SIEMENS

Data sheet 3RT2046-1NF34



power contactor, AC-3e/AC-3, 95 A, 45 kW / 400 V, 3-pole, 83-155 V AC/DC, 50/60 Hz, with integrated varistor, auxiliary contacts: 2 NO + 2 NC, screw terminal, size: S3, removable auxiliary switch

product brand name	SIRIUS
product designation	Power contactor
product type designation	3RT2
eneral technical data	
size of contactor	S3
product extension	
 function module for communication 	No
auxiliary switch	Yes
power loss [W] for rated value of the current	
 at AC in hot operating state 	19.8 W
 at AC in hot operating state per pole 	6.6 W
 without load current share typical 	1.8 W
type of calculation of power loss depending on pole	quadratic
insulation voltage	
 of main circuit with degree of pollution 3 rated value 	1 000 V
 of auxiliary circuit with degree of pollution 3 rated value 	690 V
surge voltage resistance	
 of main circuit rated value 	8 kV
 of auxiliary circuit rated value 	6 kV
maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1	690 V
shock resistance at rectangular impulse	
• at AC	10.3g / 5 ms, 6,.g / 10 ms
• at DC	6.7 g / 5 ms, 4g / 10 ms
shock resistance with sine pulse	
• at AC	16.3g / 5 ms, 10.g / 10 ms
• at DC	10.6 g / 5 ms, 6.3 g / 10 ms
mechanical service life (operating cycles)	
 of contactor typical 	10 000 000
 of the contactor with added electronically optimized auxiliary switch block typical 	5 000 000
 of the contactor with added auxiliary switch block typical 	10 000 000
reference code according to IEC 81346-2	Q
Substance Prohibitance (Date)	
SVHC substance name	Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one - 71868-10-5
Weight	1.865 kg
mbient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	

during operation	-25 +60 °C
during operation during storage	-55 +80 °C
relative humidity minimum	10 %
relative humidity at 55 °C according to IEC 60068-2-30	95 %
maximum Environmental footprint	
Environmental Product Declaration(EPD)	Yes
Global Warming Potential [CO2 eq] total	267 kg
Global Warming Potential [CO2 eq] during manufacturing	9.35 kg
Global Warming Potential [CO2 eq] during operation	259 kg
Global Warming Potential [CO2 eq] after end of life	-1.55 kg
Main circuit	
number of poles for main current circuit	3
number of NO contacts for main contacts	3
operating voltage	
• at AC-3 rated value maximum	1 000 V
• at AC-3e rated value maximum	1 000 V
operational current	
• at AC-1 at 400 V at ambient temperature 40 °C rated	130 A
value	
 at AC-1 up to 690 V at ambient temperature 40 °C rated 	130 A
value — up to 690 V at ambient temperature 60 °C rated	110 A
value	
• at AC-3	
— at 400 V rated value	95 A
— at 500 V rated value	95 A
— at 690 V rated value	78 A
— at 1000 V rated value	30 A
• at AC-3e	
— at 400 V rated value	95 A
— at 500 V rated value	95 A
— at 690 V rated value	78 A
— at 1000 V rated value	30 A
• at AC-4 at 400 V rated value	80 A
at AC-5a up to 690 V rated value	114 A
at AC-5b up to 400 V rated value	95 A
• at AC-6a	0444
— up to 230 V for current peak value n=20 rated value	84.4 A
— up to 400 V for current peak value n=20 rated value	84.4 A
 up to 500 V for current peak value n=20 rated value up to 690 V for current peak value n=20 rated value 	84.4 A 58 A
up to 690 v for current peak value n=20 rated value at AC-6a	00 A
— up to 230 V for current peak value n=30 rated value	56.3 A
— up to 400 V for current peak value n=30 rated value	56.3 A
— up to 500 V for current peak value n=30 rated value	56.3 A
— up to 690 V for current peak value n=30 rated value	56.3 A
minimum cross-section in main circuit at maximum AC-1 rated value	50 mm²
operational current for approx. 200000 operating cycles at	
AC-4	42.4
at 400 V rated value at 600 V rated value	42 A
at 690 V rated value operational current	30 A
at 1 current path at DC-1	
— at 24 V rated value	100 A
— at 60 V rated value	60 A
— at 110 V rated value	9 A
— at 220 V rated value	2 A
— at 440 V rated value	0.6 A
— at 600 V rated value	0.4 A
at 555 Frated Faido	V

