# **SIEMENS**

Data sheet 3RF3405-1BB24



Solid-state contactor 3-phase 3RF3 AC 53 / 5.2 A / 40  $^{\circ}$ C 48-480 V / 110-230 V AC 2-phase controlled Instantaneous switching screw terminal

product brand name product designation design of the product product type designation manufacturer's article number

- \_1 of the accessories that can be ordered
- \_2 of the accessories that can be ordered

### product designation

- \_1 of the accessories that can be ordered
- 2 of the accessories that can be ordered

**SIRIUS** 

solid-state contactor two-phase controlled

3RF34

3RA2921-1BA00

3RF3900-0QA88

Link module

Connection adapter

# General technical data product function

power loss [W] for rated value of the current without load current share typical

insulation voltage rated value

type of voltage of the control supply voltage surge voltage resistance of main circuit rated value

shock resistance according to IEC 60068-2-27 vibration resistance according to IEC 60068-2-6

certificate of suitability

reference code according to IEC 81346-2

Substance Prohibitance (Date)

instantaneous switching

3.5 W

600 V

AC

6 kV

15g / 11 ms

29

CE / UL / CSA / CCC / C-Tick (RCM)

Q

05/28/2009

# Main circuit

number of poles for main current circuit number of NO contacts for main contacts

**number of NC contacts for main contacts** operating voltage at AC

at 50 Hz rated value

• at 60 Hz rated value

operating frequency rated value relative symmetrical tolerance of the operating

operating range relative to the operating voltage at AC

• at 50 Hz

• at 60 Hz

operational current

• at AC-3 at 400 V rated value

at AC-53a at 400 V at ambient temperature 40 °C rated value

operational current minimum

operating power

at AC-3 at 400 V rated value

3

2

48 ... 480 V

48 ... 480 V

50 ... 60 Hz

10 %

40 ... 506 V

40 ... 506 V

5.2 A

5.2 A

100 mA

2.2 kW

rate of voltage rise at the thyristor for main contacts maximum permissible blocking voltage at the thyristor for main contacts maximum permissible reverse current of the thyristor doctor of the control supply voltage current resistance rated value 200 A*s 200 A		4.000 \//
maximum permissible reverse current of the thyristor derating temperature 40 °C surge current resistance rated value 200 A 200	maximum permissible	
derating temperature 40 °C surge current resistance rated value 200 A [2t value maximum 200 A [2t value valu		1 200 V
derating temperature 40 °C surge current resistance rated value 200 A [2t value maximum 200 A [2t value valu	reverse current of the thyristor	10 mA
200 A*s	derating temperature	40 °C
Control circuit/ Control  type of voltage of the control supply voltage		200 A
type of voltage of the control supply voltage control supply voltage 1 at AC   • at 50 Hz   • at 50 Hz   • 110 230 V     110 230 V    110 230 V    110 230 V    110 230 V    110 230 V    110 230 V    110 230 V    110 230 V    110 230 V    110 230 V    110 230 V    110 230 V    110 230 V    110 230 V    110 230 V     110 230 V    110 230 V     110 230 V     110 230 V     110 230 V     110 230 V     110 230 V     110 230 V     110 230 V     110 230 V     110 230 V      110 230 V      110 230 V      110 230 V      110 230 V      110 230 V	I2t value maximum	200 A <sup>2</sup> ·s
type of voltage of the control supply voltage control supply voltage 1 at AC   • at 50 Hz   • at 50 Hz   • 110 230 V     110 230 V    110 230 V    110 230 V    110 230 V    110 230 V    110 230 V    110 230 V    110 230 V    110 230 V    110 230 V    110 230 V    110 230 V    110 230 V    110 230 V    110 230 V     110 230 V    110 230 V     110 230 V     110 230 V     110 230 V     110 230 V     110 230 V     110 230 V     110 230 V     110 230 V     110 230 V      110 230 V      110 230 V      110 230 V      110 230 V      110 230 V	Control circuit/ Control	
control supply voltage 1 at AC  at 80 Hz  at 80 Hz  2 rated value  2 rated value  3 0 Hz  60 Hz  110 230 V  50 Hz  80 Hz  110 230 V  50 Hz  80 Hz  110 230 V  50 Hz  80 Hz	type of voltage of the control supply voltage	AC
a di 50 Hz a di 50 Hz control supply voltage frequency  • I rated value • 2 rated value  • 2 rated value  • 2 rated value  • 3 rated value  • 3 rated value  • 4 st 50 Hz discovered by totage frequency control supply voltage at AC • 4 st 50 Hz full-scale value for signal<0> recognition • 4 st 50 Hz full-scale value for signal<0> recognition • 4 st 50 Hz full-scale value for signal<0> recognition • 4 st 50 Hz full-scale value for signal<0> recognition • 4 st 50 Hz full-scale value for signal<0> recognition • 4 st 50 Hz full-scale value for signal<0> recognition • 4 st 50 Hz full-scale value for signal<0> recognition • 4 st 50 Hz full-scale value for signal<0> recognition • 5 Hz • operating range factor control supply voltage rated value at AC at 50 Hz • initial value • full-scale v		
a is 0 Hz control supply voltage frequency 1 rated value 2 rated value 3 to Hz discovered		110 230 V
control supply voltage frequency  1 rated value  2 rated value  3 rated value  10 %  voltage frequency control supply voltage at AC  1 of 50 Hz full-scale value for signal-CD- recognition 1 of 10 Hz full-scale value for signal-CD- recognition 1 of 10 Hz full-scale value for signal-CD- recognition 1 of 10 Hz full-scale value for signal-CD- recognition 1 of 10 Hz full-scale value for signal-CD- recognition 1 of 10 Hz full-scale value for signal-CD- recognition 1 of 10 Hz full-scale value for signal-CD- recognition 1 of 10 Hz full-scale value for signal-CD- recognition 1 of 10 Hz full-scale value for signal-CD- recognition 2 overlang range factor control supply voltage rated value at AC at 50 Hz 2 initial value 2 full-scale value 2 operating range factor control supply voltage rated value at AC at 60 Hz 2 initial value 2 initial value 2 initial value 3 initial value 3 initial value 4 initial value 5 initial value 5 initial value 5 initial value 6 initial value 6 initial value 6 initial value 7 initial value 7 initial value 8 initial value 9 initial value 1		
• 1 rated value • 2 rated value relative symmetrical tolerance of the control supply voltage frequency outrol supply voltage at AC • at 50 Hz full-scale value for signal-Q> recognition at 60 Hz full-scale value for signal-Q> recognition outrol supply voltage • at AC initial value for signal-Q> recognition outrol supply voltage • at AC initial value for signal-Q> recognition outrol supply voltage • at AC initial value for signal-Q> recognition outrol supply voltage • at AC initial value for signal-Q> recognition operating range factor control supply voltage rated value at AC at 50 ftz • initial value • at AC control current at AC rated value ONI-delay time OF-delay ti		
