SIEMENS

Data sheet 3RV2031-4KA10



Circuit breaker size S2 for motor protection, CLASS 10 A-release 62...73 A N-release 949 A screw terminal Standard switching capacity

SIRIUS product brand name product designation Circuit breaker design of the product For motor protection product type designation 3RV2 General technical data S2 size of the circuit-breaker 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 9.8 W • at AC in hot operating state per pole insulation voltage with degree of pollution 3 at AC rated 690 V 6 kV surge voltage resistance rated value 25g / 11 ms Sinus shock resistance according to IEC 60068-2-27 mechanical service life (operating cycles) 20 000 • of the main contacts typical · of auxiliary contacts typical 20 000 electrical endurance (operating cycles) typical 20 000 type of protection according to ATEX directive Ex II (2) GD 2014/34/EU certificate of suitability according to ATEX directive **DMT 02 ATEX F 001** 2014/34/FU reference code according to IEC 81346-2 04/10/2015 **Substance Prohibitance (Date) Ambient conditions** 2 000 m installation altitude at height above sea level maximum ambient temperature -20 ... +60 °C · during operation -50 ... +80 °C during storage during transport -50 ... +80 °C relative humidity during operation 10 ... 95 % Main circuit number of poles for main current circuit adjustable current response value current of the 62 ... 73 A current-dependent overload release operating voltage rated value 20 ... 690 V 690 V • at AC-3 rated value maximum operating frequency rated value 50 ... 60 Hz operational current rated value 73 A operational current

at AC 3 at 400 V rated value	73 A
at AC-3 at 400 V rated value	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	JJ KVV
at AC-3 maximum	15 1/h
	10 1/11
Protective and monitoring functions	
product function	Al-
ground fault detection	No V
phase failure detection Arin along	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	GE IA
	65 kA 65 kA
at AC at 500 V rated value	
 at AC at 500 V rated value at AC at 690 V rated value 	8 kA 4 kA
	7 NA
operating short-circuit current breaking capacity (lcs) at AC	
at 240 V rated value	65 kA
at 400 V rated value	30 kA
at 500 V rated value	5 kA
at 690 V rated value	2 kA
response value current of instantaneous short-circuit trip	949 A
unit	
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
at 480 V rated value	65 A
at 600 V rated value	62 A
yielded mechanical performance [hp]	
• for 3-phase AC motor	
 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	
● 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	140 mm 55 mm
width depth	140 mm
width depth required spacing	140 mm 55 mm 149 mm
width depth required spacing • with side-by-side mounting at the side	140 mm 55 mm
width depth required spacing • with side-by-side mounting at the side • for grounded parts at 400 V	140 mm 55 mm 149 mm 0 mm
width depth required spacing • with side-by-side mounting at the side • for grounded parts at 400 V — downwards	140 mm 55 mm 149 mm 0 mm 50 mm
width depth required spacing • with side-by-side mounting at the side • for grounded parts at 400 V — downwards — upwards	140 mm 55 mm 149 mm 0 mm 50 mm
width depth required spacing • with side-by-side mounting at the side • for grounded parts at 400 V — downwards — upwards — at the side	140 mm 55 mm 149 mm 0 mm 50 mm
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	140 mm 55 mm 149 mm 0 mm 50 mm 50 mm 10 mm
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 — downwards	140 mm 55 mm 149 mm 0 mm 50 mm 50 mm 10 mm
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	140 mm 55 mm 149 mm 0 mm 50 mm 50 mm 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
— 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

- finely stranded with core end processing

• at AWG cables for main contacts

tightening torque

• 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 mm²), 1x (1 ... 50 mm²) 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

afety 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 	50 %	

• 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

50 %

10 a

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=3RV2031-4KA10

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2031-4KA10

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

https://support.industry.siemens.com/cs/ww/en/ps/3RV2031-4KA10

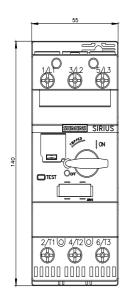
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

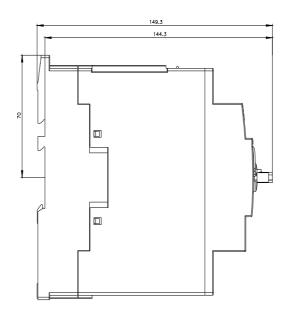
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2031-4KA10&lang=en

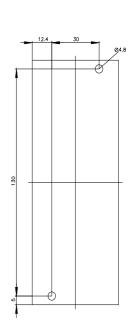
Characteristic: Tripping characteristics, I2t, Let-through current

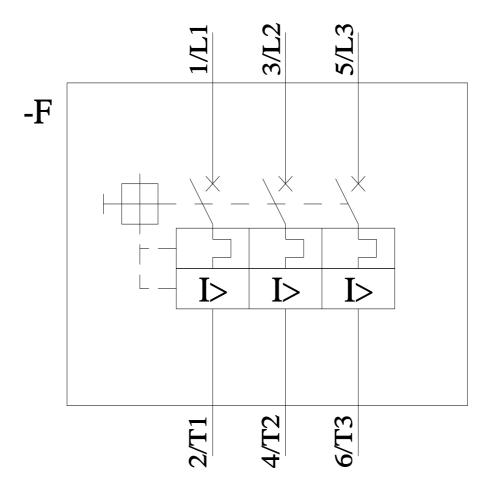
https://support.industry.siemens.com/cs/ww/en/ps/3RV2031-4KA10/char

Further characteristics (e.g. electrical endurance, switching frequency)
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2031-4KA10&objecttype=14&gridview=view1









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