SIEMENS

Data sheet 3RF2310-2AA24



Solid-state contactor 1-phase 3RF2 AC 51 / 10 A / 40 $^{\circ}\text{C}$ 48-460 V / 110-230 V AC Spring-type terminal

product brand name product designation design of the product product type designation SIRIUS solid-state contactor single-phase 3RF23

General technical data	
product function	zero-point switching
power loss [W] for rated value of the current	
 at AC in hot operating state 	11 W
 at AC in hot operating state per pole 	11 W
 without load current share typical 	3.5 W
insulation voltage rated value	600 V
degree of pollution	3
type of voltage of the control supply voltage	AC
surge voltage resistance of main circuit rated value	6 kV
shock resistance according to IEC 60068-2-27	15g / 11 ms
vibration resistance according to IEC 60068-2-6	2g
reference code according to IEC 81346-2	Q
Substance Prohibitance (Date)	05/28/2009
Main circuit	
number of poles for main current circuit	1
number of NO contacts for main contacts	1
number of NC contacts for main contacts	0
operating voltage at AC	
 at 50 Hz rated value 	48 460 V
 at 60 Hz rated value 	48 460 V
operating frequency rated value	50 60 Hz
operating range relative to the operating voltage at AC	
● at 50 Hz	40 506 V
● at 60 Hz	40 506 V
operational current	
 at AC-51 rated value 	10.5 A
at AC-51 according to IEC 60947-4-3	7.5 A
 according to UL 508 rated value 	9.6 A
operational current minimum	100 mA
rate of voltage rise at the thyristor for main contacts maximum permissible	500 V/μs
blocking voltage at the thyristor for main contacts maximum permissible	1 200 V
reverse current of the thyristor	10 mA
derating temperature	40 °C
surge current resistance rated value	200 A
I2t value maximum	200 A²·s

Type of voltage of the control supply voltage control supply voltage 1 at AC	Control circuit/ Control	
control supply voltage 1 at AC • at 60 Hz • at 60 Hz • at 60 H		AC
at 10 Hz at 10 Hz control supply voltage frequency 1 rated value 2 rated value 3 to 0 Hz brill scale value for signal <0 recognition at 10 Hz full-scale value for signal <0 recognition at 10 Hz full-scale value for signal <0 recognition at 10 Hz full-scale value for signal <0 recognition at 10 Hz full-scale value for signal <0 recognition at 10 Hz full-scale value for signal <0 recognition at 10 Hz full-scale value for signal <0 recognition at 10 Hz full-scale value for signal <0 recognition at 10 Hz full-scale value for signal <0 recognition at 10 Hz full-scale value for signal <0 recognition at 10 Hz full-scale value for signal <0 recognition at 10 Hz full-scale value for signal <0 recognition at 10 Hz full-scale value for signal <0 recognition at 10 Hz full-scale value for signal <0 recognition at 10 Hz full-scale value for signal <0 recognition at 10 Hz full-scale value for signal <0 recognition at 10 Hz full-scale value for signal <0 recognition at 10 Hz full-scale value for signal <0 recognition at 10 Hz full-scale value for signal <0 recognition at 10 Hz full-scale value for signal <0 recognition at 10 Hz full-scale value for signal <0 recognition at 10 Hz full-scale value for signal <0 recognition at 10 Hz full-scale value for signal <0 recognition at 10 Hz full-scale value for signal <0 recognition at 10 Hz full-scale value for signal <0 recognition at 10 Hz full-scale value for signal <0 recognition at 10 Hz full-scale value for signal <0 recognition at 10 Hz full-scale value for signal <0 recognition at 10 Hz full-scale value for signal <0 recognition at 10 Hz full-scale value for signal <0 recognition at 10 Hz full-scale value for signal <0 recognition at 10 Hz full-scale value for signal <0 recognition at 10 Hz full-scale value for signal <0 recognition at 10 Hz full-scale value for signal <0 recognition at 10 Hz full-scale value for signal <0 recognition at 10 Hz full-scale value for signal <0 recognition at 10 Hz full-scale value for signal <0 recognition at 10 Hz full-scale value for signal <0		
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type of electrical connection	depth	88 mm
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AWG number as coded connectable conductor cross section for main contacts stripped length of the cable • for main contacts • for auxiliary and control contacts To mm Safety related data 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	 finely stranded without core end processing 	0.5 2.5 mm ²
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• for main contacts • for auxiliary and control contacts 7 mm Safety related data 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		10 14
● for auxiliary and control contacts 7 mm Safety related data 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	stripped length of the cable	
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	for main contacts	7 mm
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	for auxiliary and control contacts	7 mm
60529 touch protection on the front according to IEC 60529 finger-safe, for vertical contact from the front	Safety related data	
		IP20
		finger-safe, for vertical contact from the front
Ambient conditions	Ambient conditions	

