

Solid-state contactor 3-phase 3RF3 AC 53 / 5.2 A / 40 °C
 48-480 V / 24 V DC 2-phase controlled
 Instantaneous switching Spring-type terminal



General technical data

Product brand name		SIRIUS
Protection class IP		IP20
Insulation voltage rated value	V	600
Installation altitude at height above sea level maximum	m	1 000
Ambient temperature		
• during storage	°C	-55 ... +80
• during operation	°C	-25 ... +60
Shock resistance acc. to IEC 60068-2-27		15g / 11 ms
Vibration resistance acc. to IEC 60068-2-6		2g
Surge current resistance rated value	A	200
Power loss [W] total typical	W	10
Reference code acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750		K
Reference code acc. to DIN EN 61346-2		Q
Product function		instantaneous switching

Main circuit

Number of poles for main current circuit		3
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Number of NO contacts for main contacts		2
Operating frequency rated value	Hz	60 ... 50
Operating voltage at AC		
• at 60 Hz rated value	V	48 ... 480
• at 50 Hz rated value	V	48 ... 480
Operating current		
• minimum	mA	100
• at AC-53a at 400 V at ambient temperature 40 °C rated value	A	5.2
Operating range relative to the operating voltage at AC		
• at 50 Hz	V	40 ... 506
• at 60 Hz	V	40 ... 506
Operating power at AC-3 at 400 V rated value	kW	2.2
Derating temperature	°C	40
Symmetrical line frequency tolerance	Hz	5
Relative symmetrical tolerance of the operating frequency	%	10
I²t value maximum	A ² ·s	200
Rate of voltage rise at the thyristor for main contacts maximum permissible	V/μs	1 000
Blocking voltage at the thyristor for main contacts maximum permissible	V	1 200
Reverse current of the thyristor	mA	10

Control circuit/ Control

Type of voltage of the control supply voltage		DC
Control supply voltage 1		
• at DC — rated value	V	24
Operating range factor control supply voltage rated value		
• at DC		0.63 ... 1.25
Control supply voltage at DC		
• initial value for signal <1> detection	V	15
• Full-scale value for signal<0> recognition	V	5
Control current		
• at minimum control supply voltage — at DC	mA	2
• at DC rated value	mA	15
switching times		
• ON delay		1 ms
• OFF delay		1 ms + in addition max. one half-wave

Installation/ mounting/ dimensions

Mounting position		vertical
Mounting type		screw and snap-on mounting onto 35 mm standard mounting rail
Mounting type Side-by-side mounting		Yes
Tightening torque of the screw for securing the equipment	N·m	1.5
Design of the thread of the screw for securing the equipment		M4
Width	mm	45
Height	mm	95
Depth	mm	100.8
Required spacing with side-by-side mounting		
• upwards	mm	70
• downwards	mm	50

Connections/Terminals

Type of electrical connection		
• for main current circuit		spring-loaded terminals
• for auxiliary and control current circuit		spring-loaded terminals
Product function removable terminal for auxiliary and control circuit		Yes
Type of connectable conductor cross-sections		
• for main contacts		
— solid		2x (0.5 ... 2.5 mm ²)
— finely stranded		
— with core end processing		2x (0.5 ... 1.5 mm ²)
— without core end processing		2x (0.5 ... 2.5 mm ²)
• at AWG conductors		
— for main contacts		2x (18 ... 14)
— for auxiliary and control contacts		1x (AWG 20 ... 12)
• for auxiliary and control contacts		
— solid		0.5 ... 1.5 mm ²
— finely stranded		
— with core end processing		0.5 ... 2.5 mm ²
— without core end processing		0.5 ... 2.5 mm ²
Wire stripping length of the cable		
• for main contacts	mm	10
• for auxiliary and control contacts	mm	10

UL/CSA ratings

Full-load current (FLA) for three-phase AC motor		
• at 480 V rated value	A	3.4
Yielded mechanical performance [hp] for three-phase AC motor		

- at 200/208 V rated value
- at 220/230 V rated value
- at 460/480 V rated value

hp	0.5
hp	0.75
hp	2

Certificates/approvals

General Product Approval			EMC	Declaration of Conformity	
					
CCC	CSA	UL		C-Tick	EG-Konf.

