## SIEMENS

## Data sheet

## 3RV2031-4EB10



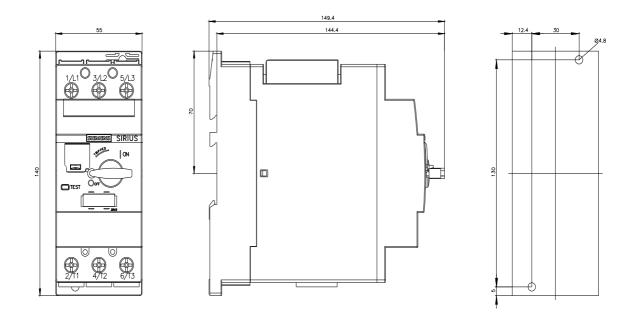
Circuit breaker size S2 for motor protection, Class 20 A-release 22...32 A N-release 416 A screw terminal Standard switching capacity

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	S2		
size of contactor can be combined company-specific	S2		
product extension auxiliary switch	Yes		
power loss [W] for rated value of the current			
<ul> <li>at AC in hot operating state</li> </ul>	18 W		
<ul> <li>at AC in hot operating state per pole</li> </ul>	6 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 Sinus		
mechanical service life (switching cycles)			
<ul> <li>of the main contacts typical</li> </ul>	50 000		
<ul> <li>of auxiliary contacts typical</li> </ul>	50 000		
electrical endurance (switching cycles) typical	50 000		
reference code according to IEC 81346-2	Q		
Substance Prohibitance (Date)	10/15/2014		
Ambient conditions			
installation altitude at height above sea level maximum	2 000 m		
ambient temperature			
<ul> <li>during operation</li> </ul>	-20 +60 °C		
<ul> <li>during storage</li> </ul>	-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	22 32 A		
operating voltage			
<ul> <li>rated value</li> </ul>	20 690 V		
<ul> <li>at AC-3 rated value maximum</li> </ul>	690 V		
<ul> <li>at AC-3e rated value maximum</li> </ul>	690 V		
operating frequency rated value	50 60 Hz		
operational current rated value	32 A		
operational current			
<ul> <li>at AC-3 at 400 V rated value</li> </ul>	32 A		

e at AC 2a at 400 V rated value	32 A
at AC-3e at 400 V rated value	
operating power • at AC-3	
• at AC-3 — at 230 V rated value	7.5 kW
— at 400 V rated value	15 kW
	18.5 kW
— at 500 V rated value	
— at 690 V rated value	30 kW
• at AC-3e	7.5114
— at 230 V rated value	7.5 kW
— at 400 V rated value	15 kW
— at 500 V rated value	18.5 kW
— at 690 V rated value	30 kW
operating frequency	
• at AC-3 maximum	15 1/h
• at AC-3e maximum	15 1/h
Protective and monitoring functions	
product function	
<ul> <li>ground fault detection</li> </ul>	No
phase failure detection	Yes
trip class	CLASS 20
design of the overload release	thermal
breaking capacity maximum short-circuit current (Icu)	
<ul> <li>at AC at 240 V rated value</li> </ul>	100 kA
<ul> <li>at AC at 400 V rated value</li> </ul>	65 kA
<ul> <li>at AC at 500 V rated value</li> </ul>	10 kA
at AC at 690 V rated value	4 kA
breaking capacity operating short-circuit current (Ics) at AC	
<ul> <li>at 240 V rated value</li> </ul>	100 kA
<ul> <li>at 400 V rated value</li> </ul>	30 kA
• at 500 V rated value	5 kA
• at 690 V rated value	2 kA
response value current of instantaneous short-circuit trip unit	416 A
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
• at 480 V rated value	32 A
<ul> <li>at 600 V rated value</li> </ul>	32 A
yielded mechanical performance [hp]	
for single-phase AC motor	
— at 110/120 V rated value	3 hp
— at 230 V rated value	5 hp
• for 3-phase AC motor	
— at 200/208 V rated value	10 hp
— at 220/230 V rated value	10 hp
— at 460/480 V rated value	25 hp
— at 575/600 V rated value	30 hp
Short-circuit protection	
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
Installation/ mounting/ dimensions	
	001/
mounting position	any
fastening method	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715

