# **SIEMENS**

Data sheet 3RV2021-0GA10

Circuit breaker size S0 for motor protection, CLASS 10 A-release 0.45...0.63 A N-release 8.2 A screw terminal Standard switching capacity



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	6 W
Insulation voltage with degree of pollution 3 rated value	690 V
Surge voltage resistance rated value	6 kV
maximum permissible voltage for safe isolation	
<ul> <li>in networks with grounded star point between main and auxiliary circuit</li> </ul>	400 V
<ul> <li>in networks with grounded star point between main and auxiliary circuit</li> </ul>	400 V
Protection class IP	

• of the terminal P20  Shock resistance  • acc. to IEC 60068-2-27  Mechanical service life (switching cycles)  • of the main contacts typical 100 000  Electrical endurance (switching cycles)  • typical 100 000  Certificate of suitability ATEX Yes Protection against electrical shock Ingersafe Reference code acc. to DIN EN 81346-2 Q  Ambient conditions  Installation attitude at height above sea level  • maximum 2 000 m  Temperature compensation 20 +60 °C  Relative humidity during operation 10 95 %  Main circuit  Number of poles for main current circuit 3  Adjustable pick-up value current of the current-dependent overload release  Operating voltage  • rated value 4 4 4 3 600 V  • at AC-3 rated value maximum 690 V  Operating current rated value 50 60 H2  Operating current rated value 50 60 H2  Operating power  • at AC-3 4	• on the front	IP20
• acc. to IEC 60068-2-27	<ul><li>of the terminal</li></ul>	IP20
Mechanical service life (switching cycles)  • of the main contacts typical  • of auxiliary contacts typical  • opicial  • opicial  100 000  Certificate of suitability ATEX  Yes  Protection against electrical shock  Reference code acc. to DIN EN 81348-2  Q  Ambient conditions  Installation altitude at height above sea level  • maximum  2 000 m  Temperature compensation  -20 +60 °C  Relative humidity during operation  10 95 %  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  690 V  Operating current rated value  0.63 A  Operating current  • at AC-3  — at 400 V rated value  • at AC-3  — at 400 V rated value  90 W  • at AC-3  — at 400 V rated value  180 W  — at 500 V rated value  90 W  • at AC-3  — at 90 V rated value  180 W  — at 90 V rated value  180 W  — at 90 V rated value  90 W  Operating frequency  • at AC-3 maximum  15 1/h  Auxiliary circuit  Number of NC contacts for auxiliary contacts  0 Number of NC contacts for auxiliary contacts	Shock resistance	
of the main contacts typical of auxiliary contacts typical of auxiliary contacts typical of auxiliary contacts typical loo 000  Electrical endurance (switching cycles) of typical of typical of typical of typical loo 000  Certificate of suitability ATEX Yes Protection against electrical shock Reference code acc. to DIN EN 81346-2 Q  Ambient conditions  Installation altitude at height above sea level of maximum  of the current of the	• acc. to IEC 60068-2-27	25g / 11 ms
of auxillary contacts typical     of auxillary contacts typical     in typic	Mechanical service life (switching cycles)	
Electrical endurance (switching cycles)  • typical  Certificate of suitability ATEX  Protection against electrical shock  Reference code acc. to DIN EN 81346-2  Q  Ambient conditions  Installation altitude at height above sea level  • maximum  2 000 m  Temperature compensation  -20 +60 °C  Relative humidity during operation  10 95 %  Main circuit  Number of poles for main current circuit  3.4 dijustable pick-up value current of the current- dependent overload release  Operating voltage  • rated value  • at AC-3 rated value  • at AC-3  — at 400 V rated value  • at AC-3  — at 400 V rated value  • at AO-3  — at 230 V rated value  — at 500 V rated value  — at 600 V rated value  — at 600 V rated value  — at 500 V rated value  — at 500 V rated value  — at 500 V rated value  — at 600 V	<ul> <li>of the main contacts typical</li> </ul>	100 000