Test Certificates	other
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[Type Test Certificates/Test Report](#)

[Confirmation](#)

Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

<http://www.siemens.com/industrial-controls/catalogs>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RF3405-2BB04>

Cax online generator

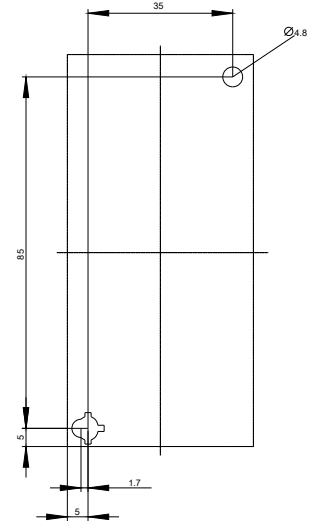
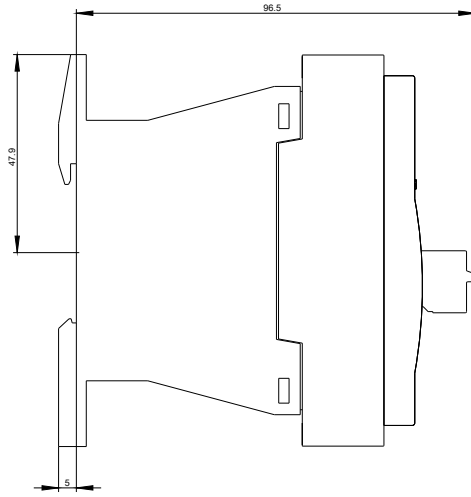
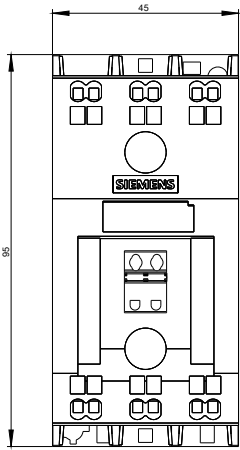
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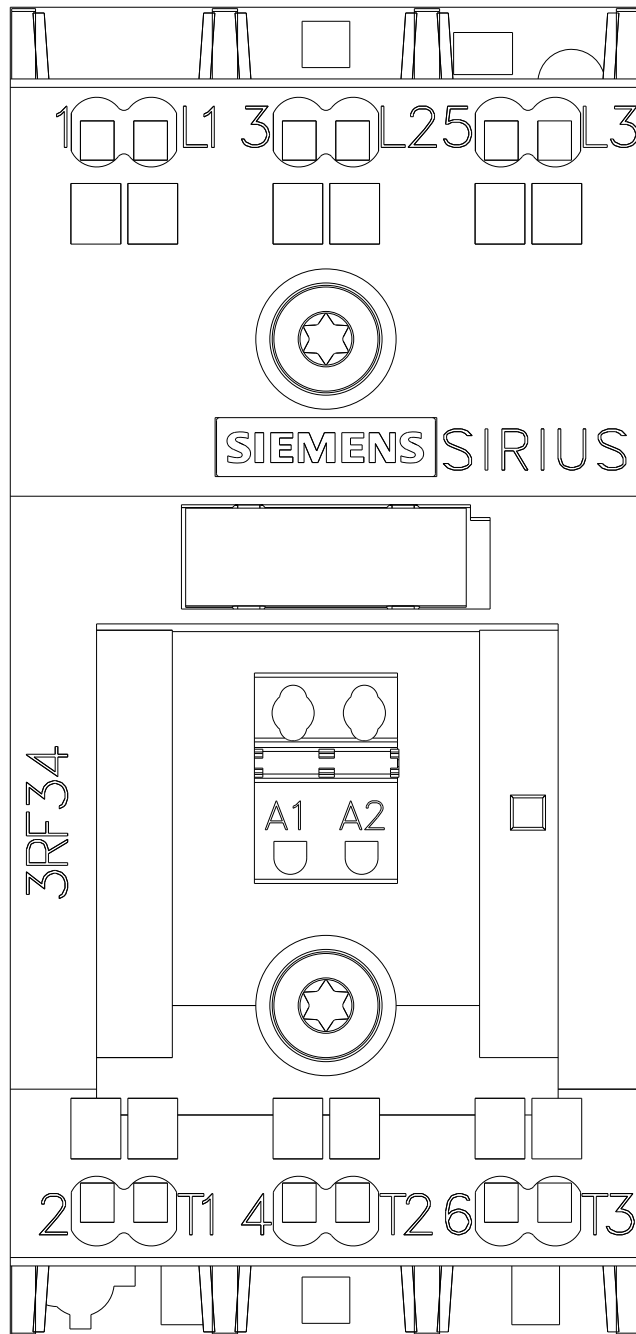
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

