SIEMENS

Data sheet 3RU2146-4LB0

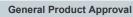


Overload relay 70...90 A Thermal For motor protection Size S3, Class 10 Contactor mounting Main circuit: Screw Auxiliary circuit: Screw Manual-Automatic-Reset

product brand name	SIRIUS	
product designation	thermal overload relay	
product type designation	3RU2	
General technical data		
size of overload relay	S3	
size of contactor can be combined company-specific	S3	
power loss [W] for rated value of the current at AC in hot operating state	21 W	
• per pole	7 W	
insulation voltage with degree of pollution 3 at AC rated value	1 000 V	
surge voltage resistance rated value	8 kV	
maximum permissible voltage for protective separation		
 in networks with ungrounded star point between auxiliary and auxiliary circuit 	440 V	
 in networks with grounded star point between auxiliary and auxiliary circuit 	440 V	
 in networks with ungrounded star point between main and auxiliary circuit 	440 V	
 in networks with grounded star point between main and auxiliary circuit 	440 V	
shock resistance according to IEC 60068-2-27	8g / 11 ms	
reference code according to IEC 81346-2	F	
Substance Prohibitance (Date)	03/01/2017	
SVHC substance name	Lead - 7439-92-1	
Weight	0.585 kg	
Ambient conditions		
installation altitude at height above sea level maximum	2 000 m	
ambient temperature		
 during operation 	-40 +70 °C	
during storage	-55 +80 °C	
during transport	-55 +80 °C	
temperature compensation	-40 +60 °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	70 90 A	
operating voltage		
• rated value	1 000 V	
at AC-3e rated value maximum	1 000 V	
operating frequency rated value	50 60 Hz	
operational current rated value	90 A	

