SIEMENS

Data sheet

3RU2126-1KB0



Overload relay 9.0...12.5 A Thermal For motor protection Size S0, 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	SO
size of contactor can be combined company-specific	SO
power loss [W] for rated value of the current at AC in hot operating state	6.6 W
• per pole	2.2 W
insulation voltage with degree of pollution 3 at AC rated value	690 V
surge voltage resistance rated value	6 kV
maximum permissible voltage for protective separation in networks with grounded star point	
 between auxiliary and auxiliary circuit 	440 V
 between auxiliary and auxiliary circuit 	440 V
 between main and auxiliary circuit 	440 V
 between main and auxiliary circuit 	440 V
shock resistance according to IEC 60068-2-27	8g / 11 ms
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 98 ATEX G 001
reference code according to IEC 81346-2	F
Substance Prohibitance (Date)	10/01/2009
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	9 12.5 A
operating voltage	
• rated value	690 V
 at AC-3e rated value maximum 	690 V
operating frequency rated value	50 60 Hz
operational current rated value	12.5 A
operational current at AC-3e at 400 V rated value	12.5 A
operating power	

• at AC-3			
— at 400 V rated value	5.5 kW		
— at 500 V rated value	7.5 kW		
— at 690 V rated value	7.5 kW		
• at AC-3e			
— at 400 V rated value	5.5 kW		
— at 500 V rated value	7.5 kW		
— at 690 V rated value	7.5 kW		
Auxiliary circuit	7.5 KW		
design of the auxiliary switch	integrated		
number of NC contacts for auxiliary contacts	integrated		
-			
note	for contactor disconnection		
number of NO contacts for auxiliary contacts			
note	for message "Tripped"		
number of CO contacts for auxiliary contacts	0		
operational current of auxiliary contacts at AC-15	A		
• at 24 V	3 A		
• at 110 V	3 A		
• at 120 V	3 A 2 A		
• at 125 V	3 A 2 A		
• at 230 V	2 A		
• at 400 V	1 A		
• at 690 V	0.75 A		
operational current of auxiliary contacts at DC-13			
• at 24 V	2 A		
• at 60 V	0.3 A		
• at 110 V	0.22 A		
• at 125 V	0.22 A		
• at 220 V	0.11 A		
contact rating of auxiliary contacts according to UL	B600 / R300		
Protective and monitoring functions			
Protective and monitoring functions trip class	CLASS 10		
Protective and monitoring functions trip class design of the overload release	CLASS 10 thermal		
Protective and monitoring functions trip class design of the overload release UL/CSA ratings			
Protective and monitoring functions trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor	thermal		
Protective and monitoring functions trip class design of the overload release UL/CSA ratings			
Protective and monitoring functions 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	thermal		
Protective and monitoring functions trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value	thermal 12.5 A		
Protective and monitoring functions 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	thermal 12.5 A		
Protective and monitoring functions 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 Short-circuit protection	thermal 12.5 A		
Protective and monitoring functions 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 Short-circuit protection design of the fuse link	thermal 12.5 A 12.5 A		
Protective and monitoring functions 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 Short-circuit protection design of the fuse link • for short-circuit protection of the auxiliary switch required	thermal 12.5 A 12.5 A		
Protective and monitoring functions 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 Short-circuit protection design of the fuse link • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions	thermal 12.5 A 12.5 A 12.5 A fuse gG: 6 A, quick: 10 A		
Protective and monitoring functions 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 Short-circuit protection design of the fuse link • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position	thermal 12.5 A 12.5 A 12.5 A fuse gG: 6 A, quick: 10 A any		
Protective and monitoring functions 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 Short-circuit protection design of the fuse link • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position fastening method	thermal 12.5 A 12.5 A 12.5 A fuse gG: 6 A, quick: 10 A any Contactor mounting		
Protective and monitoring functions 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 Short-circuit protection design of the fuse link • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position fastening method height	thermal 12.5 A 12.5 A 12.5 A fuse gG: 6 A, quick: 10 A any Contactor mounting 85 mm		
Protective and monitoring functions 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 Short-circuit protection design of the fuse link • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position fastening method height width	thermal 12.5 A 12.5 A 12.5 A any Contactor mounting 85 mm 45 mm		
Protective and monitoring functions 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 Short-circuit protection design of the fuse link • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position fastening method height width depth	thermal 12.5 A 12.5 A 12.5 A any Contactor mounting 85 mm 45 mm		
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Protective and monitoring functions 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 Short-circuit protection design of the fuse link • 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	thermal 12.5 A 12.5 A 12.5 A 12.5 A any Contactor mounting 85 mm 45 mm 85 mm		
Protective and monitoring functions 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 Short-circuit protection design of the fuse link • 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	thermal 12.5 A 12.5 A 12.5 A 12.5 A fuse gG: 6 A, quick: 10 A any Contactor mounting 85 mm 45 mm 85 mm No		
Protective and monitoring functions 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 Short-circuit protection design of the fuse link • 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	thermal 12.5 A 12.5 A 12.5 A 12.5 A fuse gG: 6 A, quick: 10 A any Contactor mounting 85 mm 45 mm 85 mm No No Screw-type terminals		
Protective and monitoring functions 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 short-circuit protection design of the fuse link of or 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 of or main current circuit of or auxiliary and control circuit	thermal 12.5 A 12.5 A 12.5 A 12.5 A any Contactor mounting 85 mm 45 mm 85 mm No No Screw-type terminals screw-type terminals		
Protective and monitoring functions 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 Short-circuit protection design of the fuse link 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 	thermal 12.5 A 12.5 A 12.5 A 12.5 A any Contactor mounting 85 mm 45 mm 85 mm No No Screw-type terminals screw-type terminals		
Protective and monitoring functions 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 Short-circuit protection design of the fuse link • 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 arrangement of electrical connectors for main current circuit type of connectable conductor cross-sections	thermal 12.5 A 12.5 A 12.5 A 12.5 A any Contactor mounting 85 mm 45 mm 85 mm No No Screw-type terminals screw-type terminals		
Protective and monitoring functions 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 Short-circuit protection design of the fuse link 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 auxiliary and control circuit for auxiliary and control circuit arrangement of electrical connectors for main current circuit type of connectable conductor cross-sections for main contacts for main contacts 	thermal 12.5 A 12.5 A 12.5 A 12.5 A any Contactor mounting 85 mm 45 mm 85 mm No No Screw-type terminals screw-type terminals Top and bottom		
Protective and monitoring functions 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 • for short-circuit protection design of the fuse link • 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 arrangement of electrical connectors for main current circuit type of connectable conductor cross-sections • for main contacts — solid or stranded	thermal 12.5 A 12.5 A 12.5 A 12.5 A		
Protective and monitoring functions 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 for short-circuit protection design of the fuse link 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 e for auxiliary and control circuit arrangement of electrical connectors for main current circuit type of connectable conductor cross-sections e for main contacts — solid or stranded — finely stranded with core end processing	thermal 12.5 A 12.5 A fuse gG: 6 A, quick: 10 A any Contactor mounting 85 mm 45 mm 85 mm No screw-type terminals screw-type terminals Top and bottom 2x (1 2.5 mm²), 2x (2.5 10 mm²) 2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm²		

