SIEMENS

Data sheet 3RV2321-4BC20

Circuit breaker size S0 for starter combination Rated current 20 A N-release 260 A Spring-type 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	S0
Size of contactor can be combined company-specific	S00, S0
Product extension	
• Auxiliary switch	Yes
Power loss [W] for rated value of the current	
• at AC in hot operating state	10.5 W
• at AC in hot operating state per pole	3.5 W
Insulation voltage with degree of pollution 3 at AC rated value	690 V
Surge voltage resistance rated value	6 kV
maximum permissible voltage for safe isolation	
• in networks with grounded star point between main and auxiliary circuit	400 V

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Protection class IP	
• on the front	IP20
• of the terminal	IP20
Shock resistance	
• acc. to IEC 60068-2-27	25g / 11 ms
Mechanical service life (switching cycles)	
• of the main contacts typical	100 000
• of auxiliary contacts typical	100 000
Electrical endurance (switching cycles)	
• typical	100 000
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	20 A
Operating current	
• at AC-3	
— at 400 V rated value	20 A
Operating power	
• at AC-3	
— at 230 V rated value	5 500 W
— at 400 V rated value	7 500 W
— at 500 V rated value	11 000 W
— at 690 V rated value	15 000 W
Operating frequency	
• at AC-3 maximum	15 1/h

Auxiliary circuit

Number of NC contacts for auxiliary contacts	0

Number of NO contacts for auxiliary contacts	0
Number of CO contacts	
• for auxiliary contacts	0

Protective and monitoring functions

Product function	
• Ground fault detection	No
• Phase failure detection	No
Operational short-circuit current breaking capacity (Ics) at AC	
• at 240 V rated value	100 kA
• at 400 V rated value	25 kA
• at 500 V rated value	5 kA
• at 690 V rated value	2 kA
Maximum short-circuit current breaking capacity (Icu)	
• at AC at 240 V rated value	100 kA
• at AC at 400 V rated value	55 kA
• at AC at 500 V rated value	10 kA
• at AC at 690 V rated value	4 kA
Response value current	
• of instantaneous short-circuit trip unit	260 A

UL/CSA ratings

Full-load current (FLA) for three-phase AC motor	
• at 480 V rated value	20 A
• at 600 V rated value	20 A
Yielded mechanical performance [hp]	
• for single-phase AC motor	
— at 110/120 V rated value	1.5 hp
— at 230 V rated value	3 hp
• for three-phase AC motor	
— at 200/208 V rated value	7.5 hp
— at 220/230 V rated value	5 hp
— at 460/480 V rated value	10 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 400 V	gL/gG 63 A
• at 500 V	gL/gG 50 A
• at 690 V	gL/gG 50 A

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	119 mm
Width	45 mm
Depth	97 mm
Required spacing	
• for grounded parts at 400 V	
— downwards	30 mm
— upwards	30 mm
— Backwards	0 mm
— at the side	9 mm
— forwards	0 mm
• for live parts at 400 V	
— downwards	30 mm
— upwards	30 mm
— Backwards	0 mm
— at the side	9 mm
— forwards	0 mm
• for grounded parts at 500 V	
— downwards	30 mm
— upwards	30 mm
— Backwards	0 mm
— at the side	9 mm
— forwards	0 mm
• for live parts at 500 V	
— downwards	30 mm
— upwards	30 mm
— Backwards	0 mm
— at the side	9 mm
— forwards	0 mm
• for grounded parts at 690 V	
— downwards	50 mm
— upwards	50 mm
— Backwards	0 mm
— at the side	30 mm
— forwards	0 mm
• for live parts at 690 V	
— downwards	50 mm
— upwards	50 mm
— Backwards	0 mm
— at the side	30 mm

Connections/ Terminals	
Product function	
• removable terminal for auxiliary and control circuit	No
Type of electrical connection	
• for main current circuit	spring-loaded terminals
Arrangement of electrical connectors for main current circuit	Top and bottom
Type of connectable conductor cross-sections	
• for main contacts	
— single or multi-stranded	2x (1 ... 10 mm²)
— finely stranded with core end processing	2x (1 ... 6 mm²)
— finely stranded without core end processing	2x (1 ... 6 mm²)
• at AWG conductors for main contacts	2x (18 ... 8)
Design of screwdriver shaft	Diameter 3 mm
Size of the screwdriver tip	3,0 x 0,5 mm

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 %
Failure rate [FIT]	
• with low demand rate acc. to SN 31920	50 FIT
T1 value for proof test interval or service life acc. to IEC 61508	10 y
Display version	
• for switching status	Handle

Certificates/ approvals

General Product Approval					Declaration of Conformity
CCC	CSA	UL	KC	EAC	EG-Konf.