Operating power	operational current at AC 25 at 400 V rated value	00 A
# all 400 V rated value	operational current at AC-3e at 400 V rated value	90 A
at 500 V rated value		
- at 880 V rated value		
# ail AG-3e		
		75 kW
	• at AC-3e	
	— at 400 V rated value	45 kW
design of the auxiliary switch number of NC contacts for auxiliary contacts • note • note note number of NC contacts for auxiliary contacts • note for contacts of auxiliary contacts • note number of NC contacts for auxiliary contacts • note number of CO contacts for auxiliary contacts • note number of CO contacts for auxiliary contacts • 124 V • all 10 V • all 120 V • all 125 V • all 230 V • all 400 V • all 400 V • all 400 V • all 50 V • all 110 V • all 25 V • all 220 V • all 20 V • a	— at 500 V rated value	55 kW
design of the auxiliary switch number of NC contacts for auxiliary contacts • note • note • note for contactor disconnection number of NO contacts for auxiliary contacts • note show of message "Tripped" number of CO contacts for auxiliary contacts • a 124 V • a 11 10 V • a 1 120 V • a 1 230 V • a 1 230 V • a 1 4 200 V • a 1 4 20 V • a 1 6 20 V • a 1 6 20 V • a 1 125 V • a 1 10 V • a 1 125 V • a 1 10 V • a 1 10 V • a 1 125 V • a 1 10 V • a 1 125 V • a 1 10 V • a 1 1		75 kW
number of NC contacts for auxiliary contacts • note • note • note • note • note • note commer of CC contacts for auxiliary contacts • all 24 V • all 120 V • all 125 V • all 230 V • all 240 V • all 400 V • all 500 V • all 125 V • all 25 V • all 200	Auxiliary circuit	
number of NO contacts for auxiliary contacts	design of the auxiliary switch	integrated
number of NO contacts for auxiliary contacts • note • note number of CO contacts for auxiliary contacts • alt 24	number of NC contacts for auxiliary contacts	1
number of CC contacts for auxiliary contacts at AC-15 of at 24 V 3 A 3 A 3 A 3 A 3 A 3 A 3 A 3 A 3 A 3	• note	for contactor disconnection
number of CO contacts for auxiliary contacts at AC-15 - a124 V - a1 110 V - 3 A - a1 120 V - 3 A - 3 125 V - 3 1230 V - 2 A - 3 1230 V - 3 1690 V - 0 poerational current of auxiliary contacts at DC-13 - 3 124 V - a1 60 V - 3 16 60 V - 2 A - 3 110 V - 3 16 60 V - 2 A - 3 110 V - 3 16 60 V - 0 poerational current of auxiliary contacts at DC-13 - 4 124 V - 4 16 60 V - 5 2 A - 6 11 10 V - 6 125 V - 7 A - 8 125 V - 8 125 V - 8 125 V - 9 12 C - 10 10 A -	number of NO contacts for auxiliary contacts	1
0	• note	for message "Tripped"
• at 24 V • at 110 V 3 A 4 3 A 4 4 4	number of CO contacts for auxiliary contacts	0
• at 110 V 3 A	operational current of auxiliary contacts at AC-15	
at 120 V at 125 V at 125 V at 125 V at 120 V at 1400 V at 160 V operational current of auxiliary contacts at DC-13 at 24 V at 60 V ot 10 V at 110 V at 125 V at 120 V at 125 V at 120 V beta 122 V at 120 V design of the miniature circuit breaker for short-circuit protection of the auxiliary switch required contact rating of auxiliary contacts according to UL beta 125 V at 120 V design of the miniature circuit breaker for short-circuit protection of the auxiliary switch required contact rating of auxiliary contacts according to UL B600 / R300 Protective and monitoring functions trip class CLASS 10 design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor at 480 V rated value 77 A Short-circuit protection design of the fus link for short-circuit protection of the main circuit — with type of coordination 1 required for short-circuit protection of the main circuit — with type of coordination 1 required for short-circuit protection of the main circuit — with type of coordination 1 required for short-circuit protection of the main circuit — with type of coordination 1 required for short-circuit protection of the auxiliary switch required for short-circuit protection for smin current circuit for main current circuit for auxiliary and control circuit for aux	● at 24 V	3 A
• at 125 \	• at 110 V	3 A
at 230 V at 890 V 0 at 890 V 0,75 A Operational current of auxiliary contacts at DC-13 at 24 V at 80 V 0 at 180 V 0,3 A at 110 V 0,22 A at 125 V 0,22 A at 125 V 0,22 A beta 125 V 0,22 A beta 125 V 0,22 A design of the ministure circuit breaker for short-circuit protection of the auxiliary switch required contact rating of auxiliary contacts according to UL Protective and monitoring functions trip class CLASS 10 design of the overload release UU/CSA ratings full-load current (FLA) for 3-phase AC motor at 480 V rated value 77 A 78 A 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 coordination 1 required - with type of assignment 2 required for short-circuit protection of the auxiliary switch required Installation/mounting/dimensions mounting position fastening method height 105 mm connections V remains product component removable terminal for auxiliary and control circuit for auxiliary and control circu	• at 120 V	3 A
at 400 V at 500 V at	• at 125 V	3 A
