SIEMENS

Data sheet 3RV2021-1JA20

CIRCUIT-BREAKER SZ S0, FOR MOTOR PROTECTION, CLASS 10, A-REL. 7...10A, N-REL. 130A SPRING-L. CONNECTION, STANDARD SW. CAPACITY



Figure similar

Product brand name	SIRIUS
Product designation	Circuit breaker
Design of the product	For motor protection
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] total typical	7 W
Insulation voltage with degree of pollution 3 rated	690 V
value	
Surge voltage resistance rated value	6 kV
maximum permissible voltage for safe isolation	
 in networks with grounded star point between 	400 V
main and auxiliary circuit	
 in networks with grounded star point between 	400 V
main and auxiliary circuit	

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
Type of protection	Increased safety
Certificate of suitability relating to ATEX	on request
Protection against electrical shock	finger-safe
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
	40 05.0/
Relative humidity during operation	10 95 %
	10 95 %
Main circuit Number of poles for main current circuit	3
Main circuit	
Main circuit Number of poles for main current circuit Adjustable pick-up value current of the current-dependent overload release	3
Main circuit Number of poles for main current circuit Adjustable pick-up value current of the current-	3 7 10 A
Main circuit Number of poles for main current circuit Adjustable pick-up value current of the current-dependent overload release	3 7 10 A 690 V
Main circuit Number of poles for main current circuit Adjustable pick-up value current of the current-dependent overload release Operating voltage	3 7 10 A 690 V 690 V
Main circuit Number of poles for main current circuit Adjustable pick-up value current of the current- dependent overload release Operating voltage • rated value • at AC-3 rated value maximum Operating frequency rated value	3 7 10 A 690 V 690 V 50 60 Hz
Main circuit Number of poles for main current circuit Adjustable pick-up value current of the current-dependent overload release Operating voltage • rated value • at AC-3 rated value maximum Operating frequency rated value Operating current rated value	3 7 10 A 690 V 690 V
Main circuit Number of poles for main current circuit Adjustable pick-up value current of the current-dependent overload release Operating voltage • rated value • at AC-3 rated value maximum Operating frequency rated value Operating current rated value Operating current	3 7 10 A 690 V 690 V 50 60 Hz
Main circuit Number of poles for main current circuit Adjustable pick-up value current of the current- dependent overload release Operating voltage • rated value • at AC-3 rated value maximum Operating frequency rated value Operating current rated value Operating current • at AC-3	3 7 10 A 690 V 690 V 50 60 Hz 10 A
Number of poles for main current circuit Adjustable pick-up value current of the current-dependent overload release Operating voltage • rated value • at AC-3 rated value maximum Operating frequency rated value Operating current rated value Operating current • at AC-3 — at 400 V rated value	3 7 10 A 690 V 690 V 50 60 Hz
Number of poles for main current circuit Adjustable pick-up value current of the current-dependent overload release Operating voltage • rated value • at AC-3 rated value maximum Operating frequency rated value Operating current rated value Operating current • at AC-3 — at 400 V rated value Operating power	3 7 10 A 690 V 690 V 50 60 Hz 10 A
Number of poles for main current circuit Adjustable pick-up value current of the current-dependent overload release Operating voltage • rated value • at AC-3 rated value maximum Operating frequency rated value Operating current rated value Operating current • at AC-3 — at 400 V rated value	3 7 10 A 690 V 690 V 50 60 Hz 10 A
Number of poles for main current circuit Adjustable pick-up value current of the current-dependent overload release Operating voltage • rated value • at AC-3 rated value maximum Operating frequency rated value Operating current rated value Operating current • at AC-3 — at 400 V rated value Operating power • at AC-3 — at 230 V rated value	3 7 10 A 690 V 690 V 50 60 Hz 10 A
Number of poles for main current circuit Adjustable pick-up value current of the current-dependent overload release Operating voltage • rated value • at AC-3 rated value maximum Operating frequency rated value Operating current rated value Operating current • at AC-3 — at 400 V rated value Operating power • at AC-3	3 7 10 A 690 V 690 V 50 60 Hz 10 A 10 A 2 200 W 4 000 W
Number of poles for main current circuit Adjustable pick-up value current of the current-dependent overload release Operating voltage • rated value • at AC-3 rated value maximum Operating frequency rated value Operating current rated value Operating current • at AC-3 — at 400 V rated value Operating power • at AC-3 — at 230 V rated value	3 7 10 A 690 V 690 V 50 60 Hz 10 A
Number of poles for main current circuit Adjustable pick-up value current of the current-dependent overload release Operating voltage • rated value • at AC-3 rated value maximum Operating frequency rated value Operating current rated value Operating current • at AC-3 — at 400 V rated value Operating power • at AC-3 — at 230 V rated value — at 400 V rated value	3 7 10 A 690 V 690 V 50 60 Hz 10 A 10 A 2 200 W 4 000 W