with 2 current paths in series at DC-1	
— at 24 V rated value	100 A
— at 60 V rated value	100 A
— at 110 V rated value	100 A
— at 220 V rated value	10 A
— at 440 V rated value	1.8 A
— at 600 V rated value	1 A
with 3 current paths in series at DC-1	
— at 24 V rated value	100 A
— at 60 V rated value	100 A
— at 110 V rated value	100 A
— at 220 V rated value	80 A
— at 440 V rated value	4.5 A
— at 600 V rated value	2.6 A
• at 1 current path at DC-3 at DC-5	
— at 24 V rated value	40 A
— at 60 V rated value	6 A
— at 110 V rated value	2.5 A
— at 220 V rated value	1 A
— at 440 V rated value	0.15 A
— at 600 V rated value	0.06 A
 with 2 current paths in series at DC-3 at DC-5 	
— at 24 V rated value	100 A
— at 60 V rated value	100 A
— at 110 V rated value	100 A
— at 220 V rated value	7 A
— at 440 V rated value	0.42 A
— at 600 V rated value	0.16 A
with 3 current paths in series at DC-3 at DC-5	
— at 24 V rated value	100 A
— at 60 V rated value	100 A
— at 110 V rated value	100 A
— at 220 V rated value	35 A
— at 440 V rated value	0.8 A
— at 600 V rated value	0.35 A
operating power	AE NAM
at AC-2 at 400 V rated valueat AC-3	45 kW
— at 230 V rated value	22 kW
— at 400 V rated value	45 kW
— at 500 V rated value	55 kW
	75 kW
— at 690 V rated value— at 1000 V rated value	37 kW
at AC-3e	
— at 230 V rated value	22 kW
— at 400 V rated value	45 kW
— at 500 V rated value	55 kW
— at 690 V rated value	75 kW
— at 1000 V rated value	37 kW
operating power for approx. 200000 operating cycles at AC-	C. W.
4	
• at 400 V rated value	22 kW
at 690 V rated value	27.4 kW
operating apparent power at AC-6a	
• up to 230 V for current peak value n=20 rated value	33 kVA
• up to 400 V for current peak value n=20 rated value	58 kVA
• up to 500 V for current peak value n=20 rated value	73 kVA
• up to 690 V for current peak value n=20 rated value	69 kVA
pperating apparent power at AC-6a	
• up to 230 V for current peak value n=30 rated value	22.4 kVA
• up to 400 V for current peak value n=30 rated value	39 kVA

• up to 500 V for current peak value n=30 rated value	48.7 kVA
• up to 690 V for current peak value n=30 rated value	67.3 kVA
short-time withstand current in cold operating state up to 40 $^{\circ}\text{C}$	
 limited to 1 s switching at zero current maximum 	1 725 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 5 s switching at zero current maximum 	1 297 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 10 s switching at zero current maximum 	946 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 30 s switching at zero current maximum 	610 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 60 s switching at zero current maximum 	486 A; Use minimum cross-section acc. to AC-1 rated value
no-load switching frequency	
• at AC	1 000 1/h
• at DC	1 000 1/h
operating frequency	
• at AC-1 maximum	900 1/h
• at AC-2 maximum	350 1/h
• at AC-3 maximum	850 1/h
• at AC-3e maximum	850 1/h
• at AC-4 maximum	250 1/h
Control circuit/ Control	
type of voltage of the control supply voltage	AC/DC
control supply voltage at AC	
at 50 Hz rated value	83 155 V
at 60 Hz rated value	83 155 V
control supply voltage at DC rated value	83 155 V
operating range factor control supply voltage rated value of magnet coil at DC	
• initial value	0.8
full-scale value	1.1
operating range factor control supply voltage rated value of magnet coil at AC	
• at 50 Hz	0.8 1.1
• at 60 Hz	0.8 1.1
design of the surge suppressor	with varistor
inrush current peak	1.5 A
duration of inrush current peak	50 µs
locked-rotor current mean value	1.1 A
locked-rotor current peak	2.7 A
duration of locked-rotor current	150 ms
holding current mean value	15 mA
apparent pick-up power of magnet coil at AC	
• at 50 Hz	151 VA
● at 60 Hz	151 VA
apparent holding power	
at minimum rated control supply voltage at DC	1.8 VA
at maximum rated control supply voltage at DC	1.8 VA
apparent holding power	
at minimum rated control supply voltage at AC	0.43/4
— at 50 Hz	3.1 VA
— at 60 Hz	3.1 VA
at maximum rated control supply voltage at AC	0.41/4
— at 50 Hz	3.1 VA
— at 60 Hz	3.1 VA
apparent holding power of magnet coil at AC	2.4.1/A
• at 50 Hz	3.1 VA
• at 60 Hz	3.1 VA
inductive power factor with the holding power of the coil	0.05
• at 50 Hz	0.95
• at 60 Hz	0.95
closing power of magnet coil at DC	76 W
holding power of magnet coil at DC	1.8 W
closing delay	50 70
• at AC	50 70 ms

