## **SIEMENS**

Data sheet 3RF2310-1BA22



Solid-state contactor 1-phase 3RF2 AC 15 / 6 A / 40  $^{\circ}\text{C}$  24-230 V / 110-230 V AC Instantaneous switching

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  - 4 of the accessories that can be ordered  - 4 of the accessories that can be ordered  - 4 of the accessories that can be ordered  - 4 of the accessories that can be ordered  - 5 of the accessories that can be ordered  - 1 of the accessories that can be ordered  - 2 of the accessories that can be ordered  - 2 of the accessories that can be ordered  - 2 of the accessories that can be ordered  - 2 of the accessories that can be ordered  - 2 of the accessories that can be ordered  - 2 of the accessories that can be ordered  - 2 of the accessories that can be ordered  - 2 of the accessories that can be ordered  - 2 of the accessories that can be ordered  - 2 of the accessories that can be ordered  - 2 of the accessories that can be ordered  - 2 of the accessories that can be ordered  - 2 of the accessories that can be ordered  - 3 of the accessories that can be ordered  - 4 of the accessories that can be ordered  - 5 of the accessories that can be ordered  - 6 of the accessories that can be ordered  - 7 of the accessories that can be ordered  - 8 of the accessories that can be ordered  - 9 ower regulator  - 1 of the accessories that can be ordered  - 2 of the accessories that can be ordered  - 2 of the accessories that can be ordered  - 2 of the accessories that can be ordered  - 2 of the accessories that can be ordered  - 2 of the accessories that can be ordered  - 1 of the accessories that can be ordered  - 2 of the accessories that can be ordered  - 2 of the accessories that can be ordered  - 1 the accessories that can be ordered  - 2 of the accessories that can be ordered  - 1 the accessories that can be ordered  - 2 of the accessories that can be ordered  - 1 the accessories that can be ordered  - 2 of the accessories that can be ordered  - 2 of the accessories that can be ordered  - 2 of the accessories that can be ordered	product brand name	SIRIUS
design of the product product type designation  3RF23  3RF2300-3PA88 3RF2300-3PA88 2 of the accessories that can be ordered 3RF2320-0HA33 2 of the accessories that can be ordered 3RF2320-0HA33 3RF23200-0HA33 3RF23200-0HA33 3RF23200-0HA38 3RF23	•	
product type designation  manufacturer's article number  - 1 of the accessories that can be ordered - 2 of the accessories that can be ordered - 3RF2920-0HA33 - 4 of the accessories that can be ordered - 2 of the accessories that can be ordered - 3RF2920-0HA33 - 4 of the accessories that can be ordered - 1 of the accessories that can be ordered - 2 of the accessories that can be ordered - 4 of the accessories that can be ordered - 4 of the accessories that can be ordered - 4 of the accessories that can be ordered - 4 of the accessories that can be ordered - 5 of the accessories that can be ordered - 6 of the accessories that can be ordered - 7 of the accessories that can be ordered - 8 of the accessories that can be ordered - 9 ower regulator - 1 old monitoring - 1 old monitoring - 2 order of the accessories that can be ordered - 2 of the accessories that can be ordered - 3 of the accessories that can be ordered - 4 of the accessories that can be ordered - 4 of the accessories that can be ordered - 4 of the accessories that can be ordered - 4 of the accessories that can be ordered - 4 of the accessories that can be ordered -		
manufacturer's article number		<u> </u>
_ 1 of the accessories that can be ordered		
• _ 2 of the accessories that can be ordered		3RF2900-3PA88
•_4 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  •_4 of the accessories that can be ordered    Dower regulator   Dower	_	
product designation  • _ 1 of the accessories that can be ordered  • _ 2 of the accessories that can be ordered  • _ 4 of the accessories that can be ordered  • _ 4 of the accessories that can be ordered  • _ 4 of the accessories that can be ordered  • _ 4 of the accessories that can be ordered  • _ 4 of the accessories that can be ordered  power regulator  • _ 4 of the accessories that can be ordered	_	
_ 2 of the accessories that can be ordered     _ 4 of the accessories that can be ordered     _ 5 of the accessories that can be ordered     _ 8 of the accessories that can be ordered     _ 9 over loss [W] for rated value of the current     _ 81 AC in hot operating state     _ 81 AC in hot operating state		
ola d fithe accessories that can be ordered  Ceneral technical data  product function     instantaneous switching  power loss [W] for rated value of the current     ola tAC in hot operating state     at AC in hot operating state per pole     without load current share typical     insulation voltage rated value     degree of pollution     type of voltage of the control supply voltage     AC     surge voltage resistance of main circuit rated value     shock resistance according to IEC 60068-2-77     itsg/ 11 ms     vibration resistance according to IEC 60068-2-6     greference code according to IEC 60068-2-6     greference code according to IEC 81346-2     Q     reference code according to IEC 81346-2     Q     substance Prohibitance (Date)     Main circuit     number of poles for main current circuit     number of NC contacts for main contacts     1     number of NC contacts for main contacts     0 operating voltage at AC     at 50 Hz rated value     operating range relative to the operating voltage at AC     at 50 Hz     at 50 Hz     at 60 Hz     operational current	<ul><li>_1 of the accessories that can be ordered</li></ul>	terminal cover
General technical data product function power loss [W] for rated value of the current  • at AC in hot operating state • at AC in hot operating state per pole • without load current share typical insulation voltage rated value • degree of pollution 3 type of voltage of the control supply voltage surge voltage resistance of main circuit rated value • 6 kV shock resistance according to IEC 60068-2-7 15g / 11 ms vibration resistance according to IEC 60068-2-6 2g reference code according to IEC 81346-2 Q Substance Prohibitance (Date)  Main circuit number of Poles for main current circuit 1 number of NC contacts for main contacts 1 number of NC contacts for main contacts 0 operating voltage at AC • at 50 Hz rated value 24 230 V • at 60 Hz	<ul><li>_2 of the accessories that can be ordered</li></ul>	power regulator