operational current of auxiliary contacts at DC-13 ot 2 4 V 2 A ot 80 V 0.3 A ot 110 V 0.22 A ot 125 V 0.22 A ot 125 V 0.11 A design of the miniature circuit breaker for short-circuit protection of the auxiliary switch required Contact rating of auxiliary contacts according to UL B600 / R300 Protective and monitoring functions trip class CLASS 10 design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor ot 14 80 V rated value 77 A 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 coordination 1 required — with type of assignment 2 required for short-circuit protection of the auxiliary switch required in for short-circuit protection of the auxiliary switch required for short-circuit protection of the auxiliary and control circuit for or auxiliary and control circuit for or auxiliary and control circuit for or auxiliary and control circuit for auxiliary and c	• at 230 V	2 A
operational current of auxiliary contacts at DC-13 • at 24 V • at 60 V • at 110 V • at 125 V • at 125 V • at 125 V design of the miniature circuit breaker for short-circuit protection of the auxiliary switch required Contact rating of auxiliary contacts according to UL B000 / R300 Protective and monitoring functions trip class CLASS 10 design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 600 V rated value 77 A 75 A ** at 600 V rated value — with type of coordination 1 required • for short-circuit protection of the main circuit — with type of coordination 1 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 or short-circuit protection of the auxiliary switch required for or auxiliary and control circuit type of electrical connectors • for auxiliary and control circuit • for auxiliary and control circuit arrangement of electrical connectors for main current Top and bottom	● at 400 V	1 A
at 24 V at 60 V 0.3 A 22 A 31 60 V 0.22 A 31 125 V 31 125 V 31 22 O design of the miniature circuit breaker for short-circuit protection of the auxiliary switch required Contact rating of auxiliary contacts according to UL Protective and monitoring functions trip class CLASS 10 design of the overload release UL/CSA ratings Tull-load current (FLA) for 3-phase AC motor 31 480 V rated value 31 480 V rated value 31 600 V rated value 32 600 V rated value 34 600 V rated value 35 600 V rated value 36 600 V rated value 37 7 A Short-circuit protection design of the fuse link 40 for short-circuit protection of the main circuit 40 with type of coordination 1 required 500 V rated value 500 V rated	• at 690 V	0.75 A
at 110 V at 1125 V at 1220 V design of the miniature circuit breaker for short-circuit protection of the auxiliary switch required contact rating of auxiliary contacts according to UL Protective and monitoring functions trip class CLASS 10 design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor at 480 V rated value 77 A Short-circuit protection design of the fuse link of or short-circuit protection of the main circuit — with type of assignment 2 required of for short-circuit protection of the auxiliary switch required for main quirent of the suitablation/ mounting/ dimensions mounting position fastening method Contactor mounting height 105 mm Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection for main current circuit cfor auxiliary and control circuit screw-type terminals arrangement of electrical connectors for main current Top and bottom	operational current of auxiliary contacts at DC-13	
at 110 V at 125 V at 125 V at 220 V design of the miniature circuit breaker for short-circuit protection of the auxiliary switch required contact rating of auxiliary contacts according to UL B600 / R300 Protective and monitoring functions trip class CLASS 10 design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor at 480 V rated value 77 A stort-circuit protection design of the fuse link for short-circuit protection of the main circuit with type of coordination 1 required for short-circuit protection of the main circuit with type of assignment 2 required for short-circuit protection of the auxiliary switch required for or short-circuit protection of the auxiliary switch required for or short-circuit protection of the auxiliary switch required for main quarter tremovable terminal for auxiliary and control circuit for on min current circuit for on auxiliary and control circuit for on auxiliary and control circuit for auxiliary and control circ	• at 24 V	2 A
at 125 V at 22 V at 22 V at 22 D design of the miniature circuit breaker for short-circuit protection of the auxiliary switch required contact rating of auxiliary contacts according to UL Protective and monitoring functions trip class design of the overload release dul-Cost ratings full-load current (FLA) for 3-phase AC motor at 480 V rated value 77 A at 800 V rated value 77 A 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 at 690 V: gG: 250 A; 1000 V: a.M. / g.B.: 160 A fuse gG: 6 A, quick: 10 A Installation/ mounting/ dimensions mounting position any fastening method height 105 mm Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection for main current circuit of or auxiliary and control circuit for auxiliary and control circuit e for auxiliary and control circuit arrangement of electrical connectors for main current Top and bottom	● at 60 V	0.3 A