opening delay	• at DC	50 70 ms
## AC 95		50 70 IIIS
a cricing time control version of the switch operating mechanism Standard A1 – A2 Anothery cylindrol Contacts for auxiliary contacts instantaneous cerebod control version of NO contacts for auxiliary contacts instantaneous cerebod control version of NO contacts for auxiliary contacts instantaneous cerebod control version at AC 1-5 - auxiliary contacts instantaneous cerebod control version at AC 1-5 - auxiliary contacts instantaneous cerebod control version at AC 1-5 - auxiliary contacts instantaneous cerebod control version at AC 1-5 - auxiliary contact value - auxiliary contacts 1 faulty switching per 100 million (17 V, 1 mA) UICCSA various - auxiliary contacts 1 faulty switching per 100 million (17 V, 1 mA) UICCSA various - auxiliary contacts - auxiliary cont		20 57 22
acroing time control version of the switch operating mechanism Assuling circuit number of NC contacts for auxiliary contacts instantaneous contact number of NC contacts for auxiliary contacts instantaneous contact number of NC contacts for auxiliary contacts instantaneous contact number of NC contacts for auxiliary contacts instantaneous contact contact contact at AC-12 maximum 10 A poperational current at AC-15 • 12:00 V rated value • 14:00 V rated value • 15:00 V rated value • 16:00 V rated value • 17:00 V rated value • 17:00 V rated value • 17:00 V rated value • 18:00 V rated value • 19:00 V rated value • 10:00 V rated value • 10:00 V rated value • 10:00 V rated value • 11:00 V rated value • 11:10 V rated value • 12:20 V rated value • 11:10 V rated val		
Control version of the switch operating mechanism Autility of contacts for auxiliary contacts instantaneous number of NC contacts for auxiliary contacts instantaneous control operational current at AC-15 • at 200 V rated value • at 600 V rated value • at 600 V rated value • at 60 V rated v		
Assultany circuit unumber of NC contacts for auxiliary contacts instantaneous contact unumber of NC contacts for auxiliary contacts instantaneous contact contact unumber of NC contacts for auxiliary contacts instantaneous contact		
number of NC contacts for auxiliary contacts instantaneous contact contact or auxiliary contacts instantaneous contact contact or auxiliary contacts instantaneous contact or auxiliary contacts instantaneous contact or auxiliary contacts instantaneous contact or auxiliary contacts auxiliary contact auxiliary contacts auxiliary switch required auxiliary contacts auxiliary contacts auxiliary switch required auxiliary contacts auxi		Standard A1 - A2
Contact Cont		
Document		
Operational current at AC-15		2
at 230 V rated value	operational current at AC-12 maximum	10 A
at 400 V rated value	operational current at AC-15	
a tt 500 V rated value	at 230 V rated value	6 A
• at 890 V rated value	• at 400 V rated value	3 A
a ta 40 / rated value	• at 500 V rated value	2 A
at 24 V rated value	at 690 V rated value	1 A
at 48 V rated value	operational current at DC-12	
at 160 V rated value	• at 24 V rated value	10 A
at 110 V rated value	• at 48 V rated value	6 A
at 125 V rated value	• at 60 V rated value	6 A
al 220 V rated value	• at 110 V rated value	3 A
a 1600 V rated value	at 125 V rated value	2 A
eat 24 V rated value 6 A eat 48 V rated value 2 A eat 60 V rated value 1 A eat 25 V rated value 2 A eat 110 V rated value 1 A eat 25 V rated value 0.9 A eat 110 V rated value 0.9 A eat 20 V rated value 0.9 A eat 20 V rated value 0.3 A eat 20 V rated value 0.1 A contact reliability of auxiliary contacts 1 faulty switching per 100 million (17 V, 1 mA) ULICSA ratings full-load current (FLA) for 3-phase AC motor eat 480 V rated value 96 A eat 600 V rated value 97 A yielded mechanical performance [hp] e for single-phase AC motor — eat 110/120 V rated value 20 hp e for 3-phase AC motor — at 200/208 V rated value 20 hp e for 3-phase AC motor — at 200/208 V rated value 30 hp — at 220/230 V rated value 30 hp — at 220/230 V rated value 30 hp — at 457/5600 V rated value 75 hp contact rating of auxiliary contacts according to UL Short-circuit protection design of the fuse link e for short-circuit protection of the main circuit — with type of coordination 1 required 4A e for short-circuit protection of the main circuit — with type of coordination 1 required 4A e for short-circuit protection of the main circuit — with type of assignment 2 required 4A e for short-circuit protection of the main circuit — with type of assignment 2 required 4A e for short-circuit protection of the auxiliary switch required 5A (690 V, 100 kA), aM: 100 A (690 V, 100 kA), BS88: 225 A (415 V, 80 kA) e for short-circuit protection of the auxiliary switch required 5A (690 V, 100 kA), aM: 100 A (690 V, 100 kA), BS88: 125 A (415 V, 80 kA) e for short-circuit protection of the auxiliary switch required 5A (690 V, 100 kA), aM: 100 A (690 V, 100 kA), BS88: 125 A (415 V, 80 kA) e for short-circuit protection of the auxiliary switch required 5A (690 V, 100 kA), aM: 100 A (690 V, 100 kA), BS88: 125 A (415 V, 80 kA) e for short-circuit protection of the auxiliary switch required 5A (690 V, 100 kA), aM: 100 A (690 V, 100 kA), BS88: 125 A (415 V, 80 kA) e for short-circuit protection of the auxiliary switch required 5A (690 V, 100 kA), aM: 100 A (690 V, 1	at 220 V rated value	1 A
	at 600 V rated value	0.15 A
at 48 V rated value	operational current at DC-13	
at 160 V rated value at 126 V rated value at 126 V rated value 0.9 A at 220 V rated value 0.3 A at 800 V rated value 0.1 A contact reliability of auxiliary contacts I faulty switching per 100 million (17 V, 1 mA) ULCSA ratings full-load current (FLA) for 3-phase AC motor at 480 V rated value 96 A at 600 V rated value 77 A yielded mechanical performance [hp] of or single-phase AC motor at 230 V rated value 10 hp at 230 V rated value 96 rated value 30 hp at 220/230 V rated value 30 hp at 220/230 V rated value 75 hp at 460/480 V rated value 75 hp at 576/600 V rated value 75 hp at 576/600 V rated value 75 hp at 576/600 V rated value 76 resident rating of auxiliary contacts according to UL Short-circuit protection design of the fuse link of or short-circuit protection of the main circuit — with type of coordination 1 required 8 GS: 250 A (690 V, 100 kA), aM: 160 A (690 V, 100 kA), BS88: 200 A (415 V, 80 kA) which type of assignment 2 required 9 GS: 160 A (690 V, 100 kA), aM: 100 A (690 V, 100 kA), BS88: 125 A (415 V, 80 kA) which type of sassignment 2 required 1 stallation/ mounting/ dimensions mounting position #/-180* rotation possible on vertical mounting surface; can be tilted forward and backward by +22.5° on vertical mounting surface; can be tilted forward and backward by +22.5° on vertical mounting surface fastening method 6 screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 height	at 24 V rated value	6 A
