## 3RA2220-1HD24-0BB4

**Data sheet** 

product brand name



Load feeder fuseless, Reversing duty 400 V AC, Size S0 5.50...8.00 A 24 V DC screw terminal for 60 mm busbar systems (also fulfills type of coordination 1) Type of coordination 2, Iq = 150 kA 1 NO+1 NC (contactor)

product brand name	SIRIUS
product designation	Reversing starter
design of the product	for 60 mm busbars
product type designation	3RA22
manufacturer's article number	
<ul> <li>of the supplied contactor</li> </ul>	3RT2024-1BB40
<ul> <li>of the supplied circuit-breakers</li> </ul>	3RV2011-1HA10
<ul> <li>of the supplied RS assembly kit</li> </ul>	<u>8US1250-5AT10</u>
<ul> <li>of the supplied busbar adapter</li> </ul>	<u>8US1251-5NT10</u>
<ul> <li>of the supplied link module</li> </ul>	3RA2921-1BA00
General technical data	
size of the circuit-breaker	S00
size of load feeder	S0
insulation voltage with degree of pollution 3 at AC rated value	690 V
surge voltage resistance rated value	6 kV
degree of protection NEMA rating	other
shock resistance according to IEC 60068-2-27	6g / 11 ms
mechanical service life (switching cycles) of contactor typical	10 000 000
type of assignment	2
type of protection according to ATEX directive 2014/34/EU	Ex II (2) GD
certificate of suitability according to ATEX directive 2014/34/EU	DMT 02 ATEX F 001
Substance Prohibitance (Date)	10/01/2009
Ambient conditions	
ambient temperature	
<ul> <li>during operation</li> </ul>	-20 +60 °C
during storage	-50 +80 °C
during transport	-50 +80 °C
temperature compensation	-20 +60 °C
relative humidity during operation	10 95 %
Main circuit	
number of poles for main current circuit	3
design of the switching contact	electromechanical
adjustable current response value current of the current-dependent overload release	5.5 8 A
operating voltage	

