SIEMENS

Data sheet 3RV2341-4RC10

Circuit breaker size S3 for starter combination Rated current 84 A N-release 1170 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	S3
Size of contactor can be combined company-specific	S3
Product extension	
Auxiliary switch	Yes
Power loss [W] for rated value of the current	
 at AC in hot operating state 	34 W
• at AC in hot operating state per pole	11.3 W
Insulation voltage with degree of pollution 3 at AC rated value	1 000 V
Surge voltage resistance rated value	8 kV
maximum permissible voltage for safe isolation	
 in networks with grounded star point between main and auxiliary circuit 	400 V

 in networks with grounded star point between main and auxiliary circuit 	400 V
Protection class IP	
• on the front	IP20
of the terminal	IP00
Shock resistance	
• acc. to IEC 60068-2-27	25g / 11 ms Sinus
Mechanical service life (switching cycles)	
 of the main contacts typical 	25 000
 of auxiliary contacts typical 	25 000
Electrical endurance (switching cycles)	
• typical	25 000
Reference code acc. to DIN EN 81346-2	Q
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	690 V
at AC-3 rated value maximum	690 V
Operating frequency rated value	50 60 Hz
Operating current rated value	84 A
Operating current	
• at AC-3	
— at 400 V rated value	84 A
Operating power	
• at AC-3	00.000.00
— at 230 V rated value	22 000 W
— at 400 V rated value	45 000 W
— at 500 V rated value	55 000 W
— at 690 V rated value	75 000 W
Operating frequency	
• at AC-3 maximum	15 1/h
Protective and monitoring functions Product function	

