

Siemens  
EcoTech



Circuit breaker size S3 for starter combination Rated current 40 A N-release 520 A screw terminal Standard switching capacity



<b>product brand name</b>	SIRIUS
<b>product designation</b>	Circuit breaker
<b>design of the product</b>	For starter combinations
<b>product type designation</b>	3RV2
<b>General technical data</b>	
<b>size of the circuit-breaker</b>	S3
<b>size of contactor can be combined company-specific</b>	S3
product extension auxiliary switch	Yes
<b>power loss [W] for rated value of the current</b>	
• at AC in hot operating state	23 W
• at AC in hot operating state per pole	7.7 W
insulation voltage with degree of pollution 3 at AC rated value	1 000 V
<b>surge voltage resistance rated value</b>	8 kV
<b>shock resistance according to IEC 60068-2-27</b>	25g / 11 ms Sinus
<b>mechanical service life (operating cycles)</b>	
• of the main contacts typical	25 000
• of auxiliary contacts typical	25 000
electrical endurance (operating cycles) typical	25 000
<b>reference code according to IEC 81346-2</b>	Q
<b>Substance Prohibitance (Date)</b>	03/01/2017
<b>SVHC substance name</b>	Lead - 7439-92-1
<b>Weight</b>	2.175 kg
<b>Ambient conditions</b>	
installation altitude at height above sea level maximum	2 000 m
<b>ambient temperature</b>	
• during operation	-20 ... +60 °C
• during storage	-50 ... +80 °C
• during transport	-50 ... +80 °C
relative humidity during operation	10 ... 95 %
<b>Environmental footprint</b>	
Environmental Product Declaration (EPD)	Yes
global warming potential [CO <sub>2</sub> eq] total	283.24 kg
global warming potential [CO <sub>2</sub> eq] during manufacturing	18.5 kg
global warming potential [CO <sub>2</sub> eq] during sales	1.24 kg
global warming potential [CO <sub>2</sub> eq] during operation	265 kg
global warming potential [CO <sub>2</sub> eq] after end of life	-1.5 kg

Siemens Eco Profile (SEP)	Siemens EcoTech
<b>Main circuit</b>	
<b>number of poles for main current circuit</b>	3
<b>type of voltage for main current circuit</b>	AC
<b>operating voltage</b>	
• rated value	20 ... 690 V
• at AC-3 rated value maximum	690 V
• at AC-3e rated value maximum	690 V
<b>operating frequency rated value</b>	50 ... 60 Hz
<b>operational current rated value</b>	40 A
<b>operational current</b>	
• at AC-3 at 400 V rated value	40 A
• at AC-3e at 400 V rated value	40 A
<b>operating power</b>	
• at AC-3	
— at 230 V rated value	11 kW
— at 400 V rated value	18.5 kW
— at 500 V rated value	22 kW
— at 690 V rated value	37 kW
• at AC-3e	
— at 230 V rated value	11 kW
— at 400 V rated value	18.5 kW
— at 500 V rated value	22 kW
— at 690 V rated value	37 kW
<b>operating frequency</b>	
• at AC-3 maximum	15 1/h
• at AC-3e maximum	15 1/h
<b>Auxiliary circuit</b>	
<b>type of voltage for auxiliary and control circuit</b>	AC/DC
<b>number of NC contacts for auxiliary contacts</b>	0
<b>number of NO contacts for auxiliary contacts</b>	0
number of CO contacts for auxiliary contacts	0
<b>Protective and monitoring functions</b>	
<b>product function</b>	
• ground fault detection	No
• phase failure detection	No
<b>maximum short-circuit current breaking capacity (I<sub>cu</sub>)</b>	
• 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	6 kA
<b>operating short-circuit current breaking capacity (I<sub>cs</sub>) at AC</b>	
• 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 unit	520 A
<b>UL/CSA ratings</b>	
<b>full-load current (FLA) for 3-phase AC motor</b>	
• at 480 V rated value	40 A
• at 600 V rated value	40 A
<b>yielded mechanical performance [hp]</b>	
• for single-phase AC motor	
— at 110/120 V rated value	3 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	15 hp
— 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

### Installation/ mounting/ dimensions

**mounting position**

any

**fastening method**

screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715

**height**

165 mm

**width**

70 mm

**depth**

176 mm

**required spacing**

- with side-by-side mounting at the side

0 mm

- for grounded parts at 400 V

— downwards

70 mm

— upwards

70 mm

— at the side

10 mm

- for live parts at 400 V

— downwards

70 mm

— upwards

70 mm

— at the side

10 mm

- for grounded parts at 500 V

— 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 circuit**

Top and bottom

**type of connectable conductor cross-sections**

- for main contacts

— solid

2x (2.5 ... 16 mm<sup>2</sup>)