design of the miniature circuit breaker for short-circuit protection of the auxiliary switch required contact rating of auxiliary contacts according to UL Protective and monitoring functions trip class CLASS 10 design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 600 V rated value • for short-circuit protection of the main circuit — with type of coordination 1 required • for short-circuit protection of the auxiliary switch required in terminal of the fuse link of or short-circuit protection of the auxiliary switch required full-toad current (FLA) for 3-phase AC motor • at 480 V rated value 77 A 78 800 V: gG: 250 A; 1000 V: a.M. / g.B.: 160 A 690 V: gG: 250 A; 1000 V: a.M. / g.B.: 160 A 690 V: gG: 160 A; 1000 V: a.M. / g.B.: 160 A fuse gG: 6 A, quick: 10 A Installation/ mounting/ dimensions mounting position fastening method Contactor mounting depth 105 mm width 70 mm depth Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection • for main current circuit • for auxiliary and control circuit arrangement of electrical connectors for main current Top and bottom	● at 110 V	0.22 A
design of the miniature circuit breaker for short-circuit protection of the auxiliary switch required contact rating of auxiliary contacts according to UL Protective and monitoring functions trip class	● at 125 V	0.22 A
of the auxiliary switch required contact rating of auxiliary contacts according to UL Protective and monitoring functions trip class CLASS 10 design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor	● at 220 V	0.11 A
trip class design of the overload release 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 — 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 Installation/ mounting/ dimensions mounting position fastening method height width depth Connections/ Terminals product component removable terminal for auxiliary and control circuit • for main current circuit • for auxiliary and control circuit arrangement of electrical connectors for main current Top and bottom		6A (SCC less than equal to 0.5 kA; U less than equal to 260V)
trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value 77 A • at 600 V rated value 77 A Short-circuit protection design of the fuse link • for short-circuit protection of the main circuit — with type of coordination 1 required • of short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required fuse gG: 6 A, quick: 10 A Installation/ mounting/ dimensions mounting position fastening method height 105 mm width 70 mm depth Connections/ Terminals product component removable terminal for auxiliary and control circuit • for auxiliary and control circuit	contact rating of auxiliary contacts according to UL	B600 / R300
design of the overload release UL/GSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 600 V rated value 77 A 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 • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required fuse gG: 6 A, quick: 10 A Installation/ mounting/ dimensions mounting position fastening method Contactor mounting height 105 mm width depth 70 mm depth Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection • for main current circuit • for auxiliary and control circuit screw-type terminals arrangement of electrical connectors for main current Top and bottom	Protective and monitoring functions	
full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 600 V rated value • at 600 V rated value • or short-circuit protection design of the fuse link • for short-circuit protection of the main circuit — with type of coordination 1 required • 690 V: gG: 250 A; 1000 V: a.M. / g.B.: 160 A — with type of assignment 2 required • 690 V: gG: 160 A; 1000 V: a.M. / g.B.: 160 A • for short-circuit protection of the auxiliary switch required fuse gG: 6 A, quick: 10 A Installation/ mounting/ dimensions mounting position fastening method Contactor mounting height 105 mm width depth 70 mm depth 70 mm Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection • for main current circuit • for auxiliary and control circuit screw-type terminals arrangement of electrical connectors for main current Top and bottom	trip class	CLASS 10
full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 600 V rated value 77 A Short-circuit protection design of the fuse link • for short-circuit protection of the main circuit — with type of coordination 1 required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required fuse gG: 6 A, quick: 10 A Installation/ mounting/ dimensions mounting position fastening method height 105 mm width 70 mm depth Connections/ Terminals product component removable terminal for auxiliary and control circuit + of or main current circuit • for main current circuit • for main current circuit • for auxiliary and control circuit arrangement of electrical connectors for main current 70 main current Top and bottom	design of the overload release	thermal
at 480 V rated value at 600 V rated value 77 A 77 A 78 A 77 A Short-circuit protection design of the fuse link • for short-circuit protection of the main circuit — with type of coordination 1 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 fuse gG: 250 A; 1000 V: a.M. / g.B.: 160 A 690 V: gG: 160 A; 1000 V: a.M. / g.B.: 160 A 690 V: gG	UL/CSA ratings	
