC motor at 575/600 V Rated value</li> </ul>	metric hp	1
Short-circuit:		
Product function Short circuit protection		Yes
Design of the short-circuit trip	-	magnetic
Installation/ 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	
. wan		109
Width	mm	109 45
	_	
Width	mm	45
Width Depth	mm	45
Width Depth Required spacing	mm	45
Width         Depth         Required spacing         • with side-by-side mounting	mm	45 96
Width Depth Required spacing • with side-by-side mounting — forwards	mm mm	45 96 0
Width Depth Required spacing  • with side-by-side mounting	mm mm mm mm	45 96 0 0
Width Depth Required spacing  • with side-by-side mounting  — forwards — Backwards — upwards	mm mm mm mm	45 96 0 0 50
Width Depth Required spacing  • with side-by-side mounting  — forwards — Backwards — upwards — downwards	mm mm mm mm mm	45 96 0 0 50 50
Width Depth Required spacing  • with side-by-side mounting  — forwards — Backwards — upwards — downwards — at the side	mm mm mm mm mm	45 96 0 0 50 50
Width Depth Required spacing  • with side-by-side mounting  — forwards — Backwards — upwards — downwards — at the side • for grounded parts	mm mm mm mm mm mm	45 96 0 0 50 50 0
Width Depth Required spacing  • with side-by-side mounting  — forwards — backwards — upwards — upwards — downwards — at the side • for grounded parts — forwards — forwards	mm mm mm mm mm mm	45 96 0 0 50 50 0
Width         Depth         Required spacing         • with side-by-side mounting         — forwards         — backwards         — upwards         — downwards         — at the side         • for grounded parts         — forwards         — upwards	mm mm mm mm mm mm mm	45 96 0 0 50 50 0 0
Width         Depth         Required spacing         • with side-by-side mounting         — forwards         — forwards         — Backwards         — upwards         — downwards         — at the side         • for grounded parts         — forwards         — mutual parts         — forwards         — at the side         • for grounded parts         — forwards         — at the side	mm mm mm mm mm mm mm mm	45 96 0 0 50 50 0 0
Width         Depth         Required spacing         • with side-by-side mounting         — forwards         — forwards         — Backwards         — upwards         — downwards         — at the side         • for grounded parts         — forwards         — at the side         — forwards         — at the side         — downwards         — at the side         — downwards	mm mm mm mm mm mm mm mm	45 96 0 0 50 50 0 0 0 50 50 30
Width         Depth         Required spacing         • with side-by-side mounting         — forwards         — forwards         — Backwards         — upwards         — downwards         — at the side         • for grounded parts         — forwards         — mutual parts         — forwards         — at the side         • for grounded parts         — forwards         — at the side	mm mm mm mm mm mm mm mm	45 96 0 0 50 50 0 0 0 50 50 30

— Backwards	mm	0
— upwards	mm	50
— downwards	mm	50
— at the side	mm	30

Connections/ Terminals:		
Type of electrical connection		
<ul> <li>for main current circuit</li> </ul>	spring-loaded 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 10 mm²)	
<ul> <li>finely stranded with core end processing</li> </ul>	2x (1 6 mm²)	
<ul> <li>finely stranded without core end processing</li> </ul>	2x (1 6 mm²)	
<ul> <li>for AWG conductors for main contacts</li> </ul>	2x (18 8)	
Design of screwdriver shaft	Diameter 5 to 6 mm	

Safety related data:		
B10 value with high demand rate acc. to SN 31920		50 000
Proportion of dangerous failures	_	
<ul> <li>with low demand rate acc. to SN 31920</li> </ul>	%	40
• with high demand rate acc. to SN 31920	%	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		
during operation	°C	-20 +60
• during storage	°C	-50 +80
during transport	°C	-50 +80
Relative humidity during operation	%	10 95
Display <sup>.</sup>		

Display:

Display version					
<ul> <li>for switching s</li> </ul>	status		Handle		
Certificates/ approv	/als:				
General Produc				Declaration of Conformity	Test Certificates
	CSA		EHC	EG-Konf.	<u>Type Test</u> <u>Certificates/Test</u> <u>Report</u>
Test Certificates	S	Shipping App	proval		
Special Test Certificate	Declaration of the Compliance with the order	ABS	BUREAU VERITAS		GL
Shipping Appro	val			other	
Lloyd's Register LRS	PRS	RINA	RMRS	Environmental Confirmations	Confirmation
other					
VDE	other				

## urther information

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

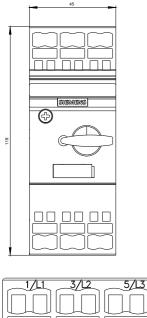
Industry Mall (Online ordering system) http://www.siemens.com/industrymall

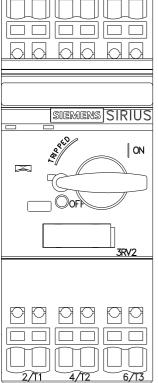
Cax online generator

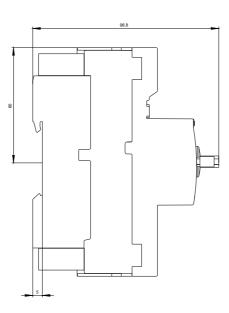
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV20211BA20

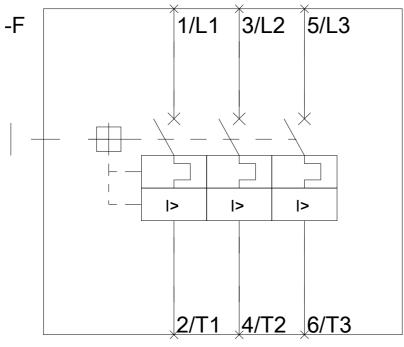
Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3RV20211BA20/all

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RV20211BA20&lang=en









last modified:

11.03.2015