relative symmetrical tolerance of the control supply voltage prequency control supply voltage at AC  at 50 Hz full-scale value for signal-0> recognition at 50 Hz full-scale value for signal-0> recognition on at 60 Hz full-scale value for signal-1> detection you will voltage at AC at 50 Hz detection symmetrical line frequency tolerance operating range factor control supply voltage rated value at AC at 50 Hz detection initial value at AC at 50 Hz detection operating range factor control supply voltage rated value at AC at 60 Hz detection initial value at 60 Hz detection operating range factor control supply voltage rated value at AC at 60 Hz detection operating range factor control supply voltage rated value at AC at 60 Hz detection operating range factor control supply voltage rated value at AC at 60 Hz detection operating range factor control supply voltage at AC control current at minimum control supply voltage at AC and control current at AC rated value by at AC act of 50 Hz detection operating range factor control supply voltage at AC control current at AC rated value by at AC act of 50 Hz detection of 50 ms		50 Hz
relative symmetrical tolerance of the control supply voltage prequency control supply voltage at AC  at 50 Hz full-scale value for signal-0> recognition at 50 Hz full-scale value for signal-0> recognition on at 60 Hz full-scale value for signal-1> detection you will voltage at AC at 50 Hz detection symmetrical line frequency tolerance operating range factor control supply voltage rated value at AC at 50 Hz detection initial value at AC at 50 Hz detection operating range factor control supply voltage rated value at AC at 60 Hz detection initial value at 60 Hz detection operating range factor control supply voltage rated value at AC at 60 Hz detection operating range factor control supply voltage rated value at AC at 60 Hz detection operating range factor control supply voltage rated value at AC at 60 Hz detection operating range factor control supply voltage at AC control current at minimum control supply voltage at AC and control current at AC rated value by at AC act of 50 Hz detection operating range factor control supply voltage at AC control current at AC rated value by at AC act of 50 Hz detection of 50 ms	• 2 rated value	60 Hz
voltage frequency control supply voltage at AC  • at 50 Hz full-scale value for signal<0> recognition • at 60 Hz full-scale value for signal<1> detection symmetrical line frequency tolerance operating range factor control supply voltage • at AC initial value for signal<1> detection symmetrical line frequency tolerance operating range factor control supply voltage rated value at AC at 50 Hz • initial value • full-scale value • f		
a ta 50 Hz full-scale value for signal<0> recognition a ta 60 Hz full-scale value for signal<0> recognition control supply voltage a th AC initial value for signal<1> detection symmetrical line frequency tolerance operating range factor control supply voltage rated value at AC at 50 Hz initial value a full-scale value operating range factor control supply voltage rated value at AC at 60 Hz initial value a full-scale value operating range factor control supply voltage rated value at AC at 60 Hz initial value a full-scale value  ontrol current at minimum control supply voltage at AC control current at AC rated value  OR-delay time OF-delay	voltage frequency	
at 80 Hz full-scale value for signal<0> recognition control supply voltage  at AC initial value for signal<1> detection symmetrical line frequency tolerance operating range factor control supply voltage rated value at AC at 50 Hz  initial value initial value operating range factor control supply voltage rated value at AC at 50 Hz  initial value init		
control supply voltage  at AC initial value for signal <1> detection symmetrical line frequency tolerance operating range factor control supply voltage rated value at AC at 50 Hz initial value full-scale value operating range factor control supply voltage rated value at AC at 50 Hz initial value full-scale value operating range factor control supply voltage rated value at AC at 60 Hz initial value full-scale value of ull-scale value other control current at minimum control supply voltage at AC control current at AC rated value  ON-delay time  OF-delay time  OF-delay time  OF-delay time  OF-delay time  OF-delay fime of NC contacts for auxiliary contacts number of NC contacts for auxiliary contacts onumber of NC contacts onumber of NC contacts for auxiliary contacts onumber of NC contacts for auxiliary contacts onumber of NC contacts onumbe		
at AC initial value for signal <1> detection symmetrical line frequency tolerance operating range factor control supply voltage rated value at AC at 50 Hz  initial value full-scale value operating range factor control supply voltage rated value at AC at 60 Hz  initial value operating range factor control supply voltage rated value at AC at 60 Hz  initial value operating range factor control supply voltage rated value at AC at 60 Hz  initial value operating range factor control supply voltage rated value at AC at 60 Hz  initial value  outlesselve value outlesselve		40 V
symmetrical line frequency tolerance operating range factor control supply voltage rated value at AC at 50 Hz  initial value  initial value  operating range factor control supply voltage rated value at AC at 60 Hz  initial value  i		
operating range factor control supply voltage rated value at AC at 50 Hz  initial value  full-scale value  full-scale value  full-scale value  initial value  initial value  initial value  ontrol current at minimum control supply voltage  at AC  control current at minimum control supply voltage  at AC  control current at AC rated value  full-scale value  at AC 2 mA  control current at AC rated value  for Fr-delay time  ON-delay time  for CFr-delay time  for Contacts for auxiliary contacts  number of NC contacts for auxiliary contacts  vertical  screw and snap-on mounting onto 35 mm DIN rail  ves  screw and snap-on mounting onto 35 mm DIN rail  ves  screw and snap-on mounting onto 35 mm DIN rail  ves  height  vertical  screw and snap-on mounting onto 35 mm DIN rail  ves  of mm  of main contacts  of or main contacts  for main contacts  - solid  - finely stranded with core end processing  at AWG cables for main contacts  connections transfer of the main contacts  at AWG cables for main contacts  2x (0.5 2.5 mm²)  2x (0.5 2.5 mm²)  2x (0.5 1.5 mm²)  2x (18 14)	3	
value at AC at 50 Hz  initial value  initial value  initial value  operating range factor control supply voltage rated value at AC at 60 Hz  initial value  full-scale value  outline the		5 Hz
initial value  initi		
• full-scale value operating range factor control supply voltage rated value at AC at 60 Hz  • initial value of ull-scale value of ull-scale value outrol current at minimum control supply voltage • at AC control current at AC rated value ON-delay time OF-delay time OF-delay time OF-delay time Auxiliary circuit number of NC contacts for auxiliary contacts number of NC contacts for auxiliary contacts number of CO contacts for auxiliary contacts number of CO contacts for auxiliary contacts number of NC contacts for auxiliary contacts number of Side-by-side mounting ostion fastening method side-by-side mounting height width depth required spacing with side-by-side mounting oupwards		0.82
