## **SIEMENS**

## Data sheet

## 3RV2131-4VA10



CIRCUIT BREAKER, SIZE S2, FOR MOTOR PROTECTION, CLASS 10, W. OVERLOAD RELAY FUNCTION A-RELEASE 35...45A, N-RELEASE 650A, STANDARD BREAKING CAPACITY

Figure similar				
product brand name		SIRIUS		
Product designation		3RV2 circuit breaker		
General technical data:				
Active power loss total typical	W	17		
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 Sinus		
Surge voltage resistance Rated value	kV	6		
Mechanical service life (switching cycles)	_			
<ul> <li>of the main contacts typical</li> </ul>		50 000		
<ul> <li>of the auxiliary contacts typical</li> </ul>		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-	А	35 45		
dependent overload release				

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	45
Operating current		
• at AC-3		
— at 400 V Rated value	А	45
Operating power		
● at AC-3		
— at 230 V Rated value	W	11 000
— at 400 V Rated value	W	22 000
— at 500 V Rated value	W	30 000
— at 690 V Rated value	W	37 000
Operating frequency		
● at AC-3 maximum	1/h	15
Auxiliary circuit:		
Number of NC contacts		
<ul> <li>for auxiliary contacts</li> </ul>		
— Note		1
Number of NO contacts		
<ul> <li>for auxiliary contacts</li> </ul>		
— Note		1
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	А	100
• at 400 V Rated value	kA	30
• at 500 V Rated value	kA	5
• at 690 V Rated value	kA	2
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	10
with AC at 690 V Rated value	kA	4
Response value current of the instantaneous short-	A	650

circuit release

UL/CSA ratings:

Full-load current (FLA) for three-phase AC motor		
• at 480 V Rated value	А	45
• at 600 V Rated value	А	45
yielded mechanical performance [hp]		
<ul> <li>for single-phase AC motor at 110/120 V Rated value</li> </ul>	metric hp	3
<ul> <li>for single-phase AC motor at 230 V Rated value</li> </ul>	metric hp	10
<ul> <li>for three-phase AC motor at 200/208 V Rated value</li> </ul>	metric hp	15
<ul> <li>for three-phase AC motor at 220/230 V Rated value</li> </ul>	metric hp	15
<ul> <li>for three-phase AC motor at 460/480 V Rated value</li> </ul>	metric hp	40
<ul> <li>for three-phase AC motor at 575/600 V Rated value</li> </ul>	metric hp	50

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	125
● at 500 V	100
● at 690 V	80

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	75
Depth	mm	149
Required spacing		
<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

		50
— upwards	mm	50
— at the side	mm	10
— downwards	mm	50
<ul> <li>for live parts</li> </ul>		
— forwards	mm	0
— Backwards	mm	0
— upwards	mm	50
— downwards	mm	50
— at the side	mm	10
Connections/ Terminals:		
Type of electrical connection		
• for main current circuit		screw-type terminals
<ul> <li>for auxiliary and control 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		
• for main contacts		
— 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)
<ul> <li>for AWG conductors for main contacts</li> </ul>		2x (18 3), 1x (18 2)
Tightening torque		
<ul> <li>for main contacts with screw-type terminals</li> </ul>	N∙m	3 4.5
Design of screwdriver shaft		Diameter 5 to 6 mm
Design of the thread of the connection screw		
<ul> <li>for main contacts</li> </ul>		M6
<ul> <li>of the auxiliary and control contacts</li> </ul>		МЗ
-		
Safety related data: Protection against electrical shock		finger-safe when touched vertically from front acc. to
Trotection against electrical shock		IEC 60529
Mechanical data:		
Size of the circuit-breaker		S2
Ambient conditions:		
Installation altitude at height above sea level	m	2 000
maximum		
Ambient temperature		
<ul> <li>during operation</li> </ul>	°C	-20 +60
<ul> <li>during storage</li> </ul>	°C	-50 +80
<ul> <li>during transport</li> </ul>	°C	-50 +80

Relative humidity dur	ing operation	%	10 95	
Display:				
Display version				
<ul> <li>for switching sta</li> </ul>	atus		Handle	
Certificates/ approva	ls:			
General Product	Approval	other		
		Confirm	nation Environmental	
(SP			Confirmations	

## Further information

CSA

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

UL

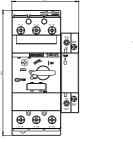
Industry Mall (Online ordering system) http://www.siemens.com/industrymall

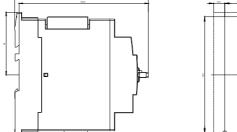
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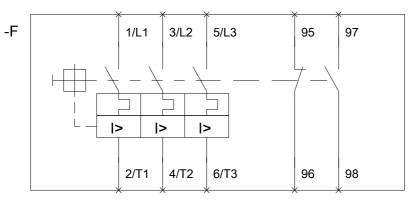
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV21314VA10

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3RV21314VA10/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=3RV21314VA10&lang=en







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