## **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	
<ul> <li>at AC in hot operating state</li> </ul>	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
shock resistance according to IEC 60068-2-27	25g / 11 ms Sinus
mechanical service life (operating cycles)	
<ul> <li>of the main contacts typical</li> </ul>	25 000
of auxiliary contacts typical	25 000
electrical endurance (operating cycles) typical	25 000
reference code according to IEC 81346-2	Q
Substance Prohibitance (Date)	03/01/2017
SVHC substance name	Lead - 7439-92-1
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
<ul> <li>during operation</li> </ul>	-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	84 A
operational current	

<ul> <li>at AC-3 at 400 V rated value</li> </ul>	84 A
at AC-3e at 400 V rated value	84 A
operating power	
• at AC-3	
— at 230 V rated value	22 kW
— at 400 V rated value	45 kW
— at 500 V rated value	55 kW
— at 690 V rated value	75 kW
• at AC-3e	
— at 230 V rated value	22 kW
— at 400 V rated value	45 kW
— at 500 V rated value	55 kW
— at 690 V rated value	75 kW
operating frequency	
• at AC-3 maximum	15 1/h
at AC-3e maximum	15 1/h
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	65 kA
at AC at 500 V rated value	8 kA
at AC at 690 V rated value	5 kA
operating short-circuit current breaking capacity (Ics) at AC	
at 240 V rated value	100 kA
at 400 V rated value	30 kA
at 500 V rated value     at 500 V rated value	4 kA
at 690 V rated value     at 690 V rated value	3 kA
response value current of instantaneous short-circuit trip unit	1 170 A
	111071
UL/CSA ratings	
UL/CSA ratings full-load current (FLA) for 3-phase AC motor	
UL/CSA ratings  full-load current (FLA) for 3-phase AC motor  ● at 480 V rated value	84 A
UL/CSA ratings  full-load current (FLA) for 3-phase AC motor  • at 480 V rated value  • at 600 V rated value	
UL/CSA ratings  full-load current (FLA) for 3-phase AC motor  • at 480 V rated value  • at 600 V rated value  yielded mechanical performance [hp]	84 A
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full-load current (FLA) for 3-phase AC motor  • at 480 V rated value  • 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 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  Installation/ mounting/ dimensions  mounting position  fastening method  height	84 A 84 A 7.5 hp 15 hp 25 hp 30 hp 60 hp 75 hp  Yes magnetic  any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 165 mm
full-load current (FLA) for 3-phase AC motor  • at 480 V rated value  • 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 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  Installation/ mounting/ dimensions  mounting position  fastening method  height  width	84 A 84 A 7.5 hp 15 hp 25 hp 30 hp 60 hp 75 hp  Yes magnetic  any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715
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full-load current (FLA) for 3-phase AC motor  • at 480 V rated value  • 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 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 Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing	84 A 84 A 7.5 hp 15 hp 25 hp 30 hp 60 hp 75 hp  Yes magnetic  any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 165 mm 70 mm 176 mm
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full-load current (FLA) for 3-phase AC motor  • at 480 V rated value  • at 600 V rated value  yielded mechanical performance [hp]  • for single-phase AC motor  — at 110/120 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 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  Installation/ mounting/ dimensions  mounting position  fastening method  height  width  depth  required spacing  • with side-by-side mounting at the side  • for grounded parts at 400 V	84 A 84 A 7.5 hp 15 hp 25 hp 30 hp 60 hp 75 hp  Yes magnetic  any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 165 mm 70 mm 176 mm 0 mm
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full-load current (FLA) for 3-phase AC motor  • at 480 V rated value  • 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 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 Installation/ mounting/ dimensions  mounting position fastening method height width depth  required spacing  • with side-by-side mounting at the side • for grounded parts at 400 V  — downwards — upwards	84 A 84 A 7.5 hp 15 hp 25 hp 30 hp 60 hp 75 hp  Yes magnetic  any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 165 mm 70 mm 176 mm 0 mm 70 mm 70 mm

