## **SIEMENS**

## **Data sheet**



Special type Circuit breaker size S00 for motor protection, CLASS 10 A-release 2.2...3.2 A N release 42 A screw terminal Standard switching capacity Ambient temperature -50  $^{\circ}$ C 500 switching cycles

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	S00
size of contactor can be combined company-specific	S00, S0
product extension auxiliary switch	Yes
power loss [W] for rated value of the current	
<ul> <li>at AC in hot operating state</li> </ul>	7.25 W
<ul> <li>at AC in hot operating state per pole</li> </ul>	2.4 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
mechanical service life (switching cycles)	
<ul> <li>of the main contacts typical</li> </ul>	500
<ul> <li>of auxiliary contacts typical</li> </ul>	500
electrical endurance (switching cycles) typical	500
reference code according to IEC 81346-2	Q
Substance Prohibitance (Date)	10/01/2009
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
<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	2.2 3.2 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	3.2 A
operational current	
• at AC-3 at 400 V rated value	3.2 A
operating power	

• at AC-3	0.0.14W
— at 230 V rated value	0.6 kW
— at 400 V rated value	1.1 kW
— at 500 V rated value	1.5 kW
— at 690 V rated value	2.2 kW
operating frequency	
at AC-3 maximum	15 1/h
Auxiliary circuit	
number of NC contacts for auxiliary contacts	0
number of NO contacts for auxiliary contacts	0
number of CO 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
breaking capacity maximum short-circuit current (Icu)	
at AC at 240 V rated value	100 kA
• at AC at 400 V rated value	100 kA
• at AC at 500 V rated value	100 kA
• at AC at 690 V rated value	10 kA
breaking capacity operating short-circuit current (Ics)	
at AC	400 l.A
• at 240 V rated value	100 kA
• at 400 V rated value	100 kA
at 500 V rated value	100 kA
at 690 V rated value	10 kA
response value current of instantaneous short-circuit trip unit	42 A
Short-circuit protection	
Short-circuit protection product function short circuit protection	Yes
Short-circuit protection product function short circuit protection design of the short-circuit trip	Yes magnetic
Short-circuit protection product function short circuit protection	magnetic
Short-circuit protection  product function short circuit protection  design of the short-circuit trip  design of the fuse link for IT network for short-circuit	
Short-circuit protection  product function short circuit protection  design of the short-circuit trip  design of the fuse link for IT network for short-circuit protection of the main circuit	magnetic
Short-circuit protection  product function short circuit protection  design of the short-circuit trip  design of the fuse link for IT network for short-circuit protection of the main circuit  • at 400 V	magnetic gG 25 A
Short-circuit protection  product function short circuit protection  design of the short-circuit trip  design of the fuse link for IT network for short-circuit protection of the main circuit  • at 400 V  • at 500 V	magnetic  gG 25 A gG 32 A
Short-circuit protection product function short circuit protection design of the short-circuit trip design of the fuse link for IT network for short-circuit protection of the main circuit  • at 400 V • at 500 V • at 690 V	magnetic  gG 25 A gG 32 A
Short-circuit protection  product function short circuit protection  design of the short-circuit trip  design of the fuse link for IT network for short-circuit protection of the main circuit  • at 400 V  • at 500 V  • at 690 V  Installation/ mounting/ dimensions	gG 25 A gG 32 A gG 25 A
Short-circuit protection  product function short circuit protection  design of the short-circuit trip  design of the fuse link for IT network for short-circuit protection of the main circuit  • at 400 V  • at 500 V  • at 690 V  Installation/ mounting/ dimensions  mounting position	magnetic  gG 25 A gG 32 A gG 25 A  any screw and snap-on mounting onto 35 mm standard mounting rail
Short-circuit protection  product function short circuit protection  design of the short-circuit trip  design of the fuse link for IT network for short-circuit protection of the main circuit  • at 400 V  • at 500 V  • at 690 V  Installation/ mounting/ dimensions  mounting position  fastening method	magnetic  gG 25 A gG 32 A gG 25 A  any screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715
Short-circuit protection  product function short circuit protection  design of the short-circuit trip  design of the fuse link for IT network for short-circuit protection of the main circuit  • at 400 V  • at 500 V  • at 690 V  Installation/ mounting/ dimensions  mounting position  fastening method	magnetic  gG 25 A gG 32 A gG 25 A  any screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 97 mm
Short-circuit protection product function short circuit protection design of the short-circuit trip design of the fuse link for IT network for short-circuit protection of the main circuit  • at 400 V • at 500 V • at 690 V  Installation/ mounting/ dimensions mounting position fastening method  height width	magnetic  gG 25 A gG 32 A gG 25 A  any screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715  97 mm 45 mm
Short-circuit protection  product function short circuit protection  design of the short-circuit trip  design of the fuse link for IT network for short-circuit protection of the main circuit  • at 400 V  • at 500 V  • at 690 V  Installation/ mounting/ dimensions  mounting position  fastening method  height  width  depth	magnetic  gG 25 A gG 32 A gG 25 A  any screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715  97 mm 45 mm
Short-circuit protection  product function short circuit protection  design of the short-circuit trip  design of the fuse link for IT network for short-circuit protection of the main circuit  • at 400 V  • at 500 V  • at 690 V  Installation/ mounting/ dimensions  mounting position  fastening method  height  width  depth  required spacing	magnetic  gG 25 A gG 32 A gG 25 A  any screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715  97 mm 45 mm