Auxiliary circuit Number of NC contacts • for auxiliary contacts Product function • Ground fault detection • Ground fault detection • Phase failure detection • Yes Trip class CLASS 10 Design of the overload release Operational short-circuit current breaking capacity ((ss) at AC • at 240 V rated value • at 500 V rated value • at 690 V rated value • at 690 V rated value • at AC at 400 V rated value • at AC at 400 V rated value • at AC at 400 V rated value • at AC at 500 V rated value • at 1 current paths in series at DC at 300 V rated value • with 3 current paths in series at DC at 450 V rated value • with 3 current paths in series at DC at 450 V rated value • with 3 current paths in series at DC at 450 V rated value • of instantaneous short-circuit trip unit 130 A ULICSA ratings Full-oad current (FLA) for three-phase AC motor • at 480 V rated value • at 500 V rated value • at 110/120 V rated value • 10 A yielded mechanical performance (hp) • for single-phase AC motor — at 110/120 V rated value 1,5 hp	• at AC-3 maximum	15 1/h
Number of NC contacts • for auxiliary contacts • for auxiliary contacts • for or auxiliary contacts • for or auxiliary contacts • for auxiliar	Auxiliary circuit	
Number of NO contacts • for auxiliary contacts Product function • Ground fault detection • Phase failure detection • Phase failure detection Pesson of the overload release Operational short-circuit current breaking capacity (Ios) at AC • at 240 V rated value • at 400 V rated value • at 400 V rated value • at 690 V rated value • at 690 V rated value • at AC at 240 V rated value • at AC at 400 V rated value • at AC at 400 V rated value • at AC at 400 V rated value • at AC at 590 V rated value • at AC at 590 V rated value • at AC at 590 V rated value • at AC at 690 V rated value • at AC at 690 V rated value • at AC at 690 V rated value • at C at 690 V rated value • at AC at 690 V rated value • at C at 690 V rated value • with 2 current paths in series at DC at 300 V rated value • with 3 current paths in series at DC at 450 V rated value • with 3 current paths in series at DC at 450 V rated value • with 3 current paths in series at DC at 450 V rated value • with 3 current paths in series at DC at 450 V rated value • with 3 current paths in series at DC at 450 V rated value • with 3 current paths in series at DC at 450 V rated value • with 3 current paths in series at DC at 450 V rated value • with 3 current paths in series at DC at 450 V rated value • with 3 current paths in series at DC at 450 V rated value • with 4 current paths in series at DC at 450 V rated value • with 4 current paths in series at DC at 450 V rated value • with 5 current paths in series at DC at 450 V rated value • with 6 current paths in series at DC at 450 V rated value • with 6 current paths in series at DC at 450 V rated value • with 7 current paths in series at DC at 450 V rated value • with 9 current paths in series at DC at 450 V rated value • with 9 current paths in series at DC at 450 V rated value • with 9 curr		
• for auxiliary contacts • for auxiliary contacts • for auxiliary contacts • for auxiliary contacts Product function • Ground fault detection • Phase failure detection • Phase failure detection Pessgn of the overload release CLASS 10 Design of the overload release Operational short-circuit current breaking capacity ((cs) at AC • at 240 V rated value • at 400 V rated value • at 500 V rated value • at 600 V rated value • at 600 V rated value • at AC at 240 V rated value • at AC at 440 V rated value • at AC at 500 V rated value • at AC at 690 V rated value • with 2 current paths in series at DC at 300 V rated value • with 3 current paths in series at DC at 450 V rated value • with 3 current paths in series at DC at 450 V rated value • with 3 current paths in series at DC at 450 V rated value • with 3 current paths in series at DC at 450 V rated value • with 3 current paths in series at DC at 450 V rated value • with 3 current paths in series at DC at 450 V rated value • with 3 current paths in series at DC at 450 V rated value • with 3 current paths in series at DC at 450 V rated value • with 3 current paths in series at DC at 450 V rated value • with 3 current paths in series at DC at 450 V rated value • with 3 current paths in series at DC at 450 V rated value • with 3 current paths in series at DC at 450 V rated value • with 3 current paths in series at DC at 450 V rated value • with 3 current paths in series at DC at 450 V rated value • with 3 current paths in series at DC at 450 V rated value • with 3 current paths in series at DC at 450 V rated value • with 3 current paths in series at DC at 450 V rated value • with 3 current paths in series at DC at 450 V rated	• for auxiliary contacts	0