installation altitude at height above sea level maximum ambient temperature

during operation

during storage

1 000 m

-25 ... +60 °C -55 ... +80 °C

Electromagnetic compatibility

conducted interference

due to burst according to IEC 61000-4-4

• due to conductor-earth surge according to IEC 61000-4-5

 due to conductor-conductor surge according to IEC 61000-4-5

 due to high-frequency radiation according to IEC 61000-4-6

field-based interference according to IEC 61000-4-3 electrostatic discharge according to IEC 61000-4-2 conducted HF interference emissions according to CISPR11

field-bound HF interference emission according to CISPR11

2 kV / 5 kHz behavior criterion 2

2 kV behavior criterion 2

1 kV behavior criterion 2

140 dBuV in the frequency range 0.15 ... 80 MHz, behavior criterion 1

80 MHz ... 1 GHz 10 V/m, behavior criterion 1

4 kV contact discharging / 8 kV air discharging, behavior criterion 2 Class A for industrial environment

Class B for the domestic, business and commercial environments

Short-circuit protection, design of the fuse link

manufacturer's article number

• of gS fuse for semiconductor protection at NH design usable

• of full range R fuse link for semiconductor protection at cylindrical design usable

• of back-up R fuse link for semiconductor protection at NH design usable

• of back-up R fuse link for semiconductor protection at cylindrical design 10 x 38 mm usable

• of back-up R fuse link for semiconductor protection at cylindrical design 14 x 51 mm usable

• of back-up R fuse link for semiconductor protection at cylindrical design 22 x 58 mm usable

manufacturer's article number of the gG fuse

• at NH design usable

• at cylindrical design 10 x 38 mm usable

• at cylindrical design 14 x 51 mm usable

manufacturer's article number

of NFOZFD fuse usable

3NE1813-0

5SE1316

3NE8015-1

3NC1016

3NC1420

3NC2220

3NA6801

3NW6001-1; These fuses have a smaller rated current than the semiconductor relays

3NW6101-1; These fuses have a smaller rated current than the semiconductor relays

5SE2306; These fuses have a smaller rated current than the semiconductor relays

Certificates/ approvals

General Product Approval

EMC

Declaration of Conformity



Confirmation







Declaration of Conformity

Test Certificates

other

Railway



Special Test Certific-

Type Test Certificates/Test Report

Confirmation



Vibration and Shock

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)

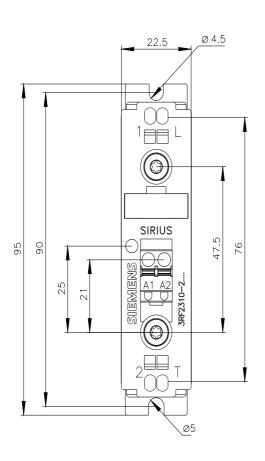
https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RF2310-2AA24

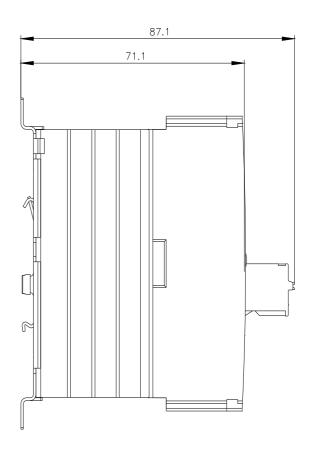
Cax online generator

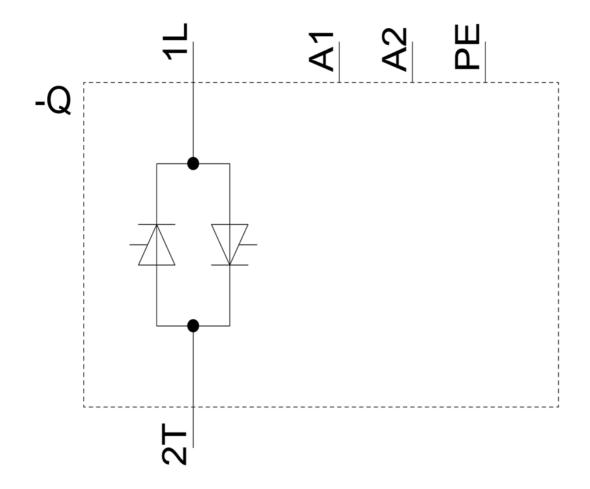
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RF2310-2AA24

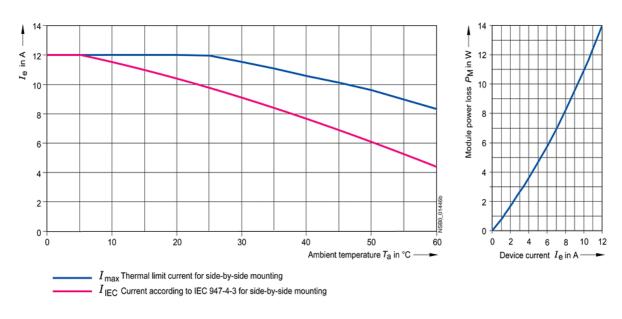
Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3RF2310-2AA24

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax de.aspx?mlfb=3RF2310-2AA24&lang=en









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