• at 600 V rated value Short-circuit protection design of the fuse link • for short-circuit protection of the main circuit — with type of coordination 1 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 Installation/ mounting/ dimensions mounting position fastening method height 105 mm width 70 mm depth Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection • for main current circuit • for auxiliary and control circuit arrangement of electrical connectors for main current Top and bottom	full-load current (FLA) for 3-phase AC motor	
design of the fuse link • for short-circuit protection of the main circuit — with type of coordination 1 required 690 V: gG: 250 A; 1000 V: a.M. / g.B.: 160 A — with type of assignment 2 required 690 V: gG: 160 A; 1000 V: a.M. / g.B.: 160 A • for short-circuit protection of the auxiliary switch required fuse gG: 6 A, quick: 10 A Installation/ mounting/ dimensions mounting position any fastening method Contactor mounting height 105 mm width 70 mm depth 125 mm Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection • for main current circuit screw-type terminals arrangement of electrical connectors for main current Top and bottom		77 A
design of the fuse link • for short-circuit protection of the main circuit — with type of coordination 1 required 690 V: gG: 250 A; 1000 V: a.M. / g.B.: 160 A — with type of assignment 2 required 690 V: gG: 160 A; 1000 V: a.M. / g.B.: 160 A • for short-circuit protection of the auxiliary switch required fuse gG: 6 A, quick: 10 A Installation/ mounting/ dimensions mounting position any fastening method Contactor mounting height 105 mm width 70 mm depth 70 mm Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection • for main current circuit • for auxiliary and control circuit arrangement of electrical connectors for main current Top and bottom	at 600 V rated value	77 A
design of the fuse link • for short-circuit protection of the main circuit — with type of coordination 1 required 690 V: gG: 250 A; 1000 V: a.M. / g.B.: 160 A — with type of assignment 2 required 690 V: gG: 160 A; 1000 V: a.M. / g.B.: 160 A • for short-circuit protection of the auxiliary switch required fuse gG: 6 A, quick: 10 A Installation/ mounting/ dimensions mounting position any fastening method Contactor mounting height 105 mm width 70 mm depth 70 mm Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection • for main current circuit • for auxiliary and control circuit arrangement of electrical connectors for main current Top and bottom		
• 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 Installation/ mounting/ dimensions mounting position fastening method Contactor mounting height 105 mm width 70 mm depth 125 mm Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection • for main current circuit • for auxiliary and control circuit arrangement of electrical connectors for main current Top and bottom	Short-circuit protection	
— with type of coordination 1 required — with type of assignment 2 required 690 V: gG: 250 A; 1000 V: a.M. / g.B.: 160 A 690 V: gG: 160 A; 1000 V: a.M. / g.B.: 160 A fuse gG: 6 A, quick: 10 A Installation/ mounting/ dimensions mounting position any fastening method Contactor mounting height 105 mm width 70 mm depth 125 mm Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection • for main current circuit • for auxiliary and control circuit arrangement of electrical connectors for main current Top and bottom		
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for short-circuit protection of the auxiliary switch required fuse gG: 6 A, quick: 10 A Installation/ mounting/ dimensions mounting position any fastening method Contactor mounting height 105 mm width 70 mm depth 125 mm Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection • for main current circuit • for auxiliary and control circuit screw-type terminals arrangement of electrical connectors for main current Top and bottom fuse gG: 6 A, quick: 10 A Installation/ mounting/ dimensions Any Any Any Contactor mounting No No Serminals Serew-type terminals Top and bottom	design of the fuse link • for short-circuit protection of the main circuit	690 V: qG: 250 A: 1000 V: a M / q R : 160 A
mounting position any fastening method Contactor mounting height 105 mm width 70 mm depth 125 mm Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection	design of the fuse link ● for short-circuit protection of the main circuit — with type of coordination 1 required	
mounting position fastening method Contactor mounting height 105 mm width 70 mm depth 125 mm Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection • for main current circuit • for auxiliary and control circuit arrangement of electrical connectors for main current Top and bottom	 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 	690 V: gG: 160 A; 1000 V: a.M. / g.B.: 160 A