Number of CO contacts • for auxiliary contacts Product function • Ground fault detection • Phase failure detection • Ph	Number of NO contacts	
Protective and monitoring functions Product function Ground fault detection Phase failure detection Phase failure detection Product function CLASS 10 Pesign of the overload release CLASS 10 Pesign of the overload release Operational short-circuit current breaking capacity (los) at AC at 240 V rated value 100 kA at 500 V rated value 42 kA at 690 V rated value 44 kA Maximum short-circuit current breaking capacity (lcu) at AC at 240 V rated value 100 kA at CA at 400 V rated value 44 kA Maximum short-circuit current breaking capacity (lcu) at AC at 240 V rated value 45 kA 46 at AC at 400 V rated value 47 kA 48 at AC at 400 V rated value 48 at AC at 400 V rated value 49 at AC at 500 V rated value 40 at AC at 500 V rated value 40 at AC at 690 V rated value 41 current path at DC at 150 V rated value 41 current paths in series at DC at 300 V rated value 41 current paths in series at DC at 450 V rated value 42 kA 43 at Cat current paths in series at DC at 450 V rated value 44 with 2 current paths in series at DC at 450 V rated value 45 with 3 current paths in series at DC at 450 V rated value 46 with 2 current paths in series at DC at 450 V rated value 47 valed value 48 value 49 with 3 current paths in series at DC at 450 V rated value 40 with 3 current paths in series at DC at 450 V rated value 40 with 3 current paths in series at DC at 450 V rated value 40 with 3 current paths in series at DC at 450 V rated value 40 with 3 current paths in series at DC at 450 V rated value 40 with 3 current paths in series at DC at 450 V rated value 40 with 3 current paths in series at DC at 450 V rated value 410 kA 42 kA 43 kA 44 kA 45 kA 46 kA 47 kA 48 kA 48 kA 49 kA 40 k	 for auxiliary contacts 	0
Product function Ground fault detection Product function Ground fault detection Phase failure detection Yes CLASS 10 Design of the overload release Operational short-circuit current breaking capacity (Ica) at AC at 240 V rated value at 400 V rated value at 500 V rated value 42 kA 44 kA Maximum short-circuit current breaking capacity (Icu) at AC at 240 V rated value 42 kA 44 kA Maximum short-circuit current breaking capacity (Icu) at AC at 240 V rated value 42 kA 43 kA Maximum short-circuit current breaking capacity (Icu) at AC at 240 V rated value 42 kA 43 kA Maximum short-circuit current (Icu) at AC at 6500 V rated value 44 kA Breaking capacity short-circuit current (Icn) at 1 current path at DC at 150 V rated value with 2 current paths in series at DC at 300 V rated value with 3 current paths in series at DC at 450 V rated value with 3 current paths in series at DC at 450 V rated value with 3 current paths in series at DC at 450 V rated value with 3 current paths in series at DC at 450 V rated value with 3 current paths in series at DC at 450 V rated value with 3 current paths in series at DC at 450 V rated value with 3 current paths in series at DC at 450 V rated value with 3 current paths in series at DC at 450 V rated value with 3 current paths in series at DC at 450 V rated value with 3 current paths in series at DC at 450 V rated value with 480 V rated value 10 A 10 A 11 0 A Yielded mechanical performance [tp] for single-phase AC motor — at 110/120 V rated value 0.5 hp	Number of CO contacts	
