



SOLID-STATE CONTACTOR 3-PH 3RF3 AC53 12.5A 40
DEGREES C 48-480V / 24V DC 2-PH. CONTROLLED
INSTANTANEOUS SPRING-LOADED TERMINALS

General technical data:

product brand name		SIRIUS
Product designation		solid-state motor contactor
Protection class IP		IP20
Insulation voltage / rated value	V	600
Installation altitude / at a height over sea level / maximum	m	1,000
Ambient temperature		
• during storage	°C	-55 ... +80
• during operating	°C	-25 ... +60
Shock resistance		
• according to IEC 60068-2-27		15g / 11 ms
Resistance against vibration		
• according to IEC 60068-2-6		2g
Resistance against the impulse current / rated value	A	1,200
Active power loss / total / typical	W	22
Reference code		
• according to DIN 40719 extended according to IEC 204-2 / according to IEC 750		K
• according 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		
• 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	12.5
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	5.5
Derating temperature	°C	40
Tolerance of the line frequency	Hz	5
Relative symmetrical tolerance / of the operation frequency	%	10
I ² t-level / maximum	A ² ·s	7,200
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		DC
Control supply voltage		
• 1		
• for DC		
• initial rated value	V	15
• final rated value	V	30
• for DC / final value for signal<0>-recognition	V	5
Control current		
• for DC / rated value	mA	15
• at minimum control supply voltage / for DC	mA	2
switching times		
• ON delay		1 ms

- OFF delay

1 ms + in addition max. one half-wave

Auxiliary circuit:

Number of NC contacts / for auxiliary contacts

0

Number of NO contacts / for auxiliary contacts

0

Number of changeover contacts / for auxiliary contacts

0

Installation/ mounting/ dimensions:

mounting position

vertical

Mounting type

screw and snap-on mounting onto 35 mm standard mounting rail

Mounting type / series installation

Yes

Tightening torque / of the screw for fastening of the operating resource

N·m

1.5

Design of the thread / of the screw for fastening of the operating resource

M4

Width

mm

90

Height

mm

95

Depth

mm

100.8

Distance, to be maintained, to the ranks assembly / upwards

mm

70

Distance, to be maintained, to the ranks assembly / downwards

mm

50

Connections/ terminals:

Design of the electrical connection

- for main current circuit
- for auxiliary and control current circuit

spring-loaded terminals

spring-loaded terminals

Product function / removable terminal for auxiliary and control circuit

Yes

Type of the connectable conductor cross-section

- for main contacts
 - solid
 - finely stranded
 - with conductor end processing
 - without conductor final cutting
- for AWG conductors / for main contacts
- for auxiliary and control contacts
 - solid
 - finely stranded
 - with conductor end processing
 - without conductor final cutting
- for AWG conductors / for auxiliary and control contacts

2x (0.5 ... 2.5 mm²)

2x (0.5 ... 1.5 mm²)

2x (0.5 ... 2.5 mm²)

2x (18 ... 14)

0.5 ... 1.5 mm²

0.5 ... 2.5 mm²

0.5 ... 2.5 mm²

1x (AWG 20 ... 12)

Skinning length / of the cable

- for main contacts
- for auxiliary and control contacts

mm	10
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	2
hp	2
hp	5

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

- at 480 V / rated value

A	7.6
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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

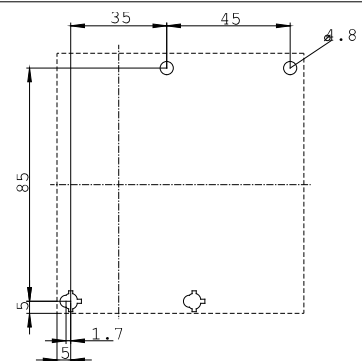
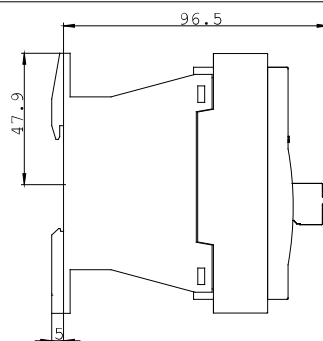
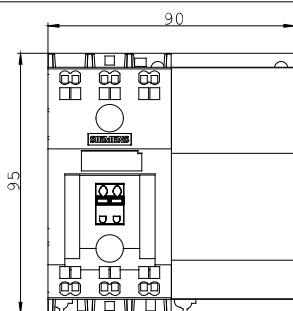
<http://www.siemens.com/cax>

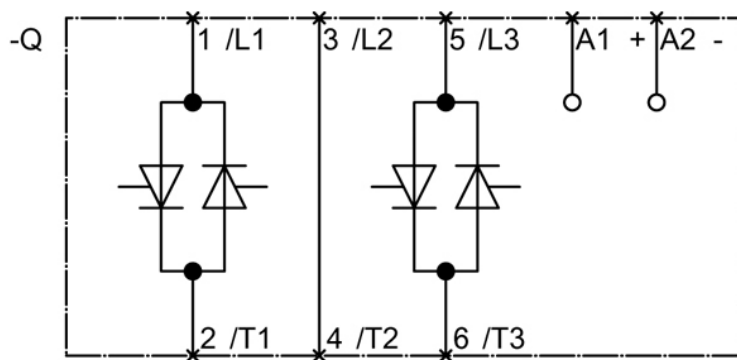
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<http://support.automation.siemens.com/WW/view/en/3RF3412-2BB04/all>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RF3412-2BB04





last change:

Aug 4, 2014