■ at 110 V rated value ■ at 125 V rated value ■ at 220 V rated value ■ at 220 V rated value ■ at 200 V rated value ■ at 600 V rated value ■ at 600 V rated value ■ at 460 V rated value ■ at 600 V rated value ■ at 600 V rated value ■ at 600 V rated value ■ at 1200 V rated value ■ at 1200 V rated value ■ at 230 V rated value ■ at 230 V rated value ■ at 230 V rated value ■ at 220 V rated value ■ at 460 V 480 V rated value ■ at 460 V 480 V rated value ■ at 460 V 480 V rated value ■ at 575/600 V rated value ■ at 675/600 V rated value ■ at 600 V rat	at 48 V rated value	2 A
at 125 V rated value at 220 V rated value 0.3 A at 600 V rated value 0.1 A contact reliability of auxiliary contacts UL/CSA ratings full-load current (FLA) for 3-phase AC motor at 480 V rated value 96 A at 800 V rated value 77 A yielded mechanical performance [hp] of or single-phase AC motor — at 110/120 V rated value 10 hp — at 230 V rated value 90 hp of or 3-phase AC motor — at 200/208 V rated value 90 hp at 200/208 V rated value 90 hp at 200/208 V rated value 90 hp at 460 V rated value 90 hp or 3-phase AC motor — at 200/208 V rated value 90 hp at 200/208 V rated value 90 hp at 450/480 V rated value 75 hp contact rating of auxiliary contacts according to UL Short-circuit protection design of the fuse link of or short-circuit protection of the main circuit — with type of coordination 1 required 8G: 250 A (690 V, 100 kA), aM: 160 A (690 V, 100 kA), BS88: 200 A (415 V, 80 kA) of or short-circuit protection of the auxiliary switch required gG: 160 A (690 V, 100 kA), aM: 100 A (690 V, 100 kA), BS88: 125 A (415 V, 80 kA) of or short-circuit protection of the auxiliary switch required for short-circuit protection of the auxiliary switch required fo	at 60 V rated value	2 A
at 125 V rated value at 220 V rated value 0.3 A at 600 V rated value 0.1 A contact reliability of auxiliary contacts UL/CSA ratings full-load current (FLA) for 3-phase AC motor at 480 V rated value 96 A at 800 V rated value 77 A yielded mechanical performance [hp] of or single-phase AC motor — at 110/120 V rated value 10 hp — at 230 V rated value 90 hp of or 3-phase AC motor — at 200/208 V rated value 90 hp at 200/208 V rated value 90 hp at 200/208 V rated value 90 hp at 460 V rated value 90 hp or 3-phase AC motor — at 200/208 V rated value 90 hp at 200/208 V rated value 90 hp at 450/480 V rated value 75 hp contact rating of auxiliary contacts according to UL Short-circuit protection design of the fuse link of or short-circuit protection of the main circuit — with type of coordination 1 required 8G: 250 A (690 V, 100 kA), aM: 160 A (690 V, 100 kA), BS88: 200 A (415 V, 80 kA) of or short-circuit protection of the auxiliary switch required gG: 160 A (690 V, 100 kA), aM: 100 A (690 V, 100 kA), BS88: 125 A (415 V, 80 kA) of or short-circuit protection of the auxiliary switch required for short-circuit protection of the auxiliary switch required fo	at 110 V rated value	1 A
at 220 V rated value at 600 V rated value contact reliability of auxiliary contacts I faulty switching per 100 million (17 V, 1 mA) UL/CSA ratings full-load current (FLA) for 3-phase AC motor at 800 V rated value at 800 V rated value for single-phase AC motor - at 110/120 V rated value - at 230 V rated value - at 230 V rated value - at 220/208 V rated value - at 220/208 V rated value - at 220/230 V rated value - at 220/230 V rated value - at 460/480 V rated value - at 460/480 V rated value - at 460/480 V rated value - at 575/600 V rated value - at 600/480 V rated value - at 600		
at 600 V rated value contact reliability of auxiliary contacts 1 faulty switching per 100 million (17 V, 1 mA) UL/CSA ratings full-load current (FLA) for 3-phase AC motor at 480 V rated value 96 A at 600 V rated value 97 A yielded mechanical performance [hp] for single-phase AC motor at 110/120 V rated value 10 hp at 230 V rated value 20 hp for 3-phase AC motor at 200/208 V rated value 30 hp at 220/230 V rated value 75 hp at 460/480 V rated value 75 hp at 4575600 V rated value 75 hp contact rating of auxiliary contacts according to UL Short-circuit protection design of the fuse link for short-circuit protection of the main circuit with type of assignment 2 required for short-circuit protection of the auxiliary switch required screw and snap-on mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface; fastening method height		
contact reliability of auxiliary contacts 1 faulty switching per 100 million (17 V, 1 mA) UL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 600 V rated value • at 600 V rated value • for single-phase AC motor — at 1101/20 V rated value • for 3-phase AC motor — at 230 V rated value • for 3-phase AC motor — at 200/208 V rated value • at 200/208 V rated value • at 200/208 V rated value — at 200/208 V rated value — at 460/480 V rated value — at 460/480 V rated value — at 460/480 V rated value — at 575/600 V rated value — to 575/60 V rated value To 5 hp contact rating of auxiliary contacts according to UL Short-circuit protection design of the fuse link • for short-circuit protection of the main circuit — with type of coordination 1 required gG: 250 A (690 V, 100 kA), aM: 160 A (690 V, 100 kA), BS88: 200 A (415 V, 80 kA) • for short-circuit protection of the auxiliary switch required gG: 10 A (690 V, 100 kA), aM: 100 A (690 V, 100 kA), BS88: 125 A (415 V, 80 kA) • for short-circuit protection of the auxiliary switch required pG: 10 A (500 V, 1 kA) Installation/ mounting/ dimensions mounting position #/-180" rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5" on vertical mounting surface fastening method screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 height	***	
### Contact rating of auxiliary contacts according to UL Short-circuit protection of the main circuit		
full-load current (FLA) for 3-phase AC motor at 480 V rated value at 600 V rated value 77 A yielded mechanical performance [hp] for single-phase AC motor — at 110/120 V rated value 10 hp — at 230 V rated value 50 hp at 220/208 V rated value 10 hp — at 220/208 V rated value 10 hp — at 220/208 V rated value 30 hp — at 460/480 V rated value 75 hp — at 575/600 V rated value 75 hp contact rating of auxiliary contacts according to UL Short-circuit protection design of the fuse link for short-circuit protection of the main circuit — with type of coordination 1 required yield a gG: 250 A (690 V, 100 kA), aM: 160 A (690 V, 100 kA), BS88: 200 A (415 V, 80 kA) with type of assignment 2 required yield a gG: 160 A (690 V, 100 kA), aM: 100 A (690 V, 100 kA), BS88: 125 A (415 V, 80 kA) for short-circuit protection of the auxiliary switch required yield a gG: 10 A (500 V, 1 kA) Installation/ mounting/ dimensions mounting position 140 mm		The state of the s
