SIEMENS

Data sheet 3RV2031-4BB10



CIRCUIT BREAKER, SIZE S2, FOR MOTOR PROTECTION, CLASS 20, A-RELEASE 14...20A, N-RELEASE 260A, SCREW TERMINAL, STANDARD BREAKING CAPACITY

Figure similar

product brand name	SIRIUS
Product designation	3RV2 circuit breaker

General technical data:		
Active power loss total typical	W	12
Insulation voltage		
 with degree of pollution 3 Rated value 	V	690
Shock resistance		
• acc. to IEC 60068-2-27		25g / 11 ms Sinus
Surge voltage resistance Rated value	kV	6
Mechanical service life (switching cycles)		
 of the main contacts typical 		50 000
 of the auxiliary contacts typical 		50 000
Electrical endurance (switching cycles)		
• typical		50 000
Temperature compensation	°C	-20 +60
Size of contactor can be combined company-specific		S2
Protection class IP		
• on the front		IP20
• of the terminal		IP00
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-	Α	14 20
dependent overload release		

Operating voltage		
Rated value	V	690
• at AC-3 Rated value maximum	V	690
Operating frequency Rated value	Hz	50 60
Operating current Rated value	А	20
Operating current		
• at AC-3		
— at 400 V Rated value	Α	20
Operating power		
● at AC-3		
— at 230 V Rated value	W	5 500
— at 400 V Rated value	W	7 500
— at 500 V Rated value	W	11 000
— at 690 V Rated value	W	15 000
Operating frequency		
• at AC-3 maximum	1/h	15
Auxiliary circuit:		
Product expansion Auxiliary switch		Yes
Protective and monitoring functions:		
Trip class		CLASS 20
Design of the overload circuit breaker		thermal
Operational short-circuit current breaking capacity (lcs) with AC		
• at 240 V Rated value	Α	100
• at 400 V Rated value	kA	30
● at 500 V Rated value	kA	6
• at 690 V Rated value	kA	3
Maximum short-circuit current breaking capacity (Icu)		
 with AC at 240 V Rated value 	kA	100
• with AC at 400 V Rated value	kA	65
• with AC at 500 V Rated value	kA	12
• with AC at 690 V Rated value	kA	5
Response value current of the instantaneous short- circuit release	Α	260
UL/CSA ratings:		
Full-load current (FLA) for three-phase AC motor		
● at 480 V Rated value	Α	20
● at 600 V Rated value	Α	20
yielded mechanical performance [hp]		
 for single-phase AC motor at 110/120 V Rated value 	metric hp	1.5

 for single-phase AC motor at 230 V Rated value 	metric hp	3
• for three-phase AC motor at 200/208 V Rated value	metric hp	7.5
• for three-phase AC motor at 220/230 V Rated value	metric hp	7.5
• for three-phase AC motor at 460/480 V Rated value	metric hp	15
• for three-phase AC motor at 575/600 V Rated value	metric hp	20

Short-circuit:		
Product function Short circuit protection	Yes	
Design of the short-circuit trip	magnetic	
Design of the fuse link for IT network for short-circuit		
protection of the main circuit		
● at 240 V	none required	
● at 400 V	100	
● at 500 V	80	
● at 690 V	63	

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	140
Width	mm	55
Depth	mm	149
Required spacing		
with side-by-side mounting		
— forwards	mm	0
— Backwards	mm	0
— upwards	mm	50
— downwards	mm	50
— at the side	mm	0
• for grounded parts		
— forwards	mm	0
— Backwards	mm	0
— upwards	mm	50
— at the side	mm	10
— downwards	mm	50
• for live parts		
— forwards	mm	0
— Backwards	mm	0