operating range factor control supply voltage rated value at AC at 60 Hz  • initial value • full-scale value • full-scale value • at AC control current at minimum control supply voltage • at AC control current at AC rated value  ON-delay time  5 ms  OFF-delay time  Auxiliary circuit  number of NC contacts for auxiliary contacts number of NC contacts for auxiliary contacts 0 number of NC contacts for auxiliary contacts 0 umber of CO contacts for auxiliary contacts 0 vertical fastening method • side-by-side mounting • side-by-side mounting  height width 45 mm  depth required spacing with side-by-side mounting • upwards • downwards  Connections/ Terminals  product component removable terminal for auxiliary and control circuit type of electrical connection • for main current circuit • for auxiliary and control circuit type of connectable conductor cross-sections • for main contacts  - solid - finely stranded with core end processing at AWG cables for main contacts  connectable conductor cross-section for main		
value at AC at 60 Hz  initial value		1.1
• full-scale value control current at minimum control supply voltage • at AC control current at AC rated value ON-delay time OFF-delay time OFF-delay time  Auxillary circuit number of NC contacts for auxillary contacts number of NC contacts for auxillary contacts number of NO contacts for auxillary contacts number of NO contacts for auxillary contacts number of CO contacts for auxillary contacts 0 Installation/ mounting/ dimensions  mounting position fastening method • side-by-side mounting • side-by-side mounting  • upwards • downwards  Connections/ Terminals  product component removable terminal for auxillary and control circuit type of electrical connection • for main current circuit • for auxillary and control circuit type of connectable conductor cross-sections • for main current circuit - solid - finely stranded with core end processing • at AWG cables for main contacts connectable conductor cross-section for main • at AWG cables for main contacts connectable conductor cross-section for main • at AWG cables for main contacts connectable conductor cross-section for main • at AWG cables for main contacts connectable conductor cross-section for main	value at AC at 60 Hz	
control current at minimum control supply voltage  at AC control current at AC rated value  ON-delay time  OFF-delay time  OFF		
at AC control current at AC rated value  ON-delay time OFF-delay time OFF-delay time OFF-delay time OFF-delay time OFF-delay time OFF-delay time  Auxiliary circuit  number of NC contacts for auxiliary contacts number of NC contacts for auxiliary contacts number of NC contacts for auxiliary contacts number of CO contacts for auxiliary contacts  number of CO contacts for auxiliary contacts  number of NC contacts for auxiliary contacts  number of CO contacts for auxiliary contacts  number of NC contacts for auxiliary contacts  number of NC contacts for auxiliary contacts  number of CO contacts for auxiliary contacts  vertical screw and snap-on mounting onto 35 mm DIN rail  ves height vidth 45 mm depth 100.8 mm required spacing with side-by-side mounting  upwards downwards  connections/ Terminals  product component removable terminal for auxiliary and control circuit type of electrical connection  of or main current circuit screw-type terminals  for auxiliary and control circuit type of connectable conductor cross-sections  of or main contacts  - solid - finely stranded with core end processing at AWG cables for main contacts  connectable conductor cross-section for main		1.1
control current at AC rated value  ON-delay time  OFF-delay time  Auxiliary circuit  number of NC contacts for auxiliary contacts number of NO contacts for auxiliary contacts number of CO contacts for auxiliary contacts  Nounting position  Installation/ mounting/ dimensions  wounting position  screw and snap-on mounting onto 35 mm DIN rail  Yes height  yes height  yes height  yes howards  odownwards  odownwards  odownwards  odownwards  omm  Connections/ Terminals  product component removable terminal for auxiliary and control circuit  type of electrical connection  of or main current circuit  of or main current circuit  of or main contacts  - solid  - finely stranded with core end processing of at AWG cables for main contacts  connectable conductor cross-section for main		
ON-delay time OFF-delay time OFF-del		
Auxiliary circuit  number of NC contacts for auxiliary contacts number of NO contacts for auxiliary contacts number of NO contacts for auxiliary contacts number of CO contacts for auxiliary contacts number of NO contacts for auxiliary contacts number of CO contacts for auxiliary contacts number of CO contacts for auxiliary contacts    Installation/ mounting/ dimensions		
Auxiliary circuit  number of NC contacts for auxiliary contacts number of NC contacts for auxiliary contacts number of CO contacts for auxiliary contacts number of CO contacts for auxiliary contacts  number of CO contacts for auxiliary contacts  number of CO contacts for auxiliary contacts  number of CO contacts for auxiliary contacts  vertical screw and snap-on mounting onto 35 mm DIN rail  yes screw and snap-on mounting onto 35 mm DIN rail  yes ps mm  45 mm  45 mm  tequired spacing with side-by-side mounting  upwards odownwards  70 mm  connections/ Terminals  product component removable terminal for auxiliary and control circuit  type of electrical connection  for main current circuit  of or auxiliary and control circuit  type of connectable conductor cross-sections  for main contacts  - solid  - finely stranded with core end processing of the Market Screw-type terminals  2x (0.5 2.5 mm²) 2x (18 14)  connectable conductor cross-section for main		
number of NC contacts for auxiliary contacts number of NO contacts for auxiliary contacts number of CO contacts for auxiliary contacts 0 Installation/ mounting/ dimensions  mounting position fastening method • side-by-side mounting height width depth 100.8 mm required spacing with side-by-side mounting • upwards • downwards  Connections/ Terminals  product component removable terminal for auxiliary and control circuit type of electrical connection • for main current circuit • for auxiliary and control circuit type of connectable conductor cross-sections • for main contacts — solid — finely stranded with core end processing • at AWG cables for main contacts  connectable conductor cross-section for main		ou ms, additionally max. one half-wave
number of NO contacts for auxiliary contacts number of CO contacts for auxiliary contacts    Installation/ mounting/ dimensions		
number of CO contacts for auxiliary contacts    Installation/ mounting/ dimensions	The state of the s	
mounting position fastening method		
mounting position fastening method		0
fastening method		
