



Overload relay, 45...63 A, motor protection Size S3, Class 10 Contactor mounting
Main circuit: screw terminal Auxiliary circuit: Screw

Figure similar

product brand name	SIRIUS
product designation	Thermal overload relay
product type designation	3RU7
General technical data	
size of overload relay	S3
size of contactor can be combined company-specific	S3
power loss [W] total typical	17.1 W
power loss [W] for rated value of the current at AC in hot operating state	17.1 W
• per pole	5.7 W
type of calculation of power loss current-dependent	quadratic
insulation voltage with degree of pollution 3 at AC rated value	1 000 V
surge voltage resistance rated value	8 kV
protection class IP	
• on the front	IP20
• of the terminal	IP00
shock resistance according to IEC 60068-2-27	8 g / 10 ms
Net Weight	0.55 kg
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
• during operation	-20 ... +55 °C
• during transport	-25 ... +70 °C
relative humidity during operation	0 ... 90 %
Main circuit	
number of poles for main current circuit	3
adjustable current response value current of the current-dependent overload release	45 ... 63 A
type of voltage for main current circuit	AC/DC
operating voltage rated value	1 000 V
operating frequency rated value	50 ... 60 Hz
operational current rated value	63 A
Auxiliary circuit	
operational current of auxiliary contacts at AC-15	
• at 24 V	3 A
• at 230 V	2 A
operational current of auxiliary contacts at DC-13 at 24 V	1 A
Protective and monitoring functions	

trip class	CLASS 10
design of the overload release	thermal
Short-circuit protection	
design of the fuse link for short-circuit protection of the auxiliary switch required	fuse gL/gG: 6 A, quick: 10 A
Installation/ mounting/ dimensions	
mounting position	with vertical mounting surface +/-135° rotatable, with vertical mounting surface +/- 45° tiltable to the front and back
fastening method	Contacting mounting
height	120 mm
width	70 mm
depth	140 mm
required spacing for grounded parts at the side	6 mm
Connections/ Terminals	
type of electrical connection	
• for main current circuit	screw-type terminals
• for auxiliary and control circuit	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 (2.5 ... 16 mm ²)
• finely stranded with core end processing	2x (2.5 ... 35 mm ²), 1x (2.5 ... 50 mm ²)
type of connectable conductor cross-sections for auxiliary contacts	
• solid or stranded	2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²)
• finely stranded with core end processing	2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²)
tightening torque	
• for main contacts with screw-type terminals	4 ... 6 N·m
• for auxiliary contacts with screw-type terminals	0.8 ... 1.2 N·m
Electrical Safety	
protection class IP on the front according to IEC 60529	IP20
touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front

Approvals Certificates		
Environment	General Product Approval	other

[Environmental Conformations](#)



[Confirmation](#)

other



Further information

Information on the packaging

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

Information for data generation and storage

<https://support.industry.siemens.com/cs/ww/en/view/109995012>

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=3RU7146-4JB0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RU7146-4JB0>

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

https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RU7146-4JB0&lang=en

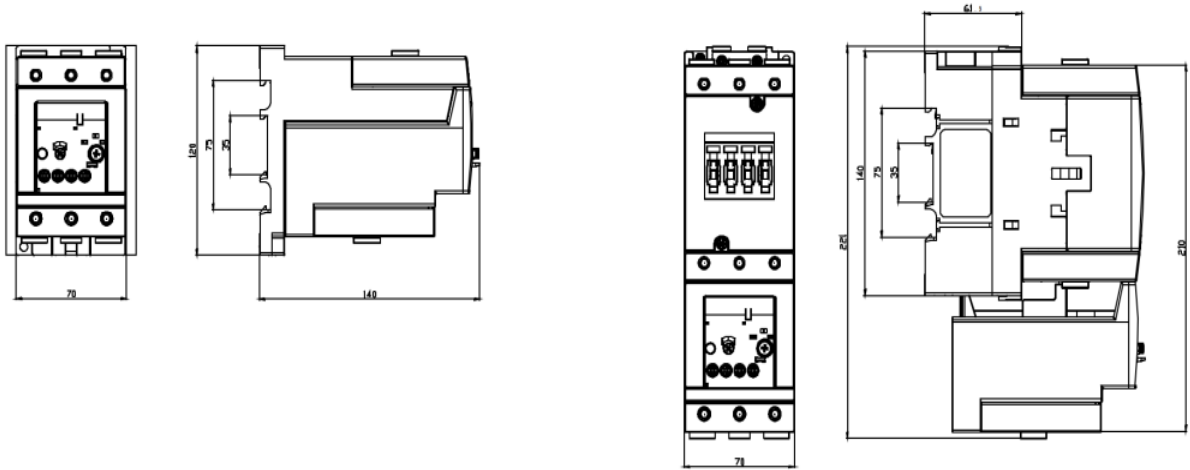
Cax online generator

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RU7146-4JB0>

Characteristic curves

3RU7146 Mounting with Stand-alone adaptor

3RU7146 Mounting with contactor



last modified:

4/4/2026 