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 — at 230 V rated value — at 230 V rated value for 3-phase AC motor — at 200/208 V rated value — at 220/230 V rated value — at 220/230 V rated value — at 220/230 V rated value — at 66/480 V rated value — at 675/600 V rated value — at 575/600 V rated value — at 575/600 V rated value — at 576/600 V rated value — at 576/601 V rated value — at 60/480 V rated value — at 60/480 V rated value — at 575/600 V rated value — at 575/600 V rated value — with type of coordination 1 required — with type of coordination 1 required — with type of coordination 1 required — with type of assignment 2 required for short-circuit protection of the auxiliary switch required of or short-circuit protection of the auxiliary switch required gG: 250 A (690 V, 100 kA), aM: 160 A (690 V, 100 kA), BS88: 200 A (415 V, 80 kA) of or short-circuit protection of the auxiliary switch required gG: 160 A (690 V, 100 kA), aM: 100 A (690 V, 100 kA), BS88: 125 A (415 V, 80 kA) of or short-circuit protection of the auxiliary switch required gG: 10 A (500 V, 1 kA) Installation/mounting/dimensions mounting position +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface fastening method height		
• at 600 V rated value yielded mechanical performance [hp] • for single-phase AC motor — at 110/120 V rated value — at 230 V rated value • for 3-phase AC motor — at 200/208 V rated value 30 hp — at 220/230 V rated value 30 hp — at 460/480 V rated value — at 575/600 V rated value — at 575/600 V rated value 75 hp — at 575/600 V rated value 75 hp contact rating of auxiliary contacts according to UL Short-circuit protection design of the fuse link • for short-circuit protection of the main circuit — with type of coordination 1 required Signature of the fuse link • for short-circuit protection of the main circuit — with type of assignment 2 required yG: 250 A (690 V, 100 kA), aM: 160 A (690 V, 100 kA), BS88: 200 A (415 V, 80 kA) • for short-circuit protection of the auxiliary switch required yG: 10 A (500 V, 100 kA), aM: 100 A (690 V, 100 kA), BS88: 125 A (415 V, 80 kA) • for short-circuit protection of the auxiliary switch required yG: 10 A (500 V, 1 kA) Installation/ mounting/ dimensions mounting position +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 height		96 Δ
yielded mechanical performance [hp] • for single-phase AC motor — at 110/120 V rated value — at 230 V rated value 20 hp • for 3-phase AC motor — at 200/208 V rated value 30 hp — at 220/230 V rated value 30 hp — at 480/480 V rated value 75 hp — at 575/600 V rated value 75 hp contact rating of auxiliary contacts according to UL Short-circuit protection design of the fuse link • for short-circuit protection of the main circuit — with type of coordination 1 required gG: 250 A (690 V, 100 kA), aM: 160 A (690 V, 100 kA), BS88: 200 A (415 V, 80 kA) — with type of assignment 2 required gG: 160 A (690 V, 100 kA), aM: 100 A (690 V, 100 kA), BS88: 125 A (415 V, 80 kA) • for short-circuit protection of the auxiliary switch required gG: 10 A (500 V, 1 kA) Installation/ mounting/ dimensions mounting position +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 height		
for single-phase AC motor — at 110/120 V rated value		****
- at 110/120 V rated value 10 hp - at 230 V rated value 20 hp • for 3-phase AC motor - at 200/208 V rated value 30 hp - at 220/230 V rated value 30 hp - at 460/480 V rated value 75 hp - at 575/600 V rated value 75 hp - at 575/600 V rated value 75 hp contact rating of auxiliary contacts according to UL A600 / P600 Short-circuit protection design of the fuse link • for short-circuit protection of the main circuit - with type of coordination 1 required gG: 250 A (690 V, 100 kA), aM: 160 A (690 V, 100 kA), BS88: 200 A (415 V, 80 kA) - with type of assignment 2 required gG: 160 A (690 V, 100 kA), aM: 100 A (690 V, 100 kA), BS88: 125 A (415 V, 80 kA) • for short-circuit protection of the auxiliary switch required gG: 10 A (500 V, 1 kA) • for short-circuit protection of the auxiliary switch required gG: 10 A (500 V, 1 kA) • for short-circuit protection of the auxiliary switch required gG: 10 A (500 V, 100 kA), aM: 100 A (690 V, 100 kA), BS88: 125 A (415 V, 80 kA) • for short-circuit protection of the auxiliary switch required gG: 10 A (500 V, 1 kA) • for short-circuit protection of the auxiliary switch required gG: 10 A (500 V, 100 kA), aM: 100 A (690 V, 100 kA), BS88: 125 A (415 V, 80 kA) • for short-circuit protection of the auxiliary switch required gG: 10 A (500 V, 100 kA), am: 100 A (690 V, 100 kA), BS88: 125 A (415 V, 80 kA) • for short-circuit protection of the auxiliary switch required gG: 10 A (500 V, 100 kA), am: 100 A (690 V, 100 kA), BS88: 125 A (415 V, 80 kA) • for short-circuit protection of the auxiliary switch required gG: 10 A (500 V, 100 kA), am: 100 A (690 V, 100 kA), BS88: 125 A (415 V, 80 kA) • for short-circuit protection of the auxiliary switch required gG: 10 A (500 V, 100 kA), am: 100 A (690 V, 100 kA), BS88: 125 A (415 V, 80 kA) • for short-circuit protection of the auxiliary switch required gG: 10 A (500 V, 100 kA), am: 100 A (690 V, 100 kA), BS88: 125 A (415 V, 80 kA) • for short-circuit protection of the auxiliary switch required gG: 10 A (690 V, 100 kA), am: 100 A (690 V, 1		
- at 230 V rated value • for 3-phase AC motor - at 200/208 V rated value - at 220/230 V rated value - at 460/480 V rated value - at 460/480 V rated value - at 575/600 V rated value - ontact rating of auxiliary contacts according to UL Short-circuit protection design of the fuse link • for short-circuit protection of the main circuit - with type of coordination 1 required - with type of assignment 2 required - with type of assignment 2 required - for short-circuit protection of the auxiliary switch required - for short-circuit protection of the auxiliary switch required - for short-circuit protection of the auxiliary switch required - for short-circuit protection of the auxiliary switch required - for short-circuit protection of the auxiliary switch required - for short-circuit protection of the auxiliary switch required - for short-circuit protection of the auxiliary switch required - for short-circuit protection of the auxiliary switch required - for short-circuit protection of the auxiliary switch required - for short-circuit protection of the auxiliary switch required - for short-circuit protection of the auxiliary switch required - for short-circuit protection of the auxiliary switch required - for short-circuit protection of the auxiliary switch required - for short-circuit protection of the auxiliary switch required - for short-circuit protection of the auxiliary switch required - for short-circuit protection of the auxiliary switch required - for short-circuit protection of the auxiliary switch required - for short-circuit protection of the auxiliary switch required - for short-circuit protection of the auxiliary switch required - for short-circuit protection of the auxiliary switch required - for short-circuit protection of the auxiliary switch required - for short-circuit protection of the auxiliary switch required - for short-circuit protection of the auxiliary switch required - for		10 ha