Phase failure detection Operational short-circuit current breaking capacity (cs) at AC	 Ground fault detection 	No
(ics) at AC	Phase failure detection	No
at 400 V rated value at 500 V rated value at 690 V rated value at 690 V rated value at 690 V rated value at 600 V rated value at AC at 240 V rated value at AC at 240 V rated value at AC at 400 V rated value at AC at 500 V rated value at AC at 600 V rated value at 200 V rated value at 600 V rated value at 600 V rated value at 600 V rated value at 7.5 hp at 230 V rated value at 200 V rated value at 575 hp at 220 V rated value at 200 V rated value at 575 hp at 220 V rated value at 575 hp at 250 V rated value at 60 hp at 575 hp at 57		
• at 500 V rated value	• at 240 V rated value	100 000 A
• at 690 V rated value 3 000 A Maximum short-circuit current breaking capacity (icu) • at AC at 240 V rated value 65 kA • at AC at 400 V rated value 55 kA • at AC at 490 V rated value 5 kA • at AC at 690 V rated value 5 kA Response value current • of instantaneous short-circuit trip unit 170 A UL/CSA ratings Full-load current (FLA) for three-phase AC motor • at 480 V rated value 84 A * rated 600 V rated value 84 A * relided mechanical performance [hp] • for single-phase AC motor — at 110/120 V rated value 7.5 hp — at 230 V rated value 15 hp • for three-phase AC motor — at 200/208 V rated value 25 hp — at 220/230 V rated value 30 hp — at 460/480 V rated value 60 hp — at 575/600 V rated value 75 hp Short-circuit protection Product function Short circuit protection Yes Design of the short-circuit trip magnetic Installation/ mounting/ dimensions Mounting position any Mounting position 165 mm Width 70 mm Required spacing • for grounded parts at 400 V	• at 400 V rated value	30 000 A
Maximum short-circuit current breaking capacity (icu) • at AC at 240 V rated value	• at 500 V rated value	4 000 A
• at AC at 240 V rated value • at AC at 400 V rated value • at AC at 500 V rated value • at AC at 690 V rated value • at AC at 690 V rated value • of instantaneous short-circuit trip unit • of instantaneous short-circuit trip unit UL/CSA ratings Full-load current (FLA) for three-phase AC motor • at 480 V rated value • at 600 V rated value • at 600 V rated value • at 600 V rated value - at 100/120 V rated value - at 230 V rated value • for three-phase AC motor - at 110/120 V rated value • for three-phase AC motor - at 200/208 V rated value • for three-phase AC motor - at 200/208 V rated value • for three-phase AC motor - at 200/208 V rated value • for three-phase AC motor - at 200/208 V rated value • for three-phase AC motor - at 575/600 V rated value - at 600 hp - at 575/600 V rated value - both product function Short circuit protection Product function Short circuit fro Design of the short-circuit fro screw and snap-on mounting onto 35 mm standard mounting rall according to DIN EN 60715 Height 176 mm Required spacing • for grounded parts at 400 V	• at 690 V rated value	3 000 A
• at AC at 400 V rated value • at AC at 500 V rated value • at AC at 890 V rated value • at AC at 890 V rated value • of instantaneous short-circuit trip unit • of stantaneous short-circuit short-circuit trip unit • of stantaneous short-circuit short-c	Maximum short-circuit current breaking capacity (Icu)	
at AC at 500 V rated value at AC at 500 V rated value 5 kA Response value current of instantaneous short-circuit trip unit 1 170 A UL/CSA ratings Full-load current (FLA) for three-phase AC motor at 480 V rated value 84 A at 600 V rated value 84 A Vielded mechanical performance [hp] of or single-phase AC motor — at 110/120 V rated value 7.5 hp — at 230 V rated value of or three-phase AC motor — at 200/208 V rated value 5 hp — at 220/230 V rated value — at 220/230 V rated value — at 460/480 V rated value — at 575/600 V rated value — at 575/600 V rated value — at 575/600 V rated value To hp Product function Short circuit protection Design of the short-circuit trip magnetic Installation/ mounting/ dimensions Mounting type screw and snap-on mounting onto 35 mm standard mounting rall according to DIN EN 60715 Height 165 mm Width 70 mm Required spacing of togrounded parts at 400 V	• at AC at 240 V rated value	100 kA
at AC at 690 V rated value Fesponse value current of instantaneous short-circuit trip unit 1 170 A UL/CSA ratings Full-load current (FLA) for three-phase AC motor at 480 V rated value at 600 V rated value bf ac 600 V rated value at 600 V rated value for single-phase AC motor at 230 V rated value at 230 V rated value at 200/208 V rated value for three-phase AC motor at 200/208 V rated value at 200/208 V rated value at 200/208 V rated value bf ac 25 hp at 200/208 V rated value at 460/480 V rated value at 575/600 V rated value bf br short-circuit protection Product function Short circuit protection Product function Short circuit trip magnetic Installation/ mounting/ dimensions Mounting type screw and snap-on mounting onto 35 mm standard mounting rall according to DIN EN 60715 Height for grounded parts at 400 V	• at AC at 400 V rated value	65 kA
Response value current of instantaneous short-circuit trip unit 1 170 A UL/CSA ratings Full-load current (FLA) for three-phase AC motor of at 480 V rated value of at 600 V rated value of single-phase AC motor of at 110/120 V rated value of three-phase AC motor	• at AC at 500 V rated value	8 kA
of instantaneous short-circuit trip unit UL/CSA ratings Full-load current (FLA) for three-phase AC motor at 480 V rated value at 600 V rated value st 4 A Yielded mechanical performance [hp] for single-phase AC motor	• at AC at 690 V rated value	5 kA
Full-load current (FLA) for three-phase AC motor • at 480 V rated value • at 600 V rated value 84 A Yielded mechanical performance [hp] • for single-phase AC motor — at 110/120 V rated value 7.5 hp — at 230 V rated value 15 hp • for three-phase AC motor — at 200/208 V rated value 25 hp — at 220/230 V rated value 30 hp — at 460/480 V rated value — at 575/600 V rated value 75 hp Short-circuit protection Product function Short circuit protection Perduct function Short circuit trip magnetic Installation/ mounting/ dimensions Mounting type screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 Height Vidth 70 mm Depth Required spacing • for grounded parts at 400 V	Response value current	
Full-load current (FLA) for three-phase AC motor • at 480 V rated value • at 600 V rated value 84 A Yielded mechanical performance [hp] • for single-phase AC motor — at 110/120 V rated value 7.5 hp • for three-phase AC motor — at 220 V rated value • for three-phase AC motor — at 220/230 V rated value 25 hp — at 220/230 V rated value 30 hp — at 460/480 V rated value — at 575/600 V rated value — at 575/600 V rated value To hp Short-circuit protection Product function Short circuit protection Product function Short circuit trip magnetic Installation/ mounting/ dimensions Mounting type screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 Height 165 mm Width 70 mm Depth Required spacing • for grounded parts at 400 V	 of instantaneous short-circuit trip unit 	1 170 A
