3RA2220-4EB27-0AK6

## **Data sheet**



FUSELESS LOAD FEEDER REVERSING OPERATION, AC 400V, S0 27...32A, AC 110/120V 50/60HZ SCREW TERMINAL FOR DIN RAIL MOUNTING, WITH DIN RAIL ADAPTER TYPE OF ASSIGNMENT 2,IQ = 150KA (ALSO 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>                                       | 3RT2027-1AK60                       |
| <ul> <li>of the supplied circuit-breakers</li> </ul>                                | 3RV2021-4EA10                       |
| <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   | S0                                  |
| 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)   | 05/01/2012                          |
| Ambient conditions  |                                     |
| ambient temperature   |                                     |
| <ul><li>during operation</li></ul>  | -20 +60 °C                          |
| <ul><li>during storage</li></ul>  | -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 | 27 32 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   | 29 A   |
| operating power at AC-3  |  |
| at 400 V rated value   | 15 000 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  | 9.8 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   | 14 A   |
| yielded mechanical performance [hp]  |  |
| • for 3-phase AC motor   | 401  |
| — at 220/230 V rated value   | 10 hp  |
| — at 460/480 V rated value   | 20 hp  |
| — at 575/600 V rated value   | 25 hp  |
| Short-circuit protection   |  |
| product function short circuit protection  | Yes  |
| design of the short-circuit trip   | magnetic   |
| conditional short-circuit current (Iq)   |  |
| ` "  | 4E0 000 A  |
| at 400 V according to IEC 60947-4-1 rated value  | 150 000 A  |
| at 400 V according to IEC 60947-4-1 rated value  Installation/ mounting/ dimensions  |  |
| 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  |  |
| at 400 V according to IEC 60947-4-1 rated value  Installation/ mounting/ dimensions  mounting position   | 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   | vertical On adapter for screw and snap-on mounting on 35 mm standard mounting rail   |
| 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 mounting rail 265 mm  |
| 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 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   | 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         — 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         — forwards         — backwards         — upwards         — at the side   | 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         — forwards         — backwards         — upwards         — at the side         — downwards         • for live 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   | 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   | 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     — forwards     — backwards     — upwards     — at the side     — downwards     • for live parts     — forwards     — backwards     — upwards     — upwards     — downwards     — backwards     — backwards     — upwards     — downwards                                  | 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 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 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   | 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 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                         |
| 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  — torwards  — 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 50 mm 10 mm 10 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  | 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 10 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  — 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 10 mm 10 mm 50 mm 10 mm 10 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 — upwards — at the side  — downwards — to backwards — upwards — backwards — upwards — backwards — upwards — of or 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 | 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 