product function power loss [W] for rated value of the current  • at AC in hot operating state 11 W • at AC in hot operating state 9	<ul><li>_4 of the accessories that can be ordered</li></ul>	load monitoring
power loss [W] for rated value of the current  • at AC in hot operating state 11 W  • at AC in hot operating state per pole 11 W  • without load current share typical 3.5 W  insulation voltage rated value 600 V  degree of pollution 3  type of voltage of the control supply voltage AC  surge voltage resistance of main circuit rated value 6 kV  shock resistance according to IEC 60068-2-27 15g / 11 ms  vibration resistance according to IEC 60068-2-6 2g  reference code according to EIE 61346-2 Q  reference code according to IEC 81346-2 Q  Substance Prohibitance (Date) 05/28/2009  Main circuit  number of NO contacts for main current circuit 1 number of NO contacts for main contacts 1 number of NC contacts for main contacts 0  operating voltage at AC  • at 50 Hz rated value 24 230 V  • at 60 Hz rated value 50 60 Hz  operating requency rated value 50 60 Hz  operating range relative to the operating voltage at AC  • at 50 Hz  • at 60 Hz	General technical data	
at AC in hot operating state at AC in hot operating state per pole without load current share typical substation voltage rated value 600 V degree of pollution 3 type of voltage of the control supply voltage AC surge voltage resistance of main circuit rated value 6 kV shock resistance according to IEC 60068-2-7 15g / 11 ms vibration resistance according to IEC 60068-2-6 2g reference code according to IEC 81346-2 Q reference code according to IEC 81346-2 Q Substance Prohibitance (Date)  Main circuit number of poles for main current circuit 1 number of NC contacts for main contacts 1 number of NC contacts for main contacts 0 operating voltage at AC at 50 Hz rated value 24 230 V at 60 Hz operating range relative to the operating voltage at AC at 50 Hz at 60 Hz coreations at 50 Nz at 60 Hz coreations at 50 Nz coreations at 60 Nz corea	product function	instantaneous switching
at AC in hot operating state per pole without load current share typical without load current share typical substance profiled in the control supply voltage degree of pollution surge voltage of the control supply voltage AC surge voltage resistance of main circuit rated value shock resistance according to IEC 60068-2-27 15g / 11 ms vibration resistance according to IEC 60068-2-6 2g reference code according to IEC 80068-2-6 2g reference code according to IEC 81346-2 Q substance Prohibitance (Date) 05/28/2009 Main circuit number of poles for main current circuit 1 number of NC contacts for main contacts 1 number of NC contacts for main contacts 0 operating voltage at AC at 50 Hz rated value operating range relative to the operating voltage at AC at 50 Hz at 60 Hz at 60 Hz operating range relative to the operating voltage at AC at 50 Hz at 60 Hz operating range relative to the operating voltage at AC at 60 Hz operational current	power loss [W] for rated value of the current	
without load current share typical     insulation voltage rated value     degree of pollution     surge voltage of the control supply voltage     surge voltage resistance of main circuit rated value     shock resistance according to IEC 60068-2-27     15g / 11 ms     vibration resistance according to IEC 60068-2-6     2g     reference code according to IEC 81346-2     Q reference code according to IEC 81346-2     Q Substance Prohibitance (Date)  Main circuit  number of poles for main current circuit     1 number of NC contacts for main contacts     1 number of NC contacts for main contacts     0 operating voltage at AC     at 50 Hz rated value     at 60 Hz rated value     operating range relative to the operating voltage at AC     at 50 Hz	<ul> <li>at AC in hot operating state</li> </ul>	11 W
insulation voltage rated value  degree of pollution  3  type of voltage of the control supply voltage  AC  surge voltage resistance of main circuit rated value  shock resistance according to IEC 60068-2-27  15g / 11 ms  vibration resistance according to IEC 60068-2-6  2g  reference code according to IEC 81346-2  Q  substance Prohibitance (Date)  Main circuit  number of poles for main current circuit  number of NC contacts for main contacts  number of NC contacts for main contacts  operating voltage at AC  at 50 Hz rated value  operating frequency rated value  operating range relative to the operating voltage at AC  at 50 Hz  at 50 Hz  operational current	<ul> <li>at AC in hot operating state per pole</li> </ul>	11 W
degree of pollution  type of voltage of the control supply voltage  AC  surge voltage resistance of main circuit rated value  6 kV  shock resistance according to IEC 60068-2-27  15g / 11 ms  vibration resistance according to IEC 60068-2-6  2g  reference code according to EN 61346-2  Q  reference code according to IEC 81346-2  Q  Substance Prohibitance (Date)  Main circuit  number of poles for main current circuit  1  number of NO contacts for main contacts  1  number of NC contacts for main contacts  operating voltage at AC  • at 50 Hz rated value  operating frequency rated value  operating range relative to the operating voltage at AC  • at 50 Hz  • at 60 Hz  operational current	<ul> <li>without load current share typical</li> </ul>	3.5 W
type of voltage of the control supply voltage  surge voltage resistance of main circuit rated value  shock resistance according to IEC 60068-2-27  15g / 11 ms  vibration resistance according to IEC 60068-2-6  2g  reference code according to EC 61346-2  quadrate reference code according to IEC 81346-2  Substance Prohibitance (Date)  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 range relative to the operating voltage at AC  • at 50 Hz  • at 60 Hz  • at 60 Hz  operational current  operational current  operational current  operational current	insulation voltage rated value	600 V