Full-load current (FLA) for three-phase AC motor • at 480 V rated value • at 600 V rated value 84 A Yielded mechanical performance [hp] • for single-phase AC motor — at 110/120 V rated value 7.5 hp • for three-phase AC motor — at 220 V rated value • for three-phase AC motor — at 220/230 V rated value 25 hp — at 220/230 V rated value 30 hp — at 460/480 V rated value — at 575/600 V rated value — at 575/600 V rated value To hp Short-circuit protection Product function Short circuit protection Product function Short circuit trip magnetic Installation/ mounting/ dimensions Mounting type screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 Height 165 mm Width 70 mm Depth Required spacing • for grounded parts at 400 V	UL/CSA ratings	
at 600 V rated value Yielded mechanical performance [hp] for single-phase AC motor — at 110/120 V rated value — at 230 V rated value • for single-phase AC motor — at 200/208 V rated value • for three-phase AC motor — at 220/230 V rated value — at 220/230 V rated value — at 460/480 V rated value — at 575/600 V rated value — at 575/600 V rated value — by the foliable of the short-circuit protection Product function Short circuit protection Product function Short circuit trip Installation/ mounting/ dimensions Mounting position Mounting type screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 Height Height 165 mm Width 70 mm Depth Required spacing • for grounded parts at 400 V		
Yielded mechanical performance [hp] • for single-phase AC motor — at 110/120 V rated value — at 230 V rated value 15 hp • for three-phase AC motor — at 200/208 V rated value — at 220/230 V rated value — at 460/480 V rated value — at 4575/600 V rated value — at 575/600 V rated value — to 575/600 V rated value — at 575/600 V rated value — at 575/600 V rated value Product function Short circuit protection Product function Short circuit trip Installation/ mounting/ dimensions Mounting position Mounting type screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 Height Height 165 mm Width 70 mm Depth Required spacing • for grounded parts at 400 V	• at 480 V rated value	84 A
for single-phase AC motor — at 110/120 V rated value — at 230 V rated value — at 230 V rated value • for three-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 — at 575/600 V rated value — by the short-circuit protection Product function Short circuit protection Product function Short circuit trip Design of the short-circuit trip magnetic Installation/ mounting/ dimensions Mounting type screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 Height Height 165 mm Width 70 mm Required spacing • for grounded parts at 400 V	• at 600 V rated value	84 A
- at 110/120 V rated value 7.5 hp - at 230 V rated value 15 hp • for three-phase AC motor - at 200/208 V rated value 25 hp - at 220/230 V rated value 30 hp - at 460/480 V rated value 60 hp - at 575/600 V rated value 75 hp Short-circuit protection Product function Short circuit protection Yes Design of the short-circuit trip magnetic Installation/ mounting/ dimensions Mounting position any Mounting type screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 Height 165 mm Width 70 mm Required spacing • for grounded parts at 400 V	Yielded mechanical performance [hp]	
- at 230 V rated value • for three-phase AC motor — at 200/208 V rated value — at 220/230 V rated value 30 hp — at 460/480 V rated value — at 575/600 V rated value 75 hp Short-circuit protection Product function Short circuit protection Pesign of the short-circuit trip Installation/ mounting/ dimensions Mounting position Mounting type screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 Height Width 70 mm Depth Required spacing • for grounded parts at 400 V	• for single-phase AC motor	
 • for three-phase AC motor — at 200/208 V rated value — at 220/230 V rated value — at 460/480 V rated value — at 460/480 V rated value — at 575/600 V rated value — at 575/600 V rated value — To hp — at 575/600 V rated value — To hp —	— at 110/120 V rated value	7.5 hp
- at 200/208 V rated value - at 220/230 V rated value 30 hp - at 460/480 V rated value 60 hp - at 575/600 V rated value 75 hp Short-circuit protection Product function Short circuit protection Pesign of the short-circuit trip magnetic Installation/ mounting/ dimensions Mounting position any Mounting type screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 Height 165 mm Width 70 mm Depth Required spacing ● for grounded parts at 400 V	— at 230 V rated value	15 hp
- at 220/230 V rated value - at 460/480 V rated value 60 hp - at 575/600 V rated value 75 hp Short-circuit protection Product function Short circuit protection Design of the short-circuit trip magnetic Installation/ mounting/ dimensions Mounting position any Mounting type screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 Height 165 mm Width 70 mm Depth 176 mm Required spacing ● for grounded parts at 400 V	• for three-phase AC motor	
— at 460/480 V rated value 60 hp — at 575/600 V rated value 75 hp Short-circuit protection Product function Short circuit protection Design of the short-circuit trip magnetic Installation/ mounting/ dimensions Mounting position any Mounting type screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 Height 165 mm Width 70 mm Depth Required spacing ● for grounded parts at 400 V	— at 200/208 V rated value	25 hp
— at 575/600 V rated value The product function protection	— at 220/230 V rated value	30 hp
Short-circuit protection Product function Short circuit protection Design of the short-circuit trip Installation/ mounting/ dimensions Mounting position Mounting type screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 Height 165 mm Width 70 mm Depth 176 mm Required spacing • for grounded parts at 400 V	— at 460/480 V rated value	60 hp
Product function Short circuit protection Design of the short-circuit trip Installation/ mounting/ dimensions Mounting position Mounting type screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 Height 165 mm Width 70 mm Depth Required spacing ● for grounded parts at 400 V	— at 575/600 V rated value	75 hp
Design of the short-circuit trip magnetic Installation/ mounting/ dimensions any Mounting position any Mounting type screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 Height 165 mm Width 70 mm Depth 176 mm Required spacing • for grounded parts at 400 V	Short-circuit protection	
Installation/ mounting/ dimensions Mounting position Mounting type screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 Height 165 mm Width 70 mm Depth 176 mm Required spacing • for grounded parts at 400 V	Product function Short circuit protection	Yes
Mounting position any Mounting type screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 Height 165 mm Width 70 mm Depth 176 mm Required spacing • for grounded parts at 400 V	Design of the short-circuit trip	magnetic
Mounting type screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 Height 165 mm Width 70 mm Depth 176 mm Required spacing • for grounded parts at 400 V	Installation/ mounting/ dimensions	
Height 165 mm Width 70 mm Depth 176 mm Required spacing • for grounded parts at 400 V	Mounting position	any
Width 70 mm Depth 176 mm Required spacing • for grounded parts at 400 V	Mounting type	· · · · · · · · · · · · · · · · · · ·
Depth 176 mm Required spacing ● for grounded parts at 400 V	Height	165 mm
Required spacing • for grounded parts at 400 V		
● for grounded parts at 400 V		176 mm
	• • •	
— downwards 70 mm		
	— downwards	/0 mm