Product function Ground fault detection Phase failure detection Phase failure detection Prip class CLASS 10 Design of the overload release Operational short-circuit current breaking capacity (Ics) at AC at 240 V rated value 100 kA at 400 V rated value 100 kA at 690 V rated value 4 kA Maximum short-circuit current breaking capacity (Icu) at AC at 240 V rated value 100 kA Maximum short-circuit current breaking capacity (Icu) at AC at 240 V rated value 4 kA Maximum short-circuit current breaking capacity (Icu) at AC at 500 V rated value bat AC at 500 V rated value 4 kA AC at 690 V rated value 4 kA Breaking capacity short-circuit current (Ion) at 1 current path at DC at 150 V rated value with 2 current paths in series at DC at 300 V rated value with 3 current paths in series at DC at 450 V rated value with 3 current paths in series at DC at 450 V rated value awith 3 current paths in series	• for auxiliary contacts	0
Ground fault detection Phase failure detection Prip class CLASS 10 Design of the overload release Operational short-circuit current breaking capacity (Icos) at AC at 240 V rated value 100 kA at 400 V rated value 100 kA at 690 V rated value 42 kA Ad Additional of the capacity (Ico) at AC at 400 V rated value 44 kA Maximum short-circuit current breaking capacity (Icu) at AC at 240 V rated value 100 kA at AC at 400 V rated value 100 kA at AC at 400 V rated value 42 kA at AC at 400 V rated value 42 kA at AC at 400 V rated value 42 kA at AC at 500 V rated value 42 kA at AC at 690 V rated value 43 kA Breaking capacity short-circuit current (Icn) at 1 current path at DC at 150 V rated value with 2 current paths in series at DC at 300 V rated value with 3 current paths in series at DC at 450	Protective and monitoring functions	
Phase failure detection Trip class CLASS 10 Design of the overload release Operational short-circuit current breaking capacity (Ics) at AC at 240 V rated value at 500 V rated value at 690 V rated value at AC at 240 V rated value bat AC at 240 V rated value at AC at 240 V rated value at AC at 2500 V rated value at AC at 5500 V rated value bat AC at 5500 V rated value at AC at 5500 V rated value bat AC at 5500 V rated value at AC at 5500 V rated value at AC at 5500 V rated value bat AC at 5500 V rated value at AC at 5500 V rated value bat AC at 5500 V rated value at AC at 5500 V rated value bat AC at 5500 V rated value at AC at 5500 V rated value bat AC at 5500 V rated value ba	Product function	
Trip class Design of the overload release Operational short-circuit current breaking capacity (los) at AC • at 240 V rated value • at 400 V rated value • at 500 V rated value • at 690 V rated value • at 690 V rated value • at AC at 240 V rated value • at AC at 250 V rated value • at AC at 500 V rated value • at AC at 690 V rated value • at Current path at DC at 150 V rated value • with 2 current paths in series at DC at 300 V rated value • with 3 current paths in series at DC at 450 V rated value • with 3 current paths in series at DC at 450 V rated value • with 3 current paths in series at DC at 450 V rated value • with 3 current paths in series at DC at 450 V rated value • with 3 current paths in series at DC at 450 V rated value • with 3 current paths in series at DC at 450 V rated value • with 3 current paths in series at DC at 450 V rated value • with 3 current paths in series at DC at 450 V rated value • with 3 current paths in series at DC at 450 V rated value • of instantaneous short-circuit trip unit 130 A UL/CSA ratings Full-load current (FLA) for three-phase AC motor • at 480 V rated value • at 600 V rated value • at 600 V rated value • for single-phase AC motor • at 110/120 V rated value • for single-phase AC motor • at 110/120 V rated value • for single-phase AC motor • at 110/120 V rated value	Ground fault detection	No
Design of the overload release Operational short-circuit current breaking capacity (Ics) at AC • at 240 V rated value • at 400 V rated value • at 690 V rated value • at 690 V rated value • at AC at 240 V rated value • at AC at 240 V rated value • at AC at 500 V rated value • at AC at 690 V rated value • at AC at 690 V rated value • at 1 current path at DC at 150 V rated value • with 2 current paths in series at DC at 300 V rated value • with 3 current paths in series at DC at 450 V rated value Response value current • of instantaneous short-circuit trip unit 130 A UL/CSA ratings Full-load current (FLA) for three-phase AC motor • at 480 V rated value • at 600 V rated value • of risingle-phase AC motor • at 410 V rated value • for single-phase AC motor • at 410/120 V rated value • of 5 hp	Phase failure detection	Yes