• typical 100 000  Certificate of suitability ATEX Yes  Protection against electrical shock finger-safe  Reference code acc. to DIN EN 81346-2 Q  Ambient conditions  Installation altitude at height above sea level • maximum 2 000 m  Temperature compensation -20 +60 °C  Relative humidity during operation 10 95 %  Main circuit  Number of poles for main current circuit 3 0.45 0.63 A  dependent overload release  Operating voltage • rated value unaximum 690 V  Operating frequency rated value 0.63 A  Operating current rated value 0.63 A  Operating current rated value 0.63 A  Operating current rated value 0.63 A  Operating power • at AC-3 — at 400 V rated value 90 W — at 400 V rated value 90 W — at 400 V rated value 180 W — at 500 V rated value 180 W — at 500 V rated value 180 W — at 500 V rated value 250 W  Operating frequency • at AC-3 maximum 15 1/h  Auxiliary circuit  Number of NC contacts for auxiliary contacts 0	<ul> <li>of auxiliary contacts typical</li> </ul>	100 000
Certificate of suitability ATEX Protection against electrical shock Reference code acc. to DIN EN 81346-2 Q Ambient conditions Installation altitude at height above sea level  • maximum 2 000 m  Temperature compensation Relative humidity during operation 10 95 %  Main circuit Number of poles for main current circuit 3 Adjustable pick-up value current of the current-dependent overload release Operating voltage • rated value • at AC-3 rated value maximum Operating current rated value 0.63 A  Operating current • at AC-3 — at 400 V rated value 0.63 A  Operating power • at AC-3 — at 400 V rated value 90 W — at 40-3 are 400 V rated value — at 500 V rated value — at 600 V rated value	Electrical endurance (switching cycles)	
Protection against electrical shock Reference code acc. to DIN EN 81346-2 Q Ambient conditions Installation altitude at height above sea level • maximum 2 000 m Temperature compensation Relative humidity during operation 10 95 %  Main circuit Number of poles for main current circuit 3 Adjustable pick-up value current of the current-dependent overload release Operating voltage • rated value • at AC-3 rated value maximum 690 V Operating current rated value Operating current rated value 0 .63 A Operating current • at AC-3 — at 400 V rated value 0 .63 A  Operating power • at AC-3 — at 230 V rated value 90 W — at 500 V rated value 91 80 W 92 W 94 AC-3 maximum 95 W 96 W 97 W 98 W 98 W 99 W 99 W 99 W 99 W 99 W 99	• typical	100 000
Reference code acc. to DIN EN 81346-2  Ambient conditions  Installation altitude at height above sea level  maximum  2 000 m  Temperature compensation  -20 +60 °C  Relative humidity during operation  10 95 %  Main circuit  Number of poles for main current circuit  3 Adjustable pick-up value current of the current-dependent overload release  Operating voltage  at AC-3 rated value  at AC-3 rated value maximum  690 V  Operating frequency rated value  0.63 A  Operating current rated value  0.63 A  Operating current  at AC-3  - at 400 V rated value  0.63 A  Operating power  at AC-3  - at 230 V rated value  - at 400 V rated value  - at 400 V rated value  180 W  - at 500 V rated value  180 W  - at 500 V rated value  250 W  Operating frequency  at AC-3 maximum  15 1/h  Auxiliary circuit  Number of NC contacts for auxiliary contacts  0  Number of NC contacts for auxiliary contacts  0	Certificate of suitability ATEX	Yes
Installation altitude at height above sea level  • maximum  2 000 m  Temperature compensation  -20 +60 °C  Relative humidity during operation  10 95 %  Main circuit  Number of poles for main current circuit  3 0.63 A  Adjustable pick-up value current of the current-dependent overload release  Operating vorltage  • rated value  • at AC-3 rated value maximum  690 V  Operating frequency rated value  Operating current  • at AC-3  — 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  180 W  — at 690 V rated value  — at 690 V ra	Protection against electrical shock	finger-safe
Installation altitude at height above sea level  • maximum  Temperature compensation  Relative humidity during operation  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 current rated value  Operating current rated value  • at AC-3  — at 400 V rated value  • at AC-3  — at 400 V rated value  • at AC-3  — at 400 V rated value  90 W  — at 400 V rated value  90 W  — at 400 V rated value  90 W  — at 400 V rated value  — at 690 V rated value  — at 6	Reference code acc. to DIN EN 81346-2	Q