SIRIUS

at AC 2 rated	C00 V
at AC-3 rated value maximum	690 V
operating frequency rated value	50 60 Hz
operational current at AC-3 at 400 V rated value	6.5 A
operating power at AC-3	
at 400 V rated value	3 000 W
Control circuit/ Control	
type of voltage of the control supply voltage	DC
control supply voltage at DC	
rated value	24 V
rated value	24 24 V
holding power of magnet coil at DC	5.9 W
Auxiliary circuit	
product extension auxiliary switch	Yes
Protective and monitoring functions	
trip class	CLASS 10
design of the overload release	thermal (bimetallic)
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
• at 480 V rated value	8 A
yielded mechanical performance [hp]	
• for 3-phase AC motor	
— at 220/230 V rated value	2 hp
— at 460/480 V rated value	5 hp
— at 575/600 V rated value	5 hp
Short-circuit protection	O TIP
	V.
product function short circuit protection	Yes
design of the short-circuit trip	magnetic
conditional short-circuit current (Iq)	450,000 A
at 400 V according to IEC 60947-4-1 rated value	150 000 A
Inctallation/mounting/dimensions	
Installation/ mounting/ dimensions	
mounting position	vertical
mounting position fastening method	for snapping onto 60 mm busbar systems
mounting position fastening method height	for snapping onto 60 mm busbar systems 260 mm
mounting position fastening method height width	for snapping onto 60 mm busbar systems 260 mm 90 mm
mounting position fastening method height width depth	for snapping onto 60 mm busbar systems 260 mm
mounting position fastening method height width depth required spacing	for snapping onto 60 mm busbar systems 260 mm 90 mm
mounting position fastening method height width depth required spacing • for grounded parts	for snapping onto 60 mm busbar systems 260 mm 90 mm 165 mm
mounting position fastening method height width depth required spacing • for grounded parts — forwards	for snapping onto 60 mm busbar systems 260 mm 90 mm 165 mm
mounting position fastening method height width depth required spacing • for grounded parts — forwards — backwards	for snapping onto 60 mm busbar systems 260 mm 90 mm 165 mm 32 mm 0 mm
mounting position  fastening method  height  width  depth  required spacing  • for grounded parts  — forwards  — backwards  — upwards	for snapping onto 60 mm busbar systems 260 mm 90 mm 165 mm  32 mm 0 mm 50 mm
mounting position fastening method height width depth required spacing • for grounded parts — forwards — backwards — upwards — at the side	for snapping onto 60 mm busbar systems 260 mm 90 mm 165 mm  32 mm 0 mm 50 mm 10 mm
mounting position fastening method height width depth required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards	for snapping onto 60 mm busbar systems 260 mm 90 mm 165 mm  32 mm 0 mm 50 mm
mounting position fastening method height width depth required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts	for snapping onto 60 mm busbar systems 260 mm 90 mm 165 mm  32 mm 0 mm 50 mm 10 mm
mounting position fastening method height width depth required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards	for snapping onto 60 mm busbar systems 260 mm 90 mm 165 mm  32 mm 0 mm 50 mm 10 mm
mounting position fastening method height width depth required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts	for snapping onto 60 mm busbar systems 260 mm 90 mm 165 mm  32 mm 0 mm 50 mm 10 mm
mounting position fastening method height width depth required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards — backwards — upwards - upwards - upwards - upwards - upwards - upwards	for snapping onto 60 mm busbar systems 260 mm 90 mm 165 mm  32 mm 0 mm 50 mm 10 mm 10 mm 10 mm
mounting position fastening method height width depth required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards — backwards	for snapping onto 60 mm busbar systems 260 mm 90 mm 165 mm  32 mm 0 mm 50 mm 10 mm 10 mm 10 mm
mounting position fastening method height width depth required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards — backwards — upwards - upwards - upwards - upwards - upwards - upwards	for snapping onto 60 mm busbar systems 260 mm 90 mm 165 mm  32 mm 0 mm 50 mm 10 mm 10 mm 0 mm
mounting position  fastening method  height  width  depth  required spacing  • for grounded parts  — forwards  — backwards  — upwards  — at the side  — downwards  • for live parts  — forwards  — backwards  — upwards  — at the side  — downwards  • for live parts  — forwards  — backwards  — backwards  — upwards  — upwards  — downwards	for snapping onto 60 mm busbar systems 260 mm 90 mm 165 mm  32 mm 0 mm 50 mm 10 mm 10 mm 0 mm 50 mm
mounting position  fastening method  height  width  depth  required spacing  • for grounded parts  — forwards  — backwards  — upwards  — at the side  — downwards  • for live parts  — backwards  — upwards  — at the side  — downwards  • for live parts  — forwards  — backwards  — backwards  — backwards  — upwards  — at the side	for snapping onto 60 mm busbar systems 260 mm 90 mm 165 mm  32 mm 0 mm 50 mm 10 mm 10 mm 0 mm 50 mm
mounting position fastening method height width depth required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards — backwards — at the side — downwards — at the side — towards — backwards — backwards — at the side — downwards — upwards — at the side Connections/ Terminals	for snapping onto 60 mm busbar systems 260 mm 90 mm 165 mm  32 mm 0 mm 50 mm 10 mm 10 mm 0 mm 50 mm
mounting position fastening method height width depth required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards — backwards — a the side — downwards • for live parts — forwards — backwards — upwards — at the side Connections/ Terminals type of electrical connection	for snapping onto 60 mm busbar systems 260 mm 90 mm 165 mm  32 mm 0 mm 50 mm 10 mm 10 mm 0 mm 10 mm 10 mm 10 mm 10 mm
mounting position fastening method height width depth required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards — backwards — upwards — at the side — downwards  • for live parts — forwards — backwards — upwards — at the side  Connections/ Terminals  type of electrical connection • for main current circuit	for snapping onto 60 mm busbar systems 260 mm 90 mm 165 mm  32 mm 0 mm 50 mm 10 mm 10 mm 0 mm 50 mm 10 mm 50 mm 50 mm
mounting position fastening method height width depth required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards — backwards — upwards — torwards — backwards — at the side Connections/ Terminals  type of electrical connection • for main current circuit • for auxiliary and control circuit	for snapping onto 60 mm busbar systems 260 mm 90 mm 165 mm  32 mm 0 mm 50 mm 10 mm 10 mm 0 mm 50 mm 10 mm 50 mm 50 mm
mounting position fastening method height width depth required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards — backwards — upwards — the side — downwards — the side — downwards — backwards — upwards — the side Connections/ Terminals type of electrical connection • for main current circuit • for auxiliary and control circuit Safety related data B10 value with high demand rate according to SN 31920	for snapping onto 60 mm busbar systems 260 mm 90 mm 165 mm  32 mm 0 mm 50 mm 10 mm 10 mm 10 mm 50 mm 50 mm comm comm comm comm comm comm comm c
mounting position fastening method height width depth required spacing	for snapping onto 60 mm busbar systems 260 mm 90 mm 165 mm  32 mm 0 mm 50 mm 10 mm 10 mm 10 mm 50 mm 10 mm 50 mm 10 mm 50 mm 10 mm 50 mm 10 mm 10 mm
mounting position fastening method height width depth required spacing	for snapping onto 60 mm busbar systems 260 mm 90 mm 165 mm  32 mm 0 mm 50 mm 10 mm 10 mm 10 mm  50 mm 10 mm 50 mm 10 mm 50 mm 10 mm 50 mm 10 mm 10 mm
mounting position fastening method height width depth required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards — backwards — upwards — a the side Connections/ Terminals  type of electrical connection • for main current circuit • for auxiliary and control circuit  Safety related data  B10 value with high demand rate according to SN 31920 proportion of dangerous failures • with high demand rate according to IEC 60529	for snapping onto 60 mm busbar systems 260 mm 90 mm 165 mm  32 mm 0 mm 50 mm 10 mm 10 mm 10 mm 50 mm 10 mm 50 mm 50 mm 10 mm 50 mm 10 mm 10 mm 10 mm
mounting position fastening method height width depth required spacing	for snapping onto 60 mm busbar systems 260 mm 90 mm 165 mm  32 mm 0 mm 50 mm 10 mm 10 mm 10 mm  50 mm 10 mm 50 mm 10 mm 50 mm 10 mm 50 mm 10 mm 10 mm

<ul> <li>PROFINET IO protocol</li> </ul>	No
<ul> <li>PROFIsafe protocol</li> </ul>	No
protocol is supported AS-Interface protocol	No

Certificates/ approvals

**General Product Approval** 

For use in hazardous locations

**Declaration of** Conformity



Confirmation









**Declaration of** Conformity

**Test Certificates** 

Marine / Shipping



Special Test Certific-<u>ate</u>

Type Test Certificates/Test Report







Marine / Shipping

other









Confirmation

Vibration and Shock

Railway

## **Dangerous Good**

**Transport Informa**tion

## 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=3RA2220-1HD24-0BB4

Cax online generator

 $\underline{\text{http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3RA2220-1HD24-0BB4}$ 

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

https://support.industry.siemens.com/cs/ww/en/ps/3RA2220-1HD24-0BB4

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

http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RA2220-1HD24-0BB4&lang=en

Characteristic: Tripping characteristics, I2t, Let-through current

https://support.industry.siemens.com/cs/ww/en/ps/3RA2220-1HD24-0BB4/char

Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2220-1HD24-0BB4&objecttype=14&gridview=view1

last modified:

2/16/2022

