## **SIEMENS**

## **Data sheet**

## 3RV2031-4UB10-0BA0



Special type Circuit breaker size S2 for motor protection, Class 20 A-release 32...40 A N-release 585 A Screw terminal Standard switching capacity Ambient temperature -50  $^{\circ}\text{C}$  250 switching cycles

Figure similar

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>	250
<ul> <li>of auxiliary contacts typical</li> </ul>	250
electrical endurance (operating cycles) typical	250
reference code according to IEC 81346-2	Q
Substance Prohibitance (Date)	10/15/2014
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
<ul> <li>during operation</li> </ul>	-50 +60 °C
<ul> <li>during storage</li> </ul>	-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	32 40 A
operating voltage	
rated value	20 690 V
at AC-3 rated value maximum	690 V
operating frequency rated value	50 60 Hz
operational current rated value	40 A
operational current	
• at AC-3 at 400 V rated value	40 A
operating power	

• at AC-3	4400
— 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	37 kW
operating frequency	
at AC-3 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)	
at AC at 240 V rated value	50 kA
at AC at 400 V rated value	50 kA
at AC at 500 V rated value	10 kA
• at AC at 690 V rated value	6 kA
operating short-circuit current breaking capacity (Ics) at AC	OF I.A
• at 240 V rated value	25 kA
• at 400 V rated value	25 kA
at 500 V rated value	5 kA
at 690 V rated value	2 kA
response value current of instantaneous short-circuit trip unit	585 A
Short-circuit protection	V.
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
	0.405.4
● at 400 V	gG 125 A
<ul><li>at 400 V</li><li>at 500 V</li></ul>	gG 125 A gG 100 A
• at 500 V	gG 100 A
● at 500 V ● at 690 V	gG 100 A
• at 500 V • at 690 V Installation/ mounting/ dimensions	gG 100 A gG 80 A
at 500 V     at 690 V  Installation/ mounting/ dimensions mounting position	gG 100 A gG 80 A any
at 500 V     at 690 V  Installation/ mounting/ dimensions  mounting position  fastening method	gG 100 A gG 80 A  any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715
at 500 V     at 690 V  Installation/ mounting/ dimensions  mounting position  fastening method height	gG 100 A gG 80 A  any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 140 mm
at 500 V  at 690 V  Installation/ mounting/ dimensions  mounting position  fastening method  height  width  depth  required spacing	gG 100 A gG 80 A  any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 140 mm 55 mm
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	gG 100 A gG 80 A  any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 140 mm 55 mm
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	gG 100 A gG 80 A  any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 140 mm 55 mm 149 mm
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	gG 100 A gG 80 A  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
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	gG 100 A gG 80 A  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
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	gG 100 A gG 80 A  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
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	gG 100 A gG 80 A  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
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  — downwards	gG 100 A gG 80 A  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 10 mm
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  downwards  upwards  upwards  upwards  upwards  upwards  upwards	gG 100 A gG 80 A  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 10 mm
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  downwards  upwards  at the side  for live parts at 400 V  downwards  upwards  at the side  at the side  at the side	gG 100 A gG 80 A  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 10 mm
<ul> <li>at 500 V</li> <li>at 690 V</li> <li>Installation/ mounting/ dimensions</li> <li>mounting position</li> <li>fastening method</li> <li>height</li> <li>width</li> <li>depth</li> <li>required spacing</li> <li>with side-by-side mounting at the side</li> <li>for grounded parts at 400 V</li> <li>downwards</li> <li>upwards</li> <li>at the side</li> <li>for live parts at 400 V</li> <li>downwards</li> <li>upwards</li> <li>at the side</li> <li>for live parts at 400 V</li> <li>downwards</li> <li>upwards</li> <li>at the side</li> <li>for grounded parts at 500 V</li> </ul>	gG 100 A gG 80 A  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 10 mm 50 mm 10 mm
<ul> <li>at 500 V</li> <li>at 690 V</li> <li>Installation/ mounting/ dimensions</li> <li>mounting position</li> <li>fastening method</li> <li>height</li> <li>width</li> <li>depth</li> <li>required spacing</li> <li>with side-by-side mounting at the side</li> <li>for grounded parts at 400 V</li> <li>downwards</li> <li>upwards</li> <li>at the side</li> <li>for live parts at 400 V</li> <li>downwards</li> <li>upwards</li> <li>at the side</li> <li>for grounded parts at 500 V</li> <li>downwards</li> <li>at the side</li> <li>for grounded parts at 500 V</li> <li>downwards</li> </ul>	gG 100 A gG 80 A  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 50 mm 50 mm 50 mm
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  downwards  upwards  at the side  for live parts at 400 V  downwards  upwards  at the side  for grounded parts at 500 V  downwards  upwards  upwards  for grounded parts at 500 V  downwards  upwards	gG 100 A gG 80 A  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 10 mm 50 mm 10 mm 50 mm 50 mm 50 mm 50 mm
<ul> <li>at 500 V</li> <li>at 690 V</li> <li>Installation/ mounting/ dimensions</li> <li>mounting position</li> <li>fastening method</li> <li>height</li> <li>width</li> <li>depth</li> <li>required spacing</li> <li>with side-by-side mounting at the side</li> <li>for grounded parts at 400 V</li> <li>downwards</li> <li>upwards</li> <li>at the side</li> <li>for live parts at 400 V</li> <li>downwards</li> <li>upwards</li> <li>at the side</li> <li>for grounded parts at 500 V</li> <li>downwards</li> <li>upwards</li> <li>at the side</li> <li>for grounded parts at 500 V</li> <li>downwards</li> <li>upwards</li> <li>at the side</li> <li>for grounded parts at 500 V</li> <li>downwards</li> <li>upwards</li> <li>at the side</li> </ul>	gG 100 A gG 80 A  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 50 mm 50 mm 50 mm
