



phase-out type solid-state contactor AC 51 / 10 A / 40 °C 48-460 V / 24 V DC screw terminal low power consumption

product brand name	SIRIUS
product designation	solid-state contactor
design of the product	1-pole
product type designation	3RF23
General technical data	
degree of pollution	3
surge voltage resistance of main circuit rated value	6 kV
protection class IP on the front according to IEC 60529	IP20
reference code according to IEC 81346-2	Q
Substance Prohibittance (day/month/year)	05/28/2009
SVHC substance name	Lead CAS-No. 7439-92-1 Lead monoxide (lead oxide) CAS-No. 1317-36-8 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one CAS-No. 71868-10-5 Melamine CAS-No. 108-78-1 Dibutylbis(pentane-2,4-dionato-O,O')tin CAS-No. 22673-19-4
Net Weight	0.12 g
Main circuit	
type of voltage of the operating voltage	AC
operational current	<ul style="list-style-type: none"> at AC-1 at 400 V rated value 10.5 A 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	101 mA
rate of voltage rise at the thyristor for main contacts maximum permissible	1 000 V/ μ s
I ² t value maximum	200 A ² ·s
Control circuit/ Control	
type of voltage of the control supply voltage	DC
control supply voltage 1 at DC rated value	24 V
control supply voltage 1 at DC rated value maximum permissible	30 V
control supply voltage 1 at DC	15 ... 24 V
control supply voltage at DC	<ul style="list-style-type: none"> initial value for signal <1> detection 15 V full-scale value for signal <0> recognition 5 V
control current at minimum control supply voltage	<ul style="list-style-type: none"> at DC 6.5 mA
control current at DC rated value	9 mA
ON-delay time	1 ms; additionally max. one half-wave

OFF-delay time	1 ms; additionally max. one half-wave
Installation/ mounting/ dimensions	
fastening method	screw fixing and snap-on mounting on standard mounting rail 35 mm according to IEC 60715
height	95 mm
width	22.5 mm
depth	88 mm
Connections/ Terminals	
product component removable terminal for auxiliary and control circuit	Yes
stripped length of the cable	
• for main contacts	10 mm
• for auxiliary and control contacts	7 mm
UL/CSA ratings	
operational current according to UL 508 rated value	9.6 A
Electrical Safety	
touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front
Electromagnetic compatibility	
conducted interference	
• due to burst according to IEC 61000-4-4	2 kV / 5 kHz, behavior criterion 2
• due to conductor-earth surge according to IEC 61000-4-5	2 kV, behavior criterion 2
• due to conductor-conductor surge according to IEC 61000-4-5	1 kV, behavior criterion 2
• due to high-frequency radiation according to IEC 61000-4-6	140 dBuV in the frequency range 0.15 ... 80 MHz, behavior criterion 1
field-based interference according to IEC 61000-4-3	80 MHz ... 1 GHz 10 V/m, behavior criterion 1
electrostatic discharge according to IEC 61000-4-2	4 kV contact discharging / 8 kV air discharging, behavior criterion 2
conducted HF interference emissions according to CISPR11	Class A for industrial environment
field-bound HF interference emission according to CISPR11	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	3NE1813-0
• of full range R fuse link for semiconductor protection at cylindrical design usable	5SE1316
• of back-up R fuse link for semiconductor protection at NH design usable	3NE8015-1
• of back-up R fuse link for semiconductor protection at cylindrical design 10 x 38 mm usable	3NC1016
• of back-up R fuse link for semiconductor protection at cylindrical design 14 x 51 mm usable	3NC1420
• of back-up R fuse link for semiconductor protection at cylindrical design 22 x 58 mm usable	3NC2220
manufacturer's article number of the gG fuse	
• at NH design usable	3NA6801
• at cylindrical design 10 x 38 mm usable	3NW6001-1: These fuses have a smaller rated current than the semiconductor relays
• at cylindrical design 10 x 38 mm usable note	These fuses have a smaller rated current than the semiconductor relays
• at cylindrical design 14 x 51 mm usable	3NW6101-1: These fuses have a smaller rated current than the semiconductor relays
• at cylindrical design 14 x 51 mm usable note	These fuses have a smaller rated current than the semiconductor relays
manufacturer's article number	
• of NEOZED fuse usable	5SE2306: These fuses have a smaller rated current than the semiconductor relays
Approvals Certificates	
Environment	General Product Approval