surge voltage resistance of main circuit rated value shock resistance according to IEC 60068-2-27 15g / 11 ms vibration resistance according to IEC 60068-2-6 2g reference code according to EN 61346-2 Q reference code according to IEC 81346-2 Q Substance Prohibitance (Date) 05/28/2009  Main circuit number of poles for main current circuit 1 number of NO contacts for main contacts 1 number of NC contacts for main contacts 0 operating voltage at AC • at 50 Hz rated value 0 eat 60 Hz rated value 0 eat 50 Hz  operating requency rated value 0 eat 50 Hz  operating range relative to the operating voltage at AC • at 50 Hz • at 60 Hz  operating range relative to the operating voltage at AC • at 50 Hz • at 60 Hz  operating range relative to the operating voltage at AC • at 50 Hz • at 60 Hz  operating range relative to the operating voltage at AC • at 50 Hz • at 60 Hz  operational current	degree of pollution	3
shock resistance according to IEC 60068-2-27  vibration resistance according to IEC 60068-2-6  reference code according to EN 61346-2  Q  reference code according to IEC 81346-2  Q  Substance Prohibitance (Date)  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 range relative to the operating voltage at AC  • at 50 Hz  • at 50 Hz  • at 60 Hz  operating range relative to the operating voltage at AC  • at 50 Hz  • at 60 Hz  operating range relative to the operating voltage at AC  • at 50 Hz  • at 60 Hz  operating range relative to the operating voltage at AC  • at 50 Hz  • at 60 Hz  operating range relative to the operating voltage at AC  • at 50 Hz  • at 60 Hz  operational current	type of voltage of the control supply voltage	AC
vibration resistance according to IEC 60068-2-6  reference code according to EN 61346-2  Q  reference code according to IEC 81346-2  Q  Substance Prohibitance (Date)  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 range relative to the operating voltage at AC  • at 50 Hz  • at 60 Hz  operating range relative to the operating voltage at AC  • at 50 Hz  • at 60 Hz  operational current	surge voltage resistance of main circuit rated value	6 kV
reference code according to EN 61346-2 Q reference code according to IEC 81346-2 Q Substance Prohibitance (Date) 05/28/2009  Main circuit number of poles for main current circuit 1 number of NO contacts for main contacts 1 number of NC contacts for main contacts 0 operating voltage at AC  • at 50 Hz rated value 24 230 V operating frequency rated value 50 60 Hz operating range relative to the operating voltage at AC  • at 50 Hz 2 20 253 V operational current	shock resistance according to IEC 60068-2-27	15g / 11 ms
reference code according to IEC 81346-2  Substance Prohibitance (Date)  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 range relative to the operating voltage at AC  • at 50 Hz  • at 60 Hz  operating range relative to the operating voltage at AC  • at 50 Hz  • at 60 Hz  operational current	vibration resistance according to IEC 60068-2-6	2g
Substance Prohibitance (Date)  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  • at 50 Hz  operating range relative to the operating voltage at AC  • at 50 Hz  operating range relative to the operating voltage at AC  • at 60 Hz  operational current	reference code according to EN 61346-2	Q
Main circuit   number of poles for main current circuit 1   number of NO contacts for main contacts 1   number of NC contacts for main contacts 0   operating voltage at AC 24 230 V   • at 50 Hz rated value 24 230 V   operating frequency rated value 50 60 Hz   operating range relative to the operating voltage at AC at 50 Hz   • at 50 Hz 20 253 V   operational current 20 253 V	reference code according to IEC 81346-2	Q
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  operating range relative to the operating voltage at AC  • at 50 Hz  • at 60 Hz  operating transparent voltage at AC  • at 50 Hz  • at 60 Hz  operational current	Substance Prohibitance (Date)	05/28/2009
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  operating range relative to the operating voltage at AC  • at 50 Hz  • at 50 Hz  operating range relative to the operating voltage at AC  • at 50 Hz  • at 60 Hz  operational current	Main circuit	
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  operating range relative to the operating voltage at AC  • at 50 Hz  • at 60 Hz  operating contacts for main contacts  0  24 230 V  50 60 Hz  operating range relative to the operating voltage at AC  • at 50 Hz  • at 60 Hz  operational current	number of poles for main current circuit	1
operating voltage at AC  • at 50 Hz rated value  • at 60 Hz rated value  24 230 V  operating frequency rated value  50 60 Hz  operating range relative to the operating voltage at AC  • at 50 Hz  • at 60 Hz  operational current	number of NO contacts for main contacts	1
<ul> <li>at 50 Hz rated value</li> <li>at 60 Hz rated value</li> <li>24 230 V</li> <li>operating frequency rated value</li> <li>50 60 Hz</li> <li>operating range relative to the operating voltage at AC</li> <li>at 50 Hz</li> <li>at 60 Hz</li> <li>20 253 V</li> <li>operational current</li> </ul>	number of NC contacts for main contacts	0
<ul> <li>at 60 Hz rated value</li> <li>24 230 V</li> <li>operating frequency rated value</li> <li>operating range relative to the operating voltage at AC</li> <li>at 50 Hz</li> <li>at 60 Hz</li> <li>20 253 V</li> <li>operational current</li> </ul>	operating voltage at AC	
operating frequency rated value 50 60 Hz  operating range relative to the operating voltage at AC  • at 50 Hz 20 253 V  • at 60 Hz 20 253 V  operational current	at 50 Hz rated value	24 230 V
operating range relative to the operating voltage at AC  • at 50 Hz  • at 60 Hz  operational current  20 253 V  20 253 V	at 60 Hz rated value	24 230 V
• at 50 Hz	operating frequency rated value	50 60 Hz
• at 60 Hz 20 253 V  operational current	operating range relative to the operating voltage at AC	
operational current	• at 50 Hz	20 253 V
	• at 60 Hz	20 253 V
• at AC-51 rated value 10.5 A	operational current	
	• at AC-51 rated value	10.5 A