Installation altitude at height above sea level  • maximum  Temperature compensation  Relative humidity during operation  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 current rated value  Operating current rated value  • at AC-3  — at 400 V rated value  • at AC-3  — at 400 V rated value  • at AC-3  — at 400 V rated value  90 W  — at 400 V rated value  90 W  — at 400 V rated value  90 W  — at 400 V rated value  — at 690 V rated value  — at 6	Ambient conditions	
● maximum         2 000 m           Temperature compensation         -20 +60 °C           Relative humidity during operation         10 95 %           Main circuit           Number of poles for main current circuit         3           Adjustable pick-up value current of the current-dependent overload release         0.45 0.63 A           Operating voltage         690 V           • rated value         690 V           • at AC-3 rated value maximum         690 V           Operating frequency rated value         50 60 Hz           Operating current rated value         0.63 A           Operating current         • at AC-3           — at 400 V rated value         0.63 A           Operating power         • at AC-3           • at 4 C-3         90 W           — at 400 V rated value         180 W           — at 500 V rated value         180 W           — at 690 V rated value         250 W           Operating frequency         • at AC-3 maximum           • 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		
Relative humidity during operation  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 current rated value  • at AC-3  — at 400 V rated value  • at AC-3  — at 230 V rated value  — at 400 V rated value  — at 500 V vated value  — at 500 V vated value  — at 690 V  Operating frequency  • at AC-3  — at 690 V rated value  — at 690 V rated value  Departing frequency  • at AC-3 maximum  15 1/h  Auxiliary circuit  Number of NC contacts for auxiliary contacts  Number of NC contacts for auxiliary contacts  O.45 0.63 A  0.45 0.63 A  0.69 V  0.60 Hz  0.63 A  0.69 V  0.69 V  0.69 V  0.69 V  0.60 A		2 000 m
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 current rated value  • at AC-3  — at 400 V rated value  • at AC-3  — at 400 V rated value  90 W  Operating power  • at AC-3  — at 400 V rated value  90 W  — at 400 V rated value  180 W  — at 500 V rated value  180 W  — at 690 V  Operating frequency • at AC-3 maximum  15 1/h   Auxillary circuit  Number of NC contacts for auxiliary contacts  0 .45 0.63 A  0.45 0.63 A  0.45 0.63 A	Temperature compensation	-20 +60 °C
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 current rated value  • at AC-3  — at 400 V rated value  • at AC-3  — at 230 V rated value  — at 500 V rated value  — at 690 V  Operating power  • at AC-3  — at 400 V rated value  Operating power  • at AC-3  — at 400 V rated value  — at 500 V rated value  — at 690 V rated value  • at AC-3 maximum  15 1/h  Auxiliary circuit  Number of NC contacts for auxiliary contacts  O	Relative humidity during operation	10 95 %
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 current rated value  • at AC-3  — at 400 V rated value  • at AC-3  — at 230 V rated value  — at 500 V rated value  — at 690 V  Operating power  • at AC-3  — at 400 V rated value  Operating power  • at AC-3  — at 400 V rated value  — at 500 V rated value  — at 690 V rated value  • at AC-3 maximum  15 1/h  Auxiliary circuit  Number of NC contacts for auxiliary contacts  O	8.4 × 1 × 14 × 16	
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  • at AC-3  — at 400 V rated value  • at AC-3  — at 400 V rated value  • at AC-3  — at 400 V rated value  • at AC-3  — at 400 V rated value  Operating power  • at AC-3  — at 400 V rated value  90 W  — at 500 V rated value  180 W  — at 690 V rated value  180 W  Operating frequency  • at AC-3 maximum  15 1/h  Auxiliary circuit  Number of NC contacts for auxiliary contacts  0  Number of NC contacts for auxiliary contacts		3
dependent overload release  Operating voltage  • rated value • at AC-3 rated value maximum  Operating frequency rated value  Operating current rated value  • at AC-3  — at 400 V rated value  Operating power  • at AC-3  — at 230 V rated value  — at 400 V rated value  180 W  — at 500 V rated value  180 W  — at 690 V  Operating frequency  • at AC-3 maximum  15 1/h  Auxiliary circuit  Number of NC contacts for auxiliary contacts  0 690 V  690		
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  90 W  — at 500 V rated value  180 W  — at 690 V rated value  250 W  Operating frequency • at AC-3 maximum  15 1/h  Auxiliary circuit  Number of NC contacts for auxiliary contacts  0		0.40 0.00 //