Declaration of Conformity	Test Certificates		Marine / Shipping		
Miscellaneous	Type Test Certificates/Test Report	Special Test Certificate	ABS	BUREAU VERITAS	LRS

Marine / Shipping				other	
PRS	RINA	RMRS	DNVGL.COM/AF	Confirmation	VDE

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=3RV2321-4BC20

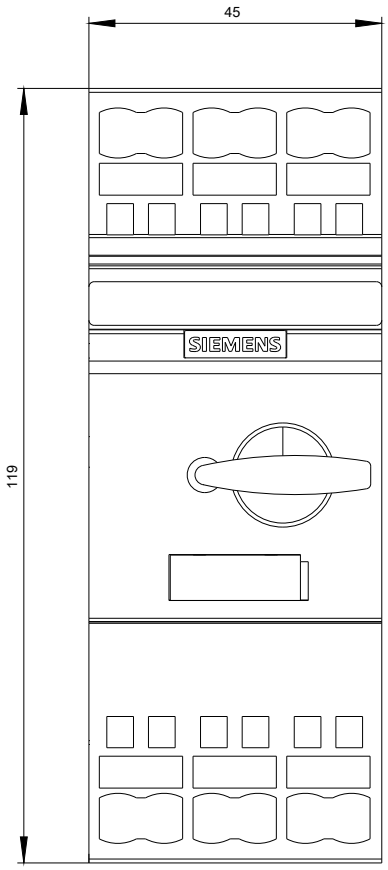
Cax online generator
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2321-4BC20

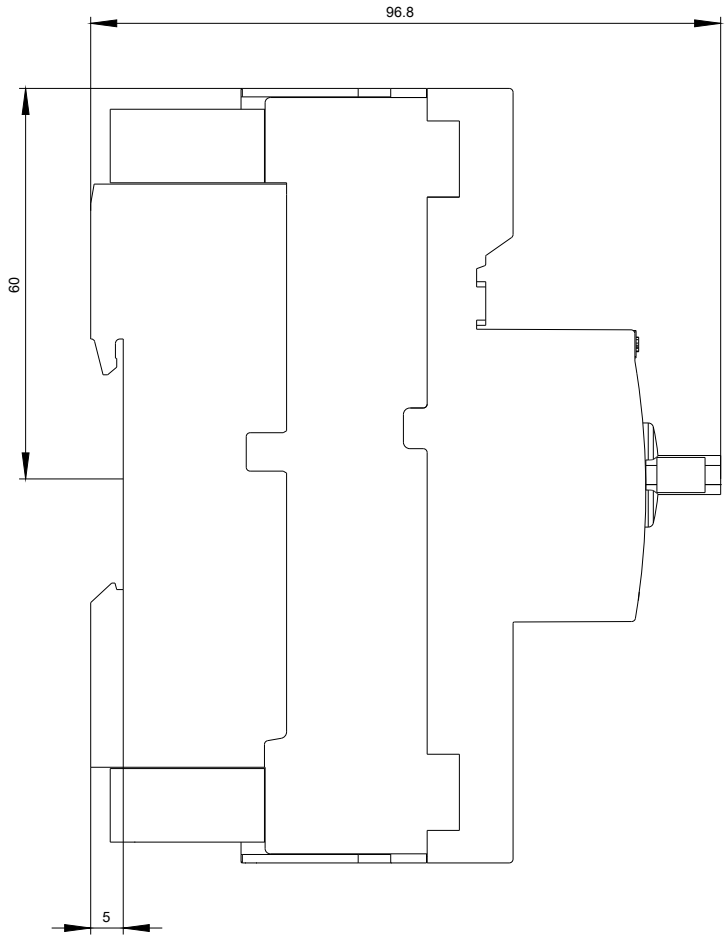
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/3RV2321-4BC20

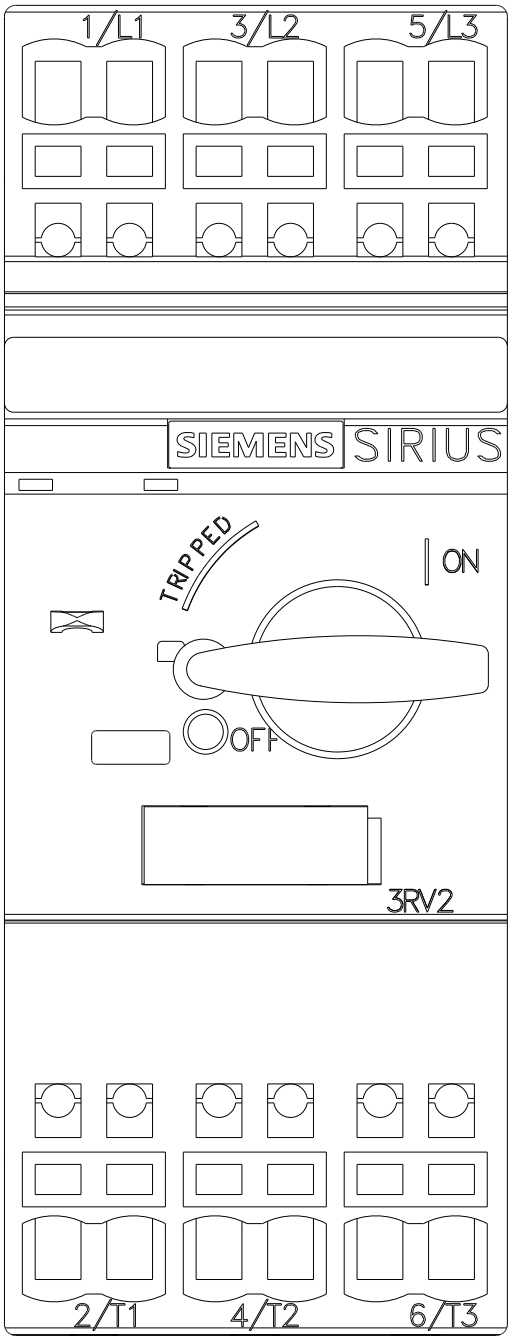
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2321-4BC20&lang=en