<ul><li>at AC-51 according to IEC 60947-4-3</li></ul>	7.5 A
according to UL 508 rated value	6 A
operational current minimum	100 mA
rate of voltage rise at the thyristor for main contacts maximum permissible	500 V/µs
blocking voltage at the thyristor for main contacts maximum permissible	800 V
reverse current of the thyristor	10 mA
derating temperature	40 °C
surge current resistance rated value	200 A
I2t value maximum	200 A²-s
Control circuit/ Control	
type of voltage of the control supply voltage	AC
control supply voltage 1 at AC	
● at 50 Hz	110 230 V
• at 60 Hz	110 230 V
control supply voltage frequency	
• 1 rated value	50 Hz
2 rated value	60 Hz
control supply voltage at AC	
<ul> <li>at 50 Hz full-scale value for signal&lt;0&gt; recognition</li> </ul>	40 V
at 60 Hz full-scale value for signal<0> recognition	40 V
control supply voltage	
• at AC initial value for signal <1> detection	90 V
symmetrical line frequency tolerance	5 Hz
control current at minimum control supply voltage	
• at AC	2 mA
control current at AC rated value	15 mA
ON-delay time	40 ms
OFF-delay time	40 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 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 Installation/ mounting/ dimensions	0
number of NO contacts for auxiliary contacts number of CO contacts for auxiliary contacts Installation/ mounting/ dimensions fastening method	0 0 screw fixing and snap-on mounting on standard mounting rail 35 mm according to IEC 60715
number of NO contacts for auxiliary contacts number of CO contacts for auxiliary contacts Installation/ mounting/ dimensions fastening method  • side-by-side mounting	0 0 screw fixing and snap-on mounting on standard mounting rail 35 mm according to IEC 60715 Yes
number of NO contacts for auxiliary contacts number of CO contacts for auxiliary contacts Installation/ mounting/ dimensions fastening method  • side-by-side mounting design of the thread of the screw for securing the	0 0 screw fixing and snap-on mounting on standard mounting rail 35 mm according to IEC 60715
number of NO contacts for auxiliary contacts number of CO contacts for auxiliary contacts Installation/ mounting/ dimensions fastening method  • side-by-side mounting design of the thread of the screw for securing the equipment	0 0 screw fixing and snap-on mounting on standard mounting rail 35 mm according to IEC 60715 Yes M4
number of NO contacts for auxiliary contacts number of CO contacts for auxiliary contacts Installation/ mounting/ dimensions fastening method  • side-by-side mounting design of the thread of the screw for securing the equipment height	0 0 screw fixing and snap-on mounting on standard mounting rail 35 mm according to IEC 60715 Yes M4 95 mm
number of NO contacts for auxiliary contacts number of CO contacts for auxiliary contacts Installation/ mounting/ dimensions fastening method  • side-by-side mounting design of the thread of the screw for securing the equipment	0 0 screw fixing and snap-on mounting on standard mounting rail 35 mm according to IEC 60715 Yes M4
number of NO contacts for auxiliary contacts number of CO contacts for auxiliary contacts Installation/ mounting/ dimensions fastening method  • side-by-side mounting design of the thread of the screw for securing the equipment height width	0 0 screw fixing and snap-on mounting on standard mounting rail 35 mm according to IEC 60715 Yes M4 95 mm 22.5 mm
number of NO contacts for auxiliary contacts number of CO contacts for auxiliary contacts Installation/ mounting/ dimensions fastening method  • side-by-side mounting design of the thread of the screw for securing the equipment height width depth	0 0 screw fixing and snap-on mounting on standard mounting rail 35 mm according to IEC 60715 Yes M4 95 mm 22.5 mm
number of NO contacts for auxiliary contacts number of CO contacts for auxiliary contacts Installation/ mounting/ dimensions fastening method  • side-by-side mounting  design of the thread of the screw for securing the equipment height width depth Connections/ Terminals	0 0 screw fixing and snap-on mounting on standard mounting rail 35 mm according to IEC 60715 Yes M4 95 mm 22.5 mm
number of NO contacts for auxiliary contacts number of CO contacts for auxiliary contacts Installation/ mounting/ dimensions fastening method  • side-by-side mounting design of the thread of the screw for securing the equipment height width depth Connections/ Terminals type of electrical connection	o screw fixing and snap-on mounting on standard mounting rail 35 mm according to IEC 60715 Yes M4 95 mm 22.5 mm 88 mm
