SIEMENS

Data sheet 3RV2331-4PC10



Circuit breaker size S2 for starter combination Rated current 36 A N-release 520 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	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 	20 W	
 at AC in hot operating state per pole 	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)		
 of the main contacts typical 	50 000	
 of auxiliary contacts typical 	50 000	
electrical endurance (operating cycles) typical	50 000	
reference code according to IEC 81346-2	Q	
Substance Prohibitance (Date)	10/15/2014	
SVHC substance name	Blei - 7439-92-1	
Ambient conditions		
installation altitude at height above sea level maximum	2 000 m	
ambient temperature		
 during operation 	-20 +60 °C	
 during storage 	-50 +80 °C	
during transport	-50 +80 °C	
relative humidity during operation	10 95 %	
Main circuit		
number of poles for main current circuit	3	
operating voltage		
• rated value	20 690 V	
 at AC-3 rated value maximum 	690 V	
at AC-3e rated value maximum	690 V	
operating frequency rated value	50 60 Hz	
operational current rated value	36 A	
operational current		
 at AC-3 at 400 V rated value 	36 A	
at AC-3e at 400 V rated value	36 A	
operating power		

## A G-3		
	• at AC-3	
	— at 230 V rated value	11 kW
— at 300 V rated value	— at 400 V rated value	18.5 kW
= at AC-Ose	— at 500 V rated value	22 kW
	— at 690 V rated value	30 kW
	• at AC-3e	
— at 580 V risted value	— at 230 V rated value	11 kW
operating frequency ■ at AC-5 maximum ■ 15 1/h ■ of AC-5e maximum ■ of AC-5e max	— at 400 V rated value	18.5 kW
operating frequency • at AC-S maximum • at AC-S maximum • at AC-S maximum • at AC-S maximum • at AC-S examinum • at AC-S	— at 500 V rated value	22 kW
15.1/h	— at 690 V rated value	30 kW
autilibry circuit number of NC contacts for auxiliary contacts number of NC contacts for auxiliary contacts number of NC contacts for auxiliary contacts product function ground fault detection or grou	operating frequency	
Auxiliary circuit number of NC contacts for auxiliary contacts 10 Protective and monitoring functions product function 9 ground fault detection No 1 phase failure detection 1	• at AC-3 maximum	15 1/h
number of NC contacts for auxiliary contacts 0 0 number of NO contacts for auxiliary contacts 0 0 Protective and monitoring functions product function Sproduct func	at AC-3e maximum	15 1/h
number of NO contacts for auxiliary contacts Product function ground fault detection product function ground fault detection No CLASS 10 maximum short-circuit current breaking capacity (Icu) at AC at 240 V rated value at AC at 420 V rated value at AC at 890 V rated value at AC or rated value at AC or rated value at 890 V rated value at 890	Auxiliary circuit	
product function	number of NC contacts for auxiliary contacts	0
product function	number of NO contacts for auxiliary contacts	0
e ground fault detection No phase failure detection No CLASS 10 maximum short-circuit current breaking capacity (Icu) e at AC at 24 OV rated value 65 kA e at AC at 4500 V rated value 10 kA e at AC at 5500 V rated value 10 kA e at AC at 5500 V rated value 10 kA e at 240 V rated value 10 kA e at 240 V rated value 10 kA e at 240 V rated value 10 kA e at 2500 V rated value 10 kA e at 5500 V rated value 10 kA e at 5500 V rated value 2 kA e at 5500 V rated value 2 kA e at 5500 V rated value 2 kA e at 5500 V rated value 30 kA e at 5500 V rated value 2 kA eresponse value current of instantaneous short-circuit trip unit 2500 A ULCSA ratings Tull-oad current (FLA) for 3-phase AC motor 2 kA e at 6500 V rated value 36 A yielded mechanical performance (hp) 6 for single-phase AC motor 6 kT 5 hp e at 2500 V rated value 7.5 hp e for 3-phase AC motor 6 kT 5 hp e for 3-phase AC motor 7 kT 5 hp e for 3-phase AC motor 9 kT 5 hp e for 3-phase AC moto	Protective and monitoring functions	
	product function	
Itrip class	 ground fault detection 	No
maximum short-circuit current breaking capacity (Icu) at AC at 240 V rated value at AC at 400 V rated value at AC at 400 V rated value at AC at 500 V rated value at AC at 500 V rated value at AC at 600 V rated value at 400 V rated value at 400 V rated value at 500 V rated value at 600 V rated value 36 A at 600 V rated value 36 A at 600 V rated value 37 A B A at 600 V rated value 38 A at 600 V rated value 38 A yiolded mechanical performance [hp] for single-phase AC motor at 1010/20 V rated value 37 A B B at 600 V rated value 38 A 48 A 4	phase failure detection	No
• at AC at 240 V rated value • at AC at 400 V rated value • at AC at 500 V rated value • at AC at 500 V rated value • at AC at 690 V rated value • at 400 V rated value • at 400 V rated value • at 400 V rated value • at 500 V rated value • at 500 V rated value • at 600 V rated value • at 200 V rated value • at 576 600 V rated value • at 400 40 V rated value • at 576 600 V rated value • at 576 600 V rated value • at 604 60 V rated value • at 604 60 V rated value • at 576 600 V rated value • at 604 60 V rated value • at 604 0 V rated value • at 605 0 V	trip class	CLASS 10
