# SIEMENS

#### Data sheet

### 3RU2136-4QD1



Overload relay 47...57 A Thermal For motor protection Size S2, Class 10 Standalone installation Main circuit: Screw Auxiliary circuit: spring-type terminal Manual-Automatic-Reset

product brand name	SIRIUS	
product designation	thermal overload relay	
product type designation	3RU2	
General technical data		
size of overload relay	S2	
size of contactor can be combined company-specific	S2	
power loss [W] for rated value of the current at AC in hot operating state	15.6 W	
• per pole	5.2 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		
<ul> <li>between auxiliary and auxiliary circuit</li> </ul>	415 V	
<ul> <li>between auxiliary and auxiliary circuit</li> </ul>	415 V	
<ul> <li>between main and auxiliary circuit</li> </ul>	690 V	
<ul> <li>between main and auxiliary circuit</li> </ul>	690 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)	10/15/2014	
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	47 57 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	57 A	
operational current at AC-3e at 400 V rated value	57 A	
operating power		

• at AC-3	30 kW	
— at 400 V rated value	30 kW	
— at 500 V rated value	37 kW	
— at 690 V rated value	55 kW	
• at AC-3e		
— at 400 V rated value	30 kW	
— at 500 V rated value	37 kW	
— at 690 V rated value	55 kW	
Auxiliary circuit		
design of the auxiliary switch	integrated	
number of NC contacts for auxiliary contacts	1	
• note	for contactor disconnection	
number of NO contacts for auxiliary contacts	1	
• note	for message "Tripped"	
number of CO contacts for auxiliary contacts	0	
operational current of auxiliary contacts at AC-15		
• at 24 V	3 A	
• at 110 V	3 A	
• at 120 V	3 A	
• at 125 V	3 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	
design of the miniature circuit breaker for short-circuit protection	6A (SCC less than equal to 0.5 kA; U less than equal to 260V)	
and the according to a state the second second		
of the auxiliary switch required		
contact rating of auxiliary contacts according to UL	B600 / R300	
contact rating of auxiliary contacts according to UL Protective and monitoring functions		
contact rating of auxiliary contacts according to UL Protective and monitoring functions trip class	CLASS 10	
contact rating of auxiliary contacts according to UL Protective and monitoring functions trip class design of the overload release		
contact rating of auxiliary contacts according to UL Protective and monitoring functions trip class design of the overload release UL/CSA ratings	CLASS 10	
contact rating of auxiliary contacts according to UL Protective and monitoring functions trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor	CLASS 10 thermal	
contact rating of auxiliary contacts according to UL 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	CLASS 10 thermal 57 A	
contact rating of auxiliary contacts according to UL 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	CLASS 10 thermal	
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contact rating of auxiliary contacts according to UL         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	CLASS 10 thermal 57 A 57 A	
contact rating of auxiliary contacts according to UL         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	CLASS 10 thermal 57 A	
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contact rating of auxiliary contacts according to UL         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	CLASS 10 thermal 57 A 57 A 57 A tuse gG: 6 A, quick: 10 A any	
contact rating of auxiliary contacts according to UL         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	CLASS 10 thermal 57 A 57 A 57 A 57 A fuse gG: 6 A, quick: 10 A any stand-alone installation	
contact rating of auxiliary contacts according to UL         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	CLASS 10 thermal 57 A 57 A 57 A 57 A 4 fuse gG: 6 A, quick: 10 A any stand-alone installation 105 mm	
contact rating of auxiliary contacts according to UL         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	CLASS 10 thermal 57 A 57 A 57 A 7 fuse gG: 6 A, quick: 10 A any stand-alone installation 105 mm 55 mm	
contact rating of auxiliary contacts according to UL         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	CLASS 10 thermal 57 A 57 A 57 A 57 A 4 fuse gG: 6 A, quick: 10 A any stand-alone installation 105 mm	
contact rating of auxiliary contacts according to UL         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	CLASS 10 thermal 57 A 57 A 57 A 57 A 10 fuse gG: 6 A, quick: 10 A any stand-alone installation 105 mm 55 mm 117 mm	
contact rating of auxiliary contacts according to UL         Protective and monitoring functions         trip class         design of the overload release         UL/CSA ratings         full-load current (FLA) for 3-phase AC motor <ul> <li>at 480 V rated value</li> <li>at 600 V rated value</li> </ul> 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	CLASS 10 thermal 57 A 57 A 57 A 7 fuse gG: 6 A, quick: 10 A any stand-alone installation 105 mm 55 mm	
contact rating of auxiliary contacts according to UL         Protective and monitoring functions         trip class         design of the overload release         UL/CSA ratings         full-load current (FLA) for 3-phase AC motor <ul> <li>at 480 V rated value</li> <li>at 600 V rated value</li> </ul> Short-circuit protection       design of the fuse link <ul> <li>for short-circuit protection of the auxiliary switch required</li> </ul> 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       type of electrical connection	CLASS 10 thermal 57 A 57 A 57 A 7 fuse gG: 6 A, quick: 10 A any stand-alone installation 105 mm 55 mm 117 mm	
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contact rating of auxiliary contacts according to UL         Protective and monitoring functions         trip class         design of the overload release         UL/CSA ratings         full-load current (FLA) for 3-phase AC motor <ul> <li>at 480 V rated value</li> <li>at 600 V rated value</li> </ul> <li>Short-circuit protection</li> <li>design of the fuse link         <ul> <li>for short-circuit protection of the auxiliary switch required</li> </ul> </li> <li>Installation/ mounting/ dimensions         <ul> <li>mounting position</li> <li>fastening method</li> <li>height</li> <li>width</li> <li>depth</li> </ul> </li> <li>Connections/ Terminals         <ul> <li>product component removable terminal for auxiliary and control circuit</li> <li>for auxiliary and control circuit</li> <li>for auxiliary and control circuit</li> <li>for auxiliary and control circuit</li> <li>of or auxiliary and control circuit</li> </ul> </li>	CLASS 10 thermal 57 A	
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contact rating of auxiliary contacts according to UL         Protective and monitoring functions         trip class         design of the overload release         UL/CSA ratings         full-load current (FLA) for 3-phase AC motor <ul> <li>at 480 V rated value</li> <li>at 600 V rated value</li> </ul> <li>Short-circuit protection</li> <li>design of the fuse link         <ul> <li>for short-circuit protection of the auxiliary switch required</li> </ul> </li> <li>Installation/ mounting/ dimensions         <ul> <li>mounting position</li> <li>fastening method</li> <li>height</li> <li>width</li> <li>depth</li> </ul> </li> <li>Connections/ Terminals         <ul> <li>product component removable terminal for auxiliary and control circuit</li> <li>for auxiliary and control circuit</li> <li>for auxiliary and control circuit</li> <li>for auxiliary and control circuit</li> <li>of or auxiliary and control circuit</li> </ul> </li>	CLASS 10 thermal 57 A	