number of NO contacts for auxiliary contacts number of CO contacts for auxiliary contacts Installation/ mounting/ dimensions fastening method  • side-by-side mounting design of the thread of the screw for securing the equipment height width depth Connections/ Terminals type of electrical connection • for main current circuit	0 0 screw fixing and snap-on mounting on standard mounting rail 35 mm according to IEC 60715 Yes M4 95 mm 22.5 mm 88 mm
number of NO contacts for auxiliary contacts number of CO contacts for auxiliary contacts Installation/ mounting/ dimensions fastening method  • side-by-side mounting design of the thread of the screw for securing the equipment height width depth Connections/ Terminals type of electrical connection • for main current circuit • for auxiliary and control circuit	0 0 screw fixing and snap-on mounting on standard mounting rail 35 mm according to IEC 60715 Yes M4 95 mm 22.5 mm 88 mm
number of NO contacts for auxiliary contacts number of CO contacts for auxiliary contacts Installation/ mounting/ dimensions fastening method  • side-by-side mounting design of the thread of the screw for securing the equipment height width depth  Connections/ Terminals type of electrical connection • for main current circuit • for auxiliary and control circuit type of connectable conductor cross-sections	0 0 screw fixing and snap-on mounting on standard mounting rail 35 mm according to IEC 60715 Yes M4 95 mm 22.5 mm 88 mm
number of NO contacts for auxiliary contacts number of CO contacts for auxiliary contacts Installation/ mounting/ dimensions fastening method  • side-by-side mounting design of the thread of the screw for securing the equipment height width depth  Connections/ Terminals type of electrical connection • for main current circuit • for auxiliary and control circuit type of connectable conductor cross-sections • for main contacts	o screw fixing and snap-on mounting on standard mounting rail 35 mm according to IEC 60715 Yes M4 95 mm 22.5 mm 88 mm screw-type terminals screw-type terminals
number of NO contacts for auxiliary contacts number of CO contacts for auxiliary contacts Installation/ mounting/ dimensions fastening method  • side-by-side mounting design of the thread of the screw for securing the equipment height width depth  Connections/ Terminals type of electrical connection • for main current circuit • for auxiliary and control circuit type of connectable conductor cross-sections • for main contacts — solid	o screw fixing and snap-on mounting on standard mounting rail 35 mm according to IEC 60715 Yes M4 95 mm 22.5 mm 88 mm screw-type terminals screw-type terminals 2x (1.5 2.5 mm²), 2x (2.5 6 mm²)
number of NO contacts for auxiliary contacts  number of CO contacts for auxiliary contacts  Installation/ mounting/ dimensions  fastening method  • side-by-side mounting  design of the thread of the screw for securing the equipment  height  width  depth  Connections/ Terminals  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	o screw fixing and snap-on mounting on standard mounting rail 35 mm according to IEC 60715 Yes M4  95 mm 22.5 mm 88 mm  screw-type terminals screw-type terminals $2x (1.5 2.5 mm^2), 2x (2.5 6 mm^2)$ $2x (1 2.5 mm^2), 2x (2.5 6 mm^2), 1x 10 mm^2$
number of NO contacts for auxiliary contacts  number of CO contacts for auxiliary contacts  Installation/ mounting/ dimensions  fastening method  • side-by-side mounting  design of the thread of the screw for securing the equipment  height  width  depth  Connections/ Terminals  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  • for AWG cables for main contacts	o screw fixing and snap-on mounting on standard mounting rail 35 mm according to IEC 60715 Yes M4  95 mm 22.5 mm 88 mm  screw-type terminals screw-type terminals $2x (1.5 2.5 mm^2), 2x (2.5 6 mm^2)$ $2x (1 2.5 mm^2), 2x (2.5 6 mm^2), 1x 10 mm^2$
number of NO contacts for auxiliary contacts  number of CO contacts for auxiliary contacts  Installation/ mounting/ dimensions  fastening method  • side-by-side mounting  design of the thread of the screw for securing the equipment  height  width  depth  Connections/ Terminals  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  • for AWG cables for main contacts  connectable conductor cross-section for main contacts	screw fixing and snap-on mounting on standard mounting rail 35 mm according to IEC 60715  Yes  M4  95 mm  22.5 mm  88 mm  screw-type terminals  screw-type terminals  2x (1.5 2.5 mm²), 2x (2.5 6 mm²)  2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm²  2x (14 10)
number of NO contacts for auxiliary contacts  number of CO contacts for auxiliary contacts  Installation/ mounting/ dimensions  fastening method  • side-by-side mounting  design of the thread of the screw for securing the equipment  height  width  depth  Connections/ Terminals  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  • for AWG cables for main contacts  connectable conductor cross-section for main contacts  • solid or stranded	0 0 screw fixing and snap-on mounting on standard mounting rail 35 mm according to IEC 60715 Yes M4 95 mm 22.5 mm 88 mm screw-type terminals screw-type terminals 2x (1.5 2.5 mm²), 2x (2.5 6 mm²) 2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm² 2x (14 10) 1.5 6 mm²
