## SIEMENS

## Data sheet

## 3RV2431-4SA10



Circuit breaker size S2 for transformer protection A-release 9.5...14 A N-release 328 A screw terminal Standard switching capacity

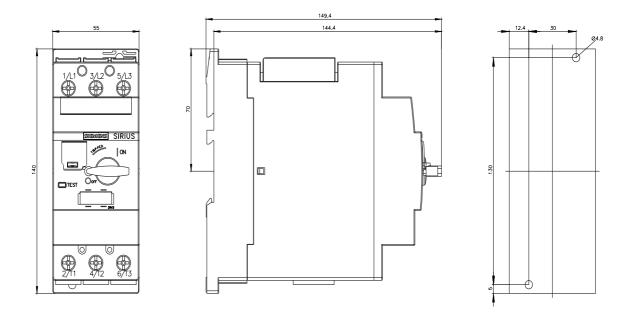


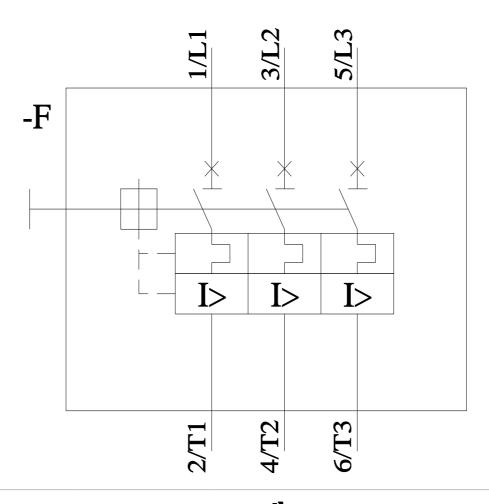
product brand name	SIRIUS		
product designation	Circuit breaker		
design of the product	For transformer protection		
product type designation	3RV2		
General technical data			
size of the circuit-breaker	S2		
size of contactor can be combined company-specific	S2		
product extension auxiliary switch	Yes		
power loss [W] for rated value of the current			
<ul> <li>at AC in hot operating state</li> </ul>	12.5 W		
<ul> <li>at AC in hot operating state per pole</li> </ul>	4.2 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>	50 000		
<ul> <li>of auxiliary contacts typical</li> </ul>	50 000		
electrical endurance (operating cycles) typical	50 000		
reference code according to IEC 81346-2	Q		
Substance Prohibitance (Date)	10/15/2014		
SVHC substance name	Lead - 7439-92-1		
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	9.5 14 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	14 A
operational current	
at AC-3 at 400 V rated value	14 A
	14 A
at AC-3e at 400 V rated value	14 A
operating power	
• at AC-3	0.154
— at 230 V rated value	3 kW
— at 400 V rated value	5.5 kW
— at 500 V rated value	7.5 kW
— at 690 V rated value	11 kW
• at AC-3e	
— at 230 V rated value	3 kW
— at 400 V rated value	5.5 kW
— at 500 V rated value	7.5 kW
— at 690 V rated value	11 kW
operating frequency	
• at AC-3 maximum	15 1/h
• at AC-3e maximum	15 1/h
Auxiliary circuit	
number of NC contacts for auxiliary contacts	0
number of NO contacts for auxiliary contacts	0
Protective and monitoring functions	
product function	
<ul> <li>ground fault detection</li> </ul>	No
<ul> <li>phase failure detection</li> </ul>	Yes
trip class	CLASS 10
design of the overload release	thermal
maximum short-circuit current breaking capacity (lcu)	
<ul> <li>at AC at 240 V rated value</li> </ul>	100 kA
• at AC at 400 V rated value	65 kA
• at AC at 500 V rated value	12 kA
at AC at 690 V rated value	5 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	6 kA
• at 690 V rated value	3 kA
response value current of instantaneous short-circuit trip unit	328 A
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
at 480 V rated value	14 A
• at 600 V rated value	14 A
yielded mechanical performance [hp]	
• for single-phase AC motor	
— at 110/120 V rated value	1.5 hp
— at 230 V rated value	3 hp
• for 3-phase AC motor	
— at 200/208 V rated value	5 hp
- at 220/230 V rated value	5 hp
— at 460/480 V rated value	10 hp
— at 575/600 V rated value	15 hp
Short-circuit protection	
product function short circuit protection	Yes
design of the short-circuit trip	
Installation/ mounting/ dimensions	magnetic
	2014
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     0 mm	
• with side-by-side mounting at the side 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	
— downwards 50 mm	
— upwards 50 mm	
- at the side 10 mm	
• for grounded parts at 690 V	
— downwards 50 mm	
— upwards 50 mm	
— backwards 0 mm	
- at the side 10 mm	
— forwards 0 mm	
• for live parts at 690 V	
— downwards 50 mm	
— upwards 50 mm	
— backwards 0 mm	
at the side	
— at the side 10 mm	
— forwards 0 mm	
- forwards 0 mm Connections/ Terminals	
— forwards     0 mm       Connections/ Terminals	
— forwards     0 mm       Connections/ Terminals       type of electrical connection       • for main current circuit       screw-type terminals	
— forwards     0 mm       Connections/ Terminals       type of electrical connection       • for main current circuit     screw-type terminals       arrangement of electrical connectors for main current     Top and bottom	
— forwards     0 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	
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forwards     0 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 25 mm³), 1x (1 35 mm³)       - finely stranded with core end processing     2x (1 16 mm³), 1x (1 25 mm³)       • for AWG cables for main contacts     2x (1 16 mm³), 1x (1 25 mm³)       • 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     Poziriv size 2       design of sterwdriver tip     Poziriv size 2       design of the thread of the connection screw     • for main contacts       • for main contacts     M6       Safety related data     Yes       product function suitable for safety function     Yes       suitability for use     • safety-related switching OFF       • safety-related switching OFF     Yes       service life maximum     10 a       test wear-related service life necessary     Yes       proportion of dangerous failures     40 %       • with high demand rate according to SN 31920     50 %       B10 value with high demand rate according to SN 31920	