of r 3-phase AC motor		
- at 200/208 V rated value 30 hp - at 220/230 V rated value 75 hp - at 460/480 V rated value 75 hp - at 575/600 V rated value 75 hp contact rating of auxiliary contacts according to UL A600 / P600 Short-circuit protection design of the fuse link • for short-circuit protection of the main circuit - with type of coordination 1 required 9G: 250 A (690 V, 100 kA), aM: 160 A (690 V, 100 kA), BS88: 200 A (415 V, 80 kA) - with type of assignment 2 required 9G: 160 A (690 V, 100 kA), aM: 100 A (690 V, 100 kA), BS88: 125 A (415 V, 80 kA) • for short-circuit protection of the auxiliary switch required 9G: 10 A (500 V, 1 kA) Installation/ mounting/ dimensions mounting position 4-/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 height		20 πρ
- at 220/230 V rated value 30 hp - at 460/480 V rated value 75 hp - at 575/600 V rated value 75 hp contact rating of auxiliary contacts according to UL Short-circuit protection design of the fuse link • for short-circuit protection of the main circuit — with type of coordination 1 required gG: 250 A (690 V, 100 kA), aM: 160 A (690 V, 100 kA), BS88: 200 A (415 V, 80 kA) — with type of assignment 2 required gG: 160 A (690 V, 100 kA), aM: 100 A (690 V, 100 kA), BS88: 125 A (415 V, 80 kA) • for short-circuit protection of the auxiliary switch required gG: 10 A (500 V, 1 kA) Installation/ mounting/ dimensions mounting position +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface fastening method screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 height 1200 A (690 V, 100 kA) am DIN rail according to DIN EN 60715	•	30 hn
- at 460/480 V rated value 75 hp - at 575/600 V rated value 75 hp contact rating of auxiliary contacts according to UL A600 / P600 Short-circuit protection design of the fuse link • for short-circuit protection of the main circuit — with type of coordination 1 required gG: 250 A (690 V, 100 kA), aM: 160 A (690 V, 100 kA), BS88: 200 A (415 V, 80 kA) — with type of assignment 2 required gG: 160 A (690 V, 100 kA), aM: 100 A (690 V, 100 kA), BS88: 125 A (415 V, 80 kA) • for short-circuit protection of the auxiliary switch required gG: 10 A (500 V, 1 kA) Installation/ mounting/ dimensions mounting position +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface fastening method screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 height 140 mm		
- at 575/600 V rated value contact rating of auxiliary contacts according to UL Short-circuit protection design of the fuse link of or short-circuit protection of the main circuit - with type of coordination 1 required with type of assignment 2 required of or short-circuit protection of the auxiliary switch required of or short-circuit protection of the auxiliary switch required of or short-circuit protection of the auxiliary switch required of or short-circuit protection of the auxiliary switch required of or short-circuit protection of the auxiliary switch required of or short-circuit protection of the auxiliary switch required of or short-circuit protection of the auxiliary switch required of or short-circuit protection of the auxiliary switch required of or short-circuit protection of the auxiliary switch required of or short-circuit protection of the auxiliary switch required of or short-circuit protection of the auxiliary switch required of or short-circuit protection of the auxiliary switch required of or short-circuit protection of the auxiliary switch required of or short-circuit protection of the auxiliary switch required of or short-circuit protection of the auxiliary switch required of or short-circuit protection of the main circuit of or short-circuit protection of the main circuit of of or short-circuit protection of the main circuit of or short-circuit protection of the short-circuit protection of the main circuit of or short-circuit protection of the main circuit of or short-circuit protection of the short-circuit protection of the main circuit of or short-circuit protection of the short-circuit protection of t		
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Short-circuit protection design of the fuse link		·
design of the fuse link • for short-circuit protection of the main circuit — with type of coordination 1 required — with type of assignment 2 required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required gG: 250 A (690 V, 100 kA), aM: 160 A (690 V, 100 kA), BS88: 200 A (415 V, 80 kA) • for short-circuit protection of the auxiliary switch required gG: 160 A (690 V, 100 kA), aM: 100 A (690 V, 100 kA), BS88: 125 A (415 V, 80 kA) Installation/ mounting/ dimensions mounting position +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface fastening method height 140 mm		A000 / P000
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— with type of coordination 1 required — with type of assignment 2 r	-	
— with type of assignment 2 required — with type of assignment 2 req	·	TO OFO A (000 V 400 IA) -N 400 A (000 V 400 I)
kA) gG: 10 A (500 V, 1 kA) Installation/ mounting/ dimensions mounting position +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface fastening method feight height kA) gG: 10 A (500 V, 1 kA) +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 height		kA)
Installation/ mounting/ dimensions mounting position +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface fastening method screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 height 140 mm	— with type of assignment 2 required	
mounting position+/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surfacefastening methodscrew and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715height140 mm		gG: 10 A (500 V, 1 kA)
backward by +/- 22.5° on vertical mounting surface fastening method screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 height 140 mm	Installation/ mounting/ dimensions	
height 140 mm	mounting position	
	fastening method	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715
width 70 mm	height	140 mm
	width	70 mm