fastening method height 105 mm vidth 70 mm depth 125 mm Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection • for main current circuit • for auxiliary and control circuit arrangement of electrical connectors for main current Top and bottom	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	690 V: gG: 160 A; 1000 V: a.M. / g.B.: 160 A
height width 70 mm depth 125 mm Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection • for main current circuit • for auxiliary and control circuit arrangement of electrical connectors for main current Top and bottom	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 Installation/ mounting/ dimensions	690 V: gG: 160 A; 1000 V: a.M. / g.B.: 160 A fuse gG: 6 A, quick: 10 A
width 70 mm depth 125 mm Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection • for main current circuit • for auxiliary and control circuit arrangement of electrical connectors for main current Top and bottom	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 Installation/ mounting/ dimensions mounting position	690 V: gG: 160 A; 1000 V: a.M. / g.B.: 160 A fuse gG: 6 A, quick: 10 A
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product component removable terminal for auxiliary and control circuit type of electrical connection • for main current circuit • for auxiliary and control circuit arrangement of electrical connectors for main current Top and bottom	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 Installation/ mounting/ dimensions mounting position fastening method height	690 V: gG: 160 A; 1000 V: a.M. / g.B.: 160 A fuse gG: 6 A, quick: 10 A any Contactor mounting 105 mm
product component removable terminal for auxiliary and control circuit type of electrical connection • for main current circuit • for auxiliary and control circuit arrangement of electrical connectors for main current Top and bottom	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 Installation/ mounting/ dimensions mounting position fastening method height width	690 V: gG: 160 A; 1000 V: a.M. / g.B.: 160 A fuse gG: 6 A, quick: 10 A any Contactor mounting 105 mm 70 mm
control circuit type of electrical connection • for main current circuit • for auxiliary and control circuit arrangement of electrical connectors for main current Top and bottom	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 Installation/ mounting/ dimensions mounting position fastening method height width depth	690 V: gG: 160 A; 1000 V: a.M. / g.B.: 160 A fuse gG: 6 A, quick: 10 A any Contactor mounting 105 mm 70 mm
type of electrical connection • for main current circuit screw-type terminals • for auxiliary and control circuit screw-type terminals arrangement of electrical connectors for main current Top and bottom	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 Installation/ mounting/ dimensions mounting position fastening method height width depth Connections/ Terminals	690 V: gG: 160 A; 1000 V: a.M. / g.B.: 160 A fuse gG: 6 A, quick: 10 A any Contactor mounting 105 mm 70 mm 125 mm
• for main current circuit screw-type terminals • for auxiliary and control circuit screw-type terminals arrangement of electrical connectors for main current Top and bottom	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 Installation/ mounting/ dimensions mounting position fastening method height width depth Connections/ Terminals product component removable terminal for auxiliary and	690 V: gG: 160 A; 1000 V: a.M. / g.B.: 160 A fuse gG: 6 A, quick: 10 A any Contactor mounting 105 mm 70 mm 125 mm
• for auxiliary and control circuit screw-type terminals arrangement of electrical connectors for main current Top and bottom	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 Installation/ mounting/ dimensions mounting position fastening method height width depth Connections/ Terminals product component removable terminal for auxiliary and control circuit	690 V: gG: 160 A; 1000 V: a.M. / g.B.: 160 A fuse gG: 6 A, quick: 10 A any Contactor mounting 105 mm 70 mm 125 mm
arrangement of electrical connectors for main current Top and bottom	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 Installation/ mounting/ dimensions mounting position fastening method height width depth Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection	690 V: gG: 160 A; 1000 V: a.M. / g.B.: 160 A fuse gG: 6 A, quick: 10 A any Contactor mounting 105 mm 70 mm 125 mm
	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 Installation/ mounting/ dimensions mounting position fastening method height width depth Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection • for main current circuit	690 V: gG: 160 A; 1000 V: a.M. / g.B.: 160 A fuse gG: 6 A, quick: 10 A any Contactor mounting 105 mm 70 mm 125 mm No
circuit	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 Installation/ mounting/ dimensions mounting position fastening method height width depth Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection • for main current circuit • for auxiliary and control circuit	690 V: gG: 160 A; 1000 V: a.M. / g.B.: 160 A fuse gG: 6 A, quick: 10 A any Contactor mounting 105 mm 70 mm 125 mm No screw-type terminals screw-type terminals

