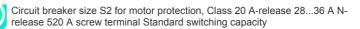
## SIEMENS

## Data sheet

## 3RV2031-4PB10





2/11 6/12 6/15	
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>	20 W
<ul> <li>at AC in hot operating state per pole</li> </ul>	6.7 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>	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	
during operation	-20 +60 °C
during storage	-50 +80 °C
<ul> <li>during transport</li> </ul>	-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	28 36 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	36 A
operational current	
• at AC-3 at 400 V rated value	36 A
at AC-3e at 400 V rated value	36 A
operating power	
• at AC-3	
— at 230 V rated value	11 kW
— at 400 V rated value	18.5 kW
— at 500 V rated value	22 kW
— at 690 V rated value	30 kW
• at AC-3e	
— at 230 V rated value	11 kW
— at 400 V rated value	18.5 kW
— at 500 V rated value	22 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	
ground fault detection	No
phase failure detection	Yes
trip class	CLASS 20
design of the overload release	thermal
maximum short-circuit current breaking capacity (Icu)	licindi
at AC at 240 V rated value	100 kA
	65 kA
at AC at 400 V rated value	
at AC at 500 V rated value	10 kA
at AC at 690 V rated value	4 kA
operating short-circuit current breaking capacity (Ics) at AC	
• at 240 V rated value	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	520 A
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
<ul> <li>at 480 V rated value</li> </ul>	36 A
• at 600 V rated value	36 A
yielded mechanical performance [hp]	
<ul> <li>for single-phase AC motor</li> </ul>	
— at 110/120 V rated value	3 hp
— at 230 V rated value	7.5 hp
• for 3-phase AC motor	
— at 200/208 V rated value	15 hp
— at 220/230 V rated value	15 hp
— at 460/480 V rated value	30 hp
— at 575/600 V rated value	40 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	nogrodu
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	
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			
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		
<ul> <li>for grounded parts at 690 V</li> </ul>			
- 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			
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 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>for 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			
product function suitable for safety function	Yes		
suitability for use			
<ul> <li>safety-related switching on</li> </ul>	No		
<ul> <li>safety-related switching OFF</li> </ul>	Yes		
service life maximum	10 a		
test wear-related service life necessary	Yes		
proportion of dangerous failures			
<ul> <li>with low demand rate according to SN 31920</li> </ul>	40 %		
<ul> <li>with high demand rate according to SN 31920</li> </ul>	50 %		
B10 value with high demand rate according to SN 31920	5 000		
failure rate [FIT] with low demand rate according to SN 31920	50 FIT		
ISO 13849			
device type according to ISO 13849-1	3		
overdimensioning according to ISO 13849-2 necessary	Yes		
IEC 61508			

oofotu dowige turne	ording to IEC 04500.0					
safety device type according to IEC 61508-2			Туре А			
<ul> <li>T1 value</li> <li>for proof test interval or service life according to IEC 61508</li> </ul>		10 a				
Electrical Safety						
protection class IP on the front according to IEC 60529		EC 60529	IP20			
touch protection on the front according to IEC 60529		60529	finger-safe, for vertical contact from the front			
Display						
display version for switc	display version for switching status		Handle			
Approvals Certificates						
General Product Appr	oval					
CE EG-Konf.	UK CA		<u>Confirmation</u>	(U) III	KC	
General Product Ap- proval	Test Certificates		Marine / Shipping			
EHC	Special Test Certific- ate	<u>Type Test Certifi</u> ates/Test Repor	C- tt ABS	BUREAU VERITAS		
Marine / Shipping			other			
Lloyd's Register urs	PRS	RINA	Miscellaneous	Confirmation		
Railway		Environment				
<u>Special Test Certific-</u> <u>ate</u>	<u>Confirmation</u>	EPD	Siemens EcoTech	Environmental Con- firmations		

## Further information

 Information on the packaging

 https://support.industry.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/Catalog/product?mlfb=3RV2031-4PB10

 Cax online generator

 http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2031-4PB10

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

 http://support.industry.siemens.com/cs/ww/en/ps/3RV2031-4PB10

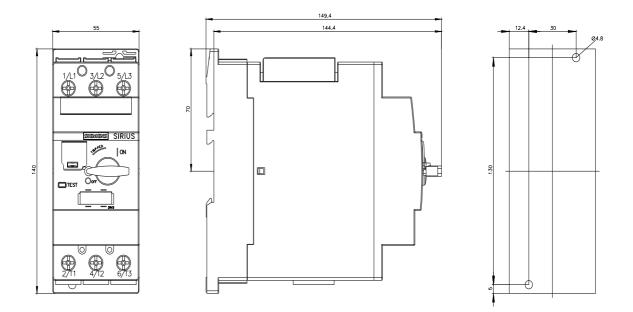
 Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

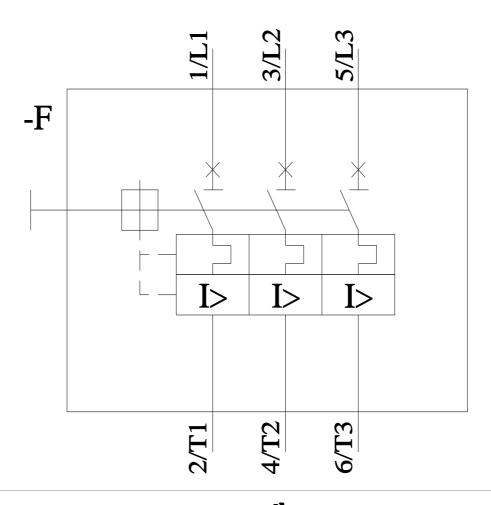
 http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RV2031-4PB10&lang=en

Characteristic: Tripping characteristics, I<sup>2</sup>t, Let-through current

https://support.industry.siemens.com/cs/ww/en/ps/3RV2031-4PB10/char

Further characteristics (e.g. electrical endurance, switching frequency) http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2031-4PB10&objecttype=14&gridview=view1





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