## **SIEMENS**

## Data sheet

## 3RU2136-4BD0



Overload relay 14...20 A Thermal For motor protection Size S2, Class 10 Contactor mounting Main circuit: Screw Auxiliary circuit: spring-type terminal Manual-Automatic-Reset

	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	10.5 W
per pole	3.5 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 safe isolation 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 acc. to IEC 60068-2-27	8g / 11 ms
recovery time after overload trip	
<ul> <li>with automatic reset typical</li> </ul>	10 min
with remote-reset	10 min
with manual reset	10 min
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 acc. to IEC 81346-2	F
Substance Prohibitance (Date)	15.10.2014 00:00:00
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
<ul> <li>ambient temperature during operation</li> </ul>	-40 +70 °C
<ul> <li>ambient temperature during storage</li> </ul>	-55 +80 °C
<ul> <li>ambient temperature during transport</li> </ul>	-55 +80 °C
	-40 +60 °C
temperature compensation	-40 100 C
	10 95 %
temperature compensation	

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adjustable current response value current of the current-dependent overload release	14 20 A
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<ul> <li>operating voltage rated value</li> </ul>	690 V
<ul> <li>operating voltage at AC-3 rated value maximum</li> </ul>	690 V
operating frequency rated value	50 60 Hz
operational current rated value	20 A
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 125 V	2 A
• at 400 V	1 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 of the auxiliary switch required	6A (SCC less than equal to 0.5 kA; U less than equal to 260V)
contact rating of auxiliary contacts according to UL	B600 / R300
Protective and monitoring functions	
Protective and monitoring functions trip class	CLASS 10
	CLASS 10 thermal
trip class	
trip class design of the overload release UL/CSA ratings	
trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor	thermal
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 20 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	thermal
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 20 A
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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 20 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         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 20 A
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> <li>at 600 V rated value</li> </ul> <li>Short-circuit protection         <ul> <li>design of the fuse link</li> <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</li>	thermal 20 A 20 A 20 A fuse gG: 6 A, quick: 10 A any Contactor mounting 90 mm 55 mm 105 mm
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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 function removable terminal for auxiliary and control circuit         type of electrical connection	thermal 20 A
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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 function removable terminal for auxiliary and control circuit         type of electrical connection         for main current circuit         for auxiliary and control circuit	thermal 20 A 20 A 20 A 20 A 20 A
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 function 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	thermal 20 A 20 A 20 A 20 A 20 A
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$-1$ $\Lambda \setminus \Lambda / \Omega$ $1$			2x (18 2), 1x (18	1)	
at AWG cables for		-4!	,/,		
<ul> <li>type of connectable c</li> <li>for auxiliary conta</li> </ul>		ctions			
<ul> <li>Ior auxiliary conta — solid or strar</li> </ul>			$2x (0.5 - 2.5 mm^2)$		
— finely stranded with core end processing		$2x (0.5 \dots 2.5 \text{ mm}^2)$			
<ul> <li>— finely stranded with core end processing</li> <li>— finely stranded without core end processing</li> </ul>		2x (0.5 1.5 mm²) 2x (0.5 2.5 mm²)			
	or auxiliary contacts	processing	2x (0.5 2.5 mm) 2x (20 14)		
			-		
terminals	for main contacts w	ith screw-type	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 o		crew			
<ul> <li>for main contacts</li> </ul>	5		M6		
Safety related data					
T1 value for proof test IEC 61508	t interval or service	e life acc. to	20 y		
protection class IP on	the front acc. to IE	EC 60529	IP20		
touch protection on th	he front acc. to IEC	60529	finger-safe, for verti	cal contact from the fror	nt
Display					
display version for swite	ching status		Slide switch		
Certificates/ approvals					
General Product App	roval			For use in h	azardous locations
<b>(1)</b>	(m)	Ē	<b>CO</b> 1		IECEx
CSA Declaration of Confor	ccc	UL Test Certific	EA	Marine / Shi	) IECEx IECEx
Declaration of Confor Miscellaneous	ccc rmity EG-Konf.	Test Certific Type Tes Certificates/ Report	t <u>Special T</u>	est A	
	CE	<u>Type Tes</u> <u>Certificates/</u>	t <u>Special T</u>	est A	
<u>Miscellaneous</u>	CE	<u>Type Tes</u> <u>Certificates/</u>	t <u>Special T</u>	est A	pping B U REAU VERITAS
Miscellaneous Marine / Shipping	CE	<u>Type Tes</u> <u>Certificates/</u>	t <u>Special T</u>	est te ABS	pping <b>BUREAU</b> VERITAS other

Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

https://www.siemens.com/ic10

Industry Mall (Online ordering system) https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RU2136-4BD0

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RU2136-4BD0

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

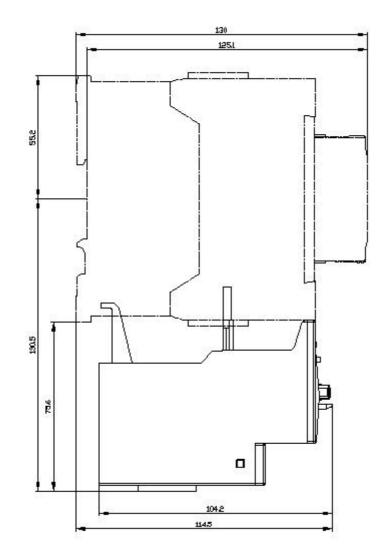
https://support.industry.siemens.com/cs/ww/en/ps/3RU2136-4BD0

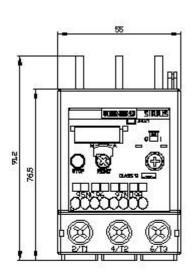
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RU2136-4BD0&lang=en

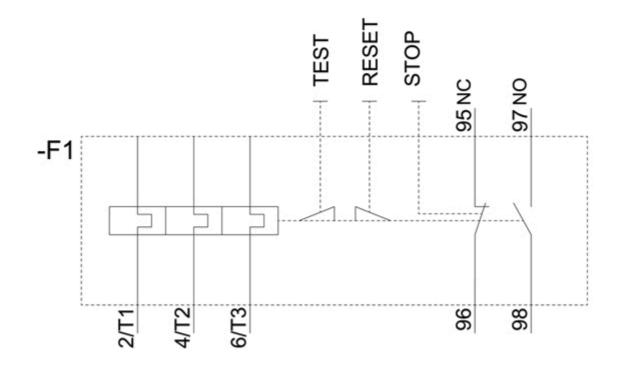
Characteristic: Tripping characteristics, I<sup>2</sup>t, Let-through current

https://support.industry.siemens.com/cs/ww/en/ps/3RU2136-4BD0/char

Further characteristics (e.g. electrical endurance, switching frequency) http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RU2136-4BD0&objecttype=14&gridview=view1







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