## SIEMENS

## Data sheet

## 3RU2116-0GB0



Overload relay 0.45...0.63 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 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
reference code according to IEC 81346-2	F
Substance Prohibitance (Date)	10/01/2009
SVHC substance name	Lead - 7439-92-1
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	0.45 0.63 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	0.63 A
operational current at AC-3e at 400 V rated value	0.63 A
operating power	
• at AC-3	

— at 400 V rated value	0.18 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	0.18 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	
• 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
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	
<ul> <li>at 480 V rated value</li> </ul>	0.6 A
• at 600 V rated value	0.6 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
-	fuse gG: 6 A, quick: 10 A
for short-circuit protection of the auxiliary switch required	fuse gG: 6 A, quick: 10 A any
for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions	
for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position	any
for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position fastening method	any Contactor mounting
for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position fastening method height	any Contactor mounting 76 mm
for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position fastening method height width	any Contactor mounting 76 mm 45 mm
for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position fastening method height width depth	any Contactor mounting 76 mm 45 mm
for 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	any Contactor mounting 76 mm 45 mm 70 mm
for 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	any Contactor mounting 76 mm 45 mm 70 mm
for 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 type of electrical connection	any Contactor mounting 76 mm 45 mm 70 mm
for 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 type of electrical connection     for main current circuit     for auxiliary and control circuit arrangement of electrical connectors for main current	any Contactor mounting 76 mm 45 mm 70 mm No No
for 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 type of electrical connection     for main current circuit     for auxiliary and control circuit	any Contactor mounting 76 mm 45 mm 70 mm No No
for 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 type of electrical connection     for main current circuit     for auxiliary and control circuit arrangement of electrical connectors for main current circuit	any Contactor mounting 76 mm 45 mm 70 mm No No
for 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 type of electrical connection     for main current circuit     for auxiliary and control circuit arrangement of electrical connectors for main current circuit type of connectable conductor cross-sections	any Contactor mounting 76 mm 45 mm 70 mm No No
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for 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 type of electrical connection	any Contactor mounting 76 mm 45 mm 70 mm No No screw-type terminals screw-type terminals Top and bottom 2x (0,5 1,5 mm <sup>2</sup> ), 2x (0,75 2,5 mm <sup>2</sup> ), 2x 4 mm <sup>2</sup>
for 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 type of electrical connection     for main current circuit     for auxiliary and control circuit arrangement of electrical connectors for main current circuit type of connectable conductor cross-sections     for main contacts         — solid or stranded         — finely stranded with core end processing	any         Contactor mounting         76 mm         45 mm         70 mm         No         Screw-type terminals         screw-type terminals         Top and bottom         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 short-circuit protection of the auxiliary switch required</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>type of electrical connection</li> <li>for main current circuit</li> <li>for auxiliary and control circuit</li> </ul> </li> <li>arrangement of electrical connectors for main current circuit</li> <li>type of connectable conductor cross-sections             <ul> <li>for main contacts</li> <li>solid or stranded</li> <li>finely stranded with core end processing</li> <li>for AWG cables for main contacts</li> </ul> </li> </ul>	any         Contactor mounting         76 mm         45 mm         70 mm         No         Screw-type terminals         screw-type terminals         Top and bottom         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 short-circuit protection of the auxiliary switch required</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>type of electrical connection                 <ul> <li>for main current circuit</li> <li>for auxiliary and control circuit</li> <li>arrangement of electrical connectors for main current circuit</li> <li>type of connectable conductor cross-sections</li> <li>for main contacts</li></ul></li></ul></li></ul>	any         Contactor mounting         76 mm         45 mm         70 mm         No         Screw-type terminals         screw-type terminals         Top and bottom         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)