• side-by-side mounting     height     width     depth     required spacing with side-by-side mounting     • upwards     • downwards     To mm     • downwards      product component removable terminal for auxiliary and control circuit      type of electrical connection     • for main current circuit     • for auxiliary and control circuit      type of connectable conductor cross-sections     • for main contacts     — solid     — finely stranded with core end processing     • at AWG cables for main contacts     connectable conductor cross-section for main     connectable conductor cross-section for main     connectable conductor cross-section for main		vertical
height width 45 mm  depth 100.8 mm  required spacing with side-by-side mounting • upwards • downwards 70 mm • downwards 50 mm   Connections/ Terminals  product component removable terminal for auxiliary and control circuit type of electrical connection • for main current circuit • for auxiliary and control circuit type of connectable conductor cross-sections • for main contacts - solid - finely stranded with core end processing • at AWG cables for main contacts  connectable conductor cross-section for main		,
width depth required spacing with side-by-side mounting  • upwards • downwards  Connections/ Terminals  product component removable terminal for auxiliary and control circuit  type of electrical connection • for main current circuit • for auxiliary and control circuit  type of connectable conductor cross-sections • for main contacts  - solid - finely stranded with core end processing • at AWG cables for main contacts  connectable conductor cross-section for main		
depth     100.8 mm       required spacing with side-by-side mounting     70 mm       • upwards     50 mm       • downwards     50 mm       Connections/ Terminals       product component removable terminal for auxiliary and control circuit       type of electrical connection       • for main current circuit     screw-type terminals       • for auxiliary and control circuit     screw-type terminals       type of connectable conductor cross-sections     2x (0.5 2.5 mm²)       • for main contacts     2x (0.5 1.5 mm²)       • at AWG cables for main contacts     2x (18 14)       connectable conductor cross-section for main	-	
required spacing with side-by-side mounting  • upwards • downwards  Connections/ Terminals  product component removable terminal for auxiliary and control circuit  type of electrical connection • for main current circuit • for auxiliary and control circuit  type of connectable conductor cross-sections • for main contacts  - solid - finely stranded with core end processing • at AWG cables for main contacts  connectable conductor cross-section for main		
<ul> <li>upwards</li> <li>downwards</li> <li>50 mm</li> </ul> Connections/ Terminals product component removable terminal for auxiliary and control circuit <ul> <li>type of electrical connection</li> <li>for main current circuit</li> <li>for auxiliary and control circuit</li> <li>screw-type terminals</li> <li>for auxiliary and control circuit</li> <li>screw-type terminals</li> </ul> type of connectable conductor cross-sections <ul> <li>for main contacts</li> <li>solid</li> <li>min contacts</li> <li>min contacts</li> <li>min contacts</li> <li>min contacts</li> <li>at AWG cables for main contacts</li> <li>at AWG cables for main contacts</li> <li>connectable conductor cross-section for main</li> </ul> 2x (0.5 2.5 mm²) <ul> <li>2x (0.5 1.5 mm²)</li> <li>2x (18 14)</li> </ul>	•	100.8 mm
<ul> <li>◆ downwards</li> <li>Connections/ Terminals</li> <li>product component removable terminal for auxiliary and control circuit</li> <li>type of electrical connection</li> <li>◆ for main current circuit</li> <li>◆ for auxiliary and control circuit</li> <li>type of connectable conductor cross-sections</li> <li>◆ for main contacts</li> <li>— solid</li> <li>— finely stranded with core end processing</li> <li>◆ at AWG cables for main contacts</li> <li>Connectable conductor cross-section for main</li> </ul>		
product component removable terminal for auxiliary and control circuit  type of electrical connection  • for main current circuit • for auxiliary and control circuit  type of connectable conductor cross-sections  • for main contacts  — solid — finely stranded with core end processing • at AWG cables for main contacts  connectable conductor cross-section for main  Yes  Yes  Yes  Yes  **Corew-type terminals  **Screw-type terminals  **Sc	•	
product component removable terminal for auxiliary and control circuit  type of electrical connection  • for main current circuit • for auxiliary and control circuit  type of connectable conductor cross-sections • for main contacts — solid — finely stranded with core end processing • at AWG cables for main contacts  connectable conductor cross-section for main  Yes  Yes  Yes  Yes  Yes  Yes   Yes   Yes   Yes   Screw-type terminals  Screw-type terminals  2x (0.5 2.5 mm²)  2x (0.5 2.5 mm²)  2x (0.5 1.5 mm²)  2x (18 14)		50 mm
type of electrical connection  • for main current circuit • for auxiliary and control circuit  type of connectable conductor cross-sections  • for main contacts — solid — finely stranded with core end processing • at AWG cables for main contacts  connectable conductor cross-section for main   screw-type terminals  2x (0.5 2.5 mm²)  2x (0.5 2.5 mm²)  2x (0.5 1.5 mm²)  2x (18 14)		
<ul> <li>for main current circuit</li> <li>for auxiliary and control circuit</li> <li>screw-type terminals</li> <li>type of connectable conductor cross-sections</li> <li>for main contacts</li> <li>— solid</li> <li>— finely stranded with core end processing</li> <li>at AWG cables for main contacts</li> <li>2x (0.5 2.5 mm²)</li> <li>2x (0.5 1.5 mm²)</li> <li>2x (0.5 1.5 mm²)</li> <li>2x (18 14)</li> </ul>	control circuit	Yes
<ul> <li>for auxiliary and control circuit</li> <li>type of connectable conductor cross-sections</li> <li>for main contacts</li> <li>— solid</li> <li>— finely stranded with core end processing</li> <li>at AWG cables for main contacts</li> <li>connectable conductor cross-section for main</li> </ul> screw-type terminals  2x (0.5 2.5 mm²)  2x (0.5 1.5 mm²)  2x (18 14)	type of electrical connection	
type of connectable conductor cross-sections		
<ul> <li>for main contacts         <ul> <li>— solid</li> <li>— finely stranded with core end processing</li> <li>at AWG cables for main contacts</li> </ul> </li> <li>connectable conductor cross-section for main</li> <li>2x (0.5 2.5 mm²)</li> <li>2x (0.5 1.5 mm²)</li> <li>2x (18 14)</li> </ul>	<ul> <li>for auxiliary and control circuit</li> </ul>	screw-type terminals
<ul> <li>— solid</li> <li>— finely stranded with core end processing</li> <li>• at AWG cables for main contacts</li> <li>connectable conductor cross-section for main</li> <li>2x (0.5 2.5 mm²)</li> <li>2x (0.5 1.5 mm²)</li> <li>2x (18 14)</li> </ul>		
<ul> <li>— finely stranded with core end processing</li> <li>• at AWG cables for main contacts</li> <li>2x (0.5 1.5 mm²)</li> <li>2x (18 14)</li> <li>connectable conductor cross-section for main</li> </ul>	for main contacts	
• at AWG cables for main contacts 2x (18 14)  connectable conductor cross-section for main		
connectable conductor cross-section for main		
		2x (18 14)
CONTACTO		
	CONTACTS	