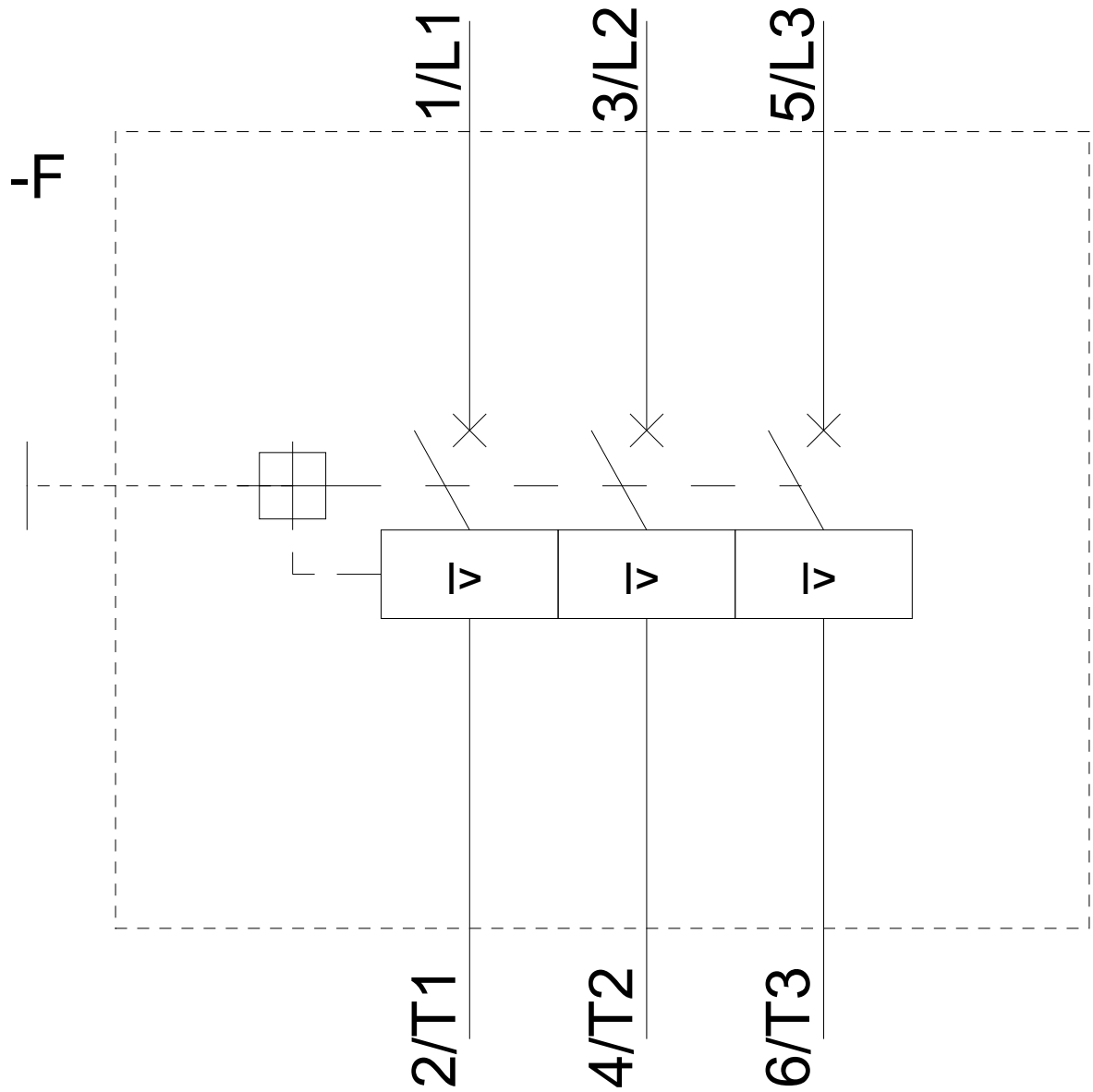
Characteristic: Tripping characteristics, I²t, Let-through current
https://support.industry.siemens.com/cs/ww/en/ps/3RV2321-4BC20/char

Further characteristics (e.g. electrical endurance, switching frequency)
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2321-4BC20&objecttype=14&gridview=view1









last modified: 05/20/2020