## **SIEMENS**

Data sheet 3RV2331-4SC10



Circuit breaker size S2 for starter combination Rated current 14 A N-release 208 A screw terminal Standard switching capacity

SIRIUS product brand name product designation Circuit breaker design of the product For starter combinations 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 12.5 W 42W • at AC in hot operating state per pole 690 V insulation voltage with degree of pollution 3 at AC rated 6 kV surge voltage resistance rated value shock resistance according to IEC 60068-2-27 25g / 11 ms Sinus mechanical service life (operating cycles) 50 000 • of the main contacts typical · of auxiliary contacts typical 50 000 electrical endurance (operating cycles) typical 50 000 reference code according to IEC 81346-2 O **Substance Prohibitance (Date)** 10/15/2014 Ambient conditions installation altitude at height above sea level maximum 2 000 m 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 3 operating voltage rated value 20 ... 690 V • at AC-3 rated value maximum 690 V • at AC-3e rated value maximum 690 V 50 ... 60 Hz operating frequency rated value operational current rated value 14 A operational current • at AC-3 at 400 V rated value 14 A • at AC-3e at 400 V rated value 14 A operating power • at AC-3 3 kW — at 230 V rated value

— at 400 V rated value	5.5 kW
<ul><li>at 500 V rated value</li></ul>	7.5 kW
— at 690 V rated value	11 kW
• at AC-3e	
— at 230 V rated value	3 kW
— at 400 V rated value	5.5 kW
— at 500 V rated value	7.5 kW
— at 690 V rated value	11 kW
operating frequency	
<ul> <li>at AC-3 maximum</li> </ul>	15 1/h
<ul> <li>at AC-3e maximum</li> </ul>	15 1/h
Auxiliary circuit	
number of NC contacts for auxiliary contacts	0
number of NO 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>	No
maximum short-circuit current breaking capacity (Icu)	
at AC at 240 V rated value	100 kA
at AC at 400 V rated value	65 kA
at AC at 500 V rated value	12 kA
at AC at 690 V rated value	5 kA
	J IVI
operating short-circuit current breaking capacity (lcs) at AC	
at 240 V rated value	100 kA
at 400 V rated value	30 kA
at 500 V rated value	6 kA
<ul> <li>at 690 V rated value</li> </ul>	3 kA
response value current of instantaneous short-circuit trip	208 A
unit	
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
<ul> <li>at 480 V rated value</li> </ul>	14 A
<ul> <li>at 600 V rated value</li> </ul>	14 A
yielded mechanical performance [hp]	
for single-phase AC motor	
ior origin pridate rite initial	
— at 110/120 V rated value	1.5 hn
— at 110/120 V rated value	1.5 hp
— at 230 V rated value	1.5 hp 3 hp
<ul><li>— at 230 V rated value</li><li>• for 3-phase AC motor</li></ul>	3 hp
<ul><li>— at 230 V rated value</li><li>for 3-phase AC motor</li><li>— at 200/208 V rated value</li></ul>	3 hp 5 hp
<ul> <li>at 230 V rated value</li> <li>for 3-phase AC motor</li> <li>at 200/208 V rated value</li> <li>at 220/230 V rated value</li> </ul>	3 hp 5 hp 5 hp
<ul> <li>at 230 V rated value</li> <li>for 3-phase AC motor</li> <li>at 200/208 V rated value</li> <li>at 220/230 V rated value</li> <li>at 460/480 V rated value</li> </ul>	3 hp 5 hp 5 hp 10 hp
<ul> <li>at 230 V rated value</li> <li>for 3-phase AC motor</li> <li>at 200/208 V rated value</li> <li>at 220/230 V rated value</li> <li>at 460/480 V rated value</li> <li>at 575/600 V rated value</li> </ul>	3 hp 5 hp 5 hp
<ul> <li>at 230 V rated value</li> <li>for 3-phase AC motor</li> <li>at 200/208 V rated value</li> <li>at 220/230 V rated value</li> <li>at 460/480 V rated value</li> </ul>	3 hp 5 hp 5 hp 10 hp
<ul> <li>at 230 V rated value</li> <li>for 3-phase AC motor</li> <li>at 200/208 V rated value</li> <li>at 220/230 V rated value</li> <li>at 460/480 V rated value</li> <li>at 575/600 V rated value</li> </ul>	3 hp 5 hp 5 hp 10 hp
— at 230 V rated value  • for 3-phase AC motor  — at 200/208 V rated value  — at 220/230 V rated value  — at 460/480 V rated value  — at 575/600 V rated value  Short-circuit protection  product function short circuit protection	3 hp 5 hp 5 hp 10 hp 15 hp
— at 230 V rated value  • for 3-phase AC motor  — at 200/208 V rated value  — at 220/230 V rated value  — at 460/480 V rated value  — at 575/600 V rated value  Short-circuit protection  product function short circuit protection design of the short-circuit trip	3 hp 5 hp 5 hp 10 hp 15 hp
— at 230 V rated value  • for 3-phase AC motor  — at 200/208 V rated value  — at 220/230 V rated value  — at 460/480 V rated value  — 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	3 hp 5 hp 5 hp 10 hp 15 hp
<ul> <li>at 230 V rated value</li> <li>for 3-phase AC motor</li> <li>at 200/208 V rated value</li> <li>at 220/230 V rated value</li> <li>at 460/480 V rated value</li> <li>at 575/600 V rated value</li> <li>short-circuit protection</li> <li>product function short circuit protection</li> <li>design of the short-circuit trip</li> <li>design of the fuse link for IT network for short-circuit protection of the main circuit</li> </ul>	3 hp 5 hp 5 hp 10 hp 15 hp Yes magnetic