Operational short-circuit current breaking capacity (Ics) at AC • at 240 V rated value • at 400 V rated value • at 500 V rated value • at 690 V rated value • at 690 V rated value • at AC at 240 V rated value • at AC at 240 V rated value • at AC at 500 V rated value • at AC at 690 V rated value • with 2 current path at DC at 150 V rated value • with 2 current paths in series at DC at 300 V rated value • with 3 current paths in series at DC at 450 V rated value • with 3 current paths in series at DC at 450 V rated value • with 3 current paths in series at DC at 450 V rated value • with 3 current paths in series at DC at 450 V rated value • of instantaneous short-circuit trip unit 130 A UL/CSA ratings Full-load current (FLA) for three-phase AC motor • at 480 V rated value • at 600 V rated value •	Trip class	CLASS 10
(lcs) at AC • at 240 V rated value • at 400 V rated value • at 500 V rated value • at 690 V rated value • at 690 V rated value • at AC at 240 V rated value • at AC at 690 V rated value • at AC at 500 V rated value • at AC at 690 V rated value • breaking capacity short-circuit current (lcn) • at 1 current path at DC at 150 V rated value • with 2 current paths in series at DC at 300 V rated value • with 3 current paths in series at DC at 450 V rated value • with 3 current paths in series at DC at 450 V rated value • with 3 current paths in series at DC at 450 V rated value • with 3 current paths in series at DC at 450 V rated value • with 3 current paths in series at DC at 450 V rated value • with 3 current paths in series at DC at 450 V rated value • with 3 current paths in series at DC at 450 V rated value • with 3 current paths in series at DC at 450 V rated value • with 3 current paths in series at DC at 450 V rated value • with 3 current paths in series at DC at 450 V rated value • with 3 current paths in series at DC at 450 V rated value • with 3 current paths in series at DC at 450 V rated value • with 3 current paths in series at DC at 450 V rated value • with 3 current paths in series at DC at 450 V rated value • with 3 current paths in series at DC at 450 V rated value • with 3 current paths in series at DC at 450 V rated value • with 3 current paths in series at DC at 450 V rated value • with 3 current paths in series at DC at 300 V rated value • with 3 current paths in series at DC at 300 V rated value • with 3 current paths in series at DC at 300 V rated value • with 3 current paths in series at DC at 300 V rated value • with 4 current paths in series at DC at 300 V rated value • with 4 current paths in series at DC at 300 V rated value • with 4 current paths in series at DC at 300 V rated value	Design of the overload release	thermal
at 400 V rated value at 500 V rated value at 690 V rated value at 690 V rated value at 690 V rated value at AC at 240 V rated value at AC at 240 V rated value at AC at 400 V rated value at AC at 500 V rated value at AC at 690 V rated value at AC at 690 V rated value at AC at 690 V rated value be at AC at 690 V rated value at AC at 690 V rated value be at AC at 500 V rated value at AC at 690 V rated value be with 2 current path at DC at 150 V rated value with 3 current paths in series at DC at 300 V rated value with 3 current paths in series at DC at 450 V rated value be with 3 current paths in series at DC at 450 V rated value at 600 V rated value Response value current be of instantaneous short-circuit trip unit at 480 V rated value at 480 V rated value be at 600 V rated value at 600 V rated value be of instantaneous short-circuit value at 600 V rated value be of instantaneous short-circuit value at 600 V rated value be of or single-phase AC motor at 110/120 V rated value be of or single-phase AC motor at 110/120 V rated value be of 5 hp		