[Environmental Confirmations](#)



EMV	Test Certificates	other			
-----	-------------------	-------	--	--	--



[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)

[Confirmation](#)

[Miscellaneous](#)

[Confirmation](#)

other	Railway
-------	---------



[Special Test Certificate](#)

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=3RF2310-1AA04-0KN0>

Cax online generator

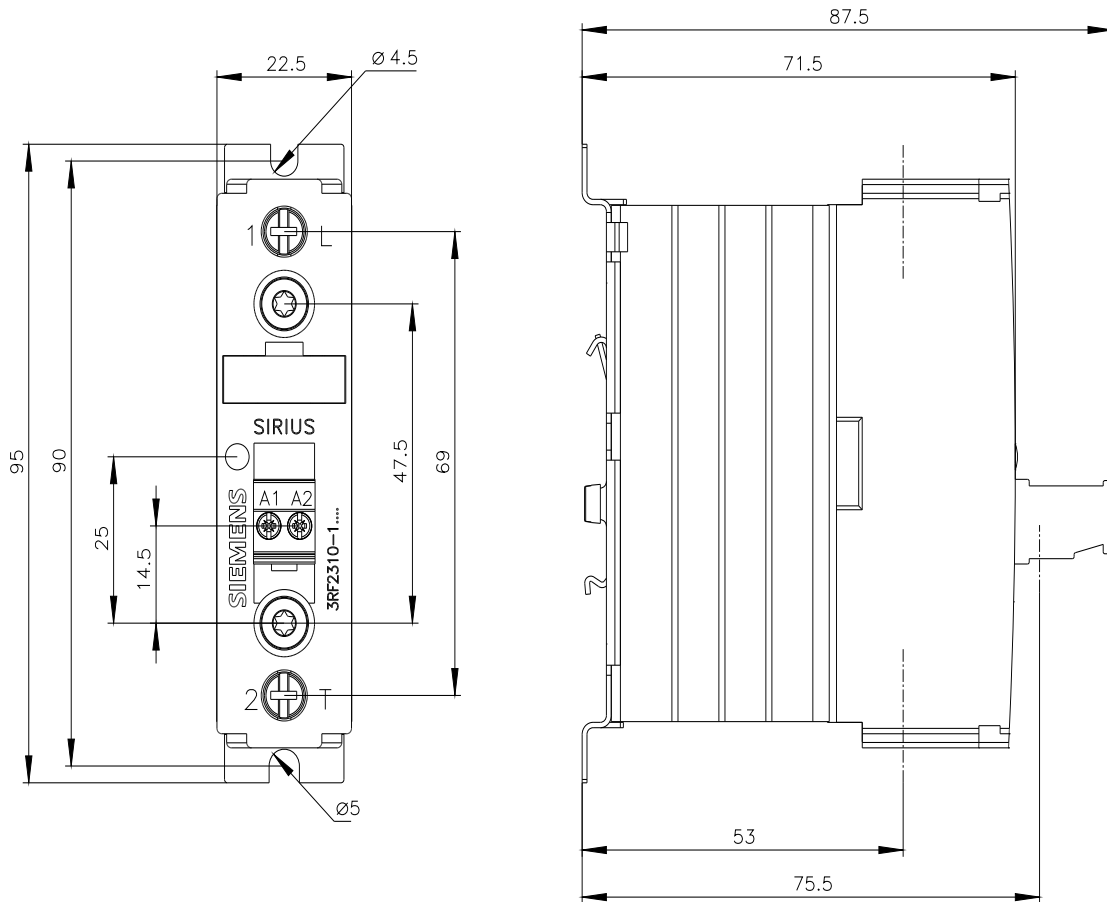
<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RF2310-1AA04-0KN0>

