# **SIEMENS**

Data sheet 3RV2032-4KA10



Circuit breaker size S2 for motor protection, CLASS 10 A-release 62...73 A N-release 949 A screw terminal increased 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	
at AC in hot operating state	29.5 W
<ul> <li>at AC in hot operating state per pole</li> </ul>	9.8 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
of auxiliary contacts typical	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)	03/01/2017
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
<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	62 73 A
operating voltage	
rated value	20 690 V
<ul> <li>at AC-3 rated value maximum</li> </ul>	690 V
operating frequency rated value	50 60 Hz
operational current rated value	73 A
operational current	

<ul> <li>at AC-3 at 400 V rated value</li> </ul>	73 A
	73 A
operating power  ● at AC-3	
— at 230 V rated value	22 kW
— at 400 V rated value	37 kW
— at 500 V rated value	45 kW
— at 690 V rated value	55 kW
operating frequency	33 KVV
at AC-3 maximum	15 1/h
Protective and monitoring functions	10 1/11
product function	N-
ground fault detection	No V
phase failure detection	Yes
trip class	CLASS 10 thermal
design of the overload release	Heimai
maximum short-circuit current breaking capacity (Icu)  • at AC at 240 V rated value	100 kA
at AC at 240 V rated value     at AC at 400 V rated value	100 KA
at AC at 400 V rated value     at AC at 500 V rated value	10 kA
at AC at 500 V rated value     at AC at 690 V rated value	6 kA
operating short-circuit current breaking capacity (lcs)	V IV t
at AC	
at 240 V rated value	100 kA
at 400 V rated value	50 kA
at 500 V rated value	8 kA
at 690 V rated value	4 kA
response value current of instantaneous short-circuit trip	949 A
unit	
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
<ul> <li>at 480 V rated value</li> </ul>	65 A
<ul> <li>at 600 V rated value</li> </ul>	62 A
yielded mechanical performance [hp]	
<ul> <li>for 3-phase AC motor</li> </ul>	
<ul> <li>at 200/208 V rated value</li> </ul>	20 hp
<ul> <li>at 220/230 V rated value</li> </ul>	25 hp
<ul> <li>at 460/480 V rated value</li> </ul>	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	
protection of the main circuit  • at 240 V	none required
protection of the main circuit  • at 240 V  • at 400 V	160
protection of the main circuit  • at 240 V  • at 400 V  • at 500 V	160 125
protection of the main circuit  at 240 V  at 400 V  at 500 V  at 690 V	160
protection of the main circuit  • at 240 V  • at 400 V  • at 500 V	160 125
protection of the main circuit  at 240 V  at 400 V  at 500 V  at 690 V  Installation/ mounting/ dimensions mounting position	160 125
protection of the main circuit  • at 240 V  • at 400 V  • at 500 V  • at 690 V  Installation/ mounting/ dimensions	any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715
protection of the main circuit  at 240 V  at 400 V  at 500 V  at 690 V  Installation/ mounting/ dimensions mounting position	160 125 100  any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN
protection of the main circuit  at 240 V  at 400 V  at 500 V  at 690 V  Installation/ mounting/ dimensions  mounting position fastening method	any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715
protection of the main circuit  at 240 V  at 400 V  at 500 V  at 690 V  Installation/ mounting/ dimensions  mounting position fastening method  height width depth	160 125 100  any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 140 mm
protection of the main circuit  at 240 V  at 400 V  at 500 V  at 690 V  Installation/ mounting/ dimensions  mounting position fastening method  height width depth required spacing	any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 140 mm 55 mm 149 mm
protection of the main circuit  at 240 V  at 400 V  at 500 V  at 690 V  Installation/ mounting/ dimensions  mounting position fastening method  height width depth required spacing  with side-by-side mounting at the side	160 125 100  any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 140 mm 55 mm
protection of the main circuit  at 240 V  at 400 V  at 500 V  at 690 V  Installation/ mounting/ dimensions  mounting position fastening method  height width depth required spacing  with side-by-side mounting at the side for grounded parts at 400 V	any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 140 mm 55 mm 149 mm 0 mm
protection of the main circuit  at 240 V  at 400 V  at 500 V  at 690 V  Installation/ mounting/ dimensions  mounting position fastening method  height width depth required spacing  with side-by-side mounting at the side for grounded parts at 400 V  — downwards	any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 140 mm 55 mm 149 mm 0 mm
protection of the main circuit  at 240 V  at 400 V  at 500 V  at 690 V  Installation/ mounting/ dimensions  mounting position fastening method  height width depth required spacing  with side-by-side mounting at the side  for grounded parts at 400 V  downwards  upwards	any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 140 mm 55 mm 149 mm 0 mm 50 mm
protection of the main circuit  at 240 V  at 400 V  at 500 V  at 690 V  Installation/ mounting/ dimensions  mounting position fastening method  height width depth required spacing  with side-by-side mounting at the side  for grounded parts at 400 V  downwards  upwards  at the side	any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 140 mm 55 mm 149 mm 0 mm
protection of the main circuit  at 240 V  at 400 V  at 500 V  at 690 V  Installation/ mounting/ dimensions  mounting position fastening method  height width depth required spacing  with side-by-side mounting at the side for grounded parts at 400 V  — downwards — upwards — at the side for live parts at 400 V	any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 140 mm 55 mm 149 mm 0 mm 50 mm 50 mm 10 mm
protection of the main circuit  at 240 V  at 400 V  at 500 V  at 690 V  Installation/ mounting/ dimensions  mounting position fastening method  height width depth required spacing  with side-by-side mounting at the side  for grounded parts at 400 V  downwards  at the side  for live parts at 400 V  downwards  of or live parts at 400 V  downwards	any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 140 mm 55 mm 149 mm 0 mm 50 mm 50 mm 10 mm
protection of the main circuit  at 240 V  at 400 V  at 500 V  at 690 V  Installation/ mounting/ dimensions  mounting position fastening method  height width depth required spacing  with side-by-side mounting at the side for grounded parts at 400 V  — downwards — upwards — at the side for live parts at 400 V	any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 140 mm 55 mm 149 mm 0 mm 50 mm 50 mm 10 mm

