# **SIEMENS**

Data sheet 3RV2321-4PC10



Circuit breaker size S0 for starter combination Rated current 36 A N-release 432 A screw terminal Standard switching capacity

product brand name	SIRIUS
product designation	Circuit breaker
design of the product	For starter combinations
product type designation	3RV2
General technical data	
size of the circuit-breaker	S0
size of contactor can be combined company-specific	S00, S0
product extension auxiliary switch	Yes
power loss [W] for rated value of the current	
at AC in hot operating state	16.25 W
at AC in hot operating state per pole	5.4 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 (operating cycles)	
of the main contacts typical	100 000
of auxiliary contacts typical	100 000
electrical endurance (operating cycles) typical	100 000
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
	2 000 m
installation altitude at height above sea level maximum	2 000 m -20 +40 °C
installation altitude at height above sea level maximum ambient temperature	
installation altitude at height above sea level maximum  ambient temperature  • during operation	-20 +40 °C
installation altitude at height above sea level maximum  ambient temperature  • during operation  • during storage	-20 +40 °C -50 +80 °C
installation altitude at height above sea level maximum  ambient temperature  during operation during storage during transport	-20 +40 °C -50 +80 °C -50 +80 °C
installation altitude at height above sea level maximum  ambient temperature  • during operation  • during storage  • during transport  relative humidity during operation	-20 +40 °C -50 +80 °C -50 +80 °C
installation altitude at height above sea level maximum  ambient temperature  • during operation  • during storage  • during transport  relative humidity during operation  Main circuit	-20 +40 °C -50 +80 °C -50 +80 °C 10 95 %
installation altitude at height above sea level maximum  ambient temperature  • during operation  • during storage  • during transport  relative humidity during operation  Main circuit  number of poles for main current circuit	-20 +40 °C -50 +80 °C -50 +80 °C 10 95 %
installation altitude at height above sea level maximum  ambient temperature  • during operation • during storage • during transport  relative humidity during operation  Main circuit  number of poles for main current circuit  operating voltage	-20 +40 °C -50 +80 °C -50 +80 °C 10 95 %
installation altitude at height above sea level maximum  ambient temperature  • during operation  • during storage  • during transport  relative humidity during operation  Main circuit  number of poles for main current circuit  operating voltage  • rated value	-20 +40 °C -50 +80 °C -50 +80 °C 10 95 %
installation altitude at height above sea level maximum  ambient temperature  • during operation  • during storage  • during transport  relative humidity during operation  Main circuit  number of poles for main current circuit  operating voltage  • rated value  • at AC-3 rated value maximum	-20 +40 °C -50 +80 °C -50 +80 °C 10 95 % 3 20 690 V 690 V
installation altitude at height above sea level maximum  ambient temperature  • during operation  • during storage  • during transport  relative humidity during operation  Main circuit  number of poles for main current circuit  operating voltage  • rated value  • at AC-3 rated value maximum  operating frequency rated value  operational current rated value  operational current	-20 +40 °C -50 +80 °C -50 +80 °C 10 95 % 3 20 690 V 690 V 50 60 Hz
installation altitude at height above sea level maximum  ambient temperature  • during operation  • during storage  • during transport  relative humidity during operation  Main circuit  number of poles for main current circuit  operating voltage  • rated value  • at AC-3 rated value maximum  operating frequency rated value  operational current rated value	-20 +40 °C -50 +80 °C -50 +80 °C 10 95 % 3 20 690 V 690 V 50 60 Hz
installation altitude at height above sea level maximum  ambient temperature  • during operation  • during storage  • during transport  relative humidity during operation  Main circuit  number of poles for main current circuit  operating voltage  • rated value  • at AC-3 rated value maximum  operating frequency rated value  operational current rated value  operational current	-20 +40 °C -50 +80 °C -50 +80 °C 10 95 % 3 20 690 V 690 V 50 60 Hz 36 A
installation altitude at height above sea level maximum  ambient temperature  • during operation  • during storage  • during transport  relative humidity during operation  Main circuit  number of poles for main current circuit  operating voltage  • rated value  • at AC-3 rated value maximum  operating frequency rated value  operational current  • at AC-3 at 400 V rated value  operating power  • at AC-3	-20 +40 °C -50 +80 °C -50 +80 °C 10 95 % 3 20 690 V 690 V 50 60 Hz 36 A
installation altitude at height above sea level maximum  ambient temperature  • during operation  • during storage  • during transport  relative humidity during operation  Main circuit  number of poles for main current circuit  operating voltage  • rated value  • at AC-3 rated value maximum  operating frequency rated value  operational current  • at AC-3 at 400 V rated value  operating power	-20 +40 °C -50 +80 °C -50 +80 °C 10 95 % 3 20 690 V 690 V 50 60 Hz 36 A