<ul> <li>at 230 V rated value</li> <li>for 3-phase AC motor</li> <li>at 200/208 V rated value</li> <li>at 220/230 V rated value</li> <li>at 460/480 V rated value</li> <li>at 575/600 V rated value</li> <li>Short-circuit protection</li> <li>product function short circuit protection</li> <li>design of the short-circuit trip</li> <li>design of the fuse link for IT network for short-circuit protection of the main circuit</li> <li>at 240 V</li> </ul>	3 hp 5 hp 5 hp 10 hp 15 hp Yes magnetic none required
<ul> <li>at 230 V rated value</li> <li>for 3-phase AC motor</li> <li>at 200/208 V rated value</li> <li>at 220/230 V rated value</li> <li>at 460/480 V rated value</li> <li>at 575/600 V rated value</li> <li>Short-circuit protection</li> <li>product function short circuit protection</li> <li>design of the short-circuit trip</li> <li>design of the fuse link for IT network for short-circuit protection of the main circuit</li> <li>at 240 V</li> <li>at 400 V</li> </ul>	3 hp 5 hp 5 hp 10 hp 15 hp Ves magnetic  none required 100
- at 230 V rated value  • for 3-phase AC motor  — at 200/208 V rated value  — at 220/230 V rated value  — at 460/480 V rated value  — 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	3 hp 5 hp 5 hp 10 hp 15 hp  Yes magnetic  none required 100 80
- at 230 V rated value  • for 3-phase AC motor  — at 200/208 V rated value  — at 220/230 V rated value  — at 460/480 V rated value  — 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	3 hp 5 hp 5 hp 10 hp 15 hp Ves magnetic  none required 100
- at 230 V rated value  • for 3-phase AC motor  — at 200/208 V rated value  — at 220/230 V rated value  — at 460/480 V rated value  — 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	3 hp 5 hp 5 hp 10 hp 15 hp  Yes magnetic  none required 100 80
- at 230 V rated value  • for 3-phase AC motor  — at 200/208 V rated value  — at 220/230 V rated value  — at 460/480 V rated value  — 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	3 hp 5 hp 5 hp 10 hp 15 hp  Yes magnetic  none required 100 80
- at 230 V rated value  • for 3-phase AC motor  — at 200/208 V rated value  — at 220/230 V rated value  — at 460/480 V rated value  — 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	3 hp 5 hp 5 hp 10 hp 15 hp  Yes magnetic  none required 100 80 63  any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN
- at 230 V rated value  • for 3-phase AC motor  — at 200/208 V rated value  — at 220/230 V rated value  — at 460/480 V rated value  — 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	3 hp 5 hp 5 hp 10 hp 15 hp  Yes magnetic  none required 100 80 63
- at 230 V rated value  • for 3-phase AC motor  — at 200/208 V rated value  — at 220/230 V rated value  — at 460/480 V rated value  — 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	3 hp 5 hp 5 hp 10 hp 15 hp  Yes magnetic  none required 100 80 63  any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN
- at 230 V rated value  • for 3-phase AC motor  — at 200/208 V rated value  — at 220/230 V rated value  — at 460/480 V rated value  — 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	3 hp  5 hp 5 hp 10 hp 15 hp  Yes magnetic  none required 100 80 63  any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715
- at 230 V rated value  • for 3-phase AC motor  — at 200/208 V rated value  — at 220/230 V rated value  — at 460/480 V rated value  — 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	3 hp 5 hp 5 hp 10 hp 15 hp 10 magnetic  Yes magnetic  none required 100 80 63  any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 140 mm
- at 230 V rated value  • for 3-phase AC motor  — at 200/208 V rated value  — at 220/230 V rated value  — at 460/480 V rated value  — 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 width depth	3 hp  5 hp 5 hp 10 hp 10 hp 15 hp  Yes magnetic  none required 100 80 63  any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 140 mm 55 mm
- at 230 V rated value  • for 3-phase AC motor  — at 200/208 V rated value  — at 220/230 V rated value  — at 460/480 V rated value  — 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 width depth required spacing	3 hp  5 hp 5 hp 10 hp 10 hp 15 hp  Yes magnetic  none required 100 80 63  any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 140 mm 55 mm
- at 230 V rated value  • for 3-phase AC motor  — at 200/208 V rated value  — at 220/230 V rated value  — at 460/480 V rated value  — 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 width depth	3 hp 5 hp 5 hp 10 hp 15 hp 10 magnetic  Yes magnetic  none required 100 80 63  any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 140 mm 55 mm 149 mm

