## SIEMENS

## Data sheet

## 3RU2116-0FB0



Overload relay 0.35...0.50 A Thermal For motor protection Size S00, 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	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	4.8 W			
• per pole	1.6 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				
<ul> <li>in networks with ungrounded star point between auxiliary and auxiliary circuit</li> </ul>	440 V			
<ul> <li>in networks with grounded star point between auxiliary and auxiliary circuit</li> </ul>	440 V			
<ul> <li>in networks with ungrounded star point between main and auxiliary circuit</li> </ul>	440 V			
<ul> <li>in networks with grounded star point between main and auxiliary circuit</li> </ul>	440 V			
shock resistance according to IEC 60068-2-27	8g / 11 ms			
reference code according to IEC 81346-2	F			
Substance Prohibitance (Date)	10/01/2009			
SVHC substance name	Lead - 7439-92-1			
Weight	0.15 kg			
Ambient conditions				
installation altitude at height above sea level maximum	2 000 m			
ambient temperature				
<ul> <li>during operation</li> </ul>	-40 +70 °C			
during storage	-55 +80 °C			
during transport	-55 +80 °C			
temperature compensation	-40 +60 °C			
relative humidity during operation	10 95 %			
Environmental footprint				
global warming potential [CO2 eq] total	39.9 kg			
global warming potential [CO2 eq] during manufacturing	0.921 kg			
global warming potential [CO2 eq] during sales	0.039 kg			
global warming potential [CO2 eq] during operation	39 kg			
global warming potential [CO2 eq] after end of life	-0.015 kg			
Main circuit				
number of poles for main current circuit	3			
adjustable current response value current of the current-	0.35 0.5 A			

dependent overload release				
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	0.5 A			
operational current at AC-3e at 400 V rated value	0.5 A			
operating power				
• at AC-3				
— at 400 V rated value	0.12 kW			
— at 500 V rated value	0.18 kW			
— at 690 V rated value	0.25 kW			
● at AC-3e				
— at 400 V rated value	0.12 kW			
— at 500 V rated value	0.18 kW			
— at 690 V rated value	0.25 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	0			
• at 24 V	3 A			
• at 24 V	3 A			
	3 A			
• at 120 V				
• 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			
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	0.5 A			
• at 600 V rated value	0.5 A			
Short-circuit protection				
design of the fuse link				
<ul> <li>for short-circuit protection of the auxiliary switch required</li> </ul>	fuse gG: 6 A, quick: 10 A			
Installation/ mounting/ dimensions				
mounting position	for mounting on contactors: with a vertical mounting plane +/-135° rotatable &			
	+/- 22.5° tiltable, stand-alone installation: with a vertical mounting plane +/-135°			
forforing mothed	rotatable and +/-45° tiltable			
fastening method	Contactor mounting			
height	76 mm			
width	45 mm			
depth	70 mm			
Connections/ Terminals				
product component removable terminal for auxiliary and control circuit	No			
<ul> <li>type of electrical connection</li> <li>for main current circuit</li> </ul>	screw-type terminals			

