## 3RA2220-1HB24-0AK6

**Data sheet** 



FUSELESS LOAD FEEDER REVERSING OPERATION, AC 400V, S0 5.5. . .8A, AC 110/120V 50/60HZ SCREW TERMINAL FOR RAIL MOUNTING, W. MOUNTING RAIL ADAPTER TYPE OF ASSIGNMENT 2,IQ = 150KA (ALSO FULFILLS TYPE OF ASSIGNMENT 1) 1NO+1NC (CONTACTOR)

product brand name	SIRIUS
product designation	Reversing starter
design of the product	for standard rail or screw mounting
product type designation	3RA22
manufacturer's article number	
<ul> <li>of the supplied contactor</li> </ul>	3RT2024-1AK60
<ul> <li>of the supplied circuit-breakers</li> </ul>	3RV2011-1HA10
<ul> <li>of the supplied RH assembly kit</li> </ul>	3RA2923-1BB1
<ul> <li>of the supplied link module</li> </ul>	3RA2921-1AA00
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
<ul> <li>during storage</li> </ul>	-50 +80 °C
<ul> <li>during transport</li> </ul>	-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	
rated value	690 V
<ul> <li>at AC-3 rated value maximum</li> </ul>	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	AC
control supply voltage at AC	
at 50 Hz rated value	110 V
at 50 Hz rated value	88 121 V
at 60 Hz rated value	120 V
at 60 Hz rated value	96 132 V
apparent holding power of magnet coil at AC	8.5 VA
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
<ul> <li>at 460/480 V rated value</li> </ul>	5 hp
— at 575/600 V rated value	5 hp
Short-circuit protection	
product function short circuit protection	Yes
design of the short-circuit trip	magnetic
conditional short-circuit current (Iq)	
at 400 V according to IEC 60947-4-1 rated value	150 000 A
` "	150 000 A
at 400 V according to IEC 60947-4-1 rated value  Installation/ mounting/ dimensions  mounting position	vertical
at 400 V according to IEC 60947-4-1 rated value  Installation/ mounting/ dimensions  mounting position fastening method	
at 400 V according to IEC 60947-4-1 rated value  Installation/ mounting/ dimensions  mounting position fastening method  height	vertical On adapter for screw and snap-on mounting on 35 mm standard
at 400 V according to IEC 60947-4-1 rated value  Installation/ mounting/ dimensions  mounting position fastening method  height width	vertical On adapter for screw and snap-on mounting on 35 mm standard mounting rail 265 mm 90 mm
at 400 V according to IEC 60947-4-1 rated value  Installation/ mounting/ dimensions  mounting position fastening method  height width depth	vertical On adapter for screw and snap-on mounting on 35 mm standard mounting rail 265 mm
at 400 V according to IEC 60947-4-1 rated value  Installation/ mounting/ dimensions  mounting position fastening method  height width depth required spacing	vertical On adapter for screw and snap-on mounting on 35 mm standard mounting rail 265 mm 90 mm
at 400 V according to IEC 60947-4-1 rated value  Installation/ mounting/ dimensions  mounting position fastening method  height width depth required spacing     for grounded parts	vertical On adapter for screw and snap-on mounting on 35 mm standard mounting rail 265 mm 90 mm 120 mm
at 400 V according to IEC 60947-4-1 rated value  Installation/ mounting/ dimensions  mounting position fastening method  height width depth required spacing     for grounded parts     — forwards	vertical On adapter for screw and snap-on mounting on 35 mm standard mounting rail 265 mm 90 mm 120 mm
at 400 V according to IEC 60947-4-1 rated value  Installation/ mounting/ dimensions  mounting position fastening method  height width depth required spacing     for grounded parts         — forwards         — backwards	vertical On adapter for screw and snap-on mounting on 35 mm standard mounting rail 265 mm 90 mm 120 mm
at 400 V according to IEC 60947-4-1 rated value  Installation/ mounting/ dimensions  mounting position fastening method  height width depth required spacing     for grounded parts         — forwards         — backwards         — upwards	vertical On adapter for screw and snap-on mounting on 35 mm standard mounting rail 265 mm 90 mm 120 mm  32 mm 0 mm 50 mm
at 400 V according to IEC 60947-4-1 rated value  Installation/ mounting/ dimensions  mounting position fastening method  height width depth required spacing     for grounded parts	vertical On adapter for screw and snap-on mounting on 35 mm standard mounting rail 265 mm 90 mm 120 mm  32 mm 0 mm 50 mm 10 mm
at 400 V according to IEC 60947-4-1 rated value  Installation/ mounting/ dimensions  mounting position fastening method  height width depth required spacing     for grounded parts	vertical On adapter for screw and snap-on mounting on 35 mm standard mounting rail 265 mm 90 mm 120 mm  32 mm 0 mm 50 mm
at 400 V according to IEC 60947-4-1 rated value  Installation/ mounting/ dimensions  mounting position fastening method  height width depth required spacing     for grounded parts	vertical On adapter for screw and snap-on mounting on 35 mm standard mounting rail 265 mm 90 mm 120 mm  32 mm 0 mm 50 mm 10 mm
at 400 V according to IEC 60947-4-1 rated value  Installation/ mounting/ dimensions  mounting position fastening method  height width depth  required spacing     for grounded parts	vertical On adapter for screw and snap-on mounting on 35 mm standard mounting rail 265 mm 90 mm 120 mm  32 mm 0 mm 50 mm 10 mm 10 mm
at 400 V according to IEC 60947-4-1 rated value  Installation/ mounting/ dimensions  mounting position fastening method  height width depth  required spacing  for grounded parts  forwards  backwards  upwards  at the side  downwards  for live parts  forwards  backwards  backwards  backwards  for love parts  backwards  backwards  backwards  backwards	vertical On adapter for screw and snap-on mounting on 35 mm standard mounting rail 265 mm 90 mm 120 mm  32 mm 0 mm 10 mm 10 mm 10 mm 0 mm
at 400 V according to IEC 60947-4-1 rated value  Installation/ mounting/ dimensions  mounting position fastening method  height  width depth  required spacing      for grounded parts	vertical On adapter for screw and snap-on mounting on 35 mm standard mounting rail 265 mm 90 mm 120 mm  32 mm 0 mm 10 mm 10 mm 10 mm 10 mm 10 mm
at 400 V according to IEC 60947-4-1 rated value  Installation/ mounting/ dimensions  mounting position fastening method  height width depth required spacing     • for grounded parts	vertical On adapter for screw and snap-on mounting on 35 mm standard mounting rail 265 mm 90 mm 120 mm  32 mm 0 mm 50 mm 10 mm 10 mm 50 mm 10 mm
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at 400 V according to IEC 60947-4-1 rated value  Installation/ mounting/ dimensions  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  — torwards  — backwards  — backwards  — backwards  — upwards  — at the side  Connections/ Terminals	vertical On adapter for screw and snap-on mounting on 35 mm standard mounting rail 265 mm 90 mm 120 mm  32 mm 0 mm 50 mm 10 mm 10 mm 50 mm 10 mm
at 400 V according to IEC 60947-4-1 rated value  Installation/ mounting/ dimensions  mounting position fastening method  height  width depth  required spacing      for grounded parts	vertical On adapter for screw and snap-on mounting on 35 mm standard mounting rail 265 mm 90 mm 120 mm  32 mm 0 mm 50 mm 10 mm
at 400 V according to IEC 60947-4-1 rated value  Installation/ mounting/ dimensions  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	vertical On adapter for screw and snap-on mounting on 35 mm standard mounting rail 265 mm 90 mm 120 mm  32 mm 0 mm 10 mm 10 mm 10 mm 10 mm 50 mm 10 mm 10 mm 10 mm 10 mm
at 400 V according to IEC 60947-4-1 rated value  Installation/ mounting/ dimensions  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  — downwards  • for live parts  — forwards  — backwards  — upwards  — at the side  Connections/ Terminals  type of electrical connection  • for main current circuit  • for auxiliary and control circuit	vertical On adapter for screw and snap-on mounting on 35 mm standard mounting rail 265 mm 90 mm 120 mm  32 mm 0 mm 50 mm 10 mm
at 400 V according to IEC 60947-4-1 rated value  Installation/ mounting/ dimensions  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  Connections/ Terminals  type of electrical connection  • for auxiliary and control circuit  Safety related data	vertical On adapter for screw and snap-on mounting on 35 mm standard mounting rail 265 mm 90 mm 120 mm  32 mm 0 mm 50 mm 10 mm 10 mm 50 mm 10 mm 50 mm 10 mm 50 mm 50 mm 10 mm 50 mm 50 mm
at 400 V according to IEC 60947-4-1 rated value  Installation/ mounting/ dimensions  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  Connections/ Terminals  type of electrical connection  • for auxiliary and control circuit  Safety related data  B10 value with high demand rate according to SN 31920	vertical On adapter for screw and snap-on mounting on 35 mm standard mounting rail 265 mm 90 mm 120 mm  32 mm 0 mm 10 mm
at 400 V according to IEC 60947-4-1 rated value  Installation/ mounting/ dimensions  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  Connections/ Terminals  type of electrical connection  • for auxiliary and control circuit  Safety related data  B10 value with high demand rate according to SN 31920  proportion of dangerous failures	vertical On adapter for screw and snap-on mounting on 35 mm standard mounting rail 265 mm 90 mm 120 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
at 400 V according to IEC 60947-4-1 rated value  Installation/ mounting/ dimensions  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  Connections/ Terminals  type of electrical connection  • for auxiliary and control circuit  Safety related data  B10 value with high demand rate according to SN 31920	vertical On adapter for screw and snap-on mounting on 35 mm standard mounting rail 265 mm 90 mm 120 mm  32 mm 0 mm 50 mm 10 mm 10 mm 50 mm 10 mm 50 mm 10 mm 50 mm 50 mm 10 mm 50 mm 50 mm

## Communication/ Protocol protocol is supported ● PROFINET IO protocol No ● PROFIsafe protocol No protocol is supported AS-Interface protocol No

Certificates/ approvals

**General Product Approval** 

For use in hazardous locations Declaration of Conformity



Confirmation



EAC





**Declaration of Conformity** 

**Test Certificates** 

Marine / Shipping



Special Test Certificate Type Test Certificates/Test Report







Marine / Shipping

other

Railway









Confirmation

Vibration and Shock

## **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=3RA2220-1HB24-0AK6

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2220-1HB24-0AK6

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

https://support.industry.siemens.com/cs/ww/en/ps/3RA2220-1HB24-0AK6

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

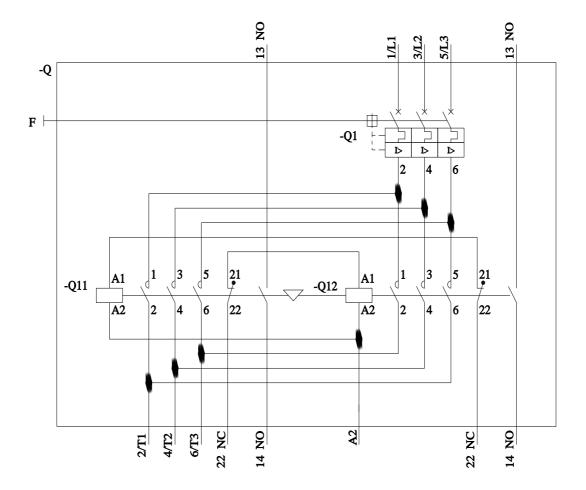
http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RA2220-1HB24-0AK6&lang=en

Characteristic: Tripping characteristics, I2t, Let-through current

https://support.industry.siemens.com/cs/ww/en/ps/3RA2220-1HB24-0AK6/char

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

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2220-1HB24-0AK6&objecttype=14&gridview=view1



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