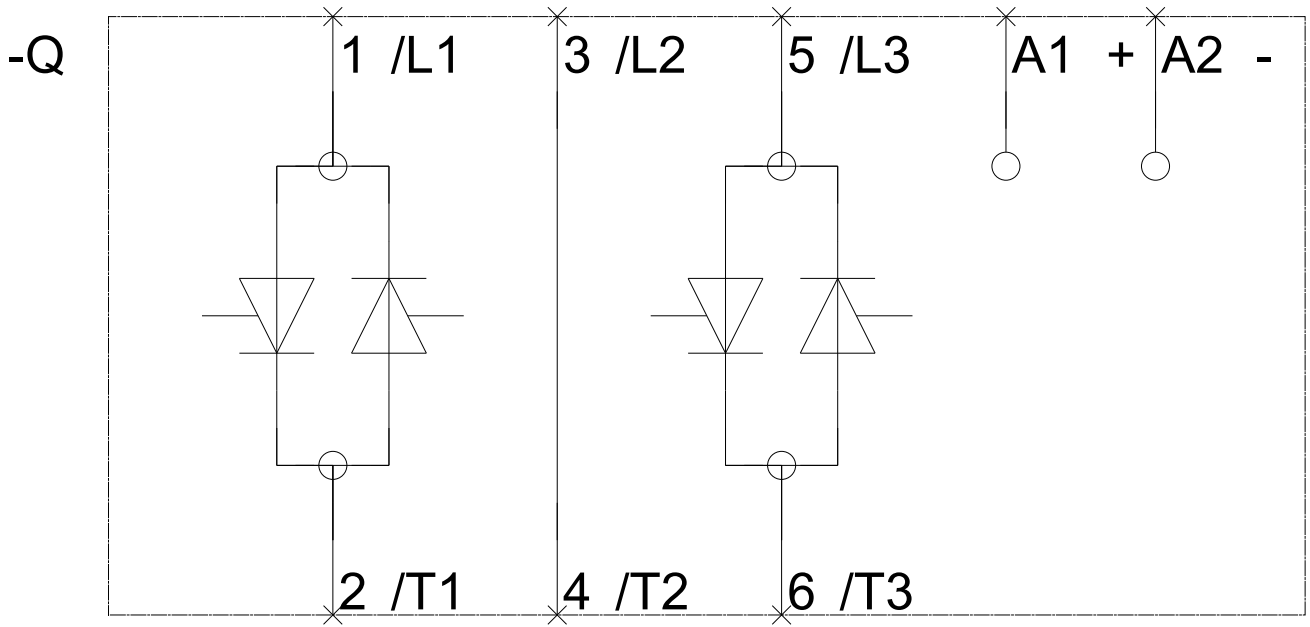
<https://support.industry.siemens.com/cs/ww/en/ps/3RF3405-2BB04>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RF3405-2BB04&lang=en







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01/19/2019