at AC-3 rated value maximum  Operating frequency rated value  Operating current rated value  otal AC-3  — at 400 V rated value  otal AC-3  — at 400 V rated value  Operating power  at AC-3  — at 230 V rated value  — at 400 V rated value  — at 400 V rated value  — at 500 V rated value  — at 500 V rated value  — at 690 V rated value  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	Operating voltage	
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 90 W  — at 400 V rated value 180 W  — at 500 V rated value 180 W  — at 690 V rated value 250 W  Operating frequency • at AC-3 maximum  15 1/h  Auxiliary circuit  Number of NC contacts for auxiliary contacts Number of NO contacts for auxiliary contacts 0	• rated value	690 V
Operating current rated value 0.63 A  Operating current  • at AC-3  — at 400 V rated value 0.63 A  Operating power  • at AC-3  — at 230 V rated value 90 W  — at 400 V rated value 180 W  — at 500 V rated value 180 W  — at 690 V rated value 250 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	• at AC-3 rated value maximum	690 V
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  — at 400 V rated value  — at 500 V rated value  — at 690 V rated value  — at 690 V rated value  180 W  Operating frequency  • at AC-3 maximum  15 1/h  Auxiliary circuit  Number of NC contacts for auxiliary contacts  Number of NO contacts for auxiliary contacts  0	Operating frequency rated value	50 60 Hz
• at AC-3 — at 400 V rated value  Operating power  • at AC-3 — at 230 V rated value — at 400 V rated value — at 500 V rated value — at 500 V rated value — at 690 V rated value 250 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	Operating current rated value	0.63 A
— at 400 V rated value       0.63 A         Operating power       • at AC-3         — at 230 V rated value       90 W         — at 400 V rated value       180 W         — at 500 V rated value       250 W         Operating frequency       • at AC-3 maximum         • 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	Operating current	
Operating power  • at AC-3  — at 230 V rated value 90 W  — at 400 V rated value 180 W  — at 500 V rated value 180 W  — at 690 V rated value 250 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	• at AC-3	
<ul> <li>at AC-3</li> <li>at 230 V rated value</li> <li>at 400 V rated value</li> <li>180 W</li> <li>at 500 V rated value</li> <li>at 690 V rated value</li> <li>250 W</li> </ul> Operating frequency <ul> <li>at AC-3 maximum</li> <li>15 1/h</li> </ul> Auxiliary circuit Number of NC contacts for auxiliary contacts <ul> <li>0</li> </ul> Number of NO contacts for auxiliary contacts <ul> <li>0</li> </ul> Number of NO contacts for auxiliary contacts <ul> <li>0</li> </ul>	— at 400 V rated value	0.63 A
<ul> <li>— at 230 V rated value</li> <li>— at 400 V rated value</li> <li>— at 500 V rated value</li> <li>— at 690 V rated value</li> <li>250 W</li> </ul> Operating frequency <ul> <li>at AC-3 maximum</li> <li>15 1/h</li> </ul> Auxiliary circuit Number of NC contacts for auxiliary contacts <ul> <li>0</li> </ul> Number of NO contacts for auxiliary contacts <ul> <li>0</li> </ul>	Operating power	
- at 400 V rated value - at 500 V rated value 180 W - at 690 V rated value 250 W  Operating frequency	• at AC-3	
- at 500 V rated value 250 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	— at 230 V rated value	90 W
— at 690 V rated value 250 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	— at 400 V rated value	180 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	— at 500 V rated value	180 W
• at AC-3 maximum  Auxiliary circuit  Number of NC contacts for auxiliary contacts  Number of NO contacts for auxiliary contacts  0  0	— at 690 V rated value	250 W
Auxiliary circuit  Number of NC contacts for auxiliary contacts  Number of NO contacts for auxiliary contacts  0  0	Operating frequency	
Number of NC contacts for auxiliary contacts 0 Number of NO contacts for auxiliary contacts 0	• at AC-3 maximum	15 1/h
Number of NO contacts for auxiliary contacts 0	Auxiliary circuit	
	Number of NC contacts for auxiliary contacts	0
Number of CO contacts	Number of NO contacts for auxiliary contacts	0
Number of CO contacts	Number of CO contacts	