depth 195 mm required spacing ■ with side-by-side mounting	
 with side-by-side mounting — forwards — upwards — downwards — at the side • for grounded parts — forwards — upwards — upwards — upwards — at the side — of orwards — upwards — at the side — downwards — for live parts — forwards — upwards — upwards — 10 mm • for live parts — upwards — upwards — upwards — 10 mm 	
 — upwards — downwards — at the side ● for grounded parts — forwards — upwards — at the side — at the side — downwards ● for live parts — forwards — upwards 10 mm ● for live parts — upwards 10 mm 	
— downwards — at the side of for grounded parts — forwards — upwards — at the side — at the side — downwards of for live parts — forwards — upwards — upwards 10 mm of live parts — forwards — upwards 10 mm	
 — at the side ● for grounded parts — forwards — upwards — at the side — downwards ● for live parts — forwards — upwards 20 mm — to mm — forwards — upwards 10 mm 	
 for grounded parts — forwards — upwards — at the side — downwards for live parts — forwards — upwards 20 mm 10 mm 	
— forwards 20 mm — upwards 10 mm — at the side 10 mm — downwards 10 mm • for live parts — forwards 20 mm — upwards 10 mm	
 — upwards — at the side — downwards • for live parts — forwards — upwards 10 mm 20 mm 10 mm 	
— at the side 10 mm — downwards 10 mm • for live parts — forwards 20 mm — upwards 10 mm	
 — downwards • for live parts — forwards — upwards 10 mm 20 mm 10 mm 	
 for live parts forwards upwards 20 mm 10 mm 	
forwardsupwards20 mm10 mm	
— upwards 10 mm	
downwards	
— downwards 10 mm	
— at the side 10 mm	
Connections/ Terminals	
type of electrical connection	
• for main current circuit screw-ty	vpe terminals
• for auxiliary and control circuit screw-ty	vpe terminals
• at contactor for auxiliary contacts Screw-t	ype terminals
	ype terminals
type of connectable conductor cross-sections	
• for main contacts	
— finely stranded with core end processing 2x (2.5	35 mm²), 1x (2.5 50 mm²)
• for AWG cables for main contacts 2x (10	1/0), 1x (10 2)
connectable conductor cross-section for main contacts	
• solid 2.5 10	
• stranded 6 70 l	
• finely stranded with core end processing 2.5 5	O mm²
connectable conductor cross-section for auxiliary contacts	
• solid or stranded 0.5 2	
• finely stranded with core end processing 0.5 2	5 mm²
type of connectable conductor cross-sections	
• for auxiliary contacts	4.52\\ 0.1 (0.75 - 0.52\)
	1.5 mm²), 2x (0.75 2.5 mm²)
	1.5 mm²), 2x (0.75 2.5 mm²)
• for AWG cables for auxiliary contacts 2x (20 AWG number as coded connectable conductor cross	. 16), 2x (18 14)
section	
• for main contacts 10 2	
• for auxiliary contacts 20 14	
Safety related data	
product function	
• mirror contact according to IEC 60947-4-1 Yes	
• positively driven operation according to IEC 60947-5-1 No	
• suitable for safety function Yes	
suitability for use safety-related switching OFF Yes	
service life maximum 20 a	
test wear-related service life necessary Yes	
proportion of dangerous failures	
• with low demand rate according to SN 31920 40 %	
• with high demand rate according to SN 31920 73 %	
B10 value with high demand rate according to SN 31920 1 000 0	00
failure rate [FIT] with low demand rate according to SN 100 FIT 31920	
ISO 13849	
device type according to ISO 13849-1 3	
overdimensioning according to ISO 13849-2 necessary Yes	
IEC 61508	