	ording to ISO 13849-2 r	necessary	Yes				
IEC 61508							
safety device type acc	cording to IEC 61508-2		Туре	A			
	rval or service life accord	ling to IEC	10 a				
61508							
Electrical Safety							
-	protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529		IP20 finger-safe, for vertical contact from the front				
Display		00323	iniger				
	ching status		Hand	le			
display version for switching status Approvals Certificates							
General Product App	roval						
CE EG-Konf.	UK CA		)	Confirmation		KC	
General Product Ap- proval	Test Certificates			Marine / Shipping			
EHC	Special Test Certific- ate	<u>Type Test Cer</u> ates/Test Rep		ABS	BUREAU VERITAS		
Marine / Shipping				other			
Lloyds Register urs	PRS	RINA		<u>Miscellaneous</u>	<u>Confirmation</u>		
Railway		Environment					
<u>Special Test Certific-</u> <u>ate</u>	<u>Confirmation</u>	EPD		Siemens EcoTech	Environmental Con- firmations		
Further information							
Information on the page	ckaging						
https://support.automation.siemens.com/cs/ww/en/view/109813875 Information- and Downloadcenter (Catalogs, Brochures,) https://www.siemens.com/ic10 Industry Mall (Online ordering system) https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RV2431-4SA10 Cax online generator http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2431-4SA10							
Service&Support (Manuals, Certificates, Characteristics, FAQs,) https://support.industry.siemens.com/cs/ww/en/ps/3RV2431-4SA10							
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros,) <u>http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2431-4SA10⟨=en</u> Characteristic: Tripping characteristics, I <sup>2</sup> t, Let-through current							
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2431-4SA10&objecttype=14&aridview=view1							
http://www.automation.oionionio.com/oilddo/inddo.aopx : view=ocaronamino=ortv24o1=40A10d00jecttype=14dgitdview=view1							





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