	maximum short-circuit current breaking capacity (Icu)	
	• at AC at 240 V rated value	100 kA
e at AC at 690 V rated value 4 kA	 at AC at 400 V rated value 	65 kA
operating short-circuit current breaking capacity (Ics) at AC at 1240 V rated value at 400 V rated value 5 kA at 690 V rated value 5 kA at 690 V rated value 5 kA at 690 V rated value 7 soon A at 480 V rated value 7 soon A at 690 V rated value 7 soon A at 690 V rated value 7 soon A at 690 V rated value 7 soon A at 480 V rated value 8 at 690 V rated value 9 at 690 V rated value 15 hp - at 290 V rated value 15 hp - at 290 V rated value 15 hp - at 290 V rated value 15 hp - at 460/480 V rated value 9 at 690 V rated value 9 at 400 kp 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 15 at 240 V nated value 16 none required 17 soon Nated Value 18 at 240 V nated Value 19 at 300 V nated Value 100 125 125 126 127 128 129 129 120 120 120 120 121 121 122 123 124 125 125 125 126 127 127 128 129 129 120 120 120 121 121 122 123 124 125 125 125 126 127 127 128 129 129 120 120 120 120 121 121 122 123 124 125 125 125 125 125 126 127 127 128 129 129 129 120 120 120 120 120 120 120 120 120 120	 at AC at 500 V rated value 	10 kA
	at AC at 690 V rated value	4 kA
	operating short-circuit current breaking capacity (Ics) at AC	
at 500 V rated value at 690 V rated value 2 kA response value current of instantaneous short-circuit trip unit 520 A UL/CSA ratings full-load current (FLA) for 3-phase AC motor at 480 V rated value 36 A yielded mechanical performance [hp] of or single-phase AC motor —at 110/120 V rated value 7.5 hp of 3 hpase AC motor —at 220/230 V rated value 15 hp —at 220/230 V rated value 15 hp —at 220/230 V rated value 30 hp —at 575/600 V rated value 40 hp Short-circuit protection product function short circuit protection design of the fuse link for IT network for short-circuit protection of the main circuit at 480 V at 680 V at 7.5 hp at 680 V at 7.5 hp at 680 V at 7.5 hp	 at 240 V rated value 	100 kA
e at 690 V rated value response value current of instantaneous short-circuit trip unit UL/CSA ratings full-load current (FLA) for 3-phase AC motor e at 480 V rated value 36 A yielded mechanical performance [hp] e for single-phase AC motor — at 110/120 V rated value 3 hp — at 230 V rated value 3 hp — at 230 V rated value 5 for 3-phase AC motor — at 200/208 V rated value 15 hp — at 220/230 V rated value 15 hp — at 250/500 V rated value 30 hp — at 357/500 V rated value 30 hp — at 575/600 V rated value 9 for 3-phase AC motor — at 460/480 V rated value 15 hp — at 460/480 V rated value 9 do hp Short-circuit protection product function short circuit protection design of the fuse link for IT network for short-circuit protection of the main circuit e at 240 V e at 400 V e at 690 V e at	 at 400 V rated value 	30 kA
response value current of instantaneous short-circuit trip unit UL/CSA ratings full-load current (FLA) for 3-phase AC motor at 480 V rated value at 600 V rated value of risingle-phase AC motor —at 110/120 V rated value at 230 V rated value at 230 V rated value at 220/230 V rated value at 220/230 V rated value at 220/230 V rated value at 250/360 V rated value at 575/600 V rated value at 575/600 V rated value broad trick in the first protection short-circuit protection product function short circuit protection design of the fuse link for IT network for short-circuit protection of the main circuit at 440 V at 440 V at 450 V at 630 V at 630 V at 630 V at 630 V bratellation/mounting/dimensions mounting position fastening method height full-load current (FLA) for 3-phase AC motor at 480 V at 490 mile fastening method height full-load current (FLA) for 3-phase AC motor at 480 V at 490 Mile full-load	 at 500 V rated value 	5 kA
UL/CSA ratings full-load current (FLA) for 3-phase AC motor	at 690 V rated value	2 kA
full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 600 V rated value • at 600 V rated value • for single-phase AC motor — at 110/120 V rated value • for 3-phase AC motor — at 230 V rated value • for 3-phase AC motor — at 200/208 V rated value • for 3-phase AC motor — at 220/230 V rated value — at 220/230 V rated value — at 460/480 V rated value — at 460/480 V rated value — at 475/600 V rated value — at 575/600 V rated value — by 5800 V rated value — at 575/600 V rated value product function short circuit protection generally by 6800 V rated value 40 hp Short-circuit protection product function short circuit from magnetic design of the short-circuit from the fuse link for IT network for short-circuit protection of the main circuit • at 240 V • at 400 V • at 690 V	response value current of instantaneous short-circuit trip unit	520 A
