## SIEMENS

## Data sheet

## 3RV2031-4JA10



Circuit breaker size S2 for motor protection, CLASS 10 A-release 54...65 A N-release 845 A screw terminal Standard switching capacity

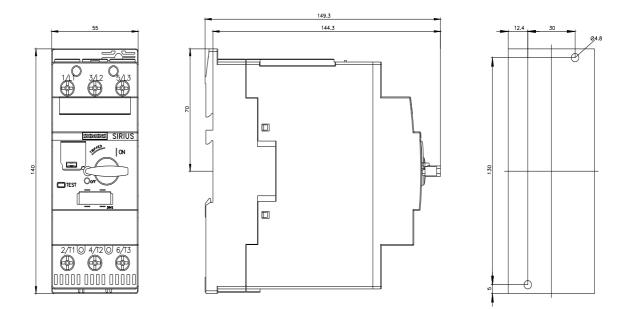
product brand name	SIRIUS
product designation	Circuit breaker
design of the product	For motor protection
product type designation	3RV2
General technical data	
size of the circuit-breaker	S2
size of contactor can be combined company-specific	S2
product extension auxiliary switch	Yes
power loss [W] for rated value of the current	
<ul> <li>at AC in hot operating state</li> </ul>	26 W
<ul> <li>at AC in hot operating state per pole</li> </ul>	8.7 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 (operating cycles)	
<ul> <li>of the main contacts typical</li> </ul>	20 000
<ul> <li>of auxiliary contacts typical</li> </ul>	20 000
electrical endurance (operating cycles) typical	20 000
type of protection according to ATEX directive 2014/34/EU	Ex II (2) GD
certificate of suitability according to ATEX directive 2014/34/EU	DMT 02 ATEX F 001
reference code according to IEC 81346-2	Q
Substance Prohibitance (Date)	04/10/2015
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
<ul> <li>during operation</li> </ul>	-20 +60 °C
during storage	-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	54 65 A
operating voltage	
rated value	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	65 A
operational current	

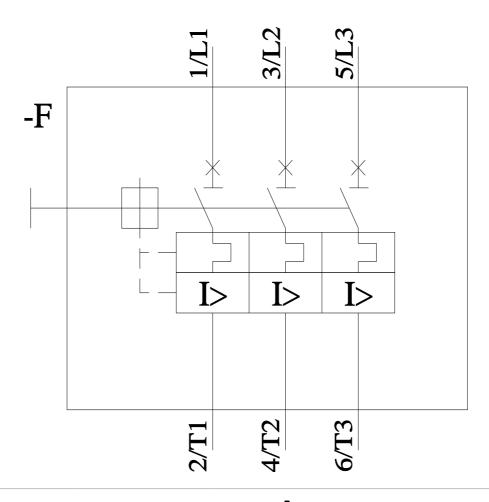
at AC-3 at 400 V rated value	65 A
at AC-3e at 400 V rated value	65 A
operating power	
• at AC-3	
— at 230 V rated value	18.5 kW
— at 400 V rated value	30 kW
— at 500 V rated value	45 kW
— at 690 V rated value	55 kW
• at AC-3e	
— at 230 V rated value	18.5 kW
— at 400 V rated value	30 kW
— at 500 V rated value	45 kW
— at 690 V rated value	55 kW
operating frequency	
<ul> <li>at AC-3 maximum</li> </ul>	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 10
design of the overload release	thermal
maximum short-circuit current breaking capacity (Icu)	
• at AC at 240 V rated value	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>	8 kA
<ul> <li>at AC at 690 V rated value</li> </ul>	4 kA
operating short-circuit current breaking capacity (Ics) at AC	
at 240 V rated value	100 kA
at 400 V rated value	30 kA
at 500 V rated value	4 kA
at 690 V rated value	2 kA
response value current of instantaneous short-circuit trip unit	845 A
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
at 480 V rated value	65 A
	62 A
at 600 V rated value	02 A
yielded mechanical performance [hp]	
• for 3-phase AC motor	00 hz
— at 200/208 V rated value	20 hp
- at 220/230 V rated value	25 hp
— at 460/480 V rated value	50 hp
— at 575/600 V rated value	60 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	none required
• at 240 V	none required
• at 400 V	160
• at 500 V	125
• at 690 V	100
Installation/ mounting/ dimensions	
mounting position	any
fastening method	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715
height	140 mm
width	55 mm
depth	149 mm
required spacing	
<ul> <li>with side-by-side mounting at the side</li> </ul>	0 mm
<ul> <li>for grounded parts at 400 V</li> </ul>	

— 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			
• for grounded parts at 500 V				
— downwards	50 mm			
— upwards	50 mm			
— at the side	10 mm			
• for live parts at 500 V	10 1111			
<ul> <li>Ion hve parts at 500 v</li> <li>— downwards</li> </ul>	50 mm			
— upwards	50 mm			
— at the side	10 mm			
• for grounded parts at 690 V				
— downwards	50 mm			
— upwards	50 mm			
— at the side	10 mm			
<ul> <li>for live parts at 690 V</li> </ul>				
— downwards	50 mm			
— upwards	50 mm			
— at the side	10 mm			
Connections/ Terminals				
type of electrical connection				
• for main current circuit	screw-type terminals			
arrangement of electrical connectors for main current circuit	Top and bottom			
type of connectable conductor cross-sections	-			
for main contacts				
— solid or stranded	2x (1 35 mm²), 1x (1 50 mm²)			
	2x (1 35 mm²), 1x (1 35 mm²) 2x (1 25 mm²), 1x (1 35 mm²)			
<ul> <li>finely stranded with core end processing</li> <li>for AWG cables for main contacts</li> </ul>				
	2x (18 2), 1x (18 1)			
tightening torque	0			
for main contacts with screw-type terminals	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				
for main contacts	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 a			
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	For use in hazard- ous locations			
Confirmation				
CCC UL	ATEX			

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For use in hazard- ous locations	Declaration of Confor	mity	Test Certificates		Marine / Shipping		
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Marine / Shipping					other		
BUREAU VERITAS		Lloyd's Register uts	PRS	RINA	<u>Confirmation</u>		
other	Railway						
	<u>Confirmation</u>	Vibration and Shock					
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