



SOLID-STATE CONTACTOR 3-PH 3RF3 AC53 5.2A  
 40 DEGREES C 48-600V / 24V DC 2-PH.  
 CONTROLLED INSTANTANEOUS SPRING-LOADED  
 TERMINALS

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	600
Active power loss total typical	W	10
Equipment marking acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750		K
Equipment marking acc. to DIN EN 61346-2		Q
Product function		instantaneous switching

Main circuit:

Number of poles for main current circuit		3
Number of NC contacts for main contacts		0
Number of NO contacts for main contacts		2
Operating frequency Rated value	Hz	60 ... 50
Operating voltage with AC		
• at 60 Hz Rated value	V	48 ... 600
• at 50 Hz Rated value	V	48 ... 600

<b>Operating current</b>		
• minimum	mA	500
• at AC-3 at 400 V Rated value	A	5.2
<b>Operating range relative to the operating voltage with AC</b>		
• at 50 Hz	V	40 ... 660
• at 60 Hz	V	40 ... 660
<b>Operating power at AC-3 at 400 V Rated value</b>	kW	2.2
<b>Derating temperature</b>	°C	40
<b>Symmetrical line frequency tolerance</b>	Hz	5
<b>Relative symmetrical tolerance of the operating frequency</b>	%	10
<b>I<sup>2</sup>t value maximum</b>	A <sup>2</sup> ·s	1 800
<b>Rate of voltage rise at the thyristor for main contacts maximum permissible</b>	V/μs	1 000
<b>Blocking voltage at the thyristor for main contacts maximum permissible</b>	V	1 600
<b>Reverse current of the thyristor</b>	mA	10

#### Control circuit/ Control:

<b>Type of voltage of the control supply voltage</b>		DC
<b>Control supply voltage 1</b>		
• for DC		
— Initial rated value	V	15
<b>Control supply voltage for DC Full-scale value for signal&lt;0&gt; recognition</b>	V	5
<b>Control current</b>		
• at minimum control supply voltage		
— for DC	mA	2
• for DC Rated value	mA	15
<b>switching times</b>		
• ON delay		1 ms
• OFF delay		1 ms + in addition max. one half-wave

#### Auxiliary circuit:

<b>Number of NC contacts for auxiliary contacts</b>		0
<b>Number of NO contacts for auxiliary contacts</b>		0
<b>Number of CO contacts for auxiliary contacts</b>		0

#### Installation/ mounting/ dimensions:

<b>mounting position</b>		vertical
<b>Mounting type</b>		screw and snap-on mounting onto 35 mm standard mounting rail
<b>Mounting type Side-by-side mounting</b>		Yes
<b>Tightening torque of the screw for securing the equipment</b>	N·m	1.5

<b>Design of the thread of the screw for securing the equipment</b>		M4
<b>Width</b>	mm	45
<b>Height</b>	mm	95
<b>Depth</b>	mm	100.8
<b>Required spacing with side-by-side mounting</b>		
• upwards	mm	70
• downwards	mm	50

#### Connections/ Terminals:

<b>Type of electrical connection</b>		
• for main current circuit		spring-loaded terminals
• for auxiliary and control current circuit		spring-loaded terminals
<b>Product function removable terminal for auxiliary and control circuit</b>		Yes
<b>Type of connectable conductor cross-section</b>		
• for main contacts		
— solid		2x (0.5 ... 2.5 mm <sup>2</sup> )
— finely stranded		
— with core end processing		2x (0.5 ... 1.5 mm <sup>2</sup> )
— without core end processing		2x (0.5 ... 2.5 mm <sup>2</sup> )
• for 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 <sup>2</sup>
— finely stranded		
— with core end processing		0.5 ... 2.5 mm <sup>2</sup>
— without core end processing		0.5 ... 2.5 mm <sup>2</sup>
<b>Wire stripping length of the cable</b>		
• for main contacts	mm	10
• for auxiliary and control contacts	mm	10

#### Certificates/ approvals:

<b>Certificate of suitability</b>		CE / UL / CSA / CCC / C-TICK
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General Product Approval	EMC	Declaration of Conformity
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Test Certificates	other
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[Type Test Certificates/Test Report](#)

[Environmental Confirmations](#)

### UL/CSA ratings:

#### yielded mechanical performance [hp] for three-phase AC motor

• at 200/208 V Rated value	metric hp	0.5
• at 220/230 V Rated value	metric hp	0.75
• at 460/480 V Rated value	metric hp	2
• at 575/600 V Rated value	metric hp	2