height	140 mm		
width	55 mm		
depth	149 mm		
required spacing			
• for grounded parts at 400 V			
— downwards	50 mm		
— upwards	50 mm		
— at the side	10 mm		
• for live parts at 400 V			
— downwards	50 mm		
— upwards	50 mm		
— at the side	10 mm		
<ul> <li>for grounded parts at 500 V</li> </ul>			
— downwards	50 mm		
— upwards	50 mm		
— at the side	10 mm		
• for live parts at 500 V	10 11111		
	F0 mm		
— downwards	50 mm 50 mm		
— upwards — at the side			
	10 mm		
for grounded parts at 690 V	50		
— downwards	50 mm		
— upwards	50 mm		
— at the side	10 mm		
• for live parts at 690 V			
— downwards	50 mm		
— upwards	50 mm		
— at the side	10 mm		
Connections/ Terminals			
type of electrical connection <ul> <li>for main current circuit</li> </ul>	aarow two terminolo		
	screw-type terminals		
arrangement of electrical connectors for main current circuit	Top and bottom		
type of connectable conductor cross-sections			
<ul> <li>for main contacts</li> </ul>			
— solid or stranded	2x (1 25 mm²), 1x (1 35 mm²)		
<ul> <li>finely stranded with core end processing</li> </ul>	2x (1 16 mm²), 1x (1 25 mm²)		
<ul> <li>at AWG cables for main contacts</li> </ul>	2x (18 3), 1x (18 2)		
tightening torque			
<ul> <li>for main contacts with screw-type terminals</li> </ul>	3 4.5 N·m		
design of screwdriver shaft	Diameter 5 to 6 mm		
size of the screwdriver tip	Pozidriv size 2		
design of the thread of the connection screw			
<ul> <li>for main contacts</li> </ul>	M6		
Safety related data			
B10 value			
<ul> <li>with high demand rate according to SN 31920</li> </ul>	5 000		
proportion of dangerous failures			
<ul> <li>with low demand rate according to SN 31920</li> </ul>	50 %		
<ul> <li>with high demand rate according to SN 31920</li> </ul>	50 %		
failure rate [FIT]			
<ul> <li>with low demand rate according to SN 31920</li> </ul>	50 FIT		
T1 value for proof test interval or service life according to IEC 61508	10 у		
protection class IP on the front according to IEC 60529	IP20		
touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front		
display version for switching status	Handle		
Certificates/ approvals			
General Product Approval			

SA CSA	CCC	<u>Confirmation</u>		<u>KC</u>	EHC
Declaration of Conf	ormity	Test Certificates		Marine / Shipping	
	CE EG-Konf.	<u>Type Test Certific-</u> ates/Test Report	Special Test Certific- ate	ABS	BUREAU VERITAS
Marine / Shipping					other
	Hoyd's Register urs	PRS	RINA	RMRS	<u>Confirmation</u>
other	Railway				
	<u>Confirmation</u>	Vibration and Shock			
Further information					
Information- and Do https://www.siemens. Industry Mall (Online https://mall.industry.s Cax online generato http://support.automa Service&Support (M https://support.industr Image database (pro http://www.automation Characteristic: Tripp https://support.industr Further characterist	e ordering system) iemens.com/mall/en/en ir tion.siemens.com/WW anuals, Certificates, ry.siemens.com/cs/ww oduct images, 2D dim n.siemens.com/bilddb/ bing characteristics, ry.siemens.com/cs/ww ics (e.g. electrical en	bgs, Brochures,) h/Catalog/product?mlfb= //CAXorder/default.aspx/ Characteristics, FAQs, /en/ps/3RV2031-4EB10 tension drawings, 3D n cax_de.aspx?mlfb=3RV l <sup>2</sup> t, Let-through current /en/ps/3RV2031-4EB10/ durance, switching free index.aspx?view=Searcl	<u>Plang=en&amp;mlfb=3RV203</u> ) nodels, device circuit ( 2031-4EB10⟨=en ( <u>char</u> guency)	diagrams, EPLAN mad	



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