of E00 V meta-d vialvia	20 PM
— 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-3 maximum  Auxiliary circuit	10 1/11
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	
ground fault detection	No
phase failure detection	No
maximum short-circuit current breaking capacity (Icu)	
at AC at 240 V rated value	100 kA
at AC at 400 V rated value	20 kA
at AC at 500 V rated value	6 kA
at AC at 690 V rated value	3 kA
operating short-circuit current breaking capacity (Ics) at AC	
• at 240 V rated value	100 kA
• at 400 V rated value	10 kA
• at 500 V rated value	3 kA
• at 690 V rated value	2 kA
response value current of instantaneous short-circuit trip unit	468 A
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
at 480 V rated value	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	5 hp
• for 3-phase AC motor	
— at 200/208 V rated value	10 hp
<ul> <li>at 220/230 V rated value</li> </ul>	10 hp
— at 460/480 V rated value	25 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 400 V	gG 63 A
• at 500 V	gG 63 A
• at 690 V	gG 63 A
Installation/ mounting/ dimensions	
mounting position	any
fastening method	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715
height	97 mm
width	45 mm
depth	97 mm
required spacing	
<ul> <li>with side-by-side mounting at the side</li> </ul>	9 mm
<ul> <li>for grounded parts at 400 V</li> </ul>	
— downwards	30 mm
— upwards	30 mm
— at the side	9 mm
• for live parts at 400 V	
— downwards	30 mm
— upwards	30 mm
— at the side	9 mm
<ul> <li>for grounded parts at 500 V</li> </ul>	
— downwards	30 mm

— upwards	30 mm
— at the side	9 mm
<ul> <li>for live parts at 500 V</li> </ul>	
— downwards	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	
Connections, Terminals	
type of electrical connection	
	screw-type terminals
type of electrical connection	screw-type terminals Top and bottom
type of electrical connection  • for main current circuit  arrangement of electrical connectors for main current	
type of electrical connection • for main current circuit arrangement of electrical connectors for main current circuit	
type of electrical connection  • for main current circuit  arrangement of electrical connectors for main current circuit  type of connectable conductor cross-sections	
type of electrical connection	Top and bottom
type of electrical connection  • for main current circuit  arrangement of electrical connectors for main current circuit  type of connectable conductor cross-sections  • for main contacts  — solid or stranded	Top and bottom  2x (1 2.5 mm²), 2x (2.5 10 mm²)
type of electrical connection  • for main current circuit  arrangement of electrical connectors for main current circuit  type of connectable conductor cross-sections  • for main contacts  — solid or stranded  — finely stranded with core end processing	Top and bottom  2x (1 2.5 mm²), 2x (2.5 10 mm²) 2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm²
type of electrical connection  • for main current circuit  arrangement of electrical connectors for main current circuit  type of connectable conductor cross-sections  • for main contacts  — solid or stranded  — finely stranded with core end processing  • for AWG cables for main contacts	Top and bottom  2x (1 2.5 mm²), 2x (2.5 10 mm²) 2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm²
type of electrical connection  • for main current circuit  arrangement of electrical connectors for main current circuit  type of connectable conductor cross-sections  • for main contacts  — solid or stranded — finely stranded with core end processing  • for AWG cables for main contacts  tightening torque	Top and bottom  2x (1 2.5 mm²), 2x (2.5 10 mm²) 2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm² 2x (16 12), 2x (14 8)
type of electrical connection	Top and bottom  2x (1 2.5 mm²), 2x (2.5 10 mm²) 2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm² 2x (16 12), 2x (14 8)  2 2.5 N·m
type of electrical connection	Top and bottom  2x (1 2.5 mm²), 2x (2.5 10 mm²) 2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm² 2x (16 12), 2x (14 8)  2 2.5 N·m Diameter 5 to 6 mm
type of electrical connection	Top and bottom  2x (1 2.5 mm²), 2x (2.5 10 mm²) 2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm² 2x (16 12), 2x (14 8)  2 2.5 N·m Diameter 5 to 6 mm
type of electrical connection  • for main current circuit  arrangement of electrical connectors for main current circuit  type of connectable conductor cross-sections  • for main contacts  — solid or stranded  — finely stranded with core end processing  • for 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	Top and bottom  2x (1 2.5 mm²), 2x (2.5 10 mm²) 2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm² 2x (16 12), 2x (14 8)  2 2.5 N·m Diameter 5 to 6 mm Pozidriv size 2
type of electrical connection  • for main current circuit  arrangement of electrical connectors for main current circuit  type of connectable conductor cross-sections  • for main contacts  — solid or stranded  — finely stranded with core end processing  • for 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	Top and bottom  2x (1 2.5 mm²), 2x (2.5 10 mm²) 2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm² 2x (16 12), 2x (14 8)  2 2.5 N·m Diameter 5 to 6 mm Pozidriv size 2
type of electrical connection	Top and bottom  2x (1 2.5 mm²), 2x (2.5 10 mm²) 2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm² 2x (16 12), 2x (14 8)  2 2.5 N·m Diameter 5 to 6 mm Pozidriv size 2

