

CIRCUIT BREAKER, SIZE S2, FOR MOTOR PROTECTION, CLASS 10, A-RELEASE 42...52A, N-RELEASE 741A, SCREW TERMINAL, STANDARD BREAKING CAPACITY W. TRANSV. AUX. SWITCH 1NO+1NC



Figure similar

product brand name	SIRIUS
Product designation	3RV2 circuit breaker
General technical data:	
Size of the circuit-breaker	S2
Size of contactor can be combined company-specific	S2
Product expansion	
• Auxiliary switch	Yes
Active power loss total typical	17 W
Insulation voltage with degree of pollution 3 Rated value	690 V
Surge voltage resistance Rated value	6 kV
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	50 000
• of the auxiliary contacts typical	50 000

Electrical endurance (switching cycles)	
• typical	50 000
Protection against electrical shock	finger-safe when touched vertically from front acc. to IEC 60529
Equipment marking 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
Temperature compensation	-20 ... +60 °C
Relative humidity during operation	10 ... 95 %

Main circuit:

Number of poles for main current circuit	3
Adjustable response value current of the current-dependent overload release	42 ... 52 A
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	52 A
Operating current	
• at AC-3	
— at 400 V Rated value	52 A
Operating power	
• at AC-3	
— at 230 V Rated value	15 000 W
— at 500 V Rated value	30 000 W
— at 690 V Rated value	45 000 W
Operating frequency	
• at AC-3 maximum	15 1/h

Auxiliary circuit:

Design of the auxiliary switch	transverse
Number of NC contacts	
• for auxiliary contacts	1
— Note	1
Number of NO contacts	
• for auxiliary contacts	1
— Note	1
Operating current of the auxiliary contacts at AC-15	

• at 24 V	2 A
• at 230 V	0.5 A
Operating current of the auxiliary contacts at DC-13	
• at 24 V	1 A
• at 60 V	0.15 A
• at 110 V	0 A
• at 125 V	0 A
• at 220 V	0 A

Protective and monitoring functions:

Trip class	CLASS 10
Design of the overload release	thermal
Operational short-circuit current breaking capacity (Ics) at AC	
• at 240 V Rated value	100 A
• at 400 V Rated value	30 kA
• at 500 V Rated value	4 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	65 kA
• at AC at 500 V Rated value	8 kA
• at AC at 690 V Rated value	4 kA
Response value current of the instantaneous short-circuit release	741 A

UL/CSA ratings:

Full-load current (FLA) for three-phase AC motor	
• at 480 V Rated value	52 A
• at 600 V Rated value	52 A
yielded mechanical performance [hp]	
• for single-phase AC motor	
— at 110/120 V Rated value	5 hp
— at 230 V Rated value	10 hp
• for three-phase AC motor	
— at 200/208 V Rated value	15 hp
— at 220/230 V Rated value	20 hp
— at 460/480 V Rated value	40 hp
— at 575/600 V Rated value	50 hp
Contact rating of the auxiliary contacts acc. to UL	C300 / R300

Short-circuit protection

Design of the short-circuit trip	magnetic
Design of the fuse link	

• for short-circuit protection of the auxiliary switch required	Fuse gL/gG: 10 A, miniature circuit breaker C 6 A (short-circuit current $I_k < 400$ A)
Design of the fuse link for IT network for short-circuit protection of the main circuit • at 240 V • at 400 V • at 500 V • at 690 V	none required 160 125 100
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	140 mm
Width	55 mm
Depth	149 mm
Required spacing • with side-by-side mounting — forwards 0 mm — Backwards 0 mm — upwards 50 mm — downwards 50 mm — at the side 0 mm • for grounded parts — forwards 0 mm — Backwards 0 mm — upwards 50 mm — at the side 10 mm — downwards 50 mm • for live parts — forwards 0 mm — Backwards 0 mm — upwards 50 mm — downwards 50 mm — at the side 10 mm	
Connections/ Terminals:	
Product function • removable terminal for auxiliary and control circuit	No
Type of electrical connection • for main current circuit • for auxiliary and control current circuit	screw-type terminals screw-type terminals

Arrangement of electrical connectors for main current circuit	Top and bottom
Type of connectable conductor cross-section • for main contacts — single or multi-stranded — finely stranded with core end processing • for AWG conductors for main contacts	2x (1 ... 35 mm ²), 1x (1 ... 50 mm ²) 2x (1 ... 25 mm ²), 1x (1 ... 35 mm ²) 2x (18 ... 2), 1x (18 ... 1)
Type of connectable conductor cross-section • for auxiliary contacts — single or multi-stranded — finely stranded with core end processing • for AWG conductors for auxiliary contacts	2x (0,5 ... 1,5 mm ²), 2x (0,75 ... 2,5 mm ²) 2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²) 2x (20 ... 16), 2x (18 ... 14)
Tightening torque • for main contacts with screw-type terminals • for auxiliary contacts with screw-type terminals	3 ... 4.5 N·m 0.8 ... 1.2 N·m
Design of screwdriver shaft	Diameter 5 to 6 mm
Design of the thread of the connection screw • for main contacts • of the auxiliary and control contacts	M6 M3

Safety related data:

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	Test Certificates	other
 CSA	 UL	 EG-Konf.	spezielle Prüfbescheinigungen Bestätigungen Umweltbestätigung

Railway

[Bestätigungen](#)

Further information

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<http://www.siemens.com/industrial-controls/catalogs>

Industry Mall (Online ordering system)

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Cax online generator

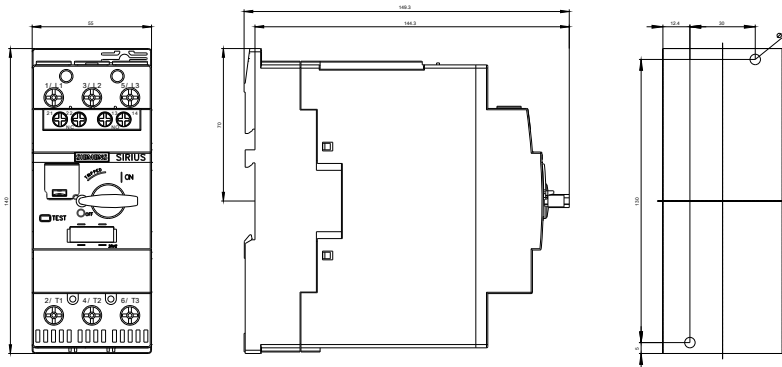
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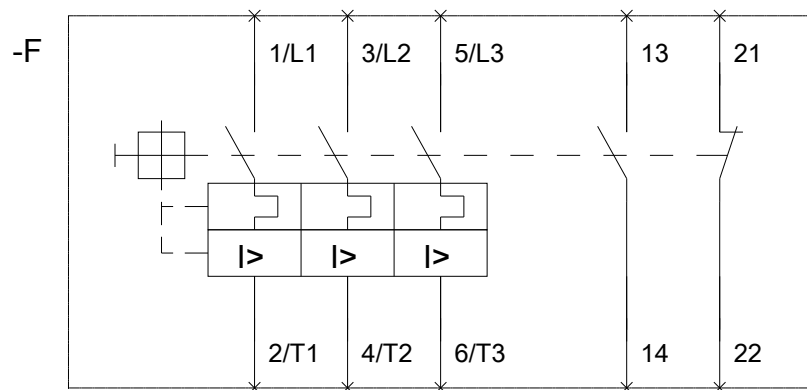
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3RV20314WA15>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV20314WA15&lang=en





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