— upwards	mm	50
— downwards	mm	50
— at the side	mm	10

— at the side	mm	10
Connections/ Terminals:		
Type of electrical connection		
• for main current circuit		screw-type terminals
Arrangement of electrical connectors for main current	-	Top and bottom
circuit		
Product function		
 removable terminal for auxiliary and control 		No
circuit		
Type of connectable conductor cross-section		
• for main contacts		2 (4 25 2) 4 (4 25 2)
— single or multi-stranded		2x (1 25 mm²), 1x (1 35 mm²)
 finely stranded with core end processing 		2x (1 16 mm²), 1x (1 25 mm²)
for AWG conductors for main contacts		2x (18 3), 1x (18 2)
Tightening torque		
for main contacts with screw-type terminals	N·m	3 4.5
Design of screwdriver shaft		Diameter 5 to 6 mm
Design of the thread of the connection screw		
• for main contacts		M6
Safety related data:		
Safety related data: Protection against electrical shock		finger-safe when touched vertically from front acc. to IEC 60529
Protection against electrical shock		
Protection against electrical shock Mechanical data:		IEC 60529
Protection against electrical shock Mechanical data: Size of the circuit-breaker Ambient conditions: Installation altitude at height above sea level	m	IEC 60529
Protection against electrical shock Mechanical data: Size of the circuit-breaker Ambient conditions: Installation altitude at height above sea level maximum	m	IEC 60529 S2
Protection against electrical shock Mechanical data: Size of the circuit-breaker Ambient conditions: Installation altitude at height above sea level maximum Ambient temperature		S2 2 000
Protection against electrical shock Mechanical data: Size of the circuit-breaker Ambient conditions: Installation altitude at height above sea level maximum Ambient temperature • during operation	°C	S2 2 000 -20 +60
Protection against electrical shock Mechanical data: Size of the circuit-breaker Ambient conditions: Installation altitude at height above sea level maximum Ambient temperature • during operation • during storage	°C	S2 2 000 -20 +60 -50 +80
Protection against electrical shock Mechanical data: Size of the circuit-breaker Ambient conditions: Installation altitude at height above sea level maximum Ambient temperature • during operation • during storage • during transport	°C °C	S2 2 000 -20 +60 -50 +80 -50 +80
Protection against electrical shock Mechanical data: Size of the circuit-breaker Ambient conditions: Installation altitude at height above sea level maximum Ambient temperature • during operation • during storage	°C	S2 2 000 -20 +60 -50 +80
Protection against electrical shock Mechanical data: Size of the circuit-breaker Ambient conditions: Installation altitude at height above sea level maximum Ambient temperature • during operation • during storage • during transport	°C °C	S2 2 000 -20 +60 -50 +80 -50 +80
Protection against electrical shock Mechanical data: Size of the circuit-breaker Ambient conditions: Installation altitude at height above sea level maximum Ambient temperature • during operation • during storage • during transport Relative humidity during operation	°C °C	S2 2 000 -20 +60 -50 +80 -50 +80
Protection against electrical shock Mechanical data: Size of the circuit-breaker Ambient conditions: Installation altitude at height above sea level maximum Ambient temperature • during operation • during storage • during transport Relative humidity during operation Display:	°C °C	S2 2 000 -20 +60 -50 +80 -50 +80

General Product Approval

other





Confirmation

Environmental Confirmations

Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

http://www.siemens.com/industrial-controls/catalogs

Industry Mall (Online ordering system)

http://www.siemens.com/industrymall

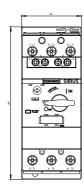
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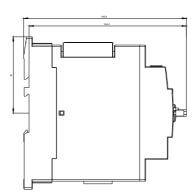
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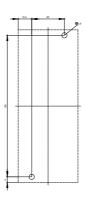
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

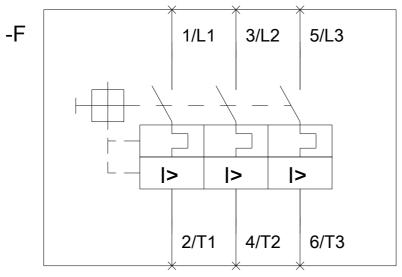
http://support.automation.siemens.com/WW/view/en/3RV20314BB10/all

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV20314BB10&lang=en









last modified: 11.03.2015