0

Full-load current (FLA) for three-phase AC motor          • at 480 V rated value	Protective and monitoring functions		
Phase failure detection  (trip class)  CLASS 10  thermal  Operational short-circuit current breaking capacity (tos) 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 400 V rated value • at AC at 400 V rated value • at AC at 500 V rated value • with 2 current path 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 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 • at 600 V ra	Product function		
(trip class)  Design of the overload release  Operational short-circuit current breaking capacity (tca) at AC  • at 240 V rated value • at 500 V rated value • at 500 V rated value • at 690 V rated value • at 690 V rated value • at 600 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 600 V rated value • at AC at 600 V rated value • at AC at 600 V rated value • at C at 600 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 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 4 current paths in series at DC at 450 V rated value • of instantaneous short-circuit trip unit • of instantaneous short-circuit trip unit • of instantaneous short-circuit trip unit • at 480 V rated value • at 600 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 500 V rated value • at 500 V rated value • at 690 V rated value • at 62 at 240 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 500 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 • of instantaneous short-circuit trip unit • of instantaneous short-circuit trip unit • of of instantaneous short-circuit trip unit • of of instantaneous short-circuit trip unit • of one of instantaneous short-circuit trip • at 480 V rated value • at 600 V ra	Phase failure detection	Yes	
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   100 kA     • at 690 V rated value   100 kA     • at 690 V rated value   100 kA     Maximum short-circuit current breaking capacity (Icu)     • at AC at 240 V rated value   100 kA     • at AC at 240 V rated value   100 kA     • at AC at 500 V rated value   100 kA     • at AC at 650 V rated value   100 kA     • at AC at 650 V rated value   100 kA     Breaking capacity short-circuit current (Icn)     • at 1 current path at DC at 150 V rated value   10 kA     • with 2 current paths in series at DC at 300 V rated value   10 kA     • with 3 current paths in series at DC at 450 V rated value   10 kA     • with 3 current paths in series at DC at 450 V rated value   20 kA     • with 3 current paths in series at DC at 450 V rated value   20 kA     • with 3 current paths in series at DC at 450 V rated value   20 kA     • with 3 current paths in series at DC at 450 V rated value   20 kA     • with 3 current paths in series at DC at 450 V rated value   20 kA     • with 3 current paths in series at DC at 450 V rated value   20 kA     • with 3 current paths in series at DC at 450 V rated value   20 kA     • with 3 current paths in series at DC at 450 V rated value   20 kA     • with 3 current paths in series at DC at 450 V rated value   20 kA     • with 3 current paths in series at DC at 450 V rated value   20 kA     • with 3 current paths in series at DC at 450 V rated value   20 kA     • with 3 current paths in series at DC at 450 V rated value   20 kA     • of instantaneous short-circuit trip unit   8.2 A     UL/CSA ratings   20 kM     • of instantaneous short-circuit trip unit   8.2 A     UL/CSA ratings   20 kM     • of instantaneous short-circuit protection   20 kM     • at 600 V rated value   20 kM     • of instantaneous short-circuit protection   20 kM     • of instantaneous short-circuit protection   20 kM     • of instantaneous short-circuit protection	(trip class)	CLASS 10	
(les) at AC  • at 240 V rated value • at 400 V rated value • at 500 V rated value • at 500 V rated value • at 600 V rated value • at 600 V rated value • at 600 V rated value • at AC at 240 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 600 V rated value • at AC at 500 V rated value • at AC at 500 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 • with 3 current paths in series at DC at 450 V rated value • of instantaneous short-circuit trip unit • of instantaneous short-circuit trip unit • of our stade value • at 600 V rated value • at 600 V ra	Design of the overload release	thermal	
* at 240 V rated value     * at 400 V rated value     * at 500 V rated value     * at 500 V rated value     * at 690 V rated value     * at 690 V rated value     * at 690 V rated value     * at 600 V rated value     * at AC at 240 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 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 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     * of instantaneous short-circuit trip unit     * at 600 V rated value	Operational short-circuit current breaking capacity		
at 400 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 240 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 AC at 690 V rated value bit AC at 690 V rated value at AC at 690 V rated value at AC at 690 V rated value bit AC at 690 V rated value at AC at 690 V rated value bit AC autrent paths in series at DC at 300 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 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 (FLA) for three-phase AC motor at 480 V rated value 0.63 A at 600 V rated value 0.63 A  Short-circuit protection Product function Short circuit trip magnetic  Installation/ mounting/ dimensions  (neunting position) (mounting type) screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 (height) Width 45 mm Depth	(Ics) at AC		
