SIEMENS

Data sheet 3RV2331-4DC10



Circuit breaker size S2 for starter combination Rated current 25 A N-release 325 A Screw terminal Standard switching capacity

product designation design of the product product type designation General technical data size of the circuit-breaker size of contactor can be combined company-specific product extension auxiliary switch power loss [W] for rated value of the current • at AC in hot operating state per pole insulation voltage with degree of pollution 3 at AC rated value surge voltage resistance rated value surge voltage resistance rated value shock resistance according to IEC 60068-2-27 mechanical service life (switching cycles) • of the main contacts typical electrical endurance (switching cycles) typical ference code according to IEC 81346-2 Quistance Prohibitance (Date) Ambient conditions 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 7 Sey attract combinations Sex starter com	product brand name	SIRIUS
design of the product product type designation 3RV2 General technical data size of the circuit-breaker size of contactor can be combined company-specific product extension auxiliary switch power loss [W] for rated value of the current • at AC in hot operating state • at AC in hot operating state per pole insulation voltage with degree of pollution 3 at AC rated value surge voltage resistance rated value shock resistance according to IEC 60068-2-27 mechanical service life (switching cycles) • of the main contacts typical • of auxiliary contacts typical electrical endurance (switching cycles) typical reference code according to IEC 81346-2 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage • during transport relative humidity during operation Main circuit		
product type designation General technical data size of the circuit-breaker size of contactor can be combined company-specific product extension auxiliary switch power loss [W] for rated value of the current • at AC in hot operating state • at AC in hot operating state per pole insulation voltage with degree of pollution 3 at AC rated value surge voltage resistance rated value shock resistance according to IEC 60068-2-27 25g / 11 ms Sinus mechanical service life (switching cycles) • of the main contacts typical • of auxiliary contacts typical electrical endurance (switching cycles) typical reference code according to IEC 81346-2 Q Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature • during storage • during transport -50 +80 °C relative humidity during operation Main circuit		
Size of the circuit-breaker S2		
size of the circuit-breaker size of contactor can be combined company-specific product extension auxiliary switch power loss [W] for rated value of the current • at AC in hot operating state		0.112
size of contactor can be combined company-specific product extension auxiliary switch power loss [W] for rated value of the current • at AC in hot operating state 14.5 W • at AC in hot operating state per pole 4.8 W insulation voltage with degree of pollution 3 at AC rated value surge voltage resistance rated value 6 kV shock resistance according to IEC 60068-2-27 25g / 11 ms Sinus mechanical service life (switching cycles) • of the main contacts typical 50 000 • of auxiliary contacts typical 50 000 electrical endurance (switching cycles) typical 50 000 reference code according to IEC 81346-2 Q Substance Prohibitance (Date) 10/15/2014 Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation -20 +60 °C • during transport -50 +80 °C relative humidity during operation 10 95 % Main circuit		\$2
product extension auxiliary switch power loss [W] for rated value of the current • at AC in hot operating state • at AC in hot operating state per pole insulation voltage with degree of pollution 3 at AC rated value surge voltage resistance rated value shock resistance according to IEC 60068-2-27 mechanical service life (switching cycles) • of the main contacts typical • of auxiliary contacts typical electrical endurance (switching cycles) typical reference code according to IEC 81346-2 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage • during transport relative humidity during operation Main circuit		
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at AC in hot operating state at AC in hot operating state per pole insulation voltage with degree of pollution 3 at AC rated value surge voltage resistance rated value shock resistance according to IEC 60068-2-27 mechanical service life (switching cycles) of the main contacts typical of auxiliary contacts typical electrical endurance (switching cycles) typical reference code according to IEC 81346-2 Quue Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature during operation during storage during transport relative humidity during operation Main circuit 4.8 W 4.8 W 690 V 4.8 W 6 kV 50 000 6	<u> </u>	100
at AC in hot operating state per pole insulation voltage with degree of pollution 3 at AC rated value surge voltage resistance rated value 6 kV shock resistance according to IEC 60068-2-27 25g / 11 ms Sinus mechanical service life (switching cycles) of the main contacts typical 50 000 electrical endurance (switching cycles) typical 50 000 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 oldering storage -50 +80 °C eluring transport -50 +80 °C relative humidity during operation 10 95 % Main circuit		14 5 W
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mechanical service life (switching cycles) • of the main contacts typical • of auxiliary contacts typical electrical endurance (switching cycles) typical reference code according to IEC 81346-2 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage • during transport -50 +80 °C relative humidity during operation 10 95 % Main circuit	surge voltage resistance rated value	6 kV
 of the main contacts typical of auxiliary contacts typical fo 000 electrical endurance (switching cycles) typical fo 000 reference code according to IEC 81346-2 Substance Prohibitance (Date) I0/15/2014 Ambient conditions installation altitude at height above sea level maximum ambient temperature during operation during storage during transport fo +80 °C during transport fo +80 °C relative humidity during operation fo +80 °C <li< th=""><th>shock resistance according to IEC 60068-2-27</th><th>25g / 11 ms Sinus</th></li<>	shock resistance according to IEC 60068-2-27	25g / 11 ms Sinus
of auxiliary contacts typical electrical endurance (switching cycles) typical reference code according to IEC 81346-2 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature o during operation during storage during transport relative humidity during operation 50 000 10/15/2014 Available 10/15/2014 2000 m -20 +60 °C -50 +80 °C -50 +80 °C 10 95 % Main circuit	mechanical service life (switching cycles)	
electrical endurance (switching cycles) typical reference code according to IEC 81346-2 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage • during transport relative humidity during operation Main circuit	of the main contacts typical	50 000
reference code according to IEC 81346-2 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage • during transport relative humidity during operation Main circuit	of auxiliary contacts typical	50 000
Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage • during transport relative humidity during operation 10/15/2014 2 000 m -20 +60 °C -50 +80 °C -50 +80 °C 10 95 %	electrical endurance (switching cycles) typical	50 000
Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage • during transport -50 +80 °C relative humidity during operation 2 000 m -20 +60 °C -50 +80 °C 10 95 %	reference code according to IEC 81346-2	Q
installation altitude at height above sea level maximum ambient temperature • during operation • during storage • during transport relative humidity during operation 2 000 m -20 +60 °C -50 +80 °C 10 95 % Main circuit	Substance Prohibitance (Date)	10/15/2014
ambient temperature • during operation • during storage • during transport -50 +80 °C • during transport -50 +80 °C relative humidity during operation 10 95 %	Ambient conditions	
 during operation during storage during transport telative humidity during operation -20 +60 °C -50 +80 °C 10 95 % Main circuit	installation altitude at height above sea level maximum	2 000 m
● during storage −50 +80 °C ● during transport −50 +80 °C relative humidity during operation 10 95 % Main circuit	ambient temperature	
● during transport -50 +80 °C relative humidity during operation 10 95 % Main circuit	during operation	-20 +60 °C
relative humidity during operation 10 95 % Main circuit	during storage	-50 +80 °C
Main circuit	during transport	-50 +80 °C
	relative humidity during operation	10 95 %
number of poles for main current circuit 3	Main circuit	
	number of poles for main current circuit	3
operating voltage	operating voltage	
• rated value 20 690 V	rated value	20 690 V
• at AC-3 rated value maximum 690 V	 at AC-3 rated value maximum 	690 V
• at AC-3e rated value maximum 690 V	at AC-3e rated value maximum	690 V
operating frequency rated value 50 60 Hz	operating frequency rated value	50 60 Hz
operational current rated value 25 A	operational current rated value	25 A
operational current	operational current	
• at AC-3 at 400 V rated value 25 A	• at AC-3 at 400 V rated value	25 A
• at AC-3e at 400 V rated value 25 A	• at AC-3e at 400 V rated value	25 A

	_
operating power	
• at AC-3	
— at 230 V rated value	5.5 kW
— at 400 V rated value	11 kW
— at 500 V rated value	15 kW
— at 690 V rated value	22 kW
• at AC-3e	
— at 230 V rated value	5.5 kW
— at 400 V rated value	11 kW
— at 500 V rated value	15 kW
— at 690 V rated value	22 kW
operating frequency	
 at AC-3 maximum 	15 1/h
 at AC-3e maximum 	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	
ground fault detection	No
phase failure detection	No
breaking capacity maximum short-circuit current (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
breaking capacity operating short-circuit current (Ics)	O IVA
at AC	
at 240 V rated value	100 kA
at 400 V rated value	30 kA
at 500 V rated value	6 kA
at 690 V rated value	3 kA
response value current of instantaneous short-circuit trip	325 A
unit	
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
 at 480 V rated value 	25 A
at 600 V rated value	25 A
yielded mechanical performance [hp]	
 for single-phase AC motor 	
 — at 110/120 V rated value 	2 hp
— at 230 V rated value	5 hp
 for 3-phase AC motor 	
 at 200/208 V rated value 	7.5 hp
 at 220/230 V rated value 	10 hp
 at 460/480 V rated value 	20 hp
— at 575/600 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 240 V	none required
• at 400 V	100
• at 500 V	80
• at 690 V	63
Installation/ mounting/ dimensions	
mounting position	any
fastening method	screw and snap-on mounting onto 35 mm standard mounting rail
	according to DIN EN 60715

height	140 mm
width	55 mm
depth	149 mm
required spacing	140 11111
• for grounded parts at 400 V	
— downwards	50 mm
— upwards	50 mm
— at the side	10 mm
	10 111111
• for live parts at 400 V	50 mm
— downwards — 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)
at 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	
_	M6
• for main contacts	M6
for main contacts Safety related data	M6
for main contacts Safety related data B10 value	
for main contacts Safety related data B10 value with high demand rate according to SN 31920	5 000
for main contacts Safety related data B10 value with high demand rate according to SN 31920 proportion of dangerous failures	5 000
for main contacts Safety related data B10 value with high demand rate according to SN 31920 proportion of dangerous failures with low demand rate according to SN 31920	5 000 50 %
for main contacts Safety related data B10 value with high demand rate according to SN 31920 proportion of dangerous failures with low demand rate according to SN 31920 with high demand rate according to SN 31920	5 000
for main contacts Safety related data B10 value with high demand rate according to SN 31920 proportion of dangerous failures with low demand rate according to SN 31920 with high demand rate according to SN 31920 failure rate [FIT]	5 000 50 % 50 %
for main contacts Safety related data B10 value with high demand rate according to SN 31920 proportion of dangerous failures with low demand rate according to SN 31920 with high demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920	5 000 50 % 50 % 50 FIT
for main contacts Safety related data B10 value with high demand rate according to SN 31920 proportion of dangerous failures with low demand rate according to SN 31920 with high demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 T1 value for proof test interval or service life according to	5 000 50 % 50 %
for main contacts Safety related data B10 value with high demand rate according to SN 31920 proportion of dangerous failures with low demand rate according to SN 31920 with high demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 T1 value for proof test interval or service life according to IEC 61508 protection class IP on the front according to IEC	5 000 50 % 50 % 50 FIT
for main contacts Safety related data B10 value with high demand rate according to SN 31920 proportion of dangerous failures with low demand rate according to SN 31920 with high demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 T1 value for proof test interval or service life according to IEC 61508	5 000 50 % 50 % 50 FIT 10 y

Handle

Certificates/ approvals

General Product Approval



Confirmation





<u>KC</u>



Declaration of Conformity

Test Certificates

Marine / Shipping





Type Test Certificates/Test Report

Special Test Certificate





Marine / Shipping











Confirmation

other

other

Railway



Vibration and Shock

Confirmation

Further information

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=3RV2331-4DC10

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2331-4DC10

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

https://support.industry.siemens.com/cs/ww/en/ps/3RV2331-4DC10

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

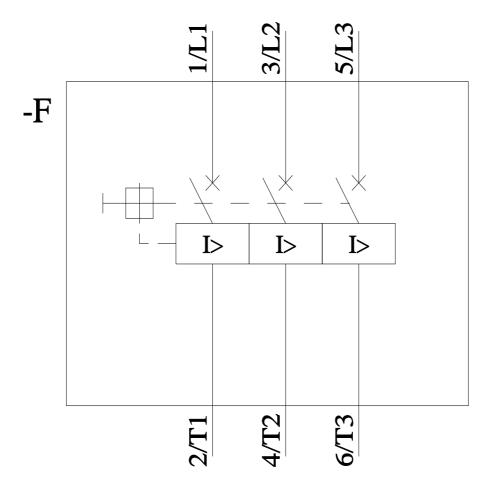
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2331-4DC10&lang=en

Characteristic: Tripping characteristics, I2t, Let-through current

https://support.industry.siemens.com/cs/ww/en/ps/3RV2331-4DC10/char

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

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2331-4DC10&objecttype=14&gridview=view1



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