## SIEMENS

## Data sheet

## 3RU2116-1BC1



Overload relay 1.4...2.0 A Thermal For motor protection Size S00, Class 10 Stand-alone installation Main circuit: Spring-type terminal 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	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	
rated value	690 V
at AC-3e rated value maximum	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 2 A
operating power	40
• at AC-3	
• at 400 V rated value	0.75 kW
— at 500 V rated value	0.75 kW
- at 690 V rated value	1.1 kW
	1.1 KVV
• at AC-3e	0.751104
— 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	1A
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
	B0007 K300
Protective and monitoring functions	01400.40
trip class	CLASS 10
design of the overload release	thermal
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
<ul> <li>at 480 V rated value</li> </ul>	2 A
<ul> <li>at 600 V rated value</li> </ul>	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	102 mm
width	45 mm
depth	79 mm
Connections/ Terminals	
	No
product component removable terminal for auxiliary and control circuit	No
type of electrical connection	
for main current circuit	spring-loaded terminals
<ul> <li>for auxiliary and control circuit</li> </ul>	spring-loaded terminals
arrangement of electrical connectors for main current	Top and bottom
circuit	ו טף מות שטונטווו
type of connectable conductor cross-sections	
for main contacts	
- solid or stranded	1x (0,5 4 mm²)
	та (0,0 т ШШ )

— finely stra	nded with core end processing	g 1x	: (0.5 2.5 mm²)		
<ul> <li>finely stranded without core end processing</li> <li>at AWG cables for main contacts</li> </ul>		sing 1x	1x (0.5 2.5 mm²)		
<ul> <li>at AWG cables</li> </ul>	for main contacts	1x	1x (20 12)		
type of connectable	conductor cross-sections				
<ul> <li>for auxiliary col</li> </ul>	ntacts				
— solid or st	randed	2x	2x (0.5 2.5 mm²)		
— finely stra	nded with core end processing	g 2x	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)		
<ul> <li>finely stranded without core end processing</li> </ul>		sing 2x	2x (0.5 1.5 mm²)		
<ul> <li>at AWG cables</li> </ul>	at AWG cables for auxiliary contacts		2x (20 14)		
design of screwdriver shaft		Dia	Diameter 3 mm		
size of the screwdriver tip		3,0	3,0 x 0,5 mm		
Safety related data					
failure rate [FIT] with low demand rate according to SN 31920		SN 50	50 FIT		
MTTF with high den	MTTF with high demand rate		280 у		
T1 value for proof test interval or service life according to IEC 61508		ling to 20	у		
protection class IP 60529	on the front according to IEC	C IP:	IP20		
touch protection on	the front according to IEC 6	6 <b>0529</b> fin	ger-safe, for vertical cont	act from the front	
Display					
display version for sw	vitching status	Sli	ide switch		
Certificates/ approva	ls				
General Product A					For use in hazard-
120			/ 11. \		<i>I I I I</i>
				EHL	ATEX
For use in hazard- ous locations	Declaration of Conformity	4	Test Certificates	EHL	Marine / Shipping
		UK CA	Test Certificates         Type Test Certific- ates/Test Report	LHL Special Test Certific- ate	Marine / Shipping
ous locations	Declaration of Conformity	, UK CA	Type Test Certific-		۲
ous locations	Declaration of Conformity	UK UKS	Type Test Certific-		۲
ous locations	Declaration of Conformity	UK CA	Type Test Certific-		۲
ous locations	Declaration of Conformity EG-Konf.	UK CA	Type Test Certific-		۲
ous locations	Declaration of Conformity	UK CA	Type Test Certific-		۲

**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=3RU2116-1BC1

## Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RU2116-1BC1

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

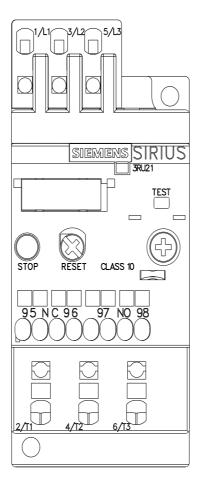
https://support.industry.siemens.com/cs/ww/en/ps/3RU2116-1BC1

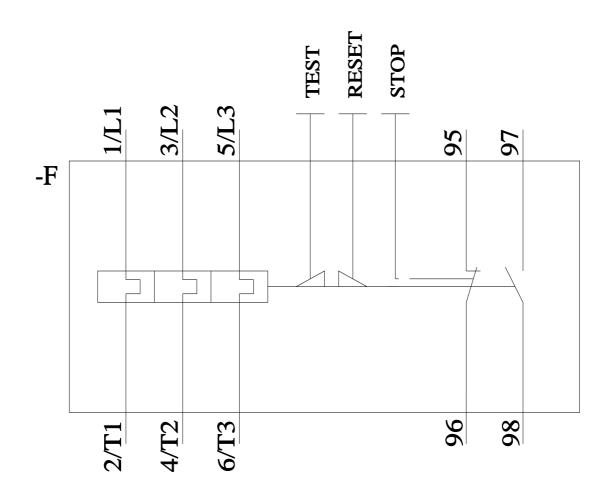
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RU2116-1BC1&lang=en

Characteristic: Tripping characteristics, I2t, Let-through current

https://support.industry.siemens.com/cs/ww/en/ps/3RU2116-1BC1/char

Further characteristics (e.g. electrical endurance, switching frequency) http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RU2116-1BC1&objecttype=14&gridview=view1





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