 — solid or stranded — finely stranded with core end processing 	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 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 with screw-type terminals 	2 2.5 N·m			
for auxiliary contacts with screw-type terminals	0.8 1.2 N·m			
design of screwdriver shaft	Diameter 5 6 mm			
size of the screwdriver tip	Pozidriv PZ 2			
design of the thread of the connection screw				
 for main contacts 	M4			
 of the auxiliary and control contacts 	M3			
Safety related data				
failure rate [FIT] with low demand rate according to SN 31920	50 FIT			
MTTF with high demand rate	2 280 a			
T1 value for proof test interval or service life according to IEC 61508	20 a			
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 f	rom the front		
Display				
display version for switching status	Slide switch			
Certificates/ approvals				
		For use in herordous	leastions	
General Product Approval		For use in hazardous	locations	
	EHC	K ATEX	IECE×	
Declaration of Conformity Test Certificate	es	Marine / Shipping		
UK CA EG-Konf.		ABS	BUREAU VERITAS	
Marine / Shipping			other	
DINV LIKS PRS	RINA	RMRS	<u>Confirmation</u>	
other Railway				
Vibration and Shock				
Further information				
Siemens has decided to exit the Russian market (see here).				
https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business Siemens is working on the renewal of the current EAC certificates. Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus). 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)				
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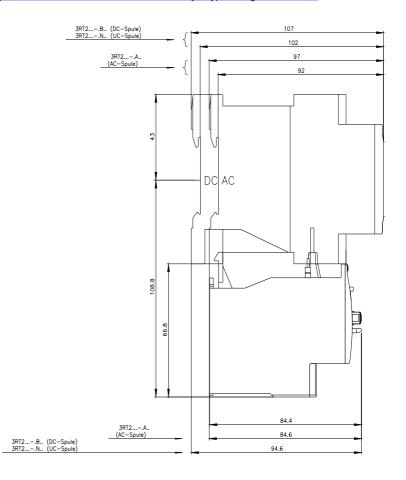
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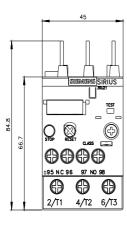
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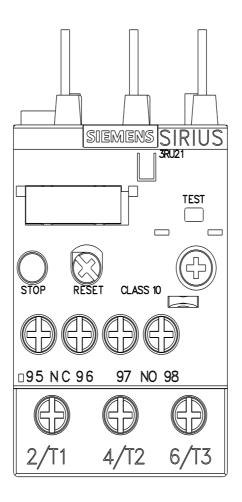
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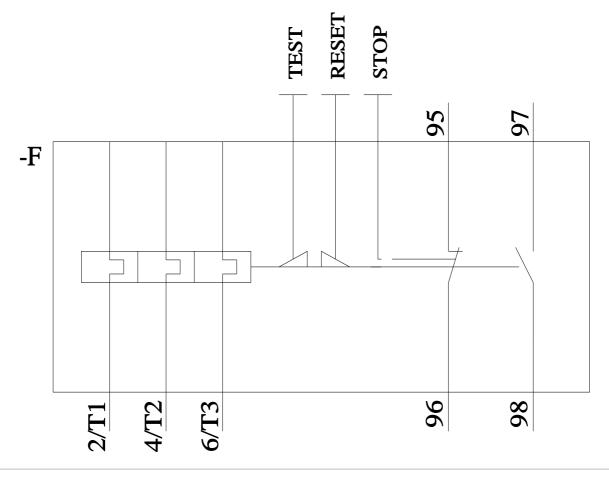
Characteristic: Tripping characteristics, I2t, Let-through current https://support.industry.siemens.com/cs/ww/en/ps/3RU2126-1KB0/char

Further characteristics (e.g. electrical endurance, switching frequency) http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RU2126-1KB0&objecttype=14&gridview=view1









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