number of NO contacts for auxiliary contacts number of CO contacts for auxiliary contacts  Installation/ mounting/ dimensions  fastening method  • side-by-side mounting  design of the thread of the screw for securing the equipment  height  width  depth  Connections/ Terminals  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  • for AWG cables for main contacts  connectable conductor cross-section for main contacts  • solid or stranded  • finely stranded with core end processing	0 0 screw fixing and snap-on mounting on standard mounting rail 35 mm according to IEC 60715 Yes M4 95 mm 22.5 mm 88 mm screw-type terminals screw-type terminals 2x (1.5 2.5 mm²), 2x (2.5 6 mm²) 2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm² 2x (14 10) 1.5 6 mm²
number of NO contacts for auxiliary contacts  number of CO contacts for auxiliary contacts  Installation/ mounting/ dimensions  fastening method  • side-by-side mounting  design of the thread of the screw for securing the equipment  height  width  depth  Connections/ Terminals  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  • for AWG cables for main contacts  connectable conductor cross-section for main contacts  • solid or stranded  • finely stranded with core end processing  type of connectable conductor cross-sections	0 0 screw fixing and snap-on mounting on standard mounting rail 35 mm according to IEC 60715 Yes M4 95 mm 22.5 mm 88 mm screw-type terminals screw-type terminals 2x (1.5 2.5 mm²), 2x (2.5 6 mm²) 2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm² 2x (14 10) 1.5 6 mm²
number of NO contacts for auxiliary contacts  number of CO contacts for auxiliary contacts  Installation/ mounting/ dimensions  fastening method  • side-by-side mounting  design of the thread of the screw for securing the equipment  height  width  depth  Connections/ Terminals  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  • for AWG cables for main contacts  connectable conductor cross-section for main contacts  • solid or stranded  • finely stranded with core end processing  type of connectable conductor cross-sections  • for auxiliary and control contacts	o  screw fixing and snap-on mounting on standard mounting rail 35 mm according to IEC 60715  Yes  M4  95 mm  22.5 mm  88 mm  screw-type terminals  screw-type terminals  2x (1.5 2.5 mm²), 2x (2.5 6 mm²)  2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm²  2x (14 10)  1.5 6 mm²  1 10 mm²
number of NO contacts for auxiliary contacts  number of CO contacts for auxiliary contacts  Installation/ mounting/ dimensions  fastening method  • side-by-side mounting  design of the thread of the screw for securing the equipment  height  width  depth  Connections/ Terminals  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  • for AWG cables for main contacts  connectable conductor cross-section for main contacts  • solid or stranded  • finely stranded with core end processing  type of connectable conductor cross-sections  • for auxiliary and control contacts  — solid  — finely stranded with core end processing  type of connectable conductor cross-sections  • for auxiliary and control contacts  — solid  — finely stranded with core end processing  - finely stranded with core end processing	o  screw fixing and snap-on mounting on standard mounting rail 35 mm according to IEC 60715  Yes  M4  95 mm  22.5 mm  88 mm  screw-type terminals  screw-type terminals  2x (1.5 2.5 mm²), 2x (2.5 6 mm²)  2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm²  2x (14 10)  1.5 6 mm²  1 10 mm²
number of NO contacts for auxiliary contacts  number of CO contacts for auxiliary contacts  Installation/ mounting/ dimensions  fastening method  • side-by-side mounting  design of the thread of the screw for securing the equipment  height  width  depth  Connections/ Terminals  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  • for AWG cables for main contacts  connectable conductor cross-section for main contacts  • solid or stranded  • finely stranded with core end processing  type of connectable conductor cross-sections  • for auxiliary and control contacts  — solid  — finely stranded with core end processing	0 0 screw fixing and snap-on mounting on standard mounting rail 35 mm according to IEC 60715 Yes M4 95 mm 22.5 mm 88 mm  screw-type terminals  2x (1.5 2.5 mm²), 2x (2.5 6 mm²) 2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm² 2x (14 10)  1.5 6 mm² 1 10 mm²  1x (0.5 2.5 mm²), 2x (0.5 1.0 mm²) 1x (0.5 2.5 mm²), 2x (0.5 1.0 mm²)