— finely stra	nded with core end proces	sina	2x (0.5 1.5 mm²), 2x (0.7	′5 2.5 mm²)	
		5			
	s for auxiliary contacts		2x (20 16), 2x (18 14)		
tightening torque					
	ts with screw-type termina		0.8 1.2 N·m		
	ntacts with screw-type term	ninals	0.8 1.2 N·m		
design of screwdrive			Diameter 5 6 mm		
size of the screwdriv	-		Pozidriv PZ 2		
-	of the connection screw	1			
for main contac			M3		
of the auxiliary and control contacts		M3			
Safety related data failure rate [FIT] with low demand rate according to SN 31920		50 FIT			
31920 MTTF with high demand rate		2 280 a			
IEC 61508	anu rate		2 200 a		
<ul> <li>T1 value</li> <li>for proof test interval or service life according to IEC 61508</li> </ul>		20 a			
Electrical Safety					
protection class IP o	on the front according to	IEC 60529	IP20		
touch protection on	the front according to IE	C 60529	finger-safe, for vertical cont	tact from the front	
isplay					
display version for swi	itching status		Slide switch		
pprovals Certificates					
ЦK	CE		) () ()	৻৻৻	FHI
ČÀ	EG-Konf.			<b>U</b>	LHL
For use in hazardou		Test Certificat	es	Marine / Shipping	EHL
CH		Test Certificat	tific- Special Test Certific		
For use in hazardou		Type Test Cer	rtific- Special Test Certific		<b>LHL</b> <b>WILL</b> <b>WILL</b> <b>WILL</b> <b>WILL</b> <b>WILL</b> <b>WILL</b>
For use in hazardou		Type Test Cer	rtific- Special Test Certific		
For use in hazardou	s locations	Type Test Cer	rtific- Special Test Certific		other
For use in hazardou	s locations	Type Test Cer ates/Test Rep Pres	tific- Special Test Certific port ate		other
For use in hazardou	s locations	Type Test Cer         ates/Test Reg         Image: second s	tific- Special Test Certific port ate		other

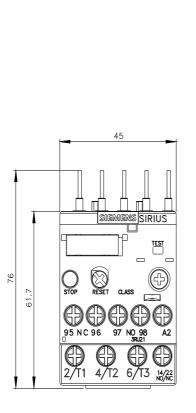
Industry Mall (Online ordering system) https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RU2116-0GB0

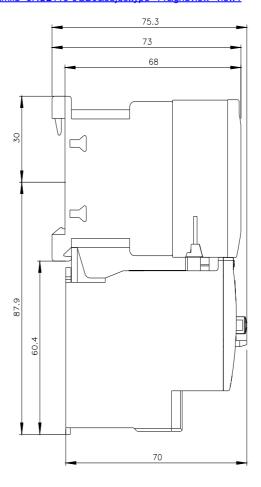
Cax online generator http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RU2116-0GB0

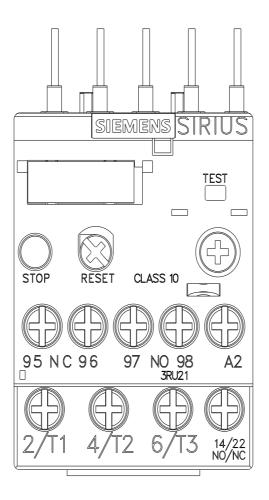
Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3RU2116-0GB0

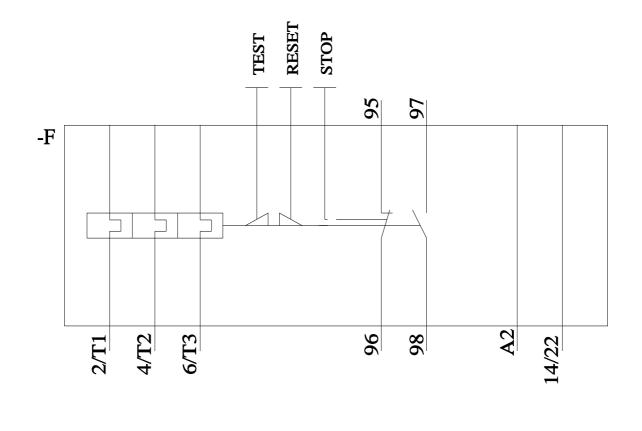
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) <u>http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RU2116-0GB0&lang=en</u> Characteristic: Tripping characteristics, I<sup>2</sup>t, Let-through current <u>https://support.industry.siemens.com/cs/ww/en/ps/3RU2116-0GB0/char</u> Europer them a here statistical and decrease a write hims for muce with

Further characteristics (e.g. electrical endurance, switching frequency) http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RU2116-0GB0&objecttype=14&gridview=view1









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