<ul> <li>for grounded parts at 500 V</li> </ul>	
— downwards	50 mm
— upwards	50 mm
— at the side	10 mm
<ul> <li>for live parts at 500 V</li> </ul>	
— 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
<ul> <li>for live parts at 690 V</li> </ul>	
<ul><li>downwards</li></ul>	50 mm
— upwards	50 mm
— at the side	10 mm
onnections/ Terminals	
ype of electrical connection	
for main current circuit	screw-type terminals
rrangement of electrical connectors for main current	Top and bottom

circuit

type of connectable conductor cross-sections

· for main contacts

- solid or stranded

- finely stranded with core end processing

• at AWG cables for main contacts

tightening torque

ty

• for main contacts with screw-type terminals

design of screwdriver shaft size of the screwdriver tip

design of the thread of the connection screw

• for main contacts

2x (1 ... 35 mm<sup>2</sup>), 1x (1 ... 50 mm<sup>2</sup>) 2x (1 ... 25 mm²), 1x (1 ... 35 mm²)

2x (18 ... 2), 1x (18 ... 1)

3 ... 4.5 N·m Diameter 5 to 6 mm Pozidriv size 2

M6

# Safety related data

#### B10 value

• with high demand rate according to SN 31920 5 000

# proportion of dangerous failures

• with low demand rate according to SN 31920

• with high demand rate according to SN 31920

### failure rate [FIT]

• with low demand rate according to SN 31920

T1 value for proof test interval or service life according to IEC 61508

protection class IP on the front according to IEC 60529

touch protection on the front according to IEC 60529 display version for switching status

50 FIT 10 a

50 %

50 %

IP20

finger-safe, for vertical contact from the front Handle

## Certificates/ approvals

### **General Product Approval**





Confirmation



**KC** 



For use in hazardous locations

**Declaration of Conformity** 

**Test Certificates** 









Type Test Certificates/Test Report

**Special Test Certific-**<u>ate</u>

### Marine / Shipping













Marine / Shipping

other

Railway



Confirmation



Vibration and Shock

Confirmation

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/en/Catalog/product?mlfb=3RV2032-4KA10

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2032-4KA10

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

https://support.industry.siemens.com/cs/ww/en/ps/3RV2032-4KA10

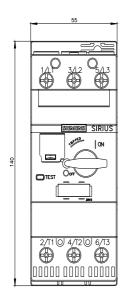
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

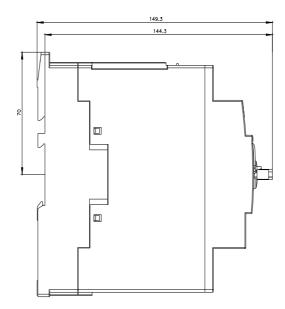
http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RV2032-4KA10&lang=en

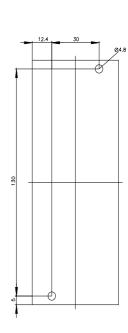
Characteristic: Tripping characteristics, I2t, Let-through current

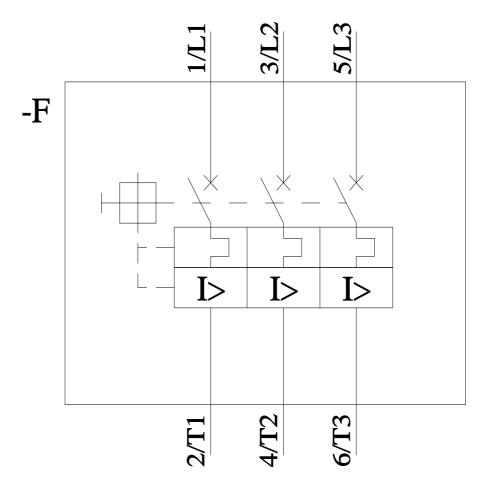
https://support.industry.siemens.com/cs/ww/en/ps/3RV2032-4KA10/char

Further characteristics (e.g. electrical endurance, switching frequency)
<a href="http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2032-4KA10&objecttype=14&gridview=view1">http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2032-4KA10&objecttype=14&gridview=view1</a>









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