type of connectable conductor cross-sections	
for main contacts	
— solid	2x (2.5 16 mm²)
— stranded	2x (6 16 mm²), 2x (10 50 mm²), 1x (10 70 mm²)
— solid or stranded	2x (2,5 50 mm²), 1x (10 70 mm²)
 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 2/0)
type of connectable conductor cross-sections	
 for auxiliary contacts 	
— solid or stranded	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
 finely stranded with core end processing 	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
 for AWG cables for auxiliary contacts 	2x (20 16), 2x (18 14)
tightening torque	
for main contacts for ring cable lug	4.5 6 N·m
outer diameter of the usable ring cable lug maximum	19 m
tightening torque	
 for main contacts with screw-type terminals 	4.5 6 N·m
 for auxiliary contacts with screw-type terminals 	0.8 1.2 N·m
design of screwdriver shaft	Hexagonal socket
size of the screwdriver tip	4 mm hexagon socket
design of the thread of the connection screw	
for main contacts	M8
of the auxiliary and control contacts	M3
IEC 61508	
T1 value	
 for proof test interval or service life according to IEC 61508 	20 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
Display	
display version for switching status	Slide switch
Approvals Certificates	







Confirmation







For use in hazardous locations

Test Certificates

Marine / Shipping





Type Test Certificates/Test Report

Special Test Certificate





Marine / Shipping





LRS







Confirmation

other

Railway

Environment

Special Test Certificate



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=3RU2146-4LB0

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RU2146-4LB0

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

https://support.industry.siemens.com/cs/ww/en/ps/3RU2146-4LB0

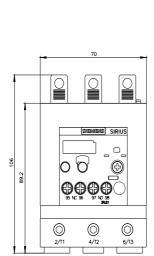
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

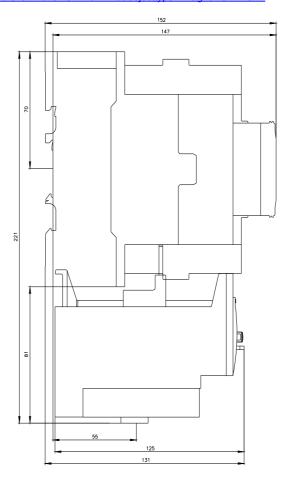
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RU2146-4LB0&lang=en

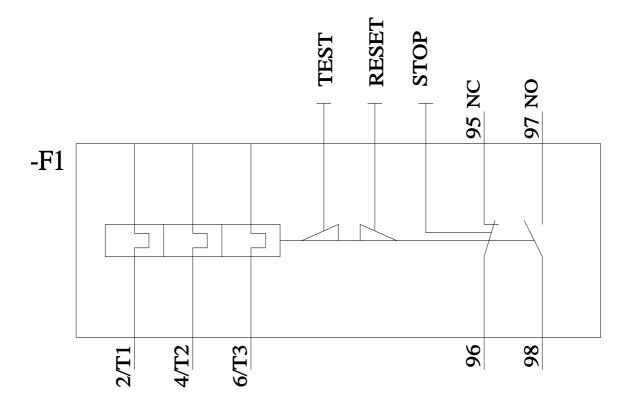
Characteristic: Tripping characteristics, I²t, Let-through current https://support.industry.siemens.com/cs/ww/en/ps/3RU2146-4LB0/characteristics, I²t, Let-through current

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

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RU2146-4LB0&objecttype=14&gridview=view1







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