• at 500 V rated value • at 690 V rated value  100 kA  Maximum short-circuit current breaking capacity (lcu) • at AC at 240 V rated value 100 kA • at AC at 440 V rated value 100 kA • at AC at 550 V rated value 100 kA • at AC at 550 V rated value 100 kA • at AC at 690 V rated value 100 kA  Preaking 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 • of instantaneous short-circuit trip unit  8.2 A  **DULICSA 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 • at 600 V rated value  **Short-circuit protection**  Product function Short circuit trip magnetic  **Installation/ mounting/ dimensions** • (mounting position) • (mounting position) • (mounting type)  **Created value	• at 240 V rated value	100 kA	
• at 690 V rated value  Maximum short-circuit current breaking capacity (Icu)  • at AC at 240 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 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  • of instantaneous short-circuit trip unit  • of instantaneous short-circuit trip unit  • of instantaneous short-circuit trip unit  • of of instantaneous short-circuit trip unit  • of maximum  • at 480 V rated value  • at 480 V rated value  • at 600 V rated value  • (mounting protection  Product function Short circuit trip  magnetic  Installation/ mounting/ dimensions  • (mounting position)  • (mounting position)  • (mounting type)  crew and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715  (height)  Width  45 mm  Depth	● 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 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  • 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  • of instantaneous short-circuit trip unit  • of at 480 V rated value  • at 480 V rated value  • at 600 V rated value  • crew and snap-on mounting of dimensions  • (mounting position)  • (mounting type)  crew and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715  (height)  97 mm  Width  45 mm  pepth	● at 500 V rated value	100 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 at AC at 690 V rated value at C 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 awith 3 current paths in series at DC at 450 V rated value  Response value current a of instantaneous short-circuit trip unit  bull/CSA ratings  Full-load current (FLA) for three-phase AC motor at 480 V rated value at 600 V rated value being of the short-circuit protection  Product function Short circuit protection  Product function Short circuit protection  Pesign of the short-circuit trip magnetic  installation/ mounting/ dimensions  (mounting position) (mounting position) (mounting type)  width as my screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715  (height)  97 mm  Width 45 mm  Depth	• at 690 V rated value	100 kA	
at AC at 400 V rated value at AC at 500 V rated value 100 kA  at AC at 500 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  with 3 current paths in se	Maximum short-circuit current breaking capacity (Icu)		
at AC at 500 V rated value at AC at 500 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 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  8.2 A  UL/CSA ratings  Full-load current (FLA) for three-phase AC motor of at 480 V rated value of 600 V rated value of 600 V rated value of 600 V rated value  Product function Short circuit protection Product function Short circuit protection Product function Short circuit protection  Product function Short circuit protection  (mounting position) of (mounting type)  screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715  (height)  97 mm  Width 45 mm  Depth	• 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  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  8.2 A  UL/CSA ratings  Full-load current (FLA) for three-phase AC motor  at 480 V rated value  o.63 A  o.63 A  Short-circuit protection  Product function Short circuit protection  Product function Short circuit trip  magnetic  Installation/ mounting/ dimensions  (mounting position)  o(mounting type)  screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715  (height)  97 mm  Width  45 mm  Depth	• 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  • with 3 current paths in series at DC at 450 V rated value  Response value current • of instantaneous short-circuit trip unit  • of instantaneous short-circuit trip unit  • at 480 V rated value • at 600 V rated value • at 600 V rated value  Product function Short circuit protection  Product function Short circuit trip  magnetic  Installation/ mounting/ dimensions  • (mounting position) • (mounting type)  circuit protection  Promition of the short-circuit frip  screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715  (height)  97 mm  Width  45 mm  Depth	• at AC at 500 V rated value	100 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  8.2 A  UL/CSA ratings  Full-load current (FLA) for three-phase AC motor at 480 V rated value of 600 V rated value  Short-circuit protection  Product function Short circuit trip Design of the short-circuit trip (mounting position) (mounting type)  (mounting type)  with 2 current paths in series at DC at 300 V 10 kA  10 kA 1	• at AC at 690 V rated value	100 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	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  8.2 A  UL/CSA ratings  Full-load current (FLA) for three-phase AC motor  • at 480 V rated value  • at 600 V rated value  Design of the short-circuit trip  magnetic  Installation/ mounting/ dimensions  • (mounting position)  • (mounting type)  (height)  Width  Depth  10 kA  10 kA  10 kA  110 ka	• at 1 current path at DC at 150 V rated value	10 kA	