at 500 V rated value at 690 V rated value 4 kA Maximum short-circuit current breaking capacity (Icu) at AC at 240 V rated value 100 kA at AC at 400 V rated value 100 kA at AC at 500 V rated value 42 kA at AC at 690 V rated value 6 kA Breaking capacity short-circuit current (Icn) at 1 current path at DC at 150 V rated value with 2 current paths in series at DC at 300 V rated value with 3 current paths in series at DC at 450 V rated value with 3 current paths in series at DC at 450 V rated value Fasponse value current of instantaneous short-circuit trip unit 130 A UL/CSA ratings Full-load current (FLA) for three-phase AC motor at 480 V rated value at 480 V rated value for single-phase AC motor at 110/120 V rated value 0.5 hp	• at 240 V rated value	100 kA
at 690 V rated value At AC at 240 V rated value at AC at 240 V rated value at AC at 400 V rated value at AC at 500 V rated value at AC at 690 V rated value at AC at 690 V rated value at AC at 690 V rated value breaking capacity short-circuit current (Icn) at 1 current path at DC at 150 V rated value with 2 current paths in series at DC at 300 V rated value with 3 current paths in series at DC at 450 V rated value with 3 current paths in series at DC at 450 V rated value a with 3 current paths in series at DC at 450 V rated value Response value current of instantaneous short-circuit trip unit 130 A UL/CSA ratings Full-load current (FLA) for three-phase AC motor at 480 V rated value at 480 V rated value for single-phase AC motor — at 110/120 V rated value 0.5 hp	• at 400 V rated value	100 kA
Maximum short-circuit current breaking capacity (Icu) • at AC at 240 V rated value • at AC at 400 V rated value • at AC at 500 V rated value • at AC at 690 V rated value • at 1 current path at DC at 150 V rated value • with 2 current paths in series at DC at 300 V rated value • with 3 current paths in series at DC at 450 V rated value • with 3 current paths in series at DC at 450 V rated value • with 3 current paths in series at DC at 450 V rated value • with 3 current paths in series at DC at 450 V rated value • with 3 current paths in series at DC at 450 V rated value Response value current • of instantaneous short-circuit trip unit 130 A UL/CSA ratings Full-load current (FLA) for three-phase AC motor • at 480 V rated value • at 600 V rated value • for single-phase AC motor — at 110/120 V rated value 0.5 hp	• at 500 V rated value	42 kA
at AC at 240 V rated value at AC at 400 V rated value at AC at 400 V rated value at AC at 500 V rated value at AC at 690 V rated value breaking capacity short-circuit current (Icn) at 1 current path at DC at 150 V rated value with 2 current paths in series at DC at 300 V rated value with 3 current paths in series at DC at 450 V rated value with 3 current paths in series at DC at 450 V rated value with 3 current paths in series at DC at 450 V rated value Response value current of instantaneous short-circuit trip unit 130 A UL/CSA ratings Full-load current (FLA) for three-phase AC motor at 480 V rated value at 600 V rated value for single-phase AC motor — at 110/120 V rated value 0.5 hp	• at 690 V rated value	4 kA
at AC at 400 V rated value at AC at 500 V rated value at AC at 500 V rated value at AC at 500 V rated value at AC at 690 V rated value breaking capacity short-circuit current (Icn) at 1 current path at DC at 150 V rated value with 2 current paths in series at DC at 300 V rated value with 3 current paths in series at DC at 450 V rated value with 3 current paths in series at DC at 450 V rated value Response value current of instantaneous short-circuit trip unit 130 A UL/CSA ratings Full-load current (FLA) for three-phase AC motor at 480 V rated value at 600 V rated value 10 A Vielded mechanical performance [hp] for single-phase AC motor — at 110/120 V rated value 0.5 hp	Maximum short-circuit current breaking capacity (Icu)	
at AC at 500 V rated value at AC at 690 V rated value Breaking capacity short-circuit current (Icn) at 1 current path at DC at 150 V rated value with 2 current paths in series at DC at 300 V rated value with 3 current paths in series at DC at 450 V rated value with 3 current paths in series at DC at 450 V rated value Response value current of instantaneous short-circuit trip unit 130 A UL/CSA ratings Full-load current (FLA) for three-phase AC motor at 480 V rated value at 600 V rated value for single-phase AC motor at 110/120 V rated value 0.5 hp	• at AC at 240 V rated value	100 kA