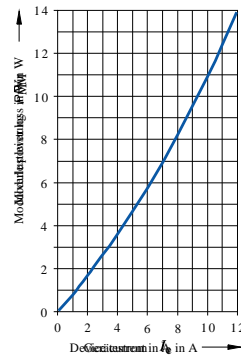
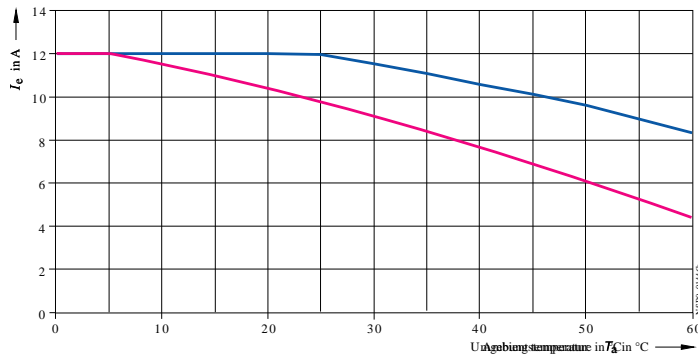
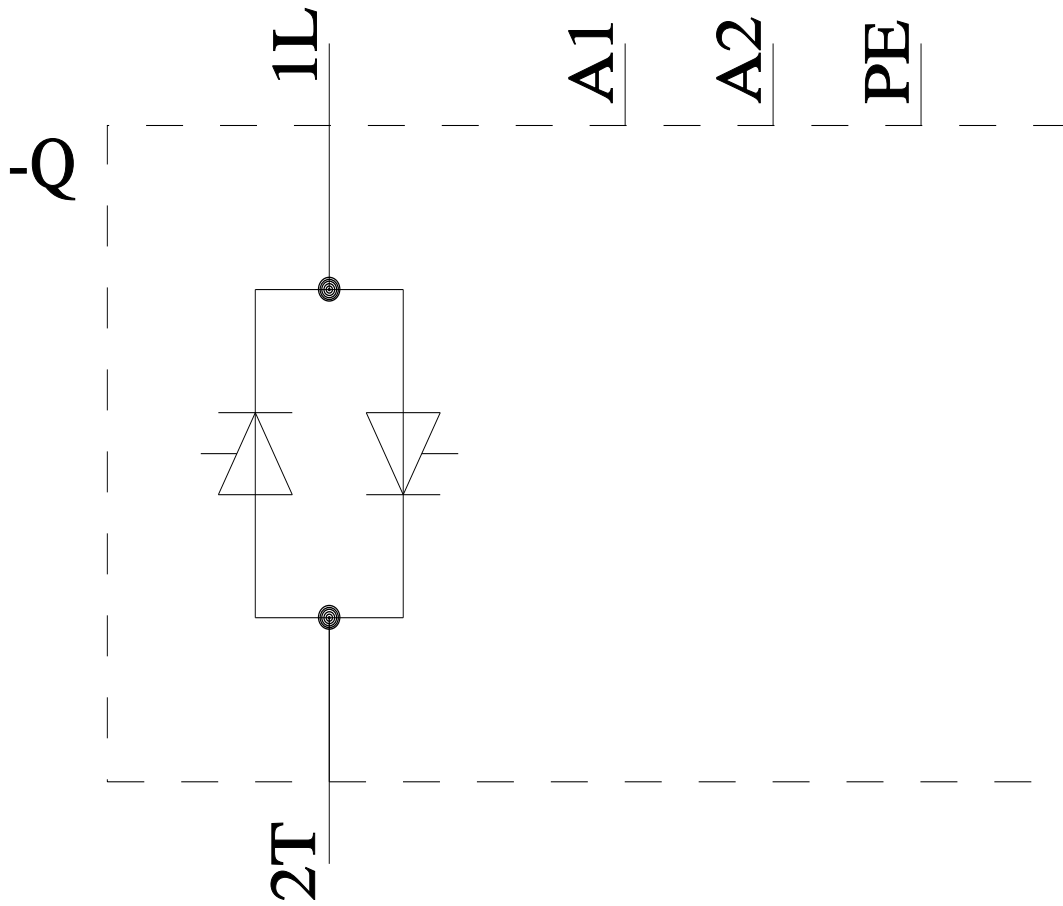
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3RF2310-1AA04-0KN0>

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

https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RF2310-1AA04-0KN0&lang=en





— I_{max} Thermal limit current on silicon diode bridge
— I_{EC} Current limit on silicon diode bridge

last modified:

2/10/2026