Short-circuit protection  product function short circuit protection  design of the short-circuit trip  design of the fuse link for IT network for short-circuit protection of the main circuit  • at 400 V  • at 500 V  • at 690 V  Installation/ mounting/ dimensions  mounting position  fastening method  height  width  depth  required spacing  • for grounded parts at 400 V	magnetic  gG 25 A gG 32 A gG 25 A  any screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 97 mm 45 mm 97 mm
Short-circuit protection  product function short circuit protection  design of the short-circuit trip  design of the fuse link for IT network for short-circuit protection of the main circuit  • at 400 V  • at 500 V  • at 690 V  Installation/ mounting/ dimensions  mounting position fastening method  height width depth required spacing • for grounded parts at 400 V  — downwards	magnetic  gG 25 A gG 32 A gG 25 A  any screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715  97 mm 45 mm 97 mm
Short-circuit protection  product function short circuit protection  design of the short-circuit trip  design of the fuse link for IT network for short-circuit protection of the main circuit  • at 400 V  • at 500 V  • at 690 V  Installation/ mounting/ dimensions  mounting position  fastening method  height  width  depth  required spacing  • for grounded parts at 400 V  — downwards — upwards	magnetic  gG 25 A gG 32 A gG 25 A  any screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715  97 mm 45 mm 97 mm 30 mm 30 mm
Short-circuit protection  product function short circuit protection  design of the short-circuit trip  design of the fuse link for IT network for short-circuit protection of the main circuit  • at 400 V  • at 500 V  • at 690 V  Installation/ mounting/ dimensions  mounting position  fastening method  height  width  depth  required spacing  • for grounded parts at 400 V  — downwards  — upwards  — at the side	magnetic  gG 25 A gG 32 A gG 25 A  any screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715  97 mm 45 mm 97 mm 30 mm 30 mm
Short-circuit protection  product function short circuit protection  design of the short-circuit trip  design of the fuse link for IT network for short-circuit protection of the main circuit  • at 400 V  • at 500 V  • at 690 V  Installation/ mounting/ dimensions  mounting position  fastening method  height  width  depth  required spacing  • for grounded parts at 400 V  — downwards — upwards — at the side • for live parts at 400 V	magnetic  gG 25 A gG 32 A gG 25 A  any screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715  97 mm 45 mm 97 mm  30 mm 30 mm 9 mm
Short-circuit protection  product function short circuit protection  design of the short-circuit trip  design of the fuse link for IT network for short-circuit protection of the main circuit  • at 400 V  • at 500 V  • at 690 V  Installation/ mounting/ dimensions  mounting position  fastening method  height  width  depth  required spacing  • for grounded parts at 400 V  — downwards  — upwards  — at the side  • for live parts at 400 V  — downwards	magnetic  gG 25 A gG 32 A gG 25 A  any screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715  97 mm 45 mm 97 mm  30 mm 30 mm 9 mm
Short-circuit protection  product function short circuit protection  design of the short-circuit trip  design of the fuse link for IT network for short-circuit protection of the main circuit  • at 400 V  • at 500 V  • at 690 V  Installation/ mounting/ dimensions  mounting position fastening method  height  width  depth  required spacing  • for grounded parts at 400 V  — downwards — upwards — at the side  • for live parts at 400 V  — downwards — upwards	magnetic  gG 25 A gG 32 A gG 25 A  any screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715  97 mm 45 mm 97 mm  30 mm 30 mm 30 mm 30 mm
Short-circuit protection  product function short circuit protection  design of the short-circuit trip  design of the fuse link for IT network for short-circuit protection of the main circuit  • at 400 V  • at 500 V  • at 690 V  Installation/ mounting/ dimensions  mounting position  fastening method  height  width  depth  required spacing  • for grounded parts at 400 V  — downwards — upwards — at the side  • for live parts at 400 V  — downwards — upwards — upwards — upwards — upwards — at the side  • for live parts at 400 V — downwards — upwards — upwards — upwards — upwards — at the side	magnetic  gG 25 A gG 32 A gG 25 A  any screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715  97 mm 45 mm 97 mm  30 mm 30 mm 30 mm 30 mm
Short-circuit protection  product function short circuit protection  design of the short-circuit trip  design of the fuse link for IT network for short-circuit protection of the main circuit  • at 400 V  • at 500 V  • at 690 V  Installation/ mounting/ dimensions  mounting position  fastening method  height  width  depth  required spacing  • for grounded parts at 400 V  — downwards — upwards — at the side  • for live parts at 400 V  — downwards — upwards — upwards — at the side  • for grounded parts at 500 V	magnetic  gG 25 A gG 32 A gG 25 A  any screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 97 mm 45 mm 97 mm  30 mm 30 mm 9 mm 30 mm 9 mm
Short-circuit protection  product function short circuit protection  design of the short-circuit trip  design of the fuse link for IT network for short-circuit protection of the main circuit  • at 400 V  • at 500 V  • at 690 V  Installation/ mounting/ dimensions  mounting position  fastening method  height  width  depth  required spacing  • 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 — at the side  • for grounded parts at 500 V — downwards	magnetic  gG 25 A gG 32 A gG 25 A  any screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715  97 mm 45 mm 97 mm  30 mm 30 mm 9 mm 30 mm 9 mm 30 mm 30 mm 9 mm
Short-circuit protection  product function short circuit protection  design of the short-circuit trip  design of the fuse link for IT network for short-circuit protection of the main circuit  • at 400 V  • at 500 V  • at 690 V  Installation/ mounting/ dimensions  mounting position  fastening method  height  width  depth  required spacing  • 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 — at the side  • for grounded parts at 500 V — downwards — at wards — at the side  • for grounded parts at 500 V — downwards — upwards — upwards — upwards	magnetic  gG 25 A gG 32 A gG 25 A  any screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715  97 mm  45 mm  97 mm  30 mm 30 mm 9 mm 30 mm 30 mm 30 mm 30 mm

