



SOLID-STATE CONTACTOR 3-PH 3RF3 AC53 9.2A 40 DEGREES C 48-480V / 110-230V AC 2-PH. CONTROLLED INSTANTANEOUS SPRING-LOADED TERMINALS

General technical data:

<b>product brand name</b>		SIRIUS
<b>Product designation</b>		solid-state motor contactor
<b>Protection class IP</b>		IP20
<b>Insulation voltage / rated value</b>	V	600
<b>Installation altitude / at a height over sea level / maximum</b>	m	1,000
<b>Ambient temperature</b>		
• during storage	°C	-55 ... +80
• during operating	°C	-25 ... +60
<b>Shock resistance</b>		
• according to IEC 60068-2-27		15g / 11 ms
<b>Resistance against vibration</b>		
• according to IEC 60068-2-6		2g
<b>Resistance against the impulse current / rated value</b>	A	600
<b>Active power loss / total / typical</b>	W	16
<b>Reference code</b>		
• according to DIN 40719 extended according to IEC 204-2 / according to IEC 750		K
• according to DIN EN 61346-2		Q
<b>Product function</b>		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		
• at 60 Hz / at AC / rated value	V	48 ... 480
• at 50 Hz / at AC / rated value	V	48 ... 480
Operating current		
• minimum	mA	500
• at AC-3 / at 400 V / rated value	A	9.2
Working range relative to the operating voltage		
• at 50 Hz / with AC	V	40 ... 506
• at 60 Hz / with AC	V	40 ... 506
Service power / at AC-3 / at 400 V		
• rated value	kW	4
Derating temperature	°C	40
Tolerance of the line frequency	Hz	5
Relative symmetrical tolerance / of the operation frequency	%	10
I <sup>2</sup> t-level / maximum	A <sup>2</sup> ·s	1,800
Voltage slew rate / at the thyristor / for main contacts		
• maximum permissible	V/μs	1,000
Block voltage / at the thyristor / for main contacts		
• maximum permissible	V	1,200
Reverse current / of the thyristor	mA	10

Control circuit/ Control:		
Voltage type / of control feed voltage		AC
Control supply voltage frequency		
• 1 / rated value	Hz	50
• 2 / rated value	Hz	60
Relative symmetrical tolerance		
• of the control supply voltage frequency	%	10
• of the supply voltage frequency	%	10
Control supply voltage		
• 1		
• at 50 Hz / for AC		
• initial rated value	V	90
• final rated value	V	253

<ul style="list-style-type: none"> <li>• at 60 Hz / for AC <ul style="list-style-type: none"> <li>• initial rated value</li> <li>• final rated value</li> </ul> </li> <li>• at 50 Hz / for AC / final value for signal&lt;0&gt;-recognition</li> <li>• at 60 Hz / for AC / final value for signal&lt;0&gt;-recognition</li> </ul>	V	90
	V	253
	V	40
	V	40
<b>Control current</b>		
<ul style="list-style-type: none"> <li>• for AC / rated value</li> <li>• at minimum control supply voltage / for AC</li> </ul>	mA	15
	mA	2
<b>switching times</b>		
<ul style="list-style-type: none"> <li>• ON delay</li> <li>• OFF delay</li> </ul>		5 ms
		30 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 changeover 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 / series installation</b>		Yes
<b>Tightening torque / of the screw for fastening of the operating resource</b>	N·m	1.5
<b>Design of the thread / of the screw for fastening of the operating resource</b>		M4
<b>Width</b>	mm	90
<b>Height</b>	mm	95
<b>Depth</b>	mm	100.8
<b>Distance, to be maintained, to the ranks assembly / upwards</b>	mm	70
<b>Distance, to be maintained, to the ranks assembly / downwards</b>	mm	50

#### Connections/ terminals:

<b>Design of the electrical connection</b>		
<ul style="list-style-type: none"> <li>• for main current circuit</li> <li>• for auxiliary and control current circuit</li> </ul>		spring-loaded terminals spring-loaded terminals
<b>Product function / removable terminal for auxiliary and control circuit</b>		Yes
<b>Type of the connectable conductor cross-section</b>		
<ul style="list-style-type: none"> <li>• for main contacts <ul style="list-style-type: none"> <li>• solid</li> <li>• finely stranded</li> </ul> </li> </ul>		2x (0.5 ... 2.5 mm <sup>2</sup> )