— upwards	70 mm
— Backwards	0 mm
— at the side	10 mm
— forwards	0 mm
• for live parts at 400 V	
— downwards	70 mm
— upwards	70 mm
— Backwards	0 mm
— at the side	10 mm
— forwards	0 mm
• for grounded parts at 500 V	
— downwards	110 mm
— upwards	110 mm
— Backwards	0 mm
— at the side	10 mm
— forwards	0 mm
• for live parts at 500 V	
— downwards	110 mm
— upwards	110 mm
— Backwards	0 mm
— at the side	10 mm
— forwards	0 mm
 for grounded parts at 690 V 	
— downwards	150 mm
— upwards	150 mm
— Backwards	0 mm
— at the side	30 mm
— forwards	0 mm
• for live parts at 690 V	
— downwards	150 mm
— upwards	150 mm
— Backwards	0 mm
— at the side	30 mm
nnections/ Terminals	
roduct function	
 removable terminal for auxiliary and control 	No

Connections/ Terminals	
Product function	
 removable terminal for auxiliary and control circuit 	No
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	2x (2.5 16 mm²)
— single or multi-stranded	2x (2,5 50 mm²), 1x (10 70 mm²)
— finely stranded with core end processing	2x (2.5 35 mm²), 1x (2.5 50 mm²)
 finely stranded without core end 	2x (10 35 mm²), 1x (10 50 mm²)
processing	
Tightening torque	
 for main contacts for ring cable lug 	4.5 6 N·m
Outer diameter of the usable ring cable lug maximum	19 mm
Tightening torque	
• for main contacts with screw-type terminals	4.5 6 N·m

Safety related data	
B10 value	
 with high demand rate acc. to SN 31920 	5 000
Proportion of dangerous failures	
 with low demand rate acc. to SN 31920 	50 %
 with high demand rate acc. to SN 31920 	50 %
T1 value for proof test interval or service life acc. to	10 y
IEC 61508	
Display version	
• for switching status	Handle

Certificates/ approvals

General Product Approval

Declaration of Conformity







KC





Declaration	of
Conformity	

Test Certificates

Marine / Shipping

Miscellaneous

Special Test Certificate

Type Test Certificates/Test Report







Marine / Shipping

other

Railway







Confirmation



Vibration and Shock

Railway

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=3RV2341-4RC10

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2341-4RC10

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

https://support.industry.siemens.com/cs/ww/en/ps/3RV2341-4RC10

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2341-4RC10&lang=en

Characteristic: Tripping characteristics, I2t, Let-through current

https://support.industry.siemens.com/cs/ww/en/ps/3RV2341-4RC10/char

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

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2341-4RC10&objecttype=14&gridview=view1