<ul> <li>at 500 V</li> <li>at 690 V</li> <li>Installation/ mounting/ dimensions</li> <li>mounting position</li> <li>fastening method</li> <li>height</li> <li>width</li> <li>depth</li> <li>required spacing</li> <li>with side-by-side mounting at the side</li> <li>for grounded parts at 400 V</li> <li>downwards</li> <li>upwards</li> <li>at the side</li> <li>for live parts at 400 V</li> <li>downwards</li> <li>upwards</li> <li>at the side</li> <li>for grounded parts at 500 V</li> <li>downwards</li> <li>upwards</li> <li>at the side</li> <li>for grounded parts at 500 V</li> <li>downwards</li> <li>upwards</li> <li>at the side</li> <li>for live parts at 500 V</li> </ul>	gG 100 A gG 80 A  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 10 mm  50 mm 10 mm  50 mm 10 mm
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 downwards upwards at the side for grounded parts at 500 V downwards upwards at the side for grounded parts at 500 V downwards upwards at the side for grounded parts at 500 V downwards upwards at the side for live parts at 500 V downwards at the side for live parts at 500 V downwards	gG 100 A gG 80 A  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 10 mm 50 mm 10 mm 50 mm 50 mm 10 mm
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  downwards  upwards  at the side  for grounded parts at 500 V  downwards  upwards  at the side  for grounded parts at 500 V  downwards  upwards  at the side  for live parts at 500 V  downwards  upwards  at the side  for live parts at 500 V  downwards  upwards  at the side  for live parts at 500 V  downwards  upwards  upwards	gG 100 A gG 80 A  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 10 mm 50 mm 10 mm 50 mm
<ul> <li>at 500 V</li> <li>at 690 V</li> <li>Installation/ mounting/ dimensions</li> <li>mounting position</li> <li>fastening method</li> <li>height</li> <li>width</li> <li>depth</li> <li>required spacing</li> <li>with side-by-side mounting at the side</li> <li>for grounded parts at 400 V</li> <li>downwards</li> <li>upwards</li> <li>at the side</li> <li>for live parts at 400 V</li> <li>downwards</li> <li>upwards</li> <li>at the side</li> <li>for grounded parts at 500 V</li> <li>downwards</li> <li>upwards</li> <li>at the side</li> <li>for live parts at 500 V</li> <li>downwards</li> <li>upwards</li> <li>at the side</li> <li>for live parts at 500 V</li> <li>downwards</li> <li>upwards</li> <li>at the side</li> <li>for live parts at 500 V</li> <li>downwards</li> <li>upwards</li> <li>at the side</li> </ul>	gG 100 A gG 80 A  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 10 mm 50 mm 10 mm 50 mm 50 mm 10 mm
<ul> <li>at 500 V</li> <li>at 690 V</li> <li>Installation/ mounting/ dimensions</li> <li>mounting position</li> <li>fastening method</li> <li>height</li> <li>width</li> <li>depth</li> <li>required spacing</li> <li>with side-by-side mounting at the side</li> <li>for grounded parts at 400 V</li> <li>downwards</li> <li>upwards</li> <li>at the side</li> <li>for live parts at 400 V</li> <li>downwards</li> <li>upwards</li> <li>at the side</li> <li>for grounded parts at 500 V</li> <li>downwards</li> <li>upwards</li> <li>at the side</li> <li>for live parts at 500 V</li> <li>downwards</li> <li>upwards</li> <li>at the side</li> <li>for live parts at 500 V</li> <li>downwards</li> <li>upwards</li> <li>at the side</li> <li>for grounded parts at 690 V</li> </ul>	gG 100 A gG 80 A  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 50 mm 10 mm 50 mm 50 mm 10 mm
<ul> <li>at 500 V</li> <li>at 690 V</li> <li>Installation/ mounting/ dimensions</li> <li>mounting position</li> <li>fastening method</li> <li>height</li> <li>width</li> <li>depth</li> <li>required spacing</li> <li>with side-by-side mounting at the side</li> <li>for grounded parts at 400 V</li> <li>downwards</li> <li>upwards</li> <li>at the side</li> <li>for live parts at 400 V</li> <li>downwards</li> <li>upwards</li> <li>at the side</li> <li>for grounded parts at 500 V</li> <li>downwards</li> <li>upwards</li> <li>at the side</li> <li>for live parts at 500 V</li> <li>downwards</li> <li>upwards</li> <li>at the side</li> <li>for live parts at 500 V</li> <li>downwards</li> <li>upwards</li> <li>at the side</li> <li>for grounded parts at 690 V</li> <li>downwards</li> <li>of grounded parts at 690 V</li> <li>downwards</li> </ul>	gG 100 A gG 80 A  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 10 mm 50 mm 10 mm 50 mm 50 mm 10 mm 50 mm 50 mm 10 mm 50 mm 50 mm 50 mm 50 mm 10 mm
<ul> <li>at 500 V</li> <li>at 690 V</li> <li>Installation/ mounting/ dimensions</li> <li>mounting position</li> <li>fastening method</li> <li>height</li> <li>width</li> <li>depth</li> <li>required spacing</li> <li>with side-by-side mounting at the side</li> <li>for grounded parts at 400 V</li> <li>downwards</li> <li>upwards</li> <li>at the side</li> <li>for live parts at 400 V</li> <li>downwards</li> <li>upwards</li> <li>at the side</li> <li>for grounded parts at 500 V</li> <li>downwards</li> <li>upwards</li> <li>at the side</li> <li>for live parts at 500 V</li> <li>downwards</li> <li>upwards</li> <li>at the side</li> <li>for live parts at 500 V</li> <li>downwards</li> <li>upwards</li> <li>at the side</li> <li>for grounded parts at 690 V</li> </ul>	gG 100 A gG 80 A  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 50 mm 10 mm 50 mm 50 mm 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	
<ul> <li>for main contacts</li> </ul>	
<ul><li>— solid or stranded</li></ul>	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)
tightening torque	
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	
<ul> <li>for main contacts</li> </ul>	M6
Safety related data	
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** 