— downwards	50 mm
— upwards	50 mm
— at the side	10 mm
<ul><li>for live parts at 400 V</li></ul>	
— downwards	50 mm
— upwards	50 mm
— at the side	10 mm
<ul> <li>for grounded parts at 500 V</li> </ul>	
— downwards	50 mm
— upwards	50 mm
— at the side	10 mm
<ul><li>for live parts at 500 V</li></ul>	
— downwards	50 mm
— upwards	50 mm
— at the side	10 mm
<ul> <li>for grounded parts at 690 V</li> </ul>	
— downwards	50 mm
— upwards	50 mm
— backwards	0 mm
— at the side	10 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	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	
<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)
<ul> <li>at AWG cables for main contacts</li> </ul>	2x (18 3), 1x (18 2)
tightening torque	
<ul> <li>for main contacts with screw-type terminals</li> </ul>	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	
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 %
failure rate [FIT]	
with low demand rate according to SN 31920	50 FIT
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	
•	





Confirmation



<u>KC</u>



**Declaration of Conformity** 

**Test Certificates** 

Marine / Shipping





Special Test Certificate Type Test Certificates/Test Report





Marine / Shipping

other











Confirmation

other

Railway



Vibration and Shock

Confirmation

## **Further information**

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=3RV2331-4SC10

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2331-4SC10

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

https://support.industry.siemens.com/cs/ww/en/ps/3RV2331-4SC10

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

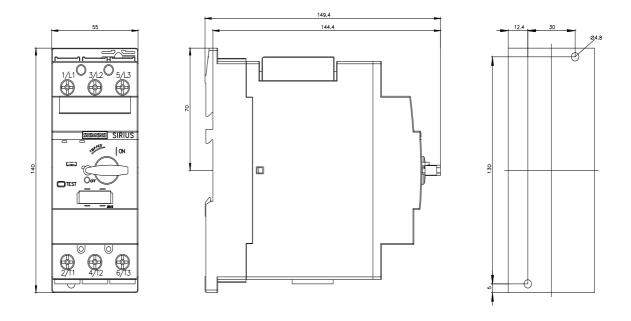
http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RV2331-4SC10&lang=en

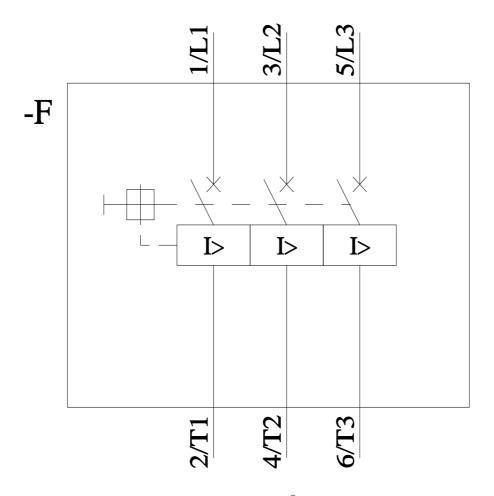
Characteristic: Tripping characteristics,  $I^2t$ , Let-through current

https://support.industry.siemens.com/cs/ww/en/ps/3RV2331-4SC10/char

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

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2331-4SC10&objecttype=14&gridview=view1





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