#### Full-load current (FLA) for three-phase AC motor

• at 480 V Rated value	A	3.4
• at 600 V Rated value	A	2.7

### Further information

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

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

#### Industry Mall (Online ordering system)

<http://www.siemens.com/industrymall>

#### Cax online generator

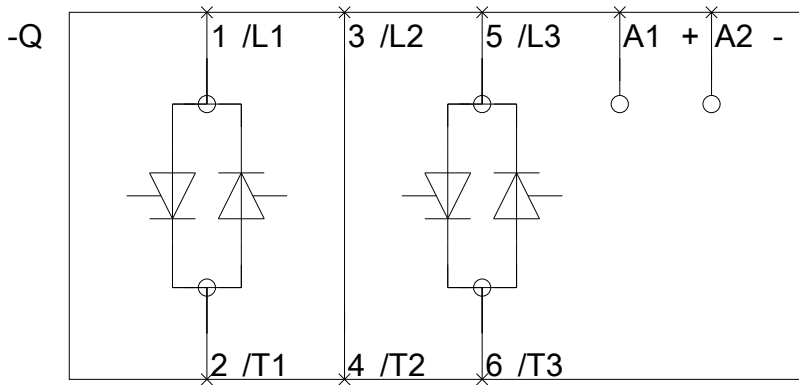
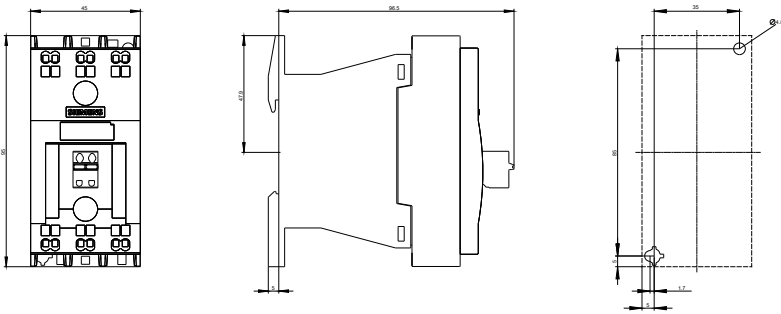
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RF34052BB06>

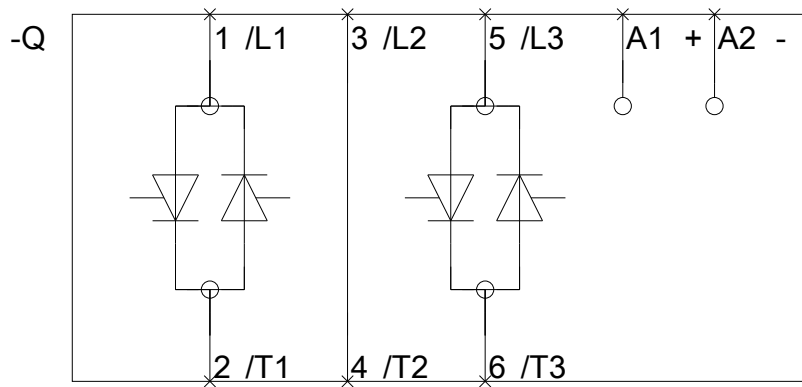
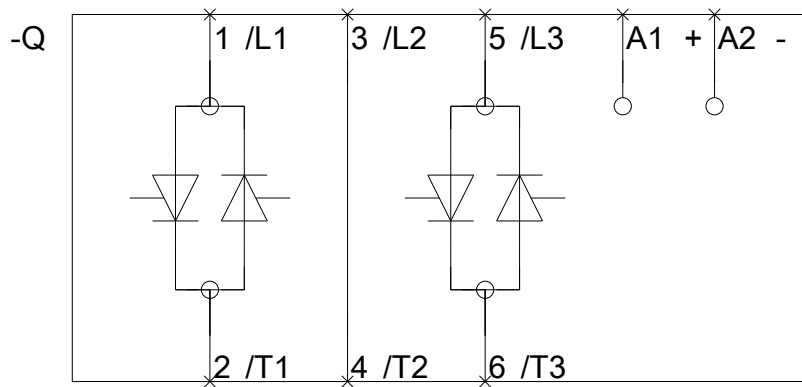
#### Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<http://support.automation.siemens.com/WW/view/en/3RF34052BB06/all>

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

<http://www.automation.siemens.com/bilddb/index.aspx?attID9=3RF34052BB06&lang=en>





last modified:

09.03.2015