



CIRCUIT BREAKER, SIZE S2, FOR MOTOR PROTECTION, CLASS 20, 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:

Active power loss total typical	W	17
Insulation voltage	V	690
<ul style="list-style-type: none"> with degree of pollution 3 Rated value 		
Shock resistance		25g / 11 ms Sinus
<ul style="list-style-type: none"> acc. to IEC 60068-2-27 		
Surge voltage resistance Rated value	kV	6
Mechanical service life (switching cycles)		
<ul style="list-style-type: none"> of the main contacts typical 		50 000
<ul style="list-style-type: none"> of the auxiliary contacts typical 		50 000
Electrical endurance (switching cycles)		
<ul style="list-style-type: none"> typical 		50 000
Temperature compensation	°C	-20 ... +60
Size of contactor can be combined company-specific		S2
Protection class IP		
<ul style="list-style-type: none"> on the front 		IP20
<ul style="list-style-type: none"> of the terminal 		IP00
Equipment marking		
<ul style="list-style-type: none"> acc. to DIN EN 81346-2 		Q

Main circuit:

Number of poles for main current circuit		3
Adjustable response value current of the current-dependent overload release	A	42 ... 52

Operating voltage		
• Rated value	V	690
• at AC-3 Rated value maximum	V	690
Operating frequency Rated value	Hz	50 ... 60
Operating current Rated value	A	52
Operating current		
• at AC-3		
— at 400 V Rated value	A	52
Operating power		
• at AC-3		
— at 230 V Rated value	W	15 000
— at 500 V Rated value	W	30 000
— at 690 V Rated value	W	45 000
Operating frequency		
• at AC-3 maximum	1/h	15

Auxiliary circuit:

Number of NC contacts		
• for auxiliary contacts		1
— Note		1
Number of NO contacts		
• for auxiliary contacts		1
— Note		1
Product expansion Auxiliary switch		Yes
Design of the auxiliary switch		transverse
Operating current of the auxiliary contacts at AC-15		
• at 24 V	A	2
• at 230 V	A	0.5
Operating current of the auxiliary contacts at DC-13		
• at 24 V	A	1
• at 60 V	A	0.15
• at 110 V	A	0
• at 125 V	A	0
• at 220 V	A	0

Protective and monitoring functions:

Trip class		CLASS 20
Design of the overload circuit breaker		thermal
Operational short-circuit current breaking capacity (Ics) with AC		
• at 240 V Rated value	A	100
• at 400 V Rated value	kA	30
• at 500 V Rated value	kA	4

• at 690 V Rated value	kA	2
Maximum short-circuit current breaking capacity (I_{cu})		
• with AC at 240 V Rated value	kA	100
• with AC at 400 V Rated value	kA	65
• with AC at 500 V Rated value	kA	8
• with AC at 690 V Rated value	kA	4
Response value current of the instantaneous short-circuit release	A	741

UL/CSA ratings:

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

Short-circuit:

Product function Short circuit protection		Yes
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		none required
• at 400 V		160
• at 500 V		125
• at 690 V		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	mm	140

Width	mm	55
Depth	mm	149
Required spacing		
<ul style="list-style-type: none"> • with side-by-side mounting <ul style="list-style-type: none"> — forwards — Backwards — upwards — downwards — at the side • for grounded parts <ul style="list-style-type: none"> — forwards — Backwards — upwards — at the side — downwards • for live parts <ul style="list-style-type: none"> — forwards — Backwards — upwards — downwards — at the side 	mm	0
	mm	0
	mm	50
	mm	50
	mm	0
	mm	0
	mm	0
	mm	50
	mm	10
	mm	50
	mm	0
	mm	0
	mm	50
	mm	50
	mm	10

Connections/ Terminals:		
Type of electrical connection		
<ul style="list-style-type: none"> • 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
Product function		No
<ul style="list-style-type: none"> • removable terminal for auxiliary and control circuit 		
Type of connectable conductor cross-section		
<ul style="list-style-type: none"> • for main contacts <ul style="list-style-type: none"> — single or multi-stranded — finely stranded with core end processing • for AWG conductors for main contacts • for auxiliary contacts <ul style="list-style-type: none"> — single or multi-stranded — finely stranded with core end processing • for AWG conductors for auxiliary 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) 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		
<ul style="list-style-type: none"> • for main contacts with screw-type terminals 	N·m	3 ... 4.5
Design of screwdriver shaft		Diameter 5 to 6 mm

Design of the thread of the connection screw		
<ul style="list-style-type: none"> • for main contacts 		M6
<ul style="list-style-type: none"> • of the auxiliary and control contacts 		M3

Safety related data:

Protection against electrical shock		finger-safe when touched vertically from front acc. to IEC 60529
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Mechanical data:

Size of the circuit-breaker		S2
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Ambient conditions:

Installation altitude at height above sea level maximum	m	2 000
Ambient temperature		
<ul style="list-style-type: none"> • during operation 	°C	-20 ... +60
<ul style="list-style-type: none"> • during storage 	°C	-50 ... +80
<ul style="list-style-type: none"> • during transport 	°C	-50 ... +80
Relative humidity during operation	%	10 ... 95

Display:

Display version		
<ul style="list-style-type: none"> • for switching status 		Handle

Certificates/ approvals:

General Product Approval	other
 CSA	 UL
	Confirmation
	Environmental Confirmations

Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

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

Industry Mall (Online ordering system)

<http://www.siemens.com/industrymall>

Cax online generator

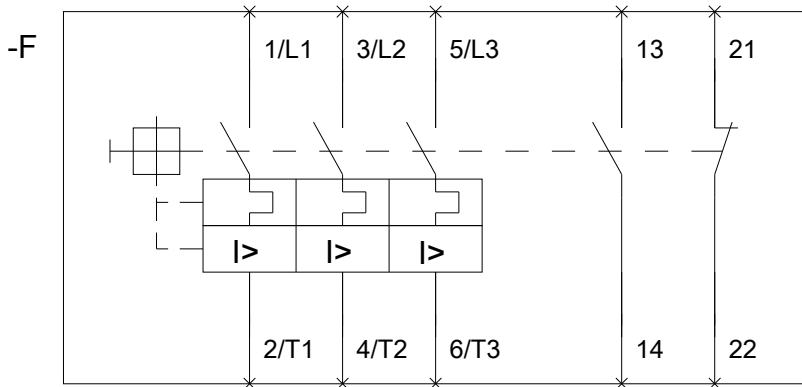
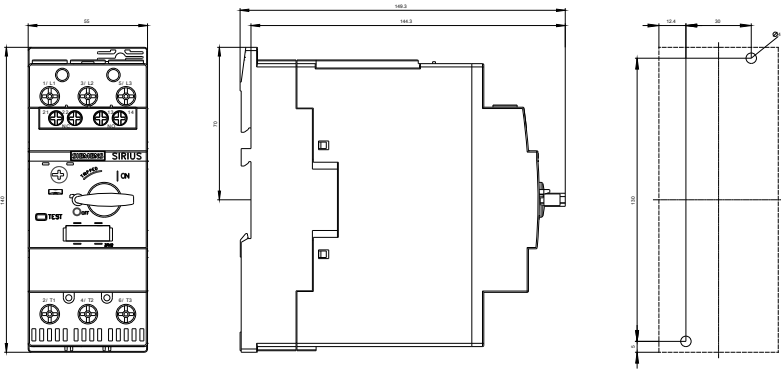
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV20314WB15>

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

<http://support.automation.siemens.com/WW/view/en/3RV20314WB15/all>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV20314WB15&lang=en



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