- Tot main contacto	
Safety related data	
B10 value	
<ul> <li>with high demand rate according to SN 31920</li> </ul>	5 000
proportion of dangerous failures	
<ul> <li>with low demand rate according to SN 31920</li> </ul>	50 %
<ul> <li>with high demand rate according to SN 31920</li> </ul>	50 %
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



Confirmation



<u>KC</u>





Declaration of Conformity

**Test Certificates** 

Marine / Shipping



Type Test Certificates/Test Report

Special Test Certificate













Confirmation



Vibration and Shock

#### Railway

Confirmation

#### 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,...)

https://www.siemens.com/ic10

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RV2321-4PC10

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2321-4PC10

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

https://support.industry.siemens.com/cs/ww/en/ps/3RV2321-4PC10

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

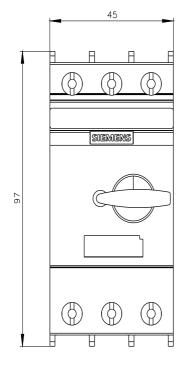
http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RV2321-4PC10&lang=en

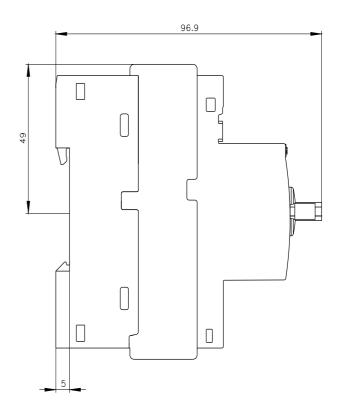
Characteristic: Tripping characteristics, I²t, Let-through current

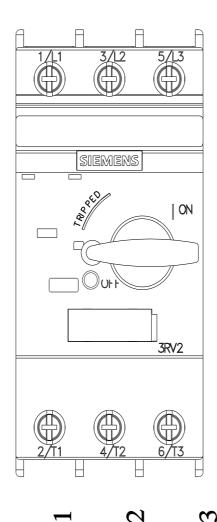
https://support.industry.siemens.com/cs/ww/en/ps/3RV2321-4PC10/char

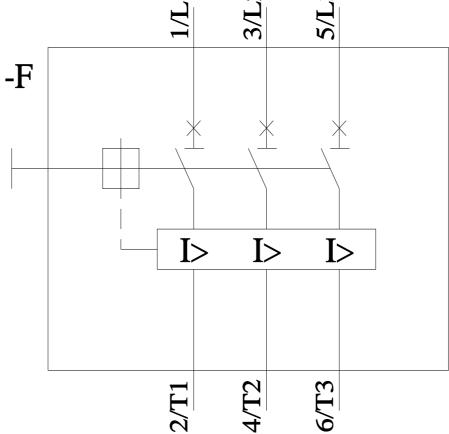
Further characteristics (e.g. electrical endurance, switching frequency)

 $\underline{\text{http://www.automation.siemens.com/bilddb/index.aspx?view=Search\&mlfb=3RV2321-4PC10\&objecttype=14\&gridview=view1}$ 









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