at AC at 690 V rated value Breaking capacity short-circuit current (Icn) at 1 current path at DC at 150 V rated value with 2 current paths in series at DC at 300 V rated value with 3 current paths in series at DC at 450 V rated value Response value current of instantaneous short-circuit trip unit 130 A UL/CSA ratings Full-load current (FLA) for three-phase AC motor at 480 V rated value 10 A tilded mechanical performance [hp] for single-phase AC motor at 110/120 V rated value 0.5 hp	• at AC at 400 V rated value	100 kA
Breaking capacity short-circuit current (Icn) • at 1 current path at DC at 150 V rated value • with 2 current paths in series at DC at 300 V rated value • with 3 current paths in series at DC at 450 V rated value Response value current • of instantaneous short-circuit trip unit UL/CSA ratings Full-load current (FLA) for three-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 0.5 hp	• at AC at 500 V rated value	42 kA
at 1 current path at DC at 150 V rated value with 2 current paths in series at DC at 300 V rated value with 3 current paths in series at DC at 450 V rated value Response value current of instantaneous short-circuit trip unit 130 A UL/CSA ratings Full-load current (FLA) for three-phase AC motor at 480 V rated value at 600 V rated value Tion A Yielded mechanical performance [hp] of for single-phase AC motor at 110/120 V rated value 0.5 hp	• at AC at 690 V rated value	6 kA
with 2 current paths in series at DC at 300 V rated value with 3 current paths in series at DC at 450 V rated value Response value current of instantaneous short-circuit trip unit 130 A UL/CSA ratings Full-load current (FLA) for three-phase AC motor at 480 V rated value at 600 V rated value at 600 V rated value Yielded mechanical performance [hp] for single-phase AC motor — at 110/120 V rated value 0.5 hp	Breaking capacity short-circuit current (Icn)	
rated value • with 3 current paths in series at DC at 450 V rated value Response value current • of instantaneous short-circuit trip unit 130 A UL/CSA ratings Full-load current (FLA) for three-phase AC motor • at 480 V rated value • at 600 V rated value 10 A Yielded mechanical performance [hp] • for single-phase AC motor — at 110/120 V rated value 0.5 hp	• at 1 current path at DC at 150 V rated value	10 kA
rated value Response value current ● of instantaneous short-circuit trip unit 130 A UL/CSA ratings Full-load current (FLA) for three-phase AC motor ● at 480 V rated value 10 A ● at 600 V rated value 10 A Yielded mechanical performance [hp] ● for single-phase AC motor — at 110/120 V rated value 0.5 hp	·	10 kA
of instantaneous short-circuit trip unit 130 A UL/CSA ratings Full-load current (FLA) for three-phase AC motor at 480 V rated value 10 A at 600 V rated value 10 A Yielded mechanical performance [hp] for single-phase AC motor — at 110/120 V rated value 0.5 hp	•	10 kA
UL/CSA ratings Full-load current (FLA) for three-phase AC motor • at 480 V rated value • at 600 V rated value 10 A Yielded mechanical performance [hp] • for single-phase AC motor — at 110/120 V rated value 0.5 hp	Response value current	
Full-load current (FLA) for three-phase AC motor • at 480 V rated value • at 600 V rated value 10 A Yielded mechanical performance [hp] • for single-phase AC motor — at 110/120 V rated value 0.5 hp	• of instantaneous short-circuit trip unit	130 A
 at 480 V rated value at 600 V rated value 10 A Yielded mechanical performance [hp] for single-phase AC motor — at 110/120 V rated value 0.5 hp 		
 at 600 V rated value Yielded mechanical performance [hp] for single-phase AC motor at 110/120 V rated value 0.5 hp 	, ,	
Yielded mechanical performance [hp] ● for single-phase AC motor — at 110/120 V rated value 0.5 hp		
• for single-phase AC motor — at 110/120 V rated value 0.5 hp		10 A
— at 110/120 V rated value 0.5 hp		
· ·	• for single-phase AC motor	
— at 230 V rated value 1.5 hp	— at 110/120 V rated value	
	— at 230 V rated value	1.5 hp

• for three-phase AC motor	
— at 200/208 V rated value	2 hp
— at 220/230 V rated value	3 hp
— at 460/480 V rated value	5 hp
— at 575/600 V rated value	7.5 hp

Short-circuit protection	
Product function Short circuit protection	Yes
Design of the short-circuit trip	magnetic

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	96 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	30 mm
— downwards	50 mm
• for live parts	
— forwards	0 mm
— Backwards	0 mm
— upwards	50 mm
— downwards	50 mm
— at the side	30 mm
31 110 0100	

Connections/Terminals	
Product function	
 removable terminal for auxiliary and control 	No
circuit	
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













IECEx

Declaration	of
Conformity	

Test Certificates

Marine / Shipping



Type Test
Certificates/Test
Report

Special Test Certificate

KC







Marine / Shipping

other

Confirmation











other

Railway

Miscellaneous

Vibration and Shock

Further information

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

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

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RV2021-1JA20

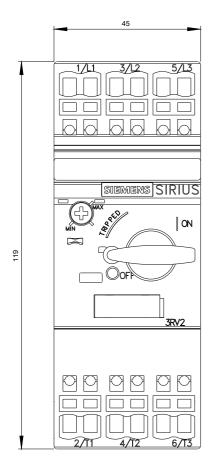
Cax online generator

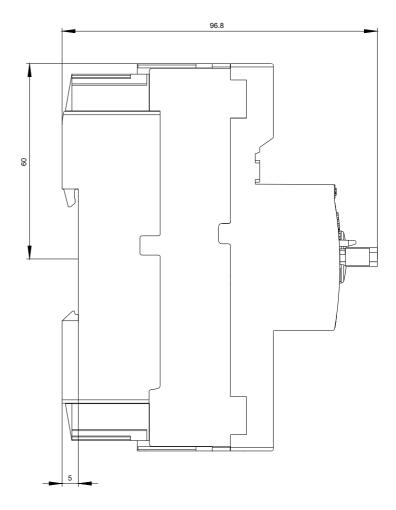
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2021-1JA20

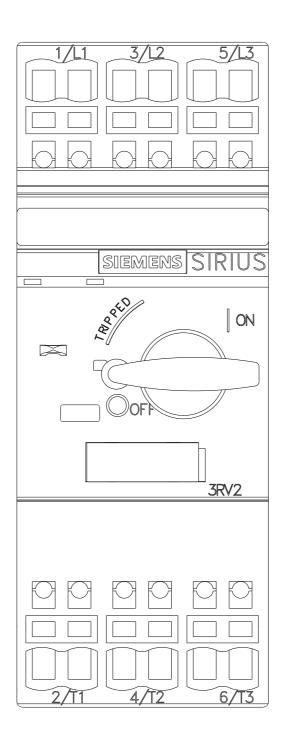
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

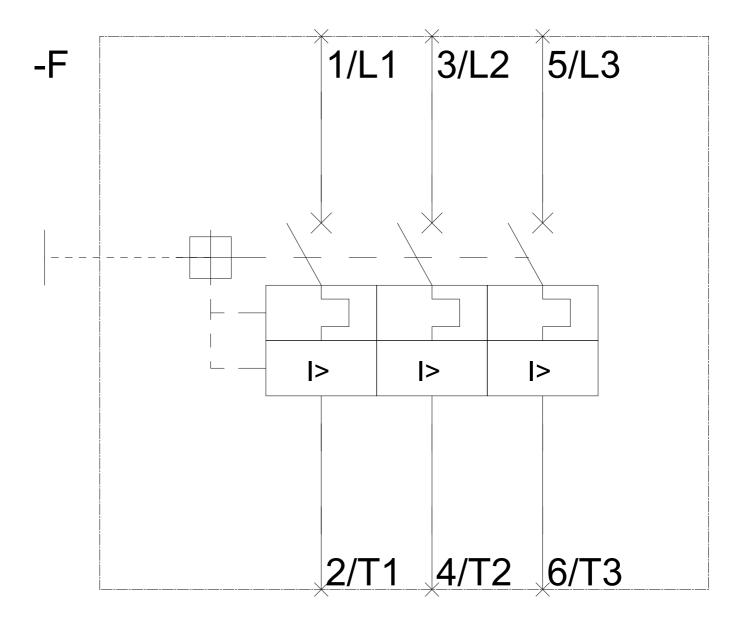
https://support.industry.siemens.com/cs/ww/en/ps/3RV2021-1JA20

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2021-1JA20&lang=en









last modified: 10/13/2017