<ul style="list-style-type: none"> <li>• with conductor end processing</li> <li>• without conductor final cutting</li> </ul>	2x (0.5 ... 1.5 mm <sup>2</sup> )
<ul style="list-style-type: none"> <li>• for AWG conductors / for main contacts</li> </ul>	2x (0.5 ... 2.5 mm <sup>2</sup> )
<ul style="list-style-type: none"> <li>• for auxiliary and control contacts</li> </ul>	2x (18 ... 14)
<ul style="list-style-type: none"> <li>• solid</li> </ul>	0.5 ... 1.5 mm <sup>2</sup>
<ul style="list-style-type: none"> <li>• finely stranded</li> </ul>	0.5 ... 2.5 mm <sup>2</sup>
<ul style="list-style-type: none"> <li>• with conductor end processing</li> <li>• without conductor final cutting</li> </ul>	0.5 ... 2.5 mm <sup>2</sup>
<ul style="list-style-type: none"> <li>• for AWG conductors / for auxiliary and control contacts</li> </ul>	1x (AWG 20 ... 12)
<b>Skinning length / of the cable</b>	
<ul style="list-style-type: none"> <li>• for main contacts</li> </ul>	mm 10
<ul style="list-style-type: none"> <li>• for auxiliary and control contacts</li> </ul>	mm 10

### Certificates/ approvals:

#### Verification of suitability

CE / UL / CSA / CCC / C-TICK

#### General Product Approval

#### EMC

#### Declaration of Conformity



CCC



CSA



UL



C-TICK



EG-Konf.

#### Test Certificates

#### other

[Type Test Certificates/Test Report](#)

[Environmental Confirmations](#)

### UL/CSA ratings:

#### yielded mechanical performance [hp] / for three-phase squirrel cage motors

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

hp 1.5  
hp 2  
hp 3

#### Full-load current (FLA) / for 3-phase motor

- at 480 V / rated value

A 4.8

### Further information:

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

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

#### Industry Mall (Online ordering system)

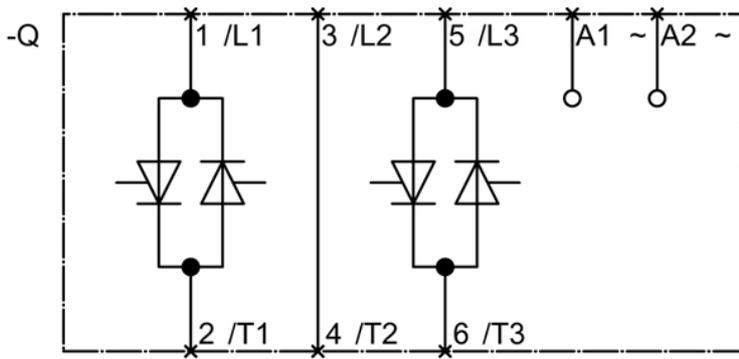
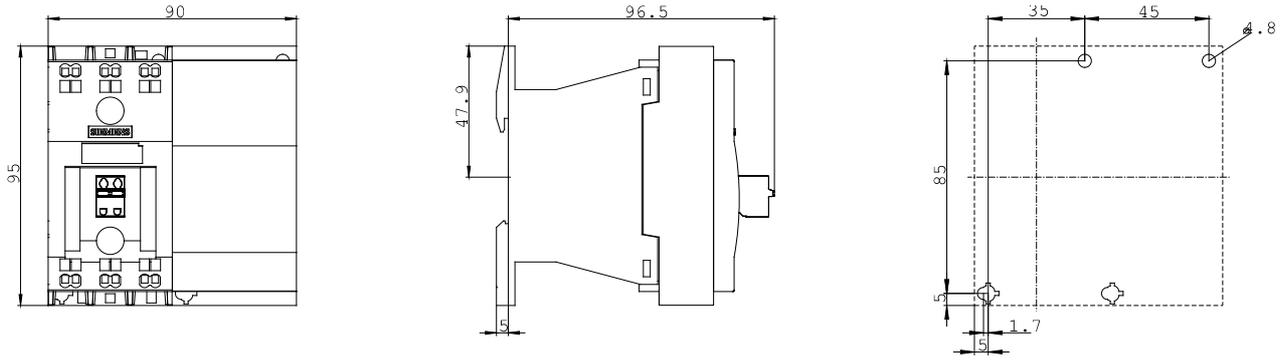
<https://mall.industry.siemens.com/>

#### Cax online generator

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

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

<http://support.automation.siemens.com/WWW/view/en/3RF3410-2BB24/all>



last change:

Aug 4, 2014