<ul> <li>solid or stranded</li> </ul>	1.5 6 mm²
<ul> <li>finely stranded with core end processing</li> </ul>	1 10 mm²
type of connectable conductor cross-sections	
<ul> <li>for auxiliary and control contacts</li> </ul>	
— solid	1x (0.5 2.5 mm²), 2x (0.5 1.0 mm²)
<ul> <li>finely stranded with core end processing</li> </ul>	1x (0.5 2.5 mm²), 2x (0.5 1.0 mm²)
<ul> <li>finely stranded without core end processing</li> </ul>	1x (0.5 2.5 mm²), 2x (0.5 1.0 mm²)
<ul> <li>at AWG cables for auxiliary and control contacts</li> </ul>	1x (AWG 20 12)
AWG number as coded connectable conductor cross	14 10
section for main contacts	
tightening torque	
<ul> <li>for main contacts with screw-type terminals</li> </ul>	2 2.5 N·m
<ul> <li>for auxiliary and control contacts with screw-type</li> </ul>	0.5 0.6 N·m
terminals	
tightening torque [lbf·in]	
<ul> <li>for main contacts with screw-type terminals</li> </ul>	18 22 lbf·in
<ul> <li>for auxiliary and control contacts with screw-type</li> </ul>	7.5 5.3 lbf·in
terminals	
design of the thread of the connection screw	
<ul> <li>for main contacts</li> </ul>	M4
<ul> <li>of the auxiliary and control contacts</li> </ul>	M3
stripped length of the cable	
• for main contacts	7 mm
<ul> <li>for auxiliary and control contacts</li> </ul>	7 mm
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor  • at 480 V rated value	3.4 A
	3.4 A
yielded mechanical performance [hp] for 3-phase AC motor	
at 200/208 V rated value	0.5 hp
at 220/230 V rated value     at 220/230 V rated value	0.75 hp
• at 460/480 V rated value	,
at 400/460 v Tated value	2 hp
Cofety valeted date	
Safety related data	
proportion of dangerous failures with high demand rate	50 %
proportion of dangerous failures with high demand rate according to SN 31920	
proportion of dangerous failures with high demand rate according to SN 31920  MTTF with high demand rate	76 y
proportion of dangerous failures with high demand rate according to SN 31920	
proportion of dangerous failures with high demand rate according to SN 31920  MTTF with high demand rate  T1 value for proof test interval or service life	76 y
proportion of dangerous failures with high demand rate according to SN 31920  MTTF with high demand rate  T1 value for proof test interval or service life according to IEC 61508	76 y 20 y
proportion of dangerous failures with high demand rate according to SN 31920  MTTF with high demand rate T1 value for proof test interval or service life according to IEC 61508  protection class IP on the front according to IEC	76 y 20 y
proportion of dangerous failures with high demand rate according to SN 31920  MTTF with high demand rate T1 value for proof test interval or service life according to IEC 61508  protection class IP on the front according to IEC 60529	76 y 20 y IP20
proportion of dangerous failures with high demand rate according to SN 31920  MTTF with high demand rate T1 value for proof test interval or service life according to IEC 61508 protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529 Ambient conditions	76 y 20 y IP20
proportion of dangerous failures with high demand rate according to SN 31920  MTTF with high demand rate T1 value for proof test interval or service life according to IEC 61508 protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529  Ambient conditions installation altitude at height above sea level maximum	76 y 20 y IP20 finger-safe, for vertical contact from the front
proportion of dangerous failures with high demand rate according to SN 31920  MTTF with high demand rate T1 value for proof test interval or service life according to IEC 61508 protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529  Ambient conditions installation altitude at height above sea level maximum ambient temperature	76 y 20 y IP20 finger-safe, for vertical contact from the front 1 000 m
proportion of dangerous failures with high demand rate according to SN 31920  MTTF with high demand rate T1 value for proof test interval or service life according to IEC 61508 protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529  Ambient conditions installation altitude at height above sea level maximum ambient temperature  • during operation	76 y 20 y IP20 finger-safe, for vertical contact from the front  1 000 m -25 +60 °C
proportion of dangerous failures with high demand rate according to SN 31920  MTTF with high demand rate  T1 value for proof test interval or service life according to IEC 61508  protection class IP on the front according to IEC 60529  touch protection on the front according to IEC 60529  Ambient conditions  installation altitude at height above sea level maximum ambient temperature  • during operation  • during storage	76 y 20 y IP20 finger-safe, for vertical contact from the front 1 000 m
proportion of dangerous failures with high demand rate according to SN 31920  MTTF with high demand rate T1 value for proof test interval or service life according to IEC 61508 protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529  Ambient conditions installation altitude at height above sea level maximum ambient temperature	76 y 20 y IP20 finger-safe, for vertical contact from the front  1 000 m -25 +60 °C
proportion of dangerous failures with high demand rate according to SN 31920  MTTF with high demand rate T1 value for proof test interval or service life according to IEC 61508 protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529  Ambient conditions installation altitude at height above sea level maximum ambient temperature	76 y 20 y IP20 finger-safe, for vertical contact from the front  1 000 m  -25 +60 °C -55 +80 °C