— upwards	30 mm
— at the side	9 mm
<ul> <li>for grounded parts at 690 V</li> </ul>	
— downwards	50 mm
— upwards	50 mm
— backwards	0 mm
— at the side	30 mm
— forwards	0 mm
<ul> <li>for live parts at 690 V</li> </ul>	
— downwards	50 mm
— upwards	50 mm
— backwards	0 mm
— at the side	30 mm
— 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	
<ul> <li>for main contacts</li> </ul>	
<ul><li>— solid or stranded</li></ul>	2x (0,75 2,5 mm²), 2x 4 mm²
<ul> <li>finely stranded with core end processing</li> </ul>	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
tightening torque	
for main contacts with screw-type terminals	0.8 1.2 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>	M3
Safety related data	
T1 value for proof test interval or service life according to IEC 61508	10 y
protection class IP on the front according to IEC 60529	IP20

Handle

Certificates/ approvals

**General Product Approval** 

display version for switching status

**Declaration of Conformity** 

finger-safe, for vertical contact from the front

**Test Certificates** 

**Confirmation** 

<u>KC</u>

touch protection on the front according to IEC 60529







Special Test Certificate

**Test Certificates** 

Marine / Shipping

Type Test Certificates/Test Report











Marine / Shipping

other

Railway





Confirmation



Confirmation

Vibration and Shock

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=3RV2011-1DA10-0BA0

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2011-1DA10-0BA0

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

https://support.industry.siemens.com/cs/ww/en/ps/3RV2011-1DA10-0BA0

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

http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RV2011-1DA10-0BA0&lang=en

Characteristic: Tripping characteristics, I2t, Let-through current

https://support.industry.siemens.com/cs/ww/en/ps/3RV2011-1DA10-0BA0/char

Further characteristics (e.g. electrical endurance, switching frequency)
<a href="http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2011-1DA10-0BA0&objecttype=14&gridview=view1">http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2011-1DA10-0BA0&objecttype=14&gridview=view1</a>

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