**Declaration of Conformity** 

**Test Certificates** 

**Confirmation** 

<u>KC</u>







Special Test Certificate

**Test Certificates** 

Marine / Shipping

Type Test Certificates/Test Report











Marine / Shipping

other

Railway



Confirmation



Confirmation

Vibration and Shock

## Further information

Siemens has decided to exit the Russian market (see here).

https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business

Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

Information on the packaging

https://support.industry.siemens.com/cs/ww/en/view/109813875

Information- and Downloadcenter (Catalogs, Brochures,...)

<u> https://www.siemens.com/ic10</u>

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RV2031-4UB10-0BA0

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2031-4UB10-0BA0

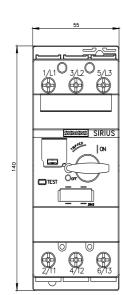
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

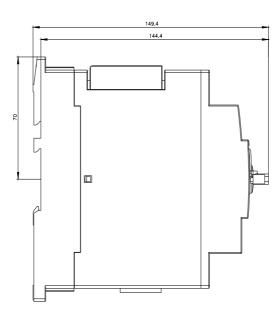
https://support.industry.siemens.com/cs/ww/en/ps/3RV2031-4UB10-0BA0

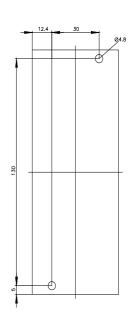
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RV2031-4UB10-0BA0&lang=en

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2031-4UB10-0BA0&objecttype=14&gridview=view1









last modified: 11/21/2022 🖸