main contacts				
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 terminals</li> </ul>	0.5 0.6 N·m			
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 terminals</li> </ul>	4.5 5.3 lbf-in			
design of the thread of the connection screw				
• for main contacts	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			
Safety related data				
protection class IP on the front according to IEC 60529	IP20			
touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front			
Ambient conditions				
installation altitude at height above sea level maximum	1 000 m			
ambient temperature				
during operation	-25 +60 °C			
during storage	-55 +80 °C			
Electromagnetic compatibility				
conducted interference				
due to burst according to IEC 61000-4-4	2 kV / 5 kHz behavior criterion 2			
<ul> <li>due to conductor-earth surge according to IEC 61000-4-5</li> </ul>	2 kV behavior criterion 2			
due to conductor-conductor surge according to IEC	1 kV behavior criterion 2			
61000-4-5  • due to high-frequency radiation according to IEC 61000-	140 dBuV in the frequency range 0.15 80 MHz, behavior criterion 1			
4-6				
field-based interference according to IEC 61000-4-3	80 MHz 1 GHz 10 V/m, behavior criterion 1			
electrostatic discharge according to IEC 61000-4-2	4 kV contact discharging / 8 kV air discharging, behavior criterion 2			
conducted HF interference emissions according to	Class A for industrial environment			
CISPR11				
field-bound HF interference emission according to CISPR11	Class B for the domestic, business and commercial environments			
field-bound HF interference emission according to CISPR11	Class B for the domestic, business and commercial environments			
field-bound HF interference emission according to CISPR11	Class B for the domestic, business and commercial environments			
field-bound HF interference emission according to CISPR11 Short-circuit protection, design of the fuse link	Class B for the domestic, business and commercial environments  3NE1813-0			
field-bound HF interference emission according to CISPR11 Short-circuit protection, design of the fuse link manufacturer's article number  • of gS fuse for semiconductor protection at NH design				
field-bound HF interference emission according to CISPR11 Short-circuit protection, design of the fuse link manufacturer's article number  • of gS fuse for semiconductor protection at NH design usable  • of full range R fuse link for semiconductor protection at	3NE1813-0			
field-bound HF interference emission according to CISPR11 Short-circuit protection, design of the fuse link  manufacturer's article number  • of gS fuse 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 at NH	3NE1813-0 5SE1316			
field-bound HF interference emission according to CISPR11 Short-circuit protection, design of the fuse link manufacturer's article number  • of gS fuse 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 at NH design usable  • of back-up R fuse link for semiconductor protection at NH design usable	3NE1813-0 5SE1316 3NE8015-1			
field-bound HF interference emission according to CISPR11 Short-circuit protection, design of the fuse link  manufacturer's article number  • of gS fuse 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 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 10 x 38 mm usable  • of back-up R fuse link for semiconductor protection at	3NE1813-0 5SE1316 3NE8015-1 3NC1020			
field-bound HF interference emission according to CISPR11 Short-circuit protection, design of the fuse link  manufacturer's article number  • of gS fuse 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 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 14 x 51 mm usable  • of back-up R fuse link for semiconductor protection at	3NE1813-0 5SE1316 3NE8015-1 3NC1020 3NC1430			
field-bound HF interference emission according to CISPR11 Short-circuit protection, design of the fuse link manufacturer's article number  • of gS fuse 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 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 12 x 58 mm usable	3NE1813-0 5SE1316 3NE8015-1 3NC1020 3NC1430			
field-bound HF interference emission according to CISPR11 Short-circuit protection, design of the fuse link manufacturer's article number  • of gS fuse 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 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	3NE1813-0 5SE1316 3NE8015-1 3NC1020 3NC1430 3NC2225			
field-bound HF interference emission according to CISPR11 Short-circuit protection, design of the fuse link  manufacturer's article number  • of gS fuse 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 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	3NE1813-0  5SE1316  3NE8015-1  3NC1020  3NC1430  3NC2225  3NA6803 3NW6001-1; These fuses have a smaller rated current than the semiconductor			
field-bound HF interference emission according to CISPR11 Short-circuit protection, design of the fuse link  manufacturer's article number  • of gS fuse 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 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	3NE1813-0  5SE1316  3NE8015-1  3NC1020  3NC1430  3NC2225   3NA6803  3NW6001-1; These fuses have a smaller rated current than the semiconductor relays 3NW6101-1; These fuses have a smaller rated current than the semiconductor			
field-bound HF interference emission according to CISPR11 Short-circuit protection, design of the fuse link  manufacturer's article number  • of gS fuse 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 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 10 x 38 mm usable	3NE1813-0  5SE1316  3NE8015-1  3NC1020  3NC1430  3NC2225   3NA6803  3NW6001-1; These fuses have a smaller rated current than the semiconductor relays 3NW6101-1; These fuses have a smaller rated current than the semiconductor			
field-bound HF interference emission according to CISPR11 Short-circuit protection, design of the fuse link  manufacturer's article number  of gS fuse 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 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 cylindrical design 10 x 38 mm usable  at cylindrical design 10 x 38 mm usable at cylindrical design 14 x 51 mm usable  manufacturer's article number	3NE1813-0  5SE1316  3NE8015-1  3NC1020  3NC1430  3NC2225   3NA6803  3NW6001-1; These fuses have a smaller rated current than the semiconductor relays  3NW6101-1; These fuses have a smaller rated current than the semiconductor relays			