proportion of dangerous failures with high demand rate according to SN 31920  MTTF with high demand rate T1 value for proof test interval or service life according to IEC 61508 protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529  Ambient conditions installation altitude at height above sea level maximum ambient temperature	76 y 20 y IP20 finger-safe, for vertical contact from the front  1 000 m -25 +60 °C -55 +80 °C
proportion of dangerous failures with high demand rate according to SN 31920  MTTF with high demand rate  T1 value for proof test interval or service life according to IEC 61508  protection class IP on the front according to IEC 60529  touch protection on the front according to IEC 60529  Ambient conditions  installation altitude at height above sea level maximum ambient temperature  • during operation • during storage  Electromagnetic compatibility  conducted interference  • due to burst according to IEC 61000-4-4  • due to conductor-earth surge according to IEC	76 y 20 y IP20 finger-safe, for vertical contact from the front  1 000 m  -25 +60 °C -55 +80 °C
proportion of dangerous failures with high demand rate according to SN 31920  MTTF with high demand rate T1 value for proof test interval or service life according to IEC 61508 protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529  Ambient conditions installation altitude at height above sea level maximum ambient temperature	76 y 20 y IP20 finger-safe, for vertical contact from the front  1 000 m -25 +60 °C -55 +80 °C  2 kV / 5 kHz behavior criterion 2 2 kV behavior criterion 2
proportion of dangerous failures with high demand rate according to SN 31920  MTTF with high demand rate T1 value for proof test interval or service life according to IEC 61508 protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529  Ambient conditions installation altitude at height above sea level maximum ambient temperature	76 y 20 y IP20 finger-safe, for vertical contact from the front  1 000 m -25 +60 °C -55 +80 °C
proportion of dangerous failures with high demand rate according to SN 31920  MTTF with high demand rate  T1 value for proof test interval or service life according to IEC 61508 protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529  Ambient conditions installation altitude at height above sea level maximum ambient temperature  • during operation • during storage  Electromagnetic compatibility  conducted interference  • due to burst according to IEC 61000-4-4 • due to conductor-earth surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5	76 y 20 y IP20 finger-safe, for vertical contact from the front  1 000 m -25 +60 °C -55 +80 °C  2 kV / 5 kHz behavior criterion 2 2 kV behavior criterion 2 1 kV behavior criterion 2
proportion of dangerous failures with high demand rate according to SN 31920  MTTF with high demand rate T1 value for proof test interval or service life according to IEC 61508 protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529  Ambient conditions installation altitude at height above sea level maximum ambient temperature	76 y 20 y IP20 finger-safe, for vertical contact from the front  1 000 m -25 +60 °C -55 +80 °C  2 kV / 5 kHz behavior criterion 2 2 kV behavior criterion 2
proportion of dangerous failures with high demand rate according to SN 31920  MTTF with high demand rate  T1 value for proof test interval or service life according to IEC 61508 protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529  Ambient conditions installation altitude at height above sea level maximum ambient temperature	76 y 20 y IP20 finger-safe, for vertical contact from the front  1 000 m -25 +60 °C -55 +80 °C  2 kV / 5 kHz behavior criterion 2 2 kV behavior criterion 2 1 kV behavior criterion 2 1 kV behavior criterion 2 140 dBuV in the frequency range 0.15 80 MHz, behavior criterion 1
proportion of dangerous failures with high demand rate according to SN 31920  MTTF with high demand rate T1 value for proof test interval or service life according to IEC 61508 protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529  Ambient conditions installation altitude at height above sea level maximum ambient temperature	76 y 20 y IP20 finger-safe, for vertical contact from the front  1 000 m -25 +60 °C -55 +80 °C  2 kV / 5 kHz behavior criterion 2 2 kV behavior criterion 2 1 kV behavior criterion 2 1 kV behavior criterion 2 140 dBuV in the frequency range 0.15 80 MHz, behavior criterion 1 4 kV contact discharging / 8 kV air discharging, behavior criterion 2
proportion of dangerous failures with high demand rate according to SN 31920  MTTF with high demand rate  T1 value for proof test interval or service life according to IEC 61508 protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529  Ambient conditions installation altitude at height above sea level maximum ambient temperature	76 y 20 y IP20 finger-safe, for vertical contact from the front  1 000 m -25 +60 °C -55 +80 °C  2 kV / 5 kHz behavior criterion 2 2 kV behavior criterion 2 1 kV behavior criterion 2 1 kV behavior criterion 2 140 dBuV in the frequency range 0.15 80 MHz, behavior criterion 1
proportion of dangerous failures with high demand rate according to SN 31920  MTTF with high demand rate T1 value for proof test interval or service life according to IEC 61508 protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529  Ambient conditions installation altitude at height above sea level maximum ambient temperature	76 y 20 y IP20 finger-safe, for vertical contact from the front  1 000 m -25 +60 °C -55 +80 °C  2 kV / 5 kHz behavior criterion 2 2 kV behavior criterion 2 1 kV behavior criterion 2 1 kV behavior criterion 2 140 dBuV in the frequency range 0.15 80 MHz, behavior criterion 1 4 kV contact discharging / 8 kV air discharging, behavior criterion 2
proportion of dangerous failures with high demand rate according to SN 31920  MTTF with high demand rate T1 value for proof test interval or service life according to IEC 61508 protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529  Ambient conditions installation altitude at height above sea level maximum ambient temperature	76 y 20 y IP20 finger-safe, for vertical contact from the front  1 000 m  -25 +60 °C -55 +80 °C  2 kV / 5 kHz behavior criterion 2 2 kV behavior criterion 2 1 kV behavior criterion 2 1 kV behavior criterion 2 140 dBuV in the frequency range 0.15 80 MHz, behavior criterion 1 4 kV contact discharging / 8 kV air discharging, behavior criterion 2 Class A for industrial environment
proportion of dangerous failures with high demand rate according to SN 31920  MTTF with high demand rate  T1 value for proof test interval or service life according to IEC 61508 protection class IP on the front according to IEC 60529  touch protection on the front according to IEC 60529  Ambient conditions installation altitude at height above sea level maximum ambient temperature  • during operation • during storage  Electromagnetic compatibility  conducted interference  • due to burst according to IEC 61000-4-4 • due to conductor-earth surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5 • due to high-frequency radiation according to IEC 61000-4-6 electrostatic discharge according to IEC 61000-4-2 conducted HF interference emissions according to CISPR11 field-bound HF interference emission according to CISPR11	76 y 20 y IP20 finger-safe, for vertical contact from the front  1 000 m  -25 +60 °C -55 +80 °C  2 kV / 5 kHz behavior criterion 2 2 kV behavior criterion 2 1 kV behavior criterion 2 1 kV behavior criterion 2 140 dBuV in the frequency range 0.15 80 MHz, behavior criterion 1 4 kV contact discharging / 8 kV air discharging, behavior criterion 2 Class A for industrial environment
proportion of dangerous failures with high demand rate according to SN 31920  MTTF with high demand rate  T1 value for proof test interval or service life according to IEC 61508 protection class IP on the front according to IEC 60529  touch protection on the front according to IEC 60529  Ambient conditions  installation altitude at height above sea level maximum ambient temperature  • during operation • during storage  Electromagnetic compatibility  conducted interference  • due to burst according to IEC 61000-4-4 • due to conductor-earth surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5 • due to high-frequency radiation according to IEC 61000-4-6 electrostatic discharge according to IEC 61000-4-2 conducted HF interference emissions according to CISPR11 field-bound HF interference emission according to CISPR11	76 y 20 y IP20 finger-safe, for vertical contact from the front  1 000 m  -25 +60 °C -55 +80 °C  2 kV / 5 kHz behavior criterion 2 2 kV behavior criterion 2 1 kV behavior criterion 2 1 kV behavior criterion 2 140 dBuV in the frequency range 0.15 80 MHz, behavior criterion 1 4 kV contact discharging / 8 kV air discharging, behavior criterion 2 Class A for industrial environment
proportion of dangerous failures with high demand rate according to SN 31920  MTTF with high demand rate  T1 value for proof test interval or service life according to IEC 61508 protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529  Ambient conditions installation altitude at height above sea level maximum ambient temperature	76 y 20 y IP20  finger-safe, for vertical contact from the front  1 000 m  -25 +60 °C -55 +80 °C  2 kV / 5 kHz behavior criterion 2 2 kV behavior criterion 2 1 kV behavior criterion 2 1 kV behavior criterion 2 140 dBuV in the frequency range 0.15 80 MHz, behavior criterion 1 4 kV contact discharging / 8 kV air discharging, behavior criterion 2 Class A for industrial environment  Class A for industrial environment
proportion of dangerous failures with high demand rate according to SN 31920  MTTF with high demand rate  T1 value for proof test interval or service life according to IEC 61508 protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529  Ambient conditions installation altitude at height above sea level maximum ambient temperature	76 y 20 y IP20 finger-safe, for vertical contact from the front  1 000 m  -25 +60 °C -55 +80 °C  2 kV / 5 kHz behavior criterion 2 2 kV behavior criterion 2 1 kV behavior criterion 2 1 kV behavior criterion 2 140 dBuV in the frequency range 0.15 80 MHz, behavior criterion 1 4 kV contact discharging / 8 kV air discharging, behavior criterion 2 Class A for industrial environment
proportion of dangerous failures with high demand rate according to SN 31920  MTTF with high demand rate T1 value for proof test interval or service life according to IEC 61508 protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529  Ambient conditions installation altitude at height above sea level maximum ambient temperature	76 y 20 y IP20  finger-safe, for vertical contact from the front  1 000 m  -25 +60 °C -55 +80 °C  2 kV / 5 kHz behavior criterion 2 2 kV behavior criterion 2 1 kV behavior criterion 2 1 kV behavior criterion 2 140 dBuV in the frequency range 0.15 80 MHz, behavior criterion 1 4 kV contact discharging / 8 kV air discharging, behavior criterion 2 Class A for industrial environment  Class A for industrial environment