— solid or stranded

2x (2.5 ... 50 mm<sup>2</sup>), 1x (10 ... 70 mm<sup>2</sup>)

— finely stranded with core end processing

2x (2.5 ... 35 mm<sup>2</sup>), 1x (2.5 ... 50 mm<sup>2</sup>)

— finely stranded without core end processing

2x (10 ... 35 mm<sup>2</sup>), 1x (10 ... 50 mm<sup>2</sup>)

**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

**product function suitable for safety function**

Yes

**suitability for use**

• safety-related switching on	No
• safety-related switching OFF	Yes
service life maximum	10 a
test wear-related service life necessary	Yes
proportion of dangerous failures	
• with low demand rate according to SN 31920	40 %
• with high demand rate according to SN 31920	50 %
B10 value with high demand rate according to SN 31920	5 000
failure rate [FIT] with low demand rate according to SN 31920	50 FIT
ISO 13849	
device type according to ISO 13849-1	3
overdimensioning according to ISO 13849-2 necessary	Yes
IEC 61508	
safety device type according to IEC 61508-2	Type A
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	
display version for switching status	Handle

#### Approvals Certificates

##### General Product Approval



KC



##### General Product Approval

##### Test Certificates

##### Maritime application



[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



##### Maritime application

##### other



[Miscellaneous](#)



[Confirmation](#)

##### other

##### Railway

##### Environment



[Special Test Certificate](#)

[Confirmation](#)



[Environmental Confirmations](#)

#### Further information

Information on the packaging

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

Information for data generation and storage

<https://support.industry.siemens.com/cs/ww/en/view/109995012>

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=3RV2341-4FC10>

Cax online generator

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2341-4FC10>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2341-4FC10>

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

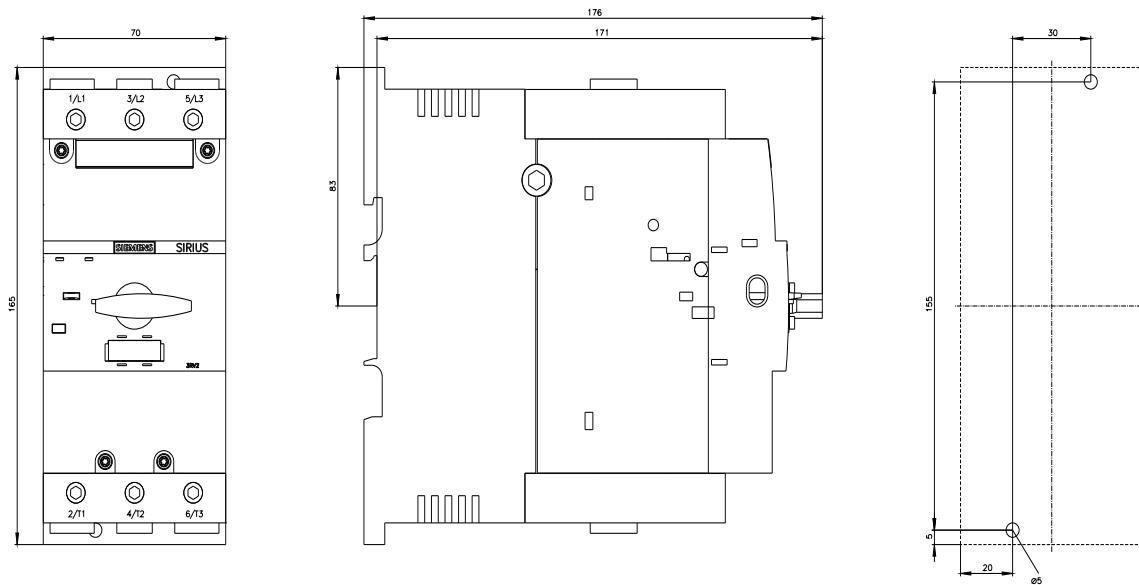
[https://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RV2341-4FC10&lang=en](https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2341-4FC10&lang=en)

Characteristic: Tripping characteristics, I<sub>t</sub>, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2341-4FC10/char>

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

<https://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2341-4FC10&objecttype=14&gridview=view1>





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