Confirmation









**Declaration of Conformity** 

**Test Certificates** 

other

Railway



Special Test Certificate

Type Test Certificates/Test Report Confirmation



Vibration and Shock

## Further information

Siemens has decided to exit the Russian market (see here).

https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business

Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

Information on the packaging

https://support.industry.siemens.com/cs/ww/en/view/109813875

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=3RF2310-1BA22

Cax online generator

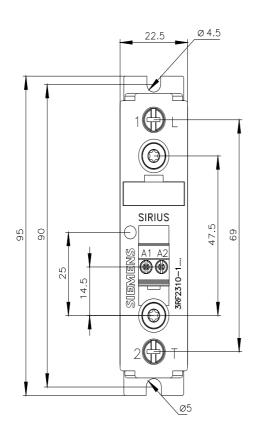
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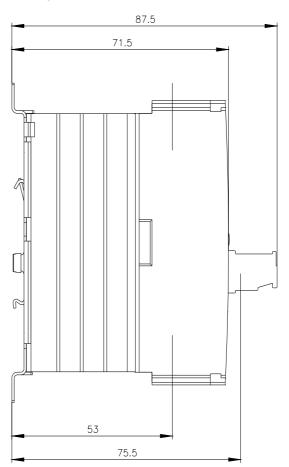
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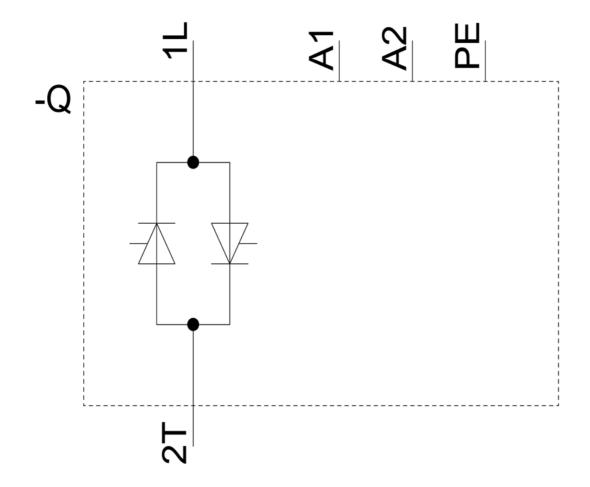
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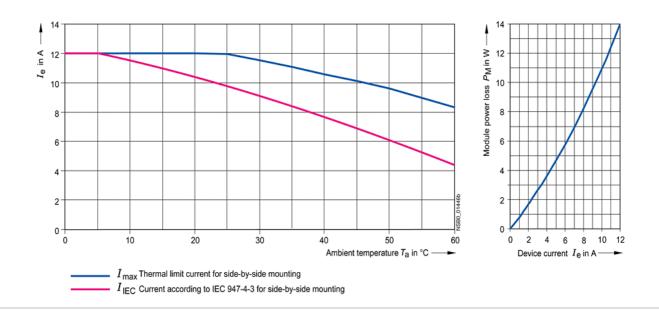
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RF2310-1BA22&lang=en









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