f	La sudan La incluid			4			
for auxiliary and control circuit     arrangement of electrical connectors for main current			screw-type terminals Top and bottom				
circuit	rical connectors for mai	n current	Top an				
type of connectable of	conductor cross-section	s					
<ul> <li>for main contact</li> </ul>							
— solid or str			2x (0.5	1.5 mm²). 2x (0.75 .	2.5 mm²). 2x 4 mm²		
<ul> <li>— finely stranded with core end processing</li> </ul>				2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²), 2x 4 mm² 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)			
<ul> <li>for AWG cables for main contacts</li> </ul>		2x (0.0 16), 2x (18 14), 2x 12					
	conductor cross-section	e	27 (20	10), 2X (10 14), 2X	× 12		
<ul> <li>for auxiliary con</li> </ul>		3					
-			2x (0 5	$1.5 \text{ mm}^2$ 2x (0.75	$2.5 \text{ mm}^{2}$		
<ul> <li>— solid or stranded</li> <li>finally stranded with core and processing</li> </ul>				2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)			
<ul> <li>finely stranded with core end processing</li> <li>for AWG cables for auxiliary contacts</li> </ul>			2x (0.5 1.5 mm <sup>-</sup> ), 2x (0.75 2.5 mm <sup>-</sup> ) 2x (20 16), 2x (18 14)				
	for auxiliary contacts		ZX (20	10), 2X (18 14)			
tightening torque	· · · · · · · · · · · · · · · · · · ·	1-	0.0				
	ts with screw-type termina			0.8 1.2 N·m			
	for auxiliary contacts with screw-type terminals			0.8 1.2 N·m			
design of screwdrive			-	ter 5 6 mm			
size of the screwdriv			Pozidri	iv PZ 2			
•	of the connection screw						
<ul> <li>for main contact</li> </ul>			M3				
<ul> <li>of the auxiliary a</li> </ul>	and control contacts		M3				
Safety related data							
failure rate [FIT] with 31920	low demand rate accord	ling to SN	50 FIT				
MTTF with high dema	and rate		2 280 a	a			
IEC 61508							
T1 value							
	<ul> <li>for proof test interval or service life according to IEC</li> </ul>		20 a				
Electrical Safety							
	n the front according to	IEC 60529	IP20				
-	protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529		finger-safe, for vertical contact from the front				
Display		0 00020	inger				
	tobing status		Slide s	witch			
display version for swi	÷		Sildes	witch			
Approvals Certificates		_	_				
General Product App	proval					For use in hazard- ous locations	
	UK CA	CE EG-Konf.		UL.	EAC	IECEX	
For use in hazardous	s locations	Test Certificate	tes		Marine / Shipping		
<b>Ex</b>	<u>Miscellaneous</u>	<u>Special Test Ce</u> <u>ate</u>	<u>ertific-</u>	<u>Type Test Certific-</u> ates/Test Report	ABS	BUREAU VERITAS	
Marine / Shipping						other	
	Lloyd's Register urs	PRS		RINA	RMRS	<u>Miscellaneous</u>	
other	Railway	Environment					



Special Test Certificate



Environmental Confirmations

## Further information

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)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RU2116-0FB0

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RU2116-0FB0

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

https://support.industry.siemens.com/cs/ww/en/ps/3RU2116-0FB0

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

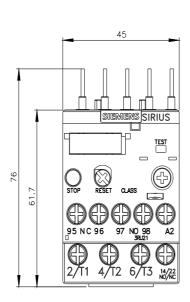
http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RU2116-0FB0&lang=en

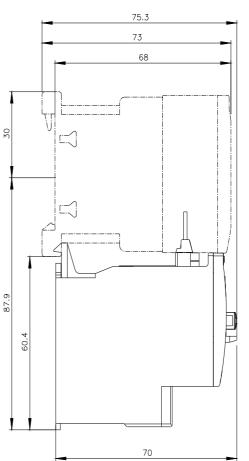
Characteristic: Tripping characteristics, I<sup>2</sup>t, Let-through current

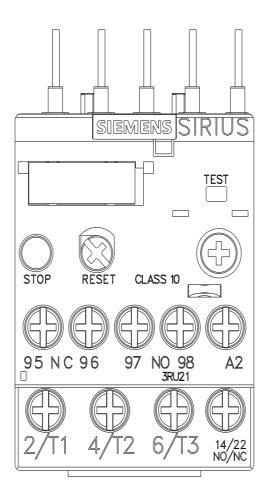
https://support.industry.siemens.com/cs/ww/en/ps/3RU2116-0FB0/char

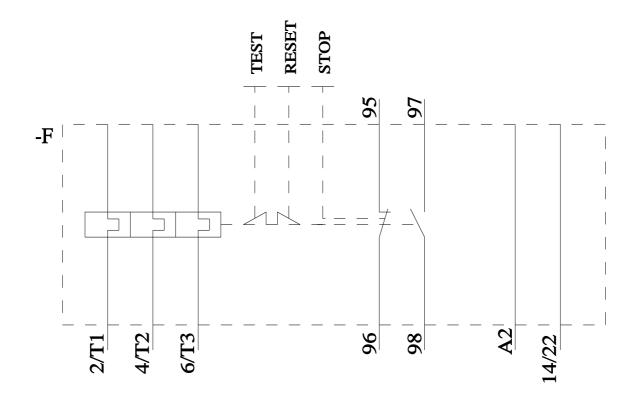
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RU2116-0FB0&objecttype=14&gridview=view1









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