type of connectable con		ıs			
<ul> <li>for auxiliary contact</li> </ul>					
— solid or stranded		2x (0.5 2.5 mm <sup>2</sup> )	)		
<ul> <li>finely stranded with core end processing</li> <li>finely stranded without core end processing</li> <li>for AWG cables for auxiliary contacts</li> </ul>		2x (0.5 1.5 mm²)	)		
		2x (0.5 2.5 mm²) 2x (20 14)			
<ul> <li>for main contacts with screw-type terminals</li> </ul>		3 4.5 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			M6		
fety related data					
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 vert	tical contact from the front	
splay					
display version for switchi	ng status		Slide switch		
ertificates/ approvals					
General Product Approv	val			For use in ha	zardous locations
Declaration of Conform	it.	Test Certificat	05	Marino / Shin	ning
Declaration of Conform	ity	Test Certificat	es	Marine / Ship	ping
UK CA	CE EG-Konf.	<u>Type Test Cer</u> ates/Test Re		Startis	BUREAU VERITAS
Marine / Shipping					other
	Lloyd's Register uts	PRS	RIN		Confirmation
Railway					
<u>Special Test Certific-</u> <u>ate</u>					
irther information					
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 Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

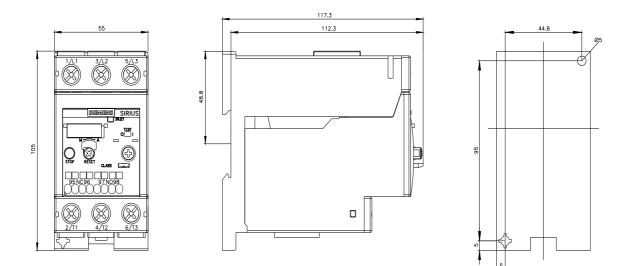
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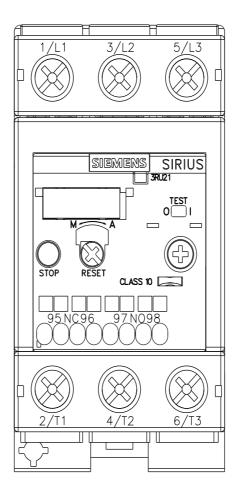
 Characteristic: Tripping characteristics, I²t, Let-through current

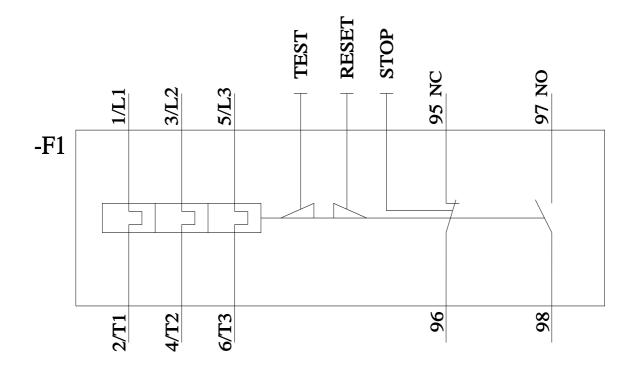
 https://support.industry.siemens.com/cs/ww/en/ps/3RU2136-4QD1/char

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

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