• at 480 V rated value • at 600 V rated value • at 600 V rated value • at 600 V rated value • at 600 V rated value • for single-phase AC motor	UL/CSA ratings	
■ at 600 V rated value 36 A	full-load current (FLA) for 3-phase AC motor	
yielded mechanical performance [hp] • for single-phase AC motor	 at 480 V rated value 	36 A
• for single-phase AC motor — at 110/120 V rated value 7.5 hp • for 3-phase AC motor — at 220/230 V rated value 15 hp — at 220/230 V rated value 15 hp — at 460/480 V rated value 30 hp — at 460/480 V rated value 40 hp Short-circuit protection product function short circuit protection 4 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 125 • at 500 V 100 • at 690 V 80 Installation/ mounting/ dimensions mounting position any fastening method screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 height 149 mm	at 600 V rated value	36 A
- at 110/120 V rated value	yielded mechanical performance [hp]	
- at 230 V rated value 7.5 hp • for 3-phase AC motor - at 200/208 V rated value 15 hp - at 220/230 V rated value 30 hp - at 460/480 V rated value 40 hp Short-circuit protection product function short circuit protection 4esign of the short-circuit trip 4esign of the short-circuit trip 4esign of the main circuit 4e at 240 V 4e at 400 V 125 • at 500 V 100 • at 690 V 80 Installation/ mounting/ dimensions mounting position any fastening method 55 mm depth 15 hp 16 hp 17 hp 18 hp 19 hp 10 hp	 for single-phase AC motor 	
for 3-phase AC motor — at 200/208 V rated value	— at 110/120 V rated value	3 hp
	— at 230 V rated value	7.5 hp
- at 220/230 V rated value	 for 3-phase AC motor 	
- at 460/480 V rated value 30 hp - at 575/600 V rated value 40 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 125 • at 500 V 100 • at 690 V 80 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 55 mm depth 149 mm	— at 200/208 V rated value	15 hp
- at 575/600 V rated value 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 240 V • at 400 V • at 500 V • at 690 V Installation/ mounting/ dimensions mounting position fastening method height vidth depth 40 hp Yes magnetic Yes magnetic 125 none required 125 100 80 Installation/ screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 140 mm 140 mm	— at 220/230 V rated value	15 hp
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 240 V • at 400 V • at 500 V • at 690 V Installation/ mounting/ dimensions mounting position fastening method height vidth depth 149 mm	— at 460/480 V rated value	30 hp
product function short circuit protection 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 • at 400 V • at 500 V • at 690 V Installation/ mounting/ dimensions mounting position fastening method screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 height width depth 149 mm		40 hp
design of the short-circuit trip design of the fuse link for IT network for short-circuit 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 magnetic magnetic magnetic magnetic magnetic magnetic mounterequired 125 100 80 Installation/ mounting/ dimensions any fastening method screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 140 mm 149 mm	Short-circuit protection	
design of the fuse link for IT network for short-circuit 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 55 mm depth 149 mm	product function short circuit protection	Yes
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 and none required none required 125 100 any 80 Installation/ mounting/ dimensions any fastening method screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 height 140 mm 149 mm	design of the short-circuit trip	magnetic
 at 400 V at 500 V at 690 V 80 Installation/ mounting/ dimensions mounting position fastening method height width width depth 140 mm depth 149 mm 		
 at 500 V at 690 V 80 Installation/ mounting/ dimensions mounting position fastening method height width b5 mm depth depth 140 mm 149 mm 	• at 240 V	none required
● at 690 V Installation/ mounting/ dimensions mounting position any fastening method screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 height height fastening method 140 mm width 55 mm depth 149 mm	• at 400 V	125
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 55 mm depth 149 mm	• at 500 V	100
mounting positionanyfastening methodscrew and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715height140 mmwidth55 mmdepth149 mm	• at 690 V	80
fastening methodscrew and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715height140 mmwidth55 mmdepth149 mm	Installation/ mounting/ dimensions	
height 140 mm width 55 mm depth 149 mm	mounting position	any
width 55 mm depth 149 mm	fastening method	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715
depth 149 mm	height	140 mm
<u> </u>	width	55 mm
required spacing	depth	149 mm
	required spacing	