with 3 current paths in series at DC at 450 V rated value  Response value current     of instantaneous short-circuit trip unit  8.2 A  UL/CSA ratings  Full-load current (FLA) for three-phase AC motor     at 480 V rated value     at 600 V rated value     o.63 A     o.63 A  Short-circuit protection  Product function Short circuit protection  Product function Short circuit trip  magnetic  Installation/ mounting/ dimensions     o (mounting position)     o (mounting type)  (neight)  Width  Depth  10 kA  10 kA  10 kA  11 kA  8.2 A	• with 2 current paths in series at DC at 300 V	10 kA	
rated value  Response value current  • of instantaneous short-circuit trip unit  8.2 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  Product function Short circuit protection  Product function Short circuit trip  magnetic  Installation/ mounting/ dimensions  • (mounting position)  • (mounting type)  any  screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715  (height)  Width  Depth  97 mm	rated value		
Response value current  of instantaneous short-circuit trip unit  8.2 A  UL/CSA ratings  Full-load current (FLA) for three-phase AC motor  of at 480 V rated value  of at 600 V rated value  Product function Short circuit protection  Product function Short circuit trip  magnetic  Installation/ mounting/ dimensions  of (mounting position)  of (mounting type)  screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715  (height)  Width  Depth  97 mm	<ul> <li>with 3 current paths in series at DC at 450 V</li> </ul>	10 kA	
of instantaneous short-circuit trip unit      8.2 A  UL/CSA ratings  Full-load current (FLA) for three-phase AC motor     o at 480 V rated value     o.63 A     o.63 A  Short-circuit protection  Product function Short circuit protection  Pesign of the short-circuit trip  Installation/ mounting/ dimensions      o (mounting position)     o (mounting type)  Installation/ mounting type  Installation/ mountin			
Full-load current (FLA) for three-phase AC motor  • at 480 V rated value  • at 600 V rated value  Product function Short circuit protection  Pesign of the short-circuit trip  Installation/ mounting/ dimensions  • (mounting position)  • (mounting type)  (height)  Width  Depth  Design of the short-circuit trip  97 mm  Product function Short circuit protection  Yes  magnetic  any  screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715  97 mm  Width  97 mm			
Full-load current (FLA) for three-phase AC motor  • at 480 V rated value • at 600 V rated value  • at 600 V rated value  Chort-circuit protection  Product function Short circuit protection  Pesign of the short-circuit trip  Installation/ mounting/ dimensions  • (mounting position) • (mounting type)  cheight)  Product function Short circuit protection  Yes  magnetic  magnetic  any  screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715  (height)  97 mm  Width  45 mm  Depth  Product function Short circuit protection  Yes  magnetic	<ul> <li>of instantaneous short-circuit trip unit</li> </ul>	8.2 A	
<ul> <li>at 480 V rated value</li> <li>at 600 V rated value</li> <li>Short-circuit protection</li> <li>Product function Short circuit protection</li> <li>Design of the short-circuit trip</li> <li>Installation/ mounting/ dimensions</li> <li>(mounting position)</li> <li>(mounting type)</li> <li>(mounting type)</li> <li>(height)</li> <li>Width</li> <li>Depth</li> <li>0.63 A</li> <li>0.65 A&lt;</li></ul>	UL/CSA ratings		
at 600 V rated value  Short-circuit protection  Product function Short circuit protection  Design of the short-circuit trip  Installation/ mounting/ dimensions	Full-load current (FLA) for three-phase AC motor		
Short-circuit protection  Product function Short circuit protection  Design of the short-circuit trip  Installation/ mounting/ dimensions  • (mounting position)  • (mounting type)  screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715  (height)  Width  45 mm  Depth  97 mm	• at 480 V rated value	0.63 A	
Product function Short circuit protection  Design of the short-circuit trip  Installation/ mounting/ dimensions  (mounting position) (mounting type)  (mounting type)  Screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715  (height)  97 mm  Width  45 mm  97 mm	• at 600 V rated value	0.63 A	
Product function Short circuit protection  Design of the short-circuit trip  Installation/ mounting/ dimensions  (mounting position) (mounting type)  (mounting type)  Screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715  (height)  97 mm  Width  45 mm  97 mm	Short-circuit protection		
Design of the short-circuit trip  Installation/ mounting/ dimensions  • (mounting position)  • (mounting type)  screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715  (height)  97 mm  Width  45 mm  97 mm	•	Yes	
<ul> <li>● (mounting position)</li> <li>● (mounting type)</li> <li>screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715</li> <li>(height)</li> <li>Width</li> <li>Depth</li> <li>97 mm</li> <li>97 mm</li> </ul>		magnetic	
<ul> <li>● (mounting position)</li> <li>● (mounting type)</li> <li>screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715</li> <li>(height)</li> <li>Width</li> <li>Depth</li> <li>97 mm</li> <li>97 mm</li> </ul>	Installation/ mounting/ dimensions		
according to DIN EN 60715   (height)		any	
Width 45 mm 97 mm	• (mounting type)		
Depth 97 mm	(height)	97 mm	
·	Width	45 mm	
Required spacing	Depth	97 mm	
	Required spacing		