safety device type according to IEC 61508-2	Type A
Electrical Safety	
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
Approvals Certificates	
General Product Approval	

Confirmation









<u>KC</u>

General Product Approval

EMV

Functional Saftey

Test Certificates

Marine / Shipping





Type Examination Certificate Special Test Certificate





Marine / Shipping

other

Railway

Dangerous goods







Confirmation

Special Test Certificate

<u>Transport Information</u>

Environment



Environmental Confirmations

Further information

Information on the packaging

https://support.industry.siemens.com/cs/ww/en/view/109813875

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=3RT2046-1NF34

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2046-1NF34

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT2046-1NF34

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

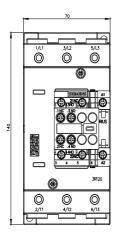
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2046-1NF34&lang=en

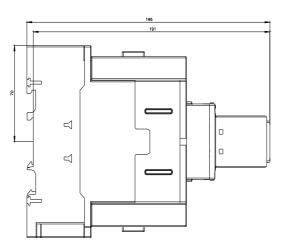
Characteristic: Tripping characteristics, I^2t , Let-through current

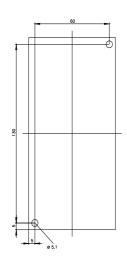
https://support.industry.siemens.com/cs/ww/en/ps/3RT2046-1NF34/char

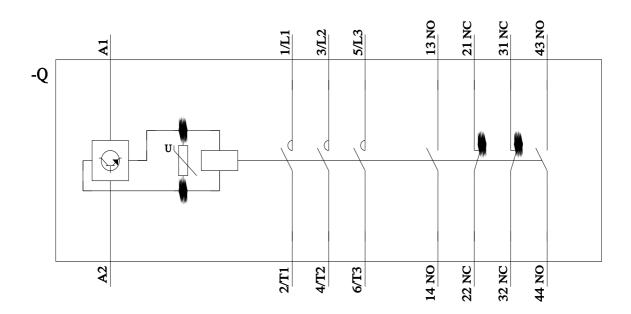
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2046-1NF34&objecttype=14&gridview=view1









last modified:

