## **SIEMENS**

Data sheet 3RF3405-2BB04



Solid-state contactor 3-phase 3RF3 AC 53 / 5.2 A / 40  $^{\circ}\text{C}$  48-480 V / 24 V DC 2-phase controlled Instantaneous switching Spring-type terminal

product brand name	SIRIUS
product designation	solid-state contactor
design of the product	two-phase controlled
product type designation	3RF34
General technical data	
product function	instantaneous switching
power loss [W] for rated value of the current at AC in hot operating state	10 W
• per pole	3.33 W
power loss [W] for rated value of the current without load current share typical	0.4 W
insulation voltage rated value	600 V
type of voltage of the control supply voltage	DC
surge voltage resistance of main circuit rated value	6 kV
shock resistance acc. to IEC 60068-2-27	15g / 11 ms
vibration resistance acc. to IEC 60068-2-6	2g
certificate of suitability	CE / UL / CSA / CCC / C-Tick (RCM)
reference code acc. to IEC 81346-2	Q
Substance Prohibitance (Date)	28.05.2009 00:00:00
Main circuit	
number of poles for main current circuit	3
number of NO contacts for main contacts	2
number of NC contacts for main contacts	0
operating voltage at AC	
at 50 Hz rated value	48 480 V
at 60 Hz rated value	48 480 V
operating frequency rated value	50 60 Hz
relative symmetrical tolerance of the operating frequency	10 %
operating range relative to the operating voltage at AC	
● at 50 Hz	40 506 V
• at 60 Hz	40 506 V
operational current	
<ul> <li>at AC-3 at 400 V rated value</li> </ul>	5.2 A
at AC-53a at 400 V at ambient temperature 40 °C rated value	5.2 A
operational current minimum	100 mA
operating power	
at AC-3 at 400 V rated value	2.2 kW
rate of voltage rise at the thyristor for main contacts	1 000 V/μs

maximum normiseiblo	
maximum permissible	1 200 V
blocking voltage at the thyristor for main contacts maximum permissible	1 200 V
reverse current of the thyristor	10 mA
derating temperature	40 °C
surge current resistance rated value	200 A
12t value maximum	200 A <sup>2</sup> -s
Control circuit/ Control	
type of voltage of the control supply voltage	DC
control supply voltage 1	
at DC rated value	24 V
control supply voltage	
at DC initial value for signal <1> detection	15 V
at DC filliar value for signal <1> detection     at DC full-scale value for signal <0> recognition	5 V
symmetrical line frequency tolerance	5 Hz
operating range factor control supply voltage rated	V=
value at DC	
• initial value	0.63
• full-scale value	1.25
control current at minimum control supply voltage	
• at DC	2 mA
control current at DC rated value	15 mA
ON-delay time	1 ms
OFF-delay time	1 ms; additionally max. one half-wave
Auxiliary circuit	
number of NC contacts for auxiliary contacts	0
number of NO contacts for auxiliary contacts	0
number of CO contacts for auxiliary contacts	0
Installation/ mounting/ dimensions	
mounting position	vertical
fastening method	screw and snap-on mounting onto 35 mm standard mounting rail
side-by-side mounting	Yes
height	95 mm
width	45 mm
depth	100.8 mm
required spacing with side-by-side mounting	
• upwards	70 mm
downwards	50 mm
Connections/ Terminals	
product component removable terminal for auxiliary and	Yes
control circuit	
type of electrical connection	
for main current circuit	spring-loaded terminals
for main current circuit     for auxiliary and control circuit	spring-loaded terminals spring-loaded terminals
for main current circuit     for auxiliary and control circuit  type of connectable conductor cross-sections	
for main current circuit     for auxiliary and control circuit  type of connectable conductor cross-sections     for main contacts	spring-loaded terminals
for main current circuit     for auxiliary and control circuit      type of connectable conductor cross-sections     for main contacts     — solid	spring-loaded terminals  2x (0.5 2.5 mm²)
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	spring-loaded terminals  2x (0.5 2.5 mm²) 2x (0.5 1.5 mm²)
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     — finely stranded without core end processing	spring-loaded terminals  2x (0.5 2.5 mm²)  2x (0.5 1.5 mm²)  2x (0.5 2.5 mm²)
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         — finely stranded without core end processing         • at AWG cables for main contacts	spring-loaded terminals  2x (0.5 2.5 mm²) 2x (0.5 1.5 mm²)
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     — finely stranded without core end processing	spring-loaded terminals  2x (0.5 2.5 mm²)  2x (0.5 1.5 mm²)  2x (0.5 2.5 mm²)
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         — finely stranded without core end processing         • at AWG cables for main contacts      connectable conductor cross-section for main	spring-loaded terminals  2x (0.5 2.5 mm²)  2x (0.5 1.5 mm²)  2x (0.5 2.5 mm²)
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             — finely stranded without core end processing             • at AWG cables for main contacts  connectable conductor cross-section for main contacts             • solid or stranded	spring-loaded terminals  2x (0.5 2.5 mm²)  2x (0.5 1.5 mm²)  2x (0.5 2.5 mm²)  2x (18 14)
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             — finely stranded without core end processing             • at AWG cables for main contacts      connectable conductor cross-section for main contacts             • solid or stranded             • finely stranded with core end processing	spring-loaded terminals  2x (0.5 2.5 mm²) 2x (0.5 1.5 mm²) 2x (0.5 2.5 mm²) 2x (18 14)  0.5 2.5 mm²
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         — finely stranded without core end processing         • at AWG cables for main contacts  connectable conductor cross-section for main contacts         • solid or stranded         • finely stranded with core end processing         • finely stranded without core end processing         • finely stranded without core end processing	spring-loaded terminals  2x (0.5 2.5 mm²) 2x (0.5 1.5 mm²) 2x (0.5 2.5 mm²) 2x (18 14)  0.5 2.5 mm² 0.5 1.5 mm²
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             — finely stranded without core end processing             • at AWG cables for main contacts      connectable conductor cross-section for main contacts             • solid or stranded             • finely stranded with core end processing	spring-loaded terminals  2x (0.5 2.5 mm²) 2x (0.5 1.5 mm²) 2x (0.5 2.5 mm²) 2x (18 14)  0.5 2.5 mm² 0.5 1.5 mm²
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         — finely stranded without core end processing         • at AWG cables for main contacts  connectable conductor cross-section for main contacts      solid or stranded     • finely stranded with core end processing     • finely stranded without core end processing     finely stranded without core end processing type of connectable conductor cross-sections	spring-loaded terminals  2x (0.5 2.5 mm²) 2x (0.5 1.5 mm²) 2x (0.5 2.5 mm²) 2x (18 14)  0.5 2.5 mm² 0.5 1.5 mm²
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             — finely stranded without core end processing             • at AWG cables for main contacts              connectable conductor cross-section for main contacts             • solid or stranded             • finely stranded with core end processing             • finely stranded without core end processing             • finely stranded without core end processing              • for auxiliary and control contacts	2x (0.5 2.5 mm²) 2x (0.5 1.5 mm²) 2x (0.5 2.5 mm²) 2x (0.5 2.5 mm²) 2x (18 14)  0.5 2.5 mm² 0.5 1.5 mm² 0.5 2.5 mm²
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             — finely stranded without core end processing             • at AWG cables for main contacts              connectable conductor cross-section for main contacts             • solid or stranded             • finely stranded with core end processing             • finely stranded without core end processing             • finely stranded without core end processing              • for auxiliary and control contacts             — solid	spring-loaded terminals  2x (0.5 2.5 mm²) 2x (0.5 1.5 mm²) 2x (0.5 2.5 mm²) 2x (18 14)  0.5 2.5 mm² 0.5 1.5 mm² 0.5 2.5 mm²

* at AWG cables for auxiliary and control contacts AWG number as coded connectable conductor cross section for main contacts  * for main contacts  * for main contacts  * for auxiliary and control contacts  10 mm	
section for main contacts  * firpped length of the cable  * for main contacts  * for auxillary and control contacts  10 mm  **UL/CSA ratings**  full-load current (FLA) for 3-phase AC motor  * at 480 V rated value  yielded mechanical performance [hp] for 3-phase AC motor  * at 200/230 V rated value  * at 200/230 V rated value  * at 460/480 V rated value  * at 60/480 V rated value  * at 76 y  * at 74 value for proof test interval or service life acc. to IEC 61508  protection class IP on the front acc. to IEC 60529  finger-safe, for vertical contact from the front touch protection on the front acc. to IEC 60529  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature  • during operation  • during operation  • due to burst acc. to IEC 61000-4-4  • due to conductor-centrib surge acc. to IEC 61000-4-5  • due to burst acc. to IEC 61000-4-2  • due to conductor-centrib surge acc. to IEC 61000-4-6  • due to conductor-centrib surge acc. to IEC 61000-4-6  • due to conductor-centrib surge acc. to IEC 61000-4-6  • due to conductor-centrib surge acc. to IEC 61000-4-6  • due to binf-frequency radiation acc. to CISPR11  Short-circuit protection, design of the fuse link manufacturer's article number  • of full range R fuse link for semiconductor protection at Vilindrical design usable  • of full range R fuse link for semiconductor protection at cylindrical design usable  • of full range R fuse link for semiconductor protection at cylindrical design usable  • of full range R fuse link for semiconductor protection  at NE8015-1	
• for main contacts • for auxiliary and control contacts 10 mm 10 mm    for auxiliary and control contacts   10 mm   1	
• for auxiliary and control contacts  IUCSA ratings  full-load current (FLA) for 3-phase AC motor • at 480 V rated value yielded mechanical performance (hp) for 3-phase AC motor • at 200/208 V rated value • at 220/230 V rated value • at 480 V rated value • 2 hp  Safety related data proportion of dangerous failures with high demand rate acc. to ISN 31920  MTTF with high demand rate  76 y  20 y  IP20  touch protection class IP on the front acc. to IEC 60529  Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during operation • during storage  Floctromagnetic compatibility  conducted interference • due to burst acc. to IEC 61000-4-4 • due to conductor-conductor surge acc. to IEC 61000-4-5 • due to conductor-conductor surge acc. to IEC 61000-4-5 • due to high-frequency radiation acc. to IEC 61000-4-5 • due to high-frequency radiation acc. to IEC 61000-4-5 • due to high-frequency radiation acc. to IEC 61000-4-2 conducted HF interference emission acc. to CISPR11 field-bound HF interference emission acc. to CISPR11 f	
full-load current (FLA) for 3-phase AC motor  at 480 V rated value  yielded mechanical performance [hp] for 3-phase AC motor  at 220/230 V rated value  at 220/230 V rated value  at 2400/480 V rated value  at 2400/480 V rated value  act to SN 31920  TIT with high demand rate act to SN 31920  motor for for for for for for for for for f	
full-load current (FLA) for 3-phase AC motor  • at 480 V rated value  yielded mechanical performance [hp] for 3-phase AC motor  • at 200/208 V rated value  • at 220/230 V rated value  • at 220/230 V rated value  • at 460/480 V rated value  • 2 hp  Safety related data  proportion of dangerous failures with high demand rate acc. to SN 31920  MTTF with high demand rate  T1 value for proof test interval or service life acc. to lEC 61508  protection class IP on the front acc. to IEC 60529  protection class IP on the front acc. to IEC 60529  finger-safe, for vertical contact from the front manifold the singular part of the same acc. to IEC 61000-4-5  • during operation  • during operation  • during storage  Electromagnetic compatibility  conducted Interference  • due to burst acc. to IEC 61000-4-5  • due to conductor-conductor surge acc. to IEC 61000-4-6  • due to birst acc. to IEC 61000-4-2  • due to bigh-frequency radiation acc. to IEC 61000-4-5  • due to high-frequency radiation acc. to IEC 61000-4-6  • due to high-frequency radiation acc. to IEC 61000-4-7  • due to high-frequency radiation acc. to IEC 61000-4-8  • due to high-frequency radiation acc. to IEC 61000-4-2  conducted HF interference emissions acc. to CISPR11  field-bound HF interference emission acc. to CISPR11  field-bound HF int	
full-load current (FLA) for 3-phase AC motor  • at 480 V rated value  yielded mechanical performance [hp] for 3-phase AC motor  • at 200/208 V rated value  • at 220/230 V rated value  • at 220/230 V rated value  • at 460/480 V rated value  • 2 hp  Safety related data  proportion of dangerous failures with high demand rate acc. to SN 31920  MTTF with high demand rate  T1 value for proof test interval or service life acc. to lEC 61508  protection class IP on the front acc. to IEC 60529  protection class IP on the front acc. to IEC 60529  finger-safe, for vertical contact from the front manifold the singular part of the same acc. to IEC 61000-4-5  • during operation  • during operation  • during storage  Electromagnetic compatibility  conducted Interference  • due to burst acc. to IEC 61000-4-5  • due to conductor-conductor surge acc. to IEC 61000-4-6  • due to birst acc. to IEC 61000-4-2  • due to bigh-frequency radiation acc. to IEC 61000-4-5  • due to high-frequency radiation acc. to IEC 61000-4-6  • due to high-frequency radiation acc. to IEC 61000-4-7  • due to high-frequency radiation acc. to IEC 61000-4-8  • due to high-frequency radiation acc. to IEC 61000-4-2  conducted HF interference emissions acc. to CISPR11  field-bound HF interference emission acc. to CISPR11  field-bound HF int	
yielded mechanical performance [hp] for 3-phase AC motor  • at 200/208 V rated value • at 460/480 V rated value  Safety related data  proportion of dangerous failures with high demand rate acc. to SN 31920  MTTF with high demand rate  T1 value for proof test interval or service life acc. to IEC 61508  protection class IP on the front acc. to IEC 60529  touch protection on the front acc. to IEC 60529  touch protection on the front acc. to IEC 60529  installation altitude at height above sea level maximum ambient temperature • during operation • during operation • during storage  Selectromagnetic compatibility  conducted interference • due to burst acc. to IEC 61000-4-4 • due to conductor-conductor surge acc. to IEC 61000-4-5 • due to conductor-conductor surge acc. to IEC 61000-4-6  electrostatic discharge acc. to IEC 61000-4-2 conducted HF interference emission acc. to CISPR11  field-bound HF interference emission acc. to CISPR11  field-bound HF interference emissions acc. to CISPR11  field-bound HF interference emission acc. to CISPR11  field-bound HF interf	
• at 200/208 V rated value • at 220/230 V rated value • at 460/480 V rated value • at 460/480 V rated value  • at 460/480 V rated value  Safety related data  proportion of dangerous failures with high demand rate acc. to SN 31920  MTTF with high demand rate  T1 value for proof test interval or service life acc. to IEC 61508  protection class IP on the front acc. to IEC 60529  touch protection on the front acc. 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 acc. to IEC 61000-4-5 • due to conductor-carductor surge acc. to IEC 61000-4-5 • due to conductor-conductor surge acc. to IEC 61000-4-5 • due to high-frequency radiation acc. to IEC 61000-4-5 • due to high-frequency radiation acc. to IEC 61000-4-5 • due to high-frequency radiation acc. to IEC 61000-4-6 electrostatic discharge acc. to IEC 61000-4-2 conducted HF interference emission acc. to CISPR11  field-bound HF interference emission acc. to CISPR11 field-bound HF interference emission acc. to CISPR11  Short-circuit protection, design of the fuse link manufacturer's article number • of full range R fuse link for semiconductor protection at NH design usable • of back-up R fuse link for semiconductor protection at cylindrical design usable • of back-up R fuse link for semiconductor protection • of back-up R fuse link for semiconductor protection at Class A for industrial environment  3NE1813-0 3NE1813-0 3NE1813-0 3NE1813-0 3NE1813-0 3NE1813-0 3NE18015-1	
at 460/480 V rated value  at 460/480 V rated value  2 hp  Safety related data proportion of dangerous failures with high demand rate acc. to SN 31920  MTTF with high demand rate T1 value for proof test interval or service life acc. to IEC 61508 protection class IP on the front acc. to IEC 60529 IP20 finger-safe, for vertical contact from the front  Ambient conditions installation altitude at height above sea level maximum ambient temperature  4 during operation 4 due to burst acc. to IEC 61000-4-4 4 due to conductor-conductor surge acc. to IEC 61000-4-5 5 due to conductor-conductor surge acc. to IEC 61000-4-6 4 due to high-frequency radiation acc. to IEC 61000-4-2 Conducted Ihr interference emission acc. to IEC 61000-4-2 Conducted HF interference emission acc. to IEC 61000-4-1 field-bound HF interference emission acc. to IEC 61000-4-2 Conducted The Interference emission acc. to IEC 61000-4-2 Conducted The Interference emission acc. to CISPR11 field-bound HF interference emission acc. to CISPR11 Short-circuit protection, design of the fuse link manufacturer's article number of full range R fuse link for semiconductor protection at NH 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 Clishcap and the first protection at NH for semiconductor protection at Clishcap R fuse link for semiconductor protection at NH design usable of back-up R fuse link for semiconductor protection at Clishcap R fuse link for semiconductor protection at NH design usable of back-up R fuse link for semiconductor protection of the fuse link for	
at 460/480 V rated value  Safety related data proportion of dangerous failures with high demand rate acc. to SN 31920  MTTF with high demand rate T1 value for proof test interval or service life acc. to IEC 61508 protection class IP on the front acc. to IEC 60529 touch protection on the front acc. to IEC 60529 installation altitude at height above sea level maximum ambient temperature during operation during storage  Electromagnetic compatibility  conducted Interference due to conductor-conductor surge acc. to IEC 61000-4-5 due to high-frequency radiation acc. to IEC 61000-4-2 conducted IF interference emissions acc. to IEC 61000-4-2 conducted IF interference emissions acc. to ICSPR11 field-bound HF interference emissions acc. to CISPR11 field-bound HF interference emissions acc. to CISPR11 Short-circuit protection, design of the fuse link manufacturer's article number of full range R fuse link for semiconductor protection at NH design usable of back-up R fuse link for semiconductor protection at CIBR015  3NE8015-1	
Safety related data   proportion of dangerous failures with high demand rate   20   20   20   20   20   20   20   2	
proportion of dangerous failures with high demand rate acc. to SN 31920  MTTF with high demand rate T1 value for proof test interval or service life acc. to IEC 61508 protection class IP on the front acc. to IEC 60529 touch protection on the front acc. to IEC 60529 installation altitude at height above sea level maximum ambient temperature  • during operation • during storage  Electromagnetic compatibility  conducted interference  • due to burst acc. to IEC 61000-4-4 • due to conductor-conductor surge acc. to IEC 61000-4-5 • due to conductor-conductor surge acc. to IEC 61000-4-5 • due to high-frequency radiation acc. to IEC 61000-4-5 • due to high-frequency radiation acc. to IEC 61000-4-2 conducted HF interference emissions acc. to CISPR11 field-bound HF interference emissions acc. to CISPR11 field-bound HF interference emission acc. to CISPR11 field-bound HF interfer	
MTTF with high demand rate T1 value for proof test interval or service life acc. to IEC 61508  protection class IP on the front acc. to IEC 60529  touch protection on the front acc. 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 conductor-carth surge acc. to IEC 61000-4-5 • due to conductor-conductor surge acc. to IEC 61000-4-5 • due to high-frequency radiation acc. to IEC 61000-4-2 conducted HF interference emissions acc. to CISPR11  field-bound HF interference emission acc. to CISPR11  field-bound HF interference emission acc. to CISPR11  Short-circuit protection, design of the fuse link manufacturer's article number • of full range R fuse link for semiconductor protection at NH design usable • of back-up R fuse link for semiconductor protection at cylindrical design usable • of back-up R fuse link for semiconductor protection • of back-up R fuse link for semiconductor protection • of back-up R fuse link for semiconductor protection • of back-up R fuse link for semiconductor protection • of back-up R fuse link for semiconductor protection • of back-up R fuse link for semiconductor protection • of back-up R fuse link for semiconductor protection • of back-up R fuse link for semiconductor protection • of back-up R fuse link for semiconductor protection • of back-up R fuse link for semiconductor protection	
MTTF with high demand rate T1 value for proof test interval or service life acc. to IEC 61508  protection class IP on the front acc. to IEC 60529 touch protection on the front acc. 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 acc. to IEC 61000-4-4 • due to burst acc. to IEC 61000-4-5 • due to conductor-carth surge acc. to IEC 61000-4-5 • due to high-frequency radiation acc. to IEC 61000-4-5 • due to high-frequency radiation acc. to IEC 61000-4-2 conducted HF interference emissions acc. to CISPR11  field-bound HF interference emission acc. to CISPR11  field-bound HF interference emission acc. to CISPR11  field-bound HF interference emission acc. to CISPR11  Short-circuit protection, design of the fuse link manufacturer's article number • of full range R fuse link for semiconductor protection at NH design usable • of back-up R fuse link for semiconductor protection at cylindrical design usable • of back-up R fuse link for semiconductor protection • of back-up R fuse link for semiconductor protection • of back-up R fuse link for semiconductor protection • of back-up R fuse link for semiconductor protection • of back-up R fuse link for semiconductor protection • of back-up R fuse link for semiconductor protection • of back-up R fuse link for semiconductor protection • of back-up R fuse link for semiconductor protection • of back-up R fuse link for semiconductor protection • of back-up R fuse link for semiconductor protection • of back-up R fuse link for semiconductor protection	
T1 value for proof test interval or service life acc. to IEC 61588  protection class IP on the front acc. to IEC 60529  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature  • during operation • during storage  • due to burst acc. to IEC 61000-4-4 • due to conductor-earth surge acc. to IEC 61000-4-5 • due to conductor-conductor surge acc. to IEC 61000-4-5 • due to high-frequency radiation acc. to IEC 61000-4-6  electrostatic discharge acc. to IEC 61000-4-2  conducted HF interference emission acc. to CISPR11  field-bound HF interference emission acc. to CISPR11  field-bound HF interference emission acc. to CISPR11  Short-circuit protection, design of the fuse link  manufacturer's article number  • of full range R fuse link for semiconductor protection at cylindrical design usable  • of back-up R fuse link for semiconductor protection at cylindrical design usable  • of back-up R fuse link for semiconductor protection at cylindrical design usable  • of back-up R fuse link for semiconductor protection  3NE8015-1	
protection class IP on the front acc. to IEC 60529  touch protection on the front acc. 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 acc. to IEC 61000-4-5  • due to conductor-earth surge acc. to IEC 61000-4-5  • due to conductor-conductor surge acc. to IEC 61000-4-5  • due to high-frequency radiation acc. to IEC 61000-4-2  conducted HF interference emissions acc. to CISPR11  field-bound HF interference emissions acc. to CISPR11  field-bound HF interference emission acc. to CISPR11  Short-circuit protection, design of the fuse link  manufacturer's article number  • of full range R fuse link for semiconductor protection at cylindrical design usable  • of back-up R fuse link for semiconductor protection of back-up R fuse link for semiconductor protection  3NE8015-1	
touch protection on the front acc. 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 conductor-carth surge acc. to IEC 61000-4-5 • due to conductor-conductor surge acc. to IEC 61000-4-5 • due to high-frequency radiation acc. to IEC 61000-4-2  electrostatic discharge acc. to IEC 61000-4-2  conducted HF interference emission acc. to CISPR11  field-bound HF interference emission acc. to CISPR11  Short-circuit protection, design of the fuse link  manufacturer's article number  • of full range R fuse link for semiconductor protection at cylindrical design usable  • of back-up R fuse link for semiconductor protection  oducted HF suse link for semiconductor protection 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 NH design usable  • of back-up R fuse link for semiconductor protection  at NH design usable  • of back-up R fuse link for semiconductor protection	
installation altitude at height above sea level maximum ambient temperature  • during operation • during storage  • due to conducted interference • due to conductor-conductor surge acc. to IEC 61000-4-5 • due to conductor-conductor surge acc. to IEC 61000-4-5 • due to high-frequency radiation acc. to IEC 61000-4-5 • due to high-frequency radiation acc. to IEC 61000-4-5 • due to high-frequency radiation acc. to IEC 61000-4-5 • due to high-frequency radiation acc. to IEC 61000-4-5 • due to high-frequency radiation acc. to IEC 61000-4-6 electrostatic discharge acc. to IEC 61000-4-2 conducted HF interference emissions acc. to CISPR11 field-bound HF interference emission acc. to CISPR11 Short-circuit protection, design of the fuse link manufacturer's article number • of full range R fuse link for semiconductor protection at Cylindrical design usable • of back-up R fuse link for semiconductor protection • of back-up R fuse link for semiconductor protection • during operation  -25 +60 °C -55 +80 °C  2 kV / 5 kHz behavior criterion 2 2 kV behavior criterion 2 140 dBuV in the frequency range 0.15 80 MHz, behavior criterion Class A for industrial environment  Class A for industrial environment  Short-circuit protection, design of the fuse link  manufacturer's article number • of full range R fuse link for semiconductor protection at cylindrical design usable • of back-up R fuse link for semiconductor protection • of back-up R fuse link for semiconductor protection	
installation altitude at height above sea level maximum  ambient temperature  • during operation • during storage  Electromagnetic compatibility  conducted interference • due to burst acc. to IEC 61000-4-4 • due to conductor-earth surge acc. to IEC 61000-4-5 • due to conductor-conductor surge acc. to IEC 61000-4-5 • due to high-frequency radiation acc. to IEC 61000-4-6  electrostatic discharge acc. to IEC 61000-4-2  conducted HF interference emissions acc. to CISPR11  field-bound HF interference emission acc. to CISPR11  Short-circuit protection, design of the fuse link manufacturer's article number • of full range R fuse link for semiconductor protection at cylindrical design usable • of back-up R fuse link for semiconductor protection • during operation -25 +60 °C -55 +80 °C  2 kV / 5 kHz behavior criterion 2 1 kV contact discharging / 8 kV air discharging, behavior criterion 2 1 kV contact discharging / 8 kV air discharging, behavior criterion 2 1 kV contact discharging / 8 kV air discharging, behavior criterion 2 1 kV contact discharging / 8 kV air discharging, behavior criterion 2 1 kV contact discharging / 8 kV air discharging, behavior criterion 2 1 kV contact discharging / 8 kV air discharging, behavior criterion 2 1 kV contact discharging / 8 kV air discharging, behavior criterion 2 1 kV contact discharging / 8 kV air discharging, behavior criterion 2 2 kV fokHz behavior criterion 2 1 kV behavior criterion 2	
ambient temperature  • during operation • during storage  Electromagnetic compatibility  conducted interference  • due to burst acc. to IEC 61000-4-4 • due to conductor-cearth surge acc. to IEC 61000-4-5 • due to conductor-conductor surge acc. to IEC 61000-4-5 • due to high-frequency radiation acc. to IEC 61000-4-6  electrostatic discharge acc. to IEC 61000-4-2 conducted HF interference emission acc. to CISPR11  field-bound HF interference emission acc. to CISPR11  Short-circuit protection, design of the fuse link manufacturer's article number • of full range R fuse link for semiconductor protection at cylindrical design usable • of back-up R fuse link for semiconductor protection of back-up R fuse link for semiconductor protection at NH design usable • of back-up R fuse link for semiconductor protection  • during storage  -25 +60 °C  -55 +80 °C  2 kV / 5 kHz behavior criterion 2  1 kV contact discharging / 8 kV air discharging, behavior criterion  Class A for industrial environment  Class A for industrial environment  SNE1813-0  3NE1813-0  3NE8015-1	
<ul> <li>during operation</li> <li>during storage</li> <li>-25 +60 °C</li> <li>-55 +80 °C</li> </ul> Electromagnetic compatibility conducted interference <ul> <li>due to burst acc. to IEC 61000-4-4</li> <li>due to conductor-earth surge acc. to IEC 61000-4-5</li> <li>due to conductor-conductor surge acc. to IEC 61000-4-5</li> <li>due to high-frequency radiation acc. to IEC 61000-4-6</li> <li>electrostatic discharge acc. to IEC 61000-4-2</li> <li>conducted HF interference emissions acc. to CISPR11</li> <li>field-bound HF interference emission acc. to CISPR11</li> </ul> Short-circuit protection, design of the fuse link <ul> <li>manufacturer's article number</li> <li>of full range R fuse link for semiconductor protection at NH design usable</li> <li>of back-up R fuse link for semiconductor protection</li> <li>of back-up R fuse link for semiconductor protection</li> <li>3NE8015-1</li> </ul>	
during storage      Electromagnetic compatibility  conducted interference	
Electromagnetic compatibility  conducted interference  • due to burst acc. to IEC 61000-4-4  • due to conductor-earth surge acc. to IEC 61000-4-5  • due to conductor-conductor surge acc. to IEC 61000-4-5  • due to high-frequency radiation acc. to IEC 61000-4-6  • electrostatic discharge acc. to IEC 61000-4-2  conducted HF interference emissions acc. to CISPR11  field-bound HF interference emission acc. to CISPR11  Short-circuit protection, design of the fuse link  manufacturer's article number  • of full range R fuse link for semiconductor protection at NH design usable  • of back-up R fuse link for semiconductor protection at cylindrical design usable  • of back-up R fuse link for semiconductor protection  • due to conductor-earth surge acc. to IEC 61000-4-5  2 kV behavior criterion 2  1 kV behavior criterion 2  1 kV behavior criterion 2  1 kV contact discharging / 8 kV air discharging, behavior criterion  Class A for industrial environment  Class A for industrial environment  Short-circuit protection, design of the fuse link  manufacturer's article number  • of full range R fuse link for semiconductor protection at NH design usable  • of back-up R fuse link for semiconductor protection  3NE1813-0  3NE1813-0	
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<ul> <li>due to burst acc. to IEC 61000-4-4</li> <li>due to conductor-earth surge acc. to IEC 61000-4-5</li> <li>due to conductor-conductor surge acc. to IEC 61000-4-5</li> <li>due to high-frequency radiation acc. to IEC 61000-4-6</li> <li>due to high-frequency radiation acc. to IEC 61000-4-1</li> <li>due to high-frequency radiation acc. to IEC 61000-4-2</li> <li>due to high-frequency radiation acc. to IEC 61000-4-5</li> <li>due to high-frequency radiation acc. to IEC 61000-4-5</li> <li>due to high-frequency radiation acc. to IEC 61000-4-2</li> <li>due to High discharging acc. to IEC 61000-4-2</li> <l< td=""><td></td></l<></ul>	
<ul> <li>due to conductor-earth surge acc. to IEC 61000-4-5</li> <li>due to conductor-conductor surge acc. to IEC 61000-4-5</li> <li>due to high-frequency radiation acc. to IEC 61000-4-6</li> <li>electrostatic discharge acc. to IEC 61000-4-2</li> <li>conducted HF interference emission acc. to CISPR11</li> <li>field-bound HF interference emission acc. to CISPR11</li> <li>Short-circuit protection, design of the fuse link</li> <li>manufacturer's article number</li> <li>of full range R fuse link for semiconductor protection at NH design usable</li> <li>of back-up R fuse link for semiconductor protection</li> <li>of back-up R fuse link for semiconductor protection</li> <li>3NE8015-1</li> </ul>	
<ul> <li>due to conductor-conductor surge acc. to IEC 61000-4-5</li> <li>due to high-frequency radiation acc. to IEC 61000-4-6</li> <li>electrostatic discharge acc. to IEC 61000-4-2</li> <li>conducted HF interference emissions acc. to CISPR11</li> <li>field-bound HF interference emission acc. to CISPR11</li> <li>Short-circuit protection, design of the fuse link</li> <li>manufacturer's article number</li> <li>of full range R fuse link for semiconductor protection at NH design usable</li> <li>of back-up R fuse link for semiconductor protection</li> <li>of back-up R fuse link for semiconductor protection</li> <li>3NE8015-1</li> <li>1 kV behavior criterion 2</li> <li>140 dBuV in the frequency range 0.15 80 MHz, behavior criterion 2</li> <li>1 kV behavior criterion 2</li> <li>1 kV behavior criterion 2</li> <li>3NE 1813-0</li> </ul>	
• due to high-frequency radiation acc. to IEC 61000- 4-6    electrostatic discharge acc. to IEC 61000-4-2   conducted HF interference emissions acc. to CISPR11     field-bound HF interference emission acc. to CISPR11     Short-circuit protection, design of the fuse link     manufacturer's article number     • of full range R fuse link for semiconductor protection at NH design usable     • of back-up R fuse link for semiconductor protection     of back-up R fuse link for semiconductor protection     at 0 dBuV in the frequency range 0.15 80 MHz, behavior criterion     4 kV contact discharging / 8 kV air discharging, behavior criterion     Class A for industrial environment     Class A for industrial environment     She 13-0     S	
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conducted HF interference emissions acc. to CISPR11  field-bound HF interference emission acc. to CISPR11  Class A for industrial environment  Short-circuit protection, design of the fuse link  manufacturer's article number  of full range R fuse link for semiconductor protection at NH design usable  of full range R fuse link for semiconductor protection at cylindrical design usable  of back-up R fuse link for semiconductor protection  3NE8015-1	on 1
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manufacturer's article number  • of full range R fuse link for semiconductor protection at NH design usable  • of full range R fuse link for semiconductor protection at cylindrical design usable  • of back-up R fuse link for semiconductor protection  3NE1813-0  5SE1320  3NE8015-1	
manufacturer's article number  • of full range R fuse link for semiconductor protection at NH design usable  • of full range R fuse link for semiconductor protection at cylindrical design usable  • of back-up R fuse link for semiconductor protection  3NE1813-0  5SE1320  3NE8015-1	
<ul> <li>of full range R fuse link for semiconductor protection at NH design usable</li> <li>of full range R fuse link for semiconductor protection at cylindrical design usable</li> <li>of back-up R fuse link for semiconductor protection</li> <li>3NE1813-0</li> <li>5SE1320</li> <li>3NE8015-1</li> </ul>	
<ul> <li>of full range R fuse link for semiconductor protection at cylindrical design usable</li> <li>of back-up R fuse link for semiconductor protection</li> <li><u>3NE8015-1</u></li> </ul>	
• of back-up R fuse link for semiconductor protection 3NE8015-1	
at NH design usable	
• of back-up R fuse link for semiconductor protection at cylindrical design 10 x 38 mm usable	
<ul> <li>of back-up R fuse link for semiconductor protection at cylindrical design 14 x 51 mm usable</li> </ul> 3NC1415	
• 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 <u>3NA3801-6</u>	
• at cylindrical design 10 x 38 mm usable 3NW6001-1	
• at cylindrical design 14 x 51 mm usable 3NW6101-1	
manufacturer's article number	
• of DIAZED fuse usable <u>5SB171</u>	
Certificates/ approvals	
General Product Approval  EMC  Declaratio 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=3RF3405-2BB04

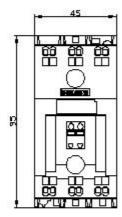
Cax online generator

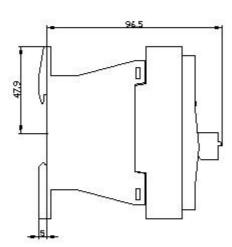
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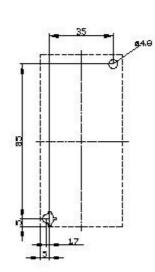
 $Service \& Support \ (Manuals, \ Certificates, \ Characteristics, \ FAQs, ...)$ 

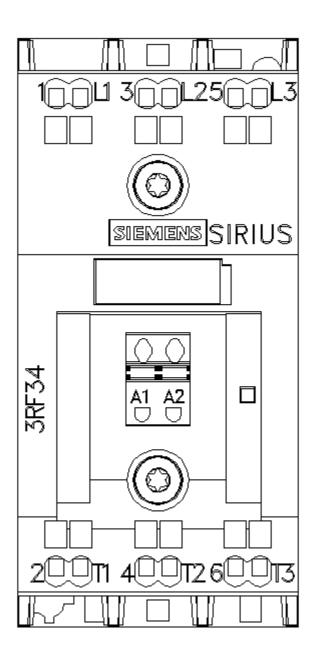
https://support.industry.siemens.com/cs/ww/en/ps/3RF3405-2BB04

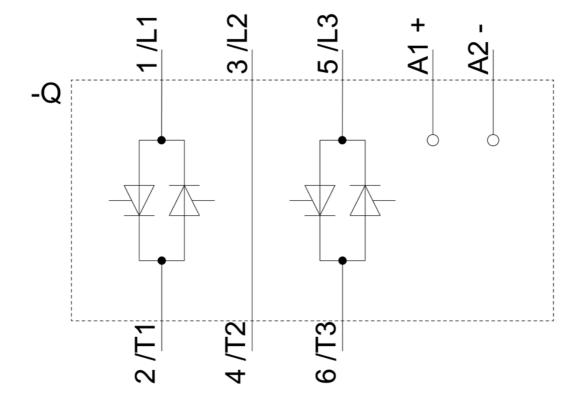
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) <a href="http://www.automation.siemens.com/bilddb/cax">http://www.automation.siemens.com/bilddb/cax</a> de.aspx?mlfb=3RF3405-2BB04&lang=en











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