<ul><li>with side-by-side mounting</li></ul>	
— 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

Connections/Terminals	
Product function	
<ul> <li>removable terminal for auxiliary and control</li> </ul>	No
circuit	
Type of electrical connection	
for main current circuit	screw-type terminals
Arrangement of electrical connectors for main current	Top and bottom
circuit	
Type of connectable conductor cross-sections	
for main contacts	
<ul><li>— single or multi-stranded</li></ul>	2x (1 2,5 mm²), 2x (2,5 10 mm²)
<ul> <li>finely stranded with core end processing</li> </ul>	2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm²
<ul> <li>at AWG conductors for main contacts</li> </ul>	2x (16 12), 2x (14 8)
Tightening torque	
<ul> <li>for main contacts with screw-type terminals</li> </ul>	2 2.5 N·m
Design of screwdriver shaft	Diameter 5 to 6 mm
Size of the screwdriver tip	Pozidriv 2
Design of the thread of the connection screw	
• for main contacts	M4

Safety related data	
B10 value	
<ul> <li>with high demand rate acc. to SN 31920</li> </ul>	5 000
Proportion of dangerous failures	

<ul> <li>with low demand rate acc. to SN 31920</li> </ul>	50 %
<ul> <li>with high demand rate acc. to SN 31920</li> </ul>	50 %
Failure rate [FIT]	
<ul> <li>with low demand rate acc. to SN 31920</li> </ul>	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** For use in hazardous locations

KC











For use in haz- ardous loca- tions	Declaration of Conformity	Test Certificates	Marine / Ship- ping
IECEX	Miscellaneo  EG-Konf.	<u>Type Test Certificates/Test Report</u> Special Test Certificate	ABS

### Marine / Shipping













other

Railway

Confirmation



Vibration and Shock

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=3RV2021-0GA10

#### Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2021-0GA10

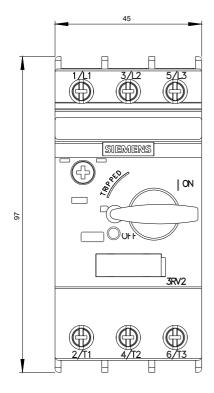
Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3RV2021-0GA10

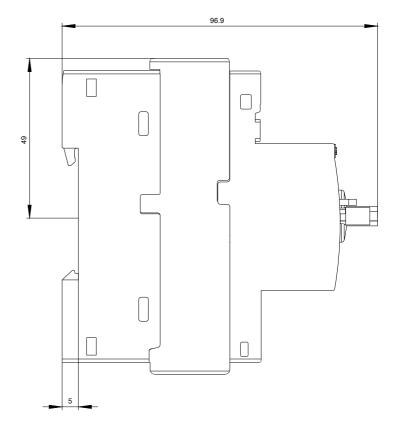
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RV2021-0GA10&lang=en

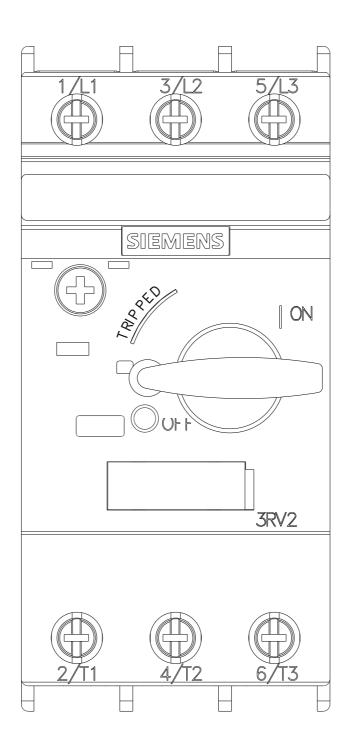
Characteristic: Tripping characteristics, I2t, Let-through current

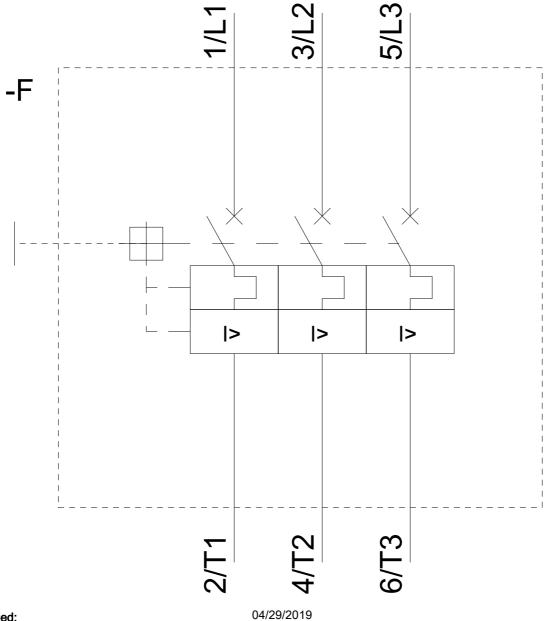
https://support.industry.siemens.com/cs/ww/en/ps/3RV2021-0GA10/char

Further characteristics (e.g. electrical endurance, switching frequency)
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2021-0GA10&objecttype=14&gridview=view1









last modified: