## SIEMENS

## Data sheet

## 3RV2031-4VA10



Circuit breaker size S2 for motor protection, CLASS 10 A-release 35...45 A N-release 650 A screw terminal Standard switching capacity

4/12 4/13	
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	S2
size of contactor can be combined company-specific	S2
product extension auxiliary switch	Yes
power loss [W] for rated value of the current	
<ul> <li>at AC in hot operating state</li> </ul>	24.5 W
<ul> <li>at AC in hot operating state per pole</li> </ul>	8.2 W
insulation voltage with degree of pollution 3 at AC rated value	690 V
surge voltage resistance rated value	6 kV
shock resistance according to IEC 60068-2-27	25g / 11 ms Sinus
mechanical service life (operating cycles)	
<ul> <li>of the main contacts typical</li> </ul>	50 000
<ul> <li>of auxiliary contacts typical</li> </ul>	50 000
electrical endurance (operating cycles) typical	50 000
type of protection according to ATEX directive 2014/34/EU	Ex II (2) GD
certificate of suitability according to ATEX directive 2014/34/EU	DMT 02 ATEX F 001
reference code according to IEC 81346-2	Q
Substance Prohibitance (Date)	10/15/2014
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
<ul> <li>during operation</li> </ul>	-20 +60 °C
<ul> <li>during storage</li> </ul>	-50 +80 °C
<ul> <li>during transport</li> </ul>	-50 +80 °C
relative humidity during operation	10 95 %
Main circuit	
number of poles for main current circuit	3
adjustable current response value current of the current-dependent overload release	35 45 A
operating voltage	
<ul> <li>rated value</li> </ul>	20 690 V
<ul> <li>at AC-3 rated value maximum</li> </ul>	690 V
<ul> <li>at AC-3e rated value maximum</li> </ul>	690 V
operating frequency rated value	50 60 Hz
operational current rated value	45 A

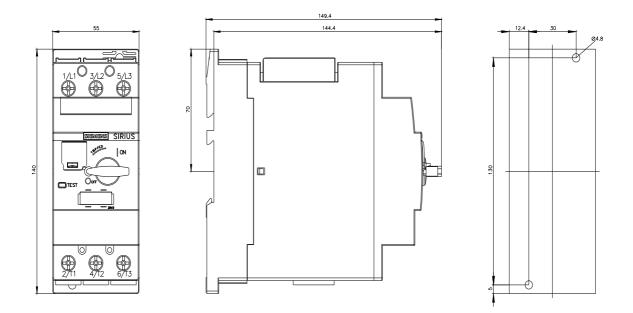
Operating prover         45 Å           • 4 AC-3 at 400 V rade value         45 Å           • 4 AC-3 at 400 V rade value         45 Å           • 4 AC-3 at 400 V rade value         11 kW           • 4 AC-3 at 400 V rade value         21 kW           • 4 AC-3 at 400 V rade value         20 kW           • • 15 50 V rade value         20 kW           • • 16 400 V rade value         20 kW           • • 16 400 V rade value         20 kW           • • 16 400 V rade value         20 kW           • • 16 400 V rade value         20 kW           • • 16 400 V rade value         20 kW           • • 16 400 V rade value         20 kW           • • 16 400 V rade value         20 kW           • • 16 400 V rade value         20 kW           • • 16 400 V rade value         20 kW           • • 16 400 V rade value         20 kW           • • 16 400 V rade value         10 kA           • 0 round fault detection         Yoe           • 10 out fault detecti	operational current	
• et AC-3e at 400 Visted value45 A• et AC-3I I KW• at 420 Visted value11 KW• at 420 Visted value30 KW• at 920 Visted value37 KWOpparting frequency15 1/h• at AC-3e maximum15 1/h• at AC-3e maximum15 1/h• at AC-3e maximum10 KA• at AC-3e maximum10 KA• at AC-3e maximum10 KA• at AC-3 Kab Visted value80 KA• at AC-3 Kab Visted value10 KA• at AC-4 Kab Visted value10 KA• at AC-4 Kab Visted value10 KA• at AC 4 Kab Visted Visted10 KA• at	•	45 A
operating power• #1 C23- #1 230 V radie Value11 kW- #1 500 V radie Value22 kW- #1 500 V radie Value30 kW- #1 600 V radie Value30 kW- #1 600 V radie Value22 kW- #1 600 V radie Value22 kW- #1 600 V radie Value22 kW- #1 600 V radie Value20 kW- #1 600 V radie Value15 th- #1 600 V radie Value15 th- #1 600 V radie Value16 kA- #1 600 V radie Value10 kA- #1 600 V radie V		
• at 20 V rated value         1 kW           - at 400 V rated value         2 kW           - at 600 V rated value         30 kW           - at 600 V rated value         37 kW           • at 600 V rated value         37 kW           • at 600 V rated value         37 kW           - at 600 V rated value         30 kW           - at 610 V rated value         51 h           • at Ac 31 Ac 31 maximum         151 h           • at Ac 31 400 V rated value         65 kA           • at Ac at 400 V rated value         66 kA           • at Ac at 900 V rated value         65 kA           • at Ac at 900 V rated value         66 kA           • at Ac at 900 V rated value         66 kA           • at Ac at 900 V rated value         66 kA           • at Ac at 900 V rated value         100 kA           • at Ac at 900 V rated value         30 kA           • at 600		45 A
<ul> <li></li></ul>		
- = # 400 V relat value         22 kW           - = # 690 V relat value         37 kW           - = # 690 V relat value         37 kW           - = # 230 V rated value         21 kW           - = # 690 V relat value         20 kW           - = # 690 V rated value         20 kW           - = # 690 V rated value         20 kW           - = # 690 V rated value         20 kW           - = # 690 V rated value         30 kW           - = # 690 V rated value         30 kW           - = # 690 V rated value         30 kW           - = # 690 V rated value         30 kW           - = # 690 V rated value         30 kW           - = # 690 V rated value         10 kh           - # 600 V rated value         10 kh           - # 600 V rated value         60 kA           - # 600 V rated value         5 kA           - # 600 V rated value         60 kA           - # 600 V rated value         60 kA		11 k/M
- art 500 V related value 30 kW - at AC-3e - at 200 V related value 11 kW - at ACO V related value 22 kW - at 500 V related value 30 kW - at 600 V related value 30 kW - spont fluit disterilion 40 km - at 600 V related value 56 kA - at 62 dV related value 56 kA - at 62 dV related value 30 kA - at 630 V related value 45 A - at 630 V related value 56 kA - at 630 V related value 50 kp - at 640 V related value 56 kA - at 640 V rel		
- af 600 V rated value     37 kW       • at 4230 V rated value     11 kW       - at 400 V rated value     22 kW       - at 600 V rated value     30 kW       - at 600 V rated value     15 th       - at 600 V rated value     Value       • at AC-3 maximum     15 th       • at AC at 600 V rated value     Value       • at AC at 600 V rated value     CLASS 10       • at AC at 600 V rated value     100 kA       • at AC at 500 V rated value     100 kA       • at AC at 500 V rated value     10 kA       • at AC at 500 V rated value     10 kA       • at AC at 500 V rated value     5 kA       • at 600 V rated value     3 hg       • at 600 V rated value     5 hg       • at 600 V rated value     3 hg       • at 600 V rated value     <		
• at AC-3e•		
		57 KW
- at 300 V rated value 22 kW - at 650 V rated value 37 kW operating frequency • at AC-3 maximum 15 1/h • private flucturent functions Product function • private flucturent breaking capacity (tcu) • at AC at 240 V rated value • at AC at 00 V rated value • at AC at 240 V rated value • at AC at 50 V rated value • at AC at 50 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 00 V rated value • at 20 V rated value • at		11 k/M
operating frequency • at AC-3 maximum15 1/h 15 1/h 15 1/het AC-3 maximum15 1/h 15 1/het AC-3 maximum15 1/hproduct functionNo Separation of functionsproduct functionVes Second release thip classCLASS 10 CLASS 10 CLASS 10 CLASS 10 CLASS 10 CLASS 10 CLASS 10 thermal• at AC at 240 virated value • at AC at 250 virated value • at AC at 350 virated value • at AC at 350 virated value • at AC at 350 virated value • at 400 virated vi		
• at AC-3 maximum       15 t/h         Protective and monitoring functions         product function         • ground fault detection         • ground fault detection         Yes         trip class         design of the overload release         maximum short-circuit current breaking capacity (icu)         • at AC at 240 V rated value         • at AC at 500 V rated value         • at AC at 600 V rated value         • at AC at 900 V rated value         • at AC at 900 V rated value         • at AC at 900 V rated value         • at 4C0 V rated value         • at 600 V rated value <t< td=""><td></td><td></td></t<>		
• at AC-3e maximum15 1/hProduct function• ground fault detectionNo• product functionYes• prasse fullure detectionYestrip classCLASS 10design of the overload releasethermalmaximum short-circuit current breaking capacity (lcu)100 kA• at AC at 240 V rated value65 kA• at AC at 600 V rated value100 kA• at AC at 600 V rated value20 kA• at 600 V rated value30 kA• at 600 V rated value5 kA• at 600 V rated value45 A• at 600 V rated value45 A• at 600 V rated value3 hp• at 600 V rated value3 hp• at 800 V rated value45 A• at 800 V rated value45 A• at 800 V rated value45 A• at 800 V rated value3 hp• at 800 V rated value4 hp• at 800 V rated value3 hp• at 800 V rated value4 h		15 1/h
Protective and monitoring functions       product function       • ground fault detection       • ground fault detection       Yes       trip class       CLASS 10       • design of the overload release       maximum short-circuit current breaking capacity (icu)       • at AC at 240 V rated value       • at AC at 240 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       • at 400 V rated value       • at 600 V rated value       • at 600 V rated value       • at 200 Z v rated value		
product function     No       • graund fauit detection     No       • phase failure detection     Yes       trip class     CLASS 10       design of the overload release     thermal       maximum short-circuit current breaking capacity (Icu)     • at AC at 240 V rated value     100 kA       • at AC at 500 V rated value     10 kA     • at AC at 500 V rated value     10 kA       • at AC at 500 V rated value     100 kA     • at 400 V rated value     100 kA       • at 420 V rated value     100 kA     • at 400 V rated value     5 kA       • at 4200 V rated value     5 kA     • at 600 V rated value     5 kA       • at 600 V rated value     5 kA     • at 600 V rated value     5 kA       • at 600 V rated value     5 kA     • at 600 V rated value     5 kA       • at 600 V rated value     5 kA     • at 600 V rated value     5 kA       • at 600 V rated value     45 A     • at 600 V rated value     45 A       • at 400 V rated value     45 A     • at 600 V rated value     45 A       • at 400 V rated value     10 hp     • at 200/200 V rated value     10 hp       • at 400 V rated value     10 hp     • at 200/200 V rated value     10 hp       • at 400 V rated value     10 hp     • at 600 V rated value     10 hp       • at 400/480 V rated value		
• ground fault detection     No       • phase failure detection     Yes       trip class     CLASS 10       design of the overload release     thermal       maximum short-circuit current breaking capacity (Icu)     100 kA       • at AC at 240 V rated value     65 kA       • at AC at 500 V rated value     100 kA       • at AC at 500 V rated value     4 kA       • at AC at 600 V rated value     30 kA       • at AC at 600 V rated value     30 kA       • at AC at 600 V rated value     2 kA       • at 400 V rated value     30 kA       • at 600 V rated value     2 kA       • at 600 V rated value     5 kA       • at 600 V rated value     4 sA       • at 600 V rated value     5 hp       • at 600 V rated		
• phase failure detection     Yes       trip class     CLASS 10       design of the overload release     thermal       maximum short-circuit current breaking capacity (Icu)     it AC at 240 V rated value     100 kA       • at AC at 240 V rated value     100 kA     65 kA       • at AC at 300 V rated value     100 kA     65 kA       • at AC at 300 V rated value     100 kA     65 kA       • at AC at 300 V rated value     100 kA     66 kA       • at 240 V rated value     100 kA     66 kA       • at 240 V rated value     100 kA     66 kA       • at 240 V rated value     100 kA     66 kA       • at 400 V rated value     100 kA     66 kA       • at 400 V rated value     100 kA     66 kA       • at 600 V rated value     5 kA     68 A       • at 600 V rated value     5 kA     680 A       • at 400 V rated value     45 A     680 A       • at 400 V rated value     45 A     680 A       • at 600 V rated value     45 A     680 A       • at 200 V rated value     10 hp     600 A       • at 200 V rated value     10 hp     600 A       • at 200 V rated value     10 hp     600 A       • at 200 V rated value     10 hp     600 A       • at 2002020 V rated value     10 hp	•	No
trip class       CLASS 10         design of the overload release       thermal         maximum Short-Circuit Current breaking capacity (tcu)       100 kA         • at AC at 240 V rated value       100 kA         • at AC at 600 V rated value       10 kA         • at AC at 600 V rated value       100 kA         • at AC at 600 V rated value       10 kA         • at AC at 600 V rated value       10 kA         • at AC at 600 V rated value       100 kA         • at 240 V rated value       30 kA         • at 240 V rated value       2 kA         • at 400 V rated value       2 kA         • at 600 V rated value       4 kA         • at 600 V rated value       45 A         • at 600 V rated value       45 A         • at 600 V rated value       3 hp         • at 300 V rated value       3 hp         - at 200 V rated value       10 hp         • for single-phase AC motor       -         - at 200208 V rated value       15 hp         - at 200208 V rated value       16 hp         - at 40040 V rated value       40 hp	-	
design of the overload release         thermal           maximum short-circuit current breaking capacity (tou)         i           • at AC at 420 V rated value         65 KA           • at AC at 400 V rated value         100 KA           • at AC at 500 V rated value         100 KA           • at AC at 500 V rated value         100 KA           • at AC at 500 V rated value         100 KA           • at AC at 500 V rated value         100 KA           • at 240 V rated value         100 KA           • at 400 V rated value         100 KA           • at 600 V rated value         30 KA           • at 600 V rated value         20 KA           • at 600 V rated value         2 KA           response value current of instantaneous short-circuit trip         60 A           unit         2 KA           • at 600 V rated value         45 A           • at 600 V rated value         10 hp           • for single-phase AC motor         -           - at 200/28 V rated value         15 hp           - at 200/28 V rated value         16 hp           - at 220/280 V rated value	•	
maximum short-circuit current breaking capacity (icu)         100 kA           • at AC at 240 V rated value         100 kA           • at AC at 500 V rated value         10 kA           • at AC at 500 V rated value         10 kA           • at AC at 500 V rated value         4 kA           • operating short-circuit current breaking capacity (ics)         -           • at 240 V rated value         100 kA           • at 240 V rated value         100 kA           • at 240 V rated value         100 kA           • at 240 V rated value         20 kA           • at 240 V rated value         20 kA           • at 600 V rated value         2 kA           • at 600 V rated value         4 5 A           • at 600 V rated value         45 A           • at 600 V rated value         45 A           • at 600 V rated value         45 A           • at 600 V rated value         3 hp           • at 200 V rated value         3 hp           • at 200 V rated value         45 A           • at 200 V rated value         10 hp           • for 3-phase AC motor         -           • at 200 V rated value         15 hp           at 200/208 V rated value         40 hp           at 40/48 U rated value         40 hp <td></td> <td></td>		
• at AC at 240 V rated value     100 kA       • at AC at 400 V rated value     65 kA       • at AC at 600 V rated value     10 kA       • at AC at 600 V rated value     4 kA       operating short-circuit current breaking capacity (Ics) at AC     100 kA       • at 240 V rated value     30 kA       • at 600 V rated value     30 kA       • at 600 V rated value     5 kA       • at 600 V rated value     45 A       • at 800 V rated value     45 A       • at 800 V rated value     45 A       • at 800 V rated value     3 hp       at 230 V rated value     10 hp       • for 3-phase AC motor     15 hp       at 220/280 V rated value     15 hp       at 220/280 V rated value     15 hp       at 220/280 V rated value     50 hp       Short-circuit protection     Yes       design of the short-circuit trip     magnetic       design of the short-circuit trip     100	-	uronnar
• at AC at 400 V rated value65 kA• at AC at 500 V rated value10 kA• at AC at 600 V rated value4 kAoperating short-circuit current breaking capacity (Ics) at AC100 kA• at 240 V rated value100 kA• at 240 V rated value30 kA• at 600 V rated value5 kA• at 600 V rated value5 kA• at 600 V rated value650 A• at 600 V rated value45 A• at 600 V rated value10 hp• for 3-phase AC motor-• at 400 V rated value10 hp• for 3-phase AC motor-• at 400 V rated value10 hp• for 3-phase AC motor at 110/120 V rated value3 hp- at 230 V rated value15 hp- at 200208 V rated value15 hp- at 200208 V rated value50 hpShort-circuit protectionYesredsign of the fuse link for IT network for short-circuit protectionYesdesign of the short-circuit tripnone required• at 420 V100• at 420 V80• at 600 V100• at 600 V100• at 600 V100• at 600 V rated value100 hp• for 3-phase AC motor at 200208 V rated value100 hp• at 200208 V rated value100 hp• at 200208 V rated value100 hp <trr>• at 30 V rated value10</trr>		100 kA
• at AC at 500 V rated value       10 kA         • at AC at 690 V rated value       4 kA         operating short-circuit current breaking capacity (ics) at AC       100 kA         • at 240 V rated value       100 kA         • at 400 V rated value       30 kA         • at 500 V rated value       5 kA         • at 600 V rated value       5 kA         • at 600 V rated value       2 kA         • at 630 V rated value       45 A         • at 630 V rated value       45 A         • at 480 V rated value       45 A         • at 630 V rated value       3 hp         - at 230 V rated value       10 hp         • for 3-phase AC motor       -         - at 200208 V rated value       15 hp         - at 4004a0 V rated value       40 hp         - at 4004a0 V rated value       50 hp         Short-circuit protection       Yes         magnetic       magnetic         eat 500 V       100         • at 500 V       100		
• at AC at 690 V rated value       4 kA         operating short-circuit current breaking capacity (Ics) at AC       100 kA         • at 240 V rated value       100 kA         • at 400 V rated value       30 kA         • at 690 V rated value       5 kA         • at 690 V rated value       2 kA         response value current of instantaneous short-circuit trip unit       650 A <b>1ULCSA ratings</b> 45 A         full-load current (FLA) for 3-phase AC motor       45 A         • at 600 V rated value       45 A         • at 600 V rated value       3 hp         - at 110/120 V rated value       3 hp         - at 230 V rated value       10 hp         • for 3-phase AC motor       -         - at 200/208 V rated value       15 hp         - at 200/208 V rated value       15 hp         - at 200/208 V rated value       15 hp         - at 575/600 V rated value       50 hp         Short-circuit protection       Yes         magnetic       design of the fuse link for IT network for short-circuit protection         • at 400 V       125         • at 400 V       125         • at 400 V       125         • at 400 V       80         Installation/ mounting/ dimensions		
operating short-circuit current breaking capacity (ics) at AC100 kA• at 240 V rated value100 kA• at 400 V rated value30 kA• at 600 V rated value5 kA• at 600 V rated value2 kAresponse value current of instantaneous short-circuit trip unit650 AU/CSA ratingsfull-load current (FLA) for 3-phase AC motor• at 800 V rated value45 A• at 600 V rated value45 A• at 600 V rated value45 A• at 600 V rated value3 hp• at 200 V rated value10 hp• for single-phase AC motor- at 10/120 V rated value10 hp• for 3-phase AC motor- at 200 V rated value10 hp• for 3-phase AC motor- at 200/208 V rated value10 hp• at 200/208 V rated value15 hp- at 200/208 V rated value50 hp- at 460/480 V rated value40 hp- at 375/600 V rated value50 hpShort-circuit protectionYesresponse of the fuse link for IT network for short-circuit protection of the main circuitnone required• at 420 V125• at 600 V100• at 600 V100 <td></td> <td></td>		
at AC     100 kA       • at 240 V rated value     30 kA       • at 500 V rated value     5 kA       • at 690 V rated value     5 kA       • at 690 V rated value     50 A       unit     500 A       ULCSA ratings     500 V       full-load current (FLA) for 3-phase AC motor     650 A       • at 600 V rated value     45 A       • at 600 V rated value     45 A       • at 600 V rated value     10 hp       • for single-phase AC motor     -       - at 10/120 V rated value     10 hp       • for single-phase AC motor     -       - at 200 V rated value     10 hp       • for 3-phase AC motor     -       - at 200 V rated value     10 hp       • for 3-phase AC motor     -       - at 200 V rated value     10 hp       • for 3-phase AC motor     -       - at 200/208 V rated value     15 hp       - at 200/208 V rated value     50 hp       Short-circuit protection     Yes       magnetic     magnetic       design of the short-circuit trip     magnetic       design of the short-circuit trip     role       design of the short-circuit trip     00       i at 00 V     100       i at 600 V     80       hstallation/ mounting/ dimensions <td></td> <td></td>		
• at 400 V rated value     30 kA       • at 500 V rated value     5 kA       • at 690 V rated value     2 kA       response value current of instantaneous short-circuit trip unit     500 A       UL/CSA ratings     500 V rated value       full-load current (FLA) for 3-phase AC motor     650 A       • at 480 V rated value     45 A       • at 600 V rated value     45 A       • at 600 V rated value     45 A       • of or single-phase AC motor     -       - at 110/120 V rated value     3 hp       - at 230 V rated value     10 hp       • for 3-phase AC motor     -       - at 200/208 V rated value     15 hp       - at 200/208 V rated value     15 hp       - at 200/208 V rated value     50 hp       Short-circuit protection     Yes       product function short circuit protection     Yes       design of the sum for IT network for short-circuit protection     Yes       of at 400 V     125       • at 500 V     100       • at 500 V     100       • at 600 V     80       Installation/ mounting/ dimensions     any       screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 607/15       height     140 mm		
• at 500 V rated value       5 kA         • at 690 V rated value       2 kA         response value current of instantaneous short-circuit trip unit       650 A <b>tul-Cost ratings full-load current (FLA) for 3-phase AC motor</b> • at 480 V rated value       45 A         • at 600 V rated value       15 hp         - at 110/120 V rated value       15 hp         - at 200/208 V rated value       15 hp         - at 200/208 V rated value       15 hp         - at 200/208 V rated value       50 hp         Short-circuit protection       Yes         responder for the short-circuit protection       Yes         design of the short-circuit protection       Yes         eat 240 V       none required         • at 240 V       125         • at 400 V       125         • at 400 V       80         • at 400 V       125         • at 500 V       80         Shore-ci	<ul> <li>at 240 V rated value</li> </ul>	100 kA
• at 690 V rated value     2 kA       response value current of instantaneous short-circuit trip unit     650 A       UL/CSA ratings       full-load current (FLA) for 3-phase AC motor     45 A       • at 400 V rated value     45 A       • at 600 V rated value     45 A       • at 600 V rated value     45 A       • at 600 V rated value     3 hp       - at 10/120 V rated value     3 hp       - at 200 V rated value     10 hp       • for single-phase AC motor     15 hp       - at 200/208 V rated value     15 hp       - at 200/208 V rated value     40 hp       - at 200/208 V rated value     50 hp       Short-circuit protection     7 ks       gesign of the short-circuit trip     magnetic       design of the short-circuit trip     magnetic       elsign of the fuse link for IT network for short-circuit     700       • at 240 V     none required       • at 240 V     125       • at 600 V     125       • at 600 V     80       Installation/ mounting/ dimensions     any       screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715       height     140 mm	<ul> <li>at 400 V rated value</li> </ul>	30 kA
response value current of instantaneous short-circuit trip unit       650 A         UL/CSA ratings         full-load current (FLA) for 3-phase AC motor <ul> <li>at 480 V rated value</li> <li>45 A</li> <li>at 600 V rated value</li> <li>45 A</li> <li>intil/200 V rated value</li> <li>45 A</li> <li>at 10/120 V rated value</li> <li>a triple-phase AC motor                 <ul> <li>at 110/120 V rated value</li> <li>3 hp</li> <li>at 200/208 V rated value</li> <li>10 hp</li> <li>for 3-phase AC motor</li> <li>at 200/208 V rated value</li> <li>15 hp</li> <li>at 200/208 V rated value</li> <li>5 hp</li> <li>at 200/208 V rated value</li> <li>5 hp</li> <li>at 460480 V rated value</li> <li>50 hp</li> <li>at 575/600 V rated value</li> <li>50 hp</li></ul></li></ul>	<ul> <li>at 500 V rated value</li> </ul>	5 kA
unit       Image: Constraint of the second sec	<ul> <li>at 690 V rated value</li> </ul>	2 kA
UL/CSA ratings         full-load current (FLA) for 3-phase AC motor         • at 480 V rated value       45 A         • at 600 V rated value       45 A         • at 600 V rated value       45 A         yielded mechanical performance [hp]       •         • for single-phase AC motor       -	response value current of instantaneous short-circuit trip	650 A
full-load current (FLA) for 3-phase AC motor       45 A         • at 480 V rated value       45 A         • at 600 V rated value       45 A         yielded mechanical performance [hp]       6         • at 110/120 V rated value       3 hp         - at 230 V rated value       10 hp         • for 3-phase AC motor       -         - at 200/208 V rated value       15 hp         - at 220/230 V rated value       15 hp         - at 220/230 V rated value       15 hp         - at 460/480 V rated value       40 hp         - at 575/600 V rated value       50 hp         Short-circuit protection       Yes         gesign of the short-circuit protection       Yes         design of the fuse link for IT network for short-circuit       magnetic         • at 240 V       none required         • at 500 V       125         • at 500 V       100         • at 600 V       80         Installation/ mounting/ dimensions       any         mounting position       any         fastening method       screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715         height       140 mm	unit	
• at 480 V rated value45 A• at 600 V rated value45 A• at 600 V rated value45 Ayielded mechanical performance [hp] at 110/120 V rated value3 hp- at 110/120 V rated value10 hp• for 3-phase AC motor at 200/208 V rated value15 hp- at 220/230 V rated value15 hp- at 220/230 V rated value50 hpShort-circuit protectionYes- at 675/600 V rated value50 hpShort-circuit protectionYesdesign of the short-circuit protectionYes- at 240 Vnone required- at 240 V125- at 690 V80Installation mounting / dimensions80mounting positionanysafesning methodanyfastening method140 mm	UL/CSA ratings	
• at 600 V rated value45 Åyielded mechanical performance [hp]-• for single-phase AC motor at 110/120 V rated value3 hp- at 230 V rated value10 hp• for 3-phase AC motor at 200/208 V rated value15 hp- at 200/208 V rated value40 hp- at 400/480 V rated value50 hpShort-circuit protectionYesdesign of the short-circuit tripmagneticdesign of the fuse link for IT network for short-circuitYes- at 400 V125- at 400 V125- at 500 V100- at 600 V80Installation/ mounting/ dimensionsanymounting positionanyfastening methodanyfastening method140 mm	full-load current (FLA) for 3-phase AC motor	
yielded mechanical performance [hp]• for single-phase AC motor3 hp- at 110/120 V rated value3 hp- at 230 V rated value10 hp• for 3-phase AC motor at 200/208 V rated value15 hp- at 220/230 V rated value15 hp- at 220/230 V rated value15 hp- at 450/480 V rated value40 hp- at 55/600 V rated value50 hpShort-circuit protectionproduct function short circuit protectionYesdesign of the short-circuit trip design of the fuse link for IT network for short-circuit protection of the main circuitnone required• at 400 V125• at 500 V100• at 690 V80Installation/ mounting/ dimensionsany screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715height140 mm	<ul> <li>at 480 V rated value</li> </ul>	45 A
<ul> <li>for single-phase AC motor         <ul> <li>at 110/120 V rated value</li> <li>bp</li> <li>at 230 V rated value</li> <li>for 3-phase AC motor</li> <li>at 200/208 V rated value</li> <li>for 3-phase AC motor</li> <li>at 200/208 V rated value</li> <li>for 3-phase AC motor</li> <li>at 200/208 V rated value</li> <li>for 3-phase AC motor</li> <li>at 200/208 V rated value</li> <li>for 3-phase AC motor</li> <li>at 460/480 V rated value</li> <li>for 3-phase AC value</li> <li>for 3-phase AC motor</li> <li>at 220/230 V rated value</li> <li>for 4- at 220/230 V rated value</li> <li>for 4- at 575/600 V rated value</li> <li>for 4- at 500 V</li> <li>for 5- at 600 V</li> <li>for 4 400 V</li> <li>for 4 400 V</li> <li>for 4 400 V</li> <li>for 4 400 V</li> <li>for 4 500 V</li> <li>for 50 V</li> <li>for 50 V</li> <li>for 50 V</li> <li>for 50 V</li> <li>for</li></ul></li></ul>	<ul> <li>at 600 V rated value</li> </ul>	45 A
- at 110/120 V rated value3 hp- at 230 V rated value10 hp• for 3-phase AC motor at 200/208 V rated value15 hp- at 220/33 V rated value15 hp- at 460/480 V rated value40 hp- at 575/600 V rated value50 hpShort-circuit protectionproduct function short circuit protectionYesdesign of the short-circuit tripmagneticdesign of the fuse link for IT network for short-circuit protection of the main circuitnone required• at 240 V125• at 600 V100• at 690 V80Installation/ mounting/ dimensionsmounting position fastening methodanyscrew and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715140 mm	yielded mechanical performance [hp]	
at 230 V rated value10 hp• for 3-phase AC motor at 200/208 V rated value15 hp at 220/230 V rated value15 hp at 460/480 V rated value40 hp at 575/600 V rated value50 hpShort-circuit protectionYesdesign of the short-circuit protectione at 240 Vnone required• at 240 V125• at 400 V125• at 690 V80Installation/ mounting/ dimensionsmounting positionanyfastening methodanyheight140 mm	<ul> <li>for single-phase AC motor</li> </ul>	
• for 3-phase AC motor	— at 110/120 V rated value	3 hp
- at 200/208 V rated value15 hp- at 220/230 V rated value15 hp- at 460/480 V rated value40 hp- at 575/600 V rated value50 hpShort-circuit protectionproduct function short circuit protectionYesdesign of the short-circuit tripmagneticdesign of the fuse link for IT network for short-circuitnone required• at 240 V125• at 240 V125• at 500 V80Installation/ mounting/ dimensionsmounting positionanyfastening methodscrew and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715height140 mm	— at 230 V rated value	10 hp
	<ul> <li>for 3-phase AC motor</li> </ul>	
at 460/480 V rated value40 hp at 575/600 V rated value50 hpShort-circuit protectionYesproduct function short circuit protectionYesdesign of the short-circuit tripmagneticdesign of the fuse link for IT network for short-circuitnone required• at 240 Vnone required• at 240 V125• at 500 V100• at 690 V80Installation/ mounting/ dimensionsanymounting positionanyfastening methodscrew and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715height140 mm	— at 200/208 V rated value	,
at 575/600 V rated value50 hpShort-circuit protectionYesproduct function short circuit protectionYesdesign of the short-circuit tripmagneticdesign of the fuse link for IT network for short-circuitnone required• at 240 Vnone required• at 400 V125• at 500 V80Installation/ mounting/ dimensionsmounting positionanyfastening methodanyfastening method140 mm	— at 220/230 V rated value	
Short-circuit protection       Yes         product function short circuit protection       Yes         design of the short-circuit trip       magnetic         design of the fuse link for IT network for short-circuit protection of the main circuit       none required         • at 240 V       none required         • at 400 V       125         • at 500 V       100         • at 690 V       80         Installation/ mounting/ dimensions       any         fastening method       any         fastening method       140 mm		
product function short circuit protection design of the short-circuit trip magneticYes magneticdesign 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 Vnone required 125 100 80Installation/ mounting/ dimensionsany screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 height	— at 575/600 V rated value	50 hp
design of the short-circuit tripmagneticdesign of the fuse link for IT network for short-circuitmagneticord 240 Vnone requiredo at 240 V125o at 400 V125o at 500 V100o at 690 V80Installation/mounting/ dimensionsmounting positionanyfastening methodany60715140 mm	Short-circuit protection	
design of the fuse link for IT network for short-circuit protection of the main circuitnone required• at 240 Vnone required• at 400 V125• at 500 V100• at 690 V80Installation/ mounting/ dimensionsmounting position fastening methodany screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715height140 mm	product function short circuit protection	Yes
protection of the main circuitnone required• at 240 Vnone required• at 400 V125• at 500 V100• at 690 V80Installation/ mounting/ dimensionsmounting positionanyfastening methodscrew and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715height140 mm	design of the short-circuit trip	magnetic
• at 240 Vnone required• at 400 V125• at 500 V100• at 690 V80Installation/ mounting/ dimensionsmounting positionanyfastening methodscrew and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715height140 mm		
• at 400 V125• at 500 V100• at 690 V80Installation/ mounting/ dimensionsmounting positionanyfastening methodscrew and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715height140 mm	-	
<ul> <li>at 500 V</li> <li>at 690 V</li> <li>80</li> <li>Installation/ mounting/ dimensions</li> <li>mounting position         <ul> <li>fastening method</li> <li>any</li> <li>screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715</li> <li>height</li> <li>140 mm</li> </ul> </li> </ul>		
• at 690 V 80 Installation/ mounting/ dimensions mounting position any fastening method screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 height 140 mm		
Installation/ mounting/ dimensions         mounting position       any         fastening method       screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715         height       140 mm		
mounting position     any       fastening method     screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715       height     140 mm		80
fastening methodscrew and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715height140 mm	Installation/ mounting/ dimensions	
60715 height 140 mm	mounting position	any
height 140 mm	fastening method	
wiath 55 mm	-	
	width	55 mm

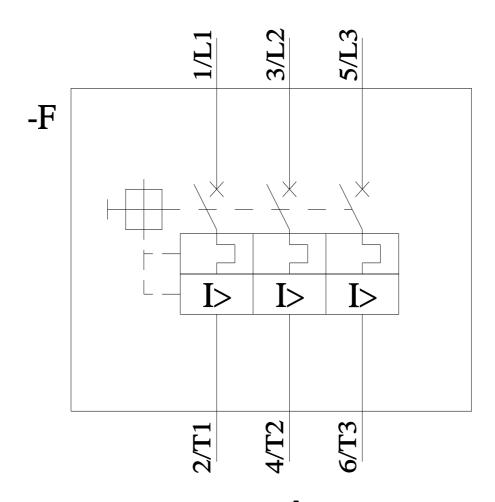
depth	149 mm
required spacing	
with side-by-side mounting at the side	0 mm
<ul> <li>for grounded parts at 400 V</li> </ul>	
— downwards	50 mm
— upwards	50 mm
— at the side	10 mm
• for live parts at 400 V	
— downwards	50 mm
— upwards	50 mm
— at the side	10 mm
<ul> <li>for grounded parts at 500 V</li> </ul>	
— downwards	50 mm
— upwards	50 mm
— at the side	10 mm
• for live parts at 500 V	
- downwards	50 mm
— upwards	50 mm
— upwards — at the side	10 mm
<ul> <li>for grounded parts at 690 V</li> </ul>	TO THILL
<ul> <li>for grounded parts at 690 v</li> <li>downwards</li> </ul>	50 mm
	50 mm
— upwards — at the side	10 mm
	TO THIN
for live parts at 690 V	50 mm
— downwards	50 mm
— upwards — at the side	10 mm
	10 mm
Connections/ Terminals	
type of electrical connection	
for main current circuit	screw-type terminals
arrangement of electrical connectors for main current circuit	Top and bottom
type of connectable conductor cross-sections	
• for main contacts	
— solid or stranded	2x (1 25 mm <sup>2</sup> ), 1x (1 35 mm <sup>2</sup> )
— finely stranded with core end processing	2x (1 16 mm <sup>2</sup> ), 1x (1 25 mm <sup>2</sup> )
at AWG cables for main contacts	2x (18 3), 1x (18 2)
tightening torque	
for main contacts with screw-type terminals	3 4.5 N·m
design of screwdriver shaft	Diameter 5 to 6 mm
size of the screwdriver tip	Pozidriv size 2
design of the thread of the connection screw	
for main contacts	M6
Safety related data	
B10 value	
with high demand rate according to SN 31920	5 000
proportion of dangerous failures	
<ul> <li>with low demand rate according to SN 31920</li> </ul>	50 %
<ul> <li>with high demand rate according to SN 31920</li> </ul>	50 %
failure rate [FIT]	
<ul> <li>with low demand rate according to SN 31920</li> </ul>	50 FIT
T1 value for proof test interval or service life according to IEC 61508	10 y
protection class IP on the front according to IEC 60529	IP20
touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front
display version for switching status	Handle
Certificates/ approvals	
General Product Approval	

(SP) CM		<u>Confirmation</u>		<u>KC</u>	EAC		
For use in hazardou	s locations	Declaration of Confe	ormity	Test Certificates			
K ATEX	IECEx	UK CA	CE EG-Konf.	Special Test Certific- ate	<u>Type Test Certific-</u> ates/Test Report		
Marine / Shipping							
ABS	BUREAU VERITAS		Lloyd's Register uis	PRS	RINA		
Marine / Shipping	other		Railway				
RMRS	<u>Confirmation</u>		<u>Confirmation</u>	Vibration and Shock			
Further information							
Information- and Downloadcenter (Catalogs, Brochures,) https://www.siemens.com/ic10 Industry Mall (Online ordering system) https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RV2031-4VA10 Cax online generator http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2031-4VA10 Service&Support (Manuals, Certificates, Characteristics, FAQs,)							
https://support.industry.siemens.com/cs/ww/en/ps/3RV2031-4VA10 Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros,)							
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2031-4VA10⟨=en							

Characteristic: Tripping characteristics, I<sup>2</sup>t, Let-through current https://support.industry.siemens.com/cs/ww/en/ps/3RV2031-4VA10/char

Further characteristics (e.g. electrical endurance, switching frequency) http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2031-4VA10&objecttype=14&gridview=view1





## last modified:

11/21/2022 🖸