## SIEMENS

## Data sheet

## 3RU2116-1BB1



Overload relay 1.4...2.0 A Thermal For motor protection Size S00, Class 10 Stand-alone installation Main circuit: Screw Auxiliary circuit: Screw Manual-Automatic-Reset

was doned because a second	
product brand name	SIRIUS
product designation	thermal overload relay
product type designation	3RU2
General technical data	
size of overload relay	S00
size of contactor can be combined company-specific	S00
power loss [W] for rated value of the current at AC in hot operating state	5.7 W
• per pole	1.9 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>	440 V
<ul> <li>between auxiliary and auxiliary circuit</li> </ul>	440 V
<ul> <li>between main and auxiliary circuit</li> </ul>	440 V
<ul> <li>between main and auxiliary circuit</li> </ul>	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	
<ul> <li>during operation</li> </ul>	-40 +70 °C
<ul> <li>during storage</li> </ul>	-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	1.4 2 A
operating voltage	
<ul> <li>rated value</li> </ul>	690 V
<ul> <li>at AC-3e rated value maximum</li> </ul>	690 V
operating frequency rated value	50 60 Hz

operational current rated value	2 A
operational current rated value	
operational current at AC-3e at 400 V rated value	2 A
operating power	
• at AC-3	0.75 100
— at 400 V rated value	0.75 kW
— at 500 V rated value	0.75 kW
— at 690 V rated value	1.1 kW
• at AC-3e	
— at 400 V rated value	0.75 kW
— at 500 V rated value	0.75 kW
— at 690 V rated value	1.1 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
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	
trip class	CLASS 10
design of the overload release	thermal
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
• at 480 V rated value	2 A
at 600 V rated value	2 A
Short-circuit protection	
design of the fuse link	
<ul> <li>for short-circuit protection of the auxiliary switch</li> </ul>	fuse gG: 6 A, quick: 10 A
required	
Installation/ mounting/ dimensions	
mounting position	any
fastening method	stand-alone installation
height	89 mm
width	45 mm
depth	80 mm
Connections/ Terminals	
product component removable terminal for auxiliary	No
and control circuit	
type of electrical connection	
for main current circuit	screw-type terminals
<ul> <li>for auxiliary and control circuit</li> </ul>	screw-type terminals
arrangement of electrical connectors for main current circuit	Top and bottom
type of connectable conductor cross-sections	
for main contacts	
— solid or stranded	2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²), 2x 4 mm²

•	nded with core end proces	-	x (0.5 1.5 mm²), 2x (0.7		
<ul> <li>at AWG cables</li> </ul>	for main contacts	2×	( (20 16), 2x (18 14),	2x 12	
type of connectable	conductor cross-section	ns			
<ul> <li>for auxiliary cor</li> </ul>	ntacts				
— solid or st	randed	2x	x (0.5 1.5 mm²), 2x (0.7	5 2.5 mm²)	
<ul> <li>finely stranded with core end processing</li> </ul>		sing 2x	2x (0.5 1.5 mm <sup>2</sup> ), 2x (0.75 2.5 mm <sup>2</sup> )		
<ul> <li>at AWG cables for auxiliary contacts</li> </ul>		2×	2x (20 16), 2x (18 14)		
tightening torque					
	cts with screw-type termina	als 0.	8 1.2 N·m		
	ntacts with screw-type tern		8 1.2 N·m		
design of screwdriv			iameter 5 6 mm		
size of the screwdri			ozidriv PZ 2		
	d of the connection screv				
•			0		
for main contact		M			
	and control contacts	M	3		
Safety related data					
failure rate [FIT] with 31920	low demand rate according	g to SN 50	) FIT		
MTTF with high dem	nand rate	2	280 у		
	t interval or service life ac		) у		
	on the front according to	IEC IP	20		
	the front according to IE	-C 60529 fir	nger-safe, for vertical cont	act from the front	
Display		.0 00323	iger-sale, for vertical cont		
display version for sw	-	SI	ide switch		
	-	SI	ide switch		
display version for sw Certificates/ approval	ls	SI	ide switch		For use in hazard-
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display version for sw Certificates/ approval General Product Ap Control of the second	ls oproval <u>Confirmation</u>	CCC	UL	EAC Special Test Certific- ate	ous locations
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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=3RU2116-1BB1

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RU2116-1BB1

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

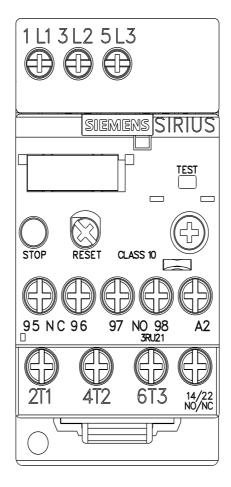
https://support.industry.siemens.com/cs/ww/en/ps/3RU2116-1BB1

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RU2116-1BB1&lang=en

Characteristic: Tripping characteristics, I2t, Let-through current

https://support.industry.siemens.com/cs/ww/en/ps/3RU2116-1BB1/char

Further characteristics (e.g. electrical endurance, switching frequency) http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RU2116-1BB1&objecttype=14&gridview=view1



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