with side-by-side mounting at the side	0 mm
• for grounded parts at 400 V	
— downwards	50 mm
— upwards	50 mm
— at the side	10 mm
• for live parts at 400 V	
— downwards	50 mm
— upwards	50 mm
— at the side	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
— backwards	0 mm
— at the side	10 mm
— forwards	0 mm
 for live parts at 690 V 	
— downwards	50 mm
— upwards	50 mm
— backwards	0 mm
— at the side	10 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	
• for main contacts	
— solid or stranded	2x (1 25 mm²), 1x (1 35 mm²)
 finely stranded with core end processing 	2x (1 16 mm²), 1x (1 25 mm²)
 for AWG cables for main contacts 	2x (18 3), 1x (18 2)
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	
for main contacts	M6
Safety related data	
proportion of dangerous failures	
 with low demand rate according to SN 31920 	50 %
with high demand rate according to SN 31920	50 %
failure rate [FIT] with low demand rate according to SN 31920	50 FIT
B10 value with high demand rate according to SN 31920	5 000
IEC 61508	
T1 value for proof test interval or service life according to IEC 61508	10 a
Electrical Safety	
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
Approvals Certificates	
General Product Approval	





Confirmation





<u>KC</u>

General Product Approval

Test Certificates

Marine / Shipping



Special Test Certificate

Type Test Certificates/Test Report







Marine / Shipping

other







Miscellaneous

Confirmation



Railway

Environment

Confirmation

EPD Typ II/III (with life cylce assessment)

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=3RV2331-4PC10

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2331-4PC10

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

https://support.industry.siemens.com/cs/ww/en/ps/3RV2331-4PC10

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

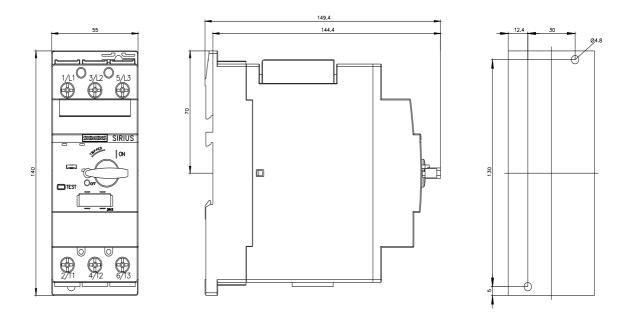
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2331-4PC10&lang=en

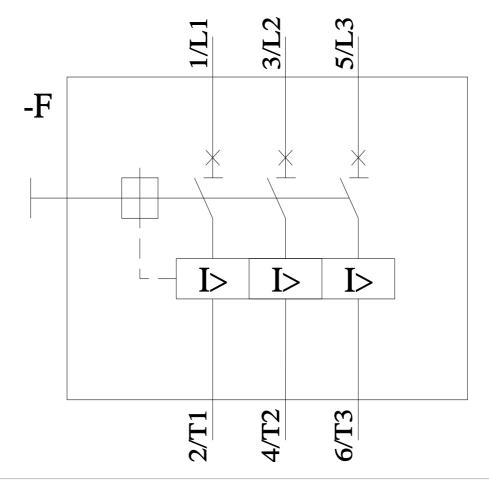
Characteristic: Tripping characteristics, I2t, Let-through current

https://support.industry.siemens.com/cs/ww/en/ps/3RV2331-4PC10/char

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

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2331-4PC10&objecttype=14&gridview=view1





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