— downwards	70 mm
— upwards	70 mm
— at the side	10 mm
<ul> <li>for grounded parts at 500 V</li> </ul>	
— downwards	110 mm
— upwards	110 mm
— at the side	10 mm
• for live parts at 500 V	
— downwards	110 mm
— upwards	110 mm
— at the side	10 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
— forwards	0 mm
Connections/ Terminals	
type of electrical connection	
for main current circuit	screw-type terminals
arrangement of electrical connectors for main current	Top and bottom
circuit	
type of connectable conductor cross-sections	
<ul> <li>for main contacts</li> </ul>	
— solid	2x (2.5 16 mm²)
<ul> <li>solid or stranded</li> </ul>	2x (2,5 50 mm²), 1x (10 70 mm²)
<ul> <li>finely stranded with core end processing</li> </ul>	2x (2.5 35 mm²), 1x (2.5 50 mm²)
<ul> <li>finely stranded without core end processing</li> </ul>	2x (10 35 mm²), 1x (10 50 mm²)
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	
<ul> <li>for main contacts with screw-type terminals</li> </ul>	4.5 6 N·m
Safety related data	
product function suitable for safety function	Yes
suitability for use	
<ul> <li>safety-related switching on</li> </ul>	No
<ul> <li>safety-related switching OFF</li> </ul>	Yes
service life maximum	10 a
test wear-related service life necessary	Yes
proportion of dangerous failures	
<ul> <li>with low demand rate according to SN 31920</li> </ul>	40 %
<ul> <li>with high demand rate according to SN 31920</li> </ul>	50 %
B10 value with high demand rate according to SN 31920	5 000
failure rate [FIT] with low demand rate according to SN	50 FIT
31920	
ISO 13849	2
device type according to ISO 13849-1	3 Voc
overdimensioning according to ISO 13849-2 necessary	Yes
IEC 61508	Time A
safety device type according to IEC 61508-2	Type A
T1 value	40.0
<ul> <li>for proof test interval or service life according to IEC 61508</li> </ul>	10 a
Electrical Safety	

protection class IP on the front according to IEC 60529

touch protection on the front according to IEC 60529

finger-safe, for vertical contact from the front

Display

display version for switching status

Handle

Approvals Certificates

## General Product Approval





Confirmation





<u>KC</u>

General Product Approval

**Test Certificates** 

Marine / Shipping



Type Test Certificates/Test Report

Special Test Certificate







Marine / Shipping

other







**Miscellaneous** 

Confirmation



Railway

Environment

Special Test Certificate Confirmation



Siemens EcoTech



Environmental Confirmations

## **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=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, ...)

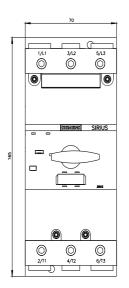
 $\underline{\text{http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RV2341-4RC10\&lang=en}$ 

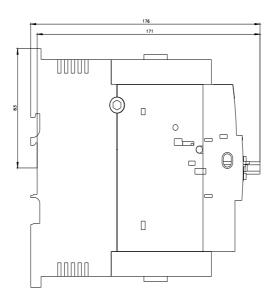
Characteristic: Tripping characteristics, I²t, Let-through current

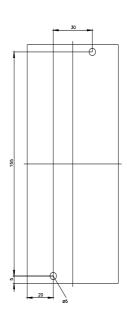
https://support.industry.siemens.com/cs/ww/en/ps/3RV2341-4RC10/char

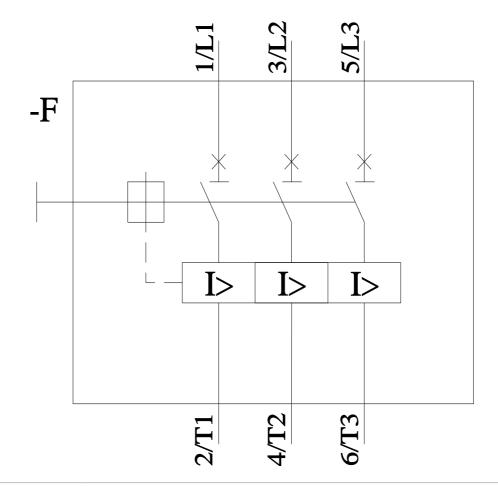
Further characteristics (e.g. electrical endurance, switching frequency)

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









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