at cylindrical design usable

• of back-up R fuse link for semiconductor protection at NH design usable

• of back-up R fuse link for semiconductor protection at cylindrical design 10 x 38 mm usable

• of back-up R fuse link for semiconductor protection at cylindrical design 14 x 51 mm usable

• of back-up R fuse link for semiconductor protection at cylindrical design 22 x 58 mm usable

manufacturer's article number of the gG fuse

• at NH design usable

• at cylindrical design 10 x 38 mm usable

• at cylindrical design 14 x 51 mm usable

3NE8015-1

3NC1020

3NC1415

3NC2220

3NA3801-6

3NW6001-1

3NW6101-1

### Certificates/ approvals

## **General Product Approval**

**EMC** 



Confirmation









**Declaration of Conformity** 

**Test Certificates** 

other





Type Test Certificates/Test Report Confirmation

### **Further information**

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=3RF3405-1BB24

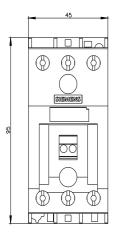
Cax online generator

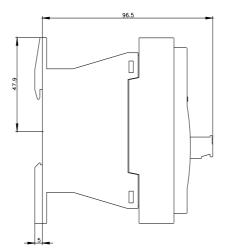
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RF3405-1BB24

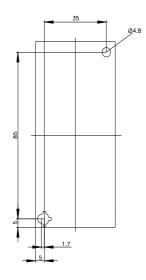
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

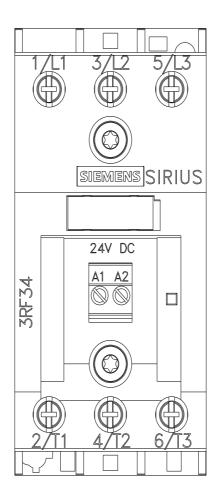
https://support.industry.siemens.com/cs/ww/en/ps/3RF3405-1BB24

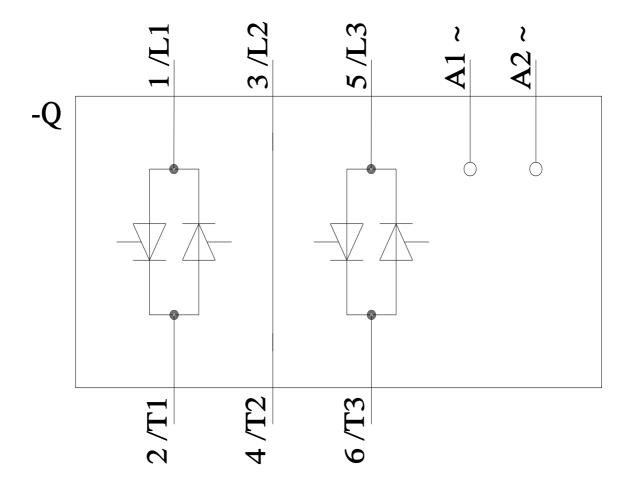
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) <a href="http://www.automation.siemens.com/bilddb/cax">http://www.automation.siemens.com/bilddb/cax</a> de.aspx?mlfb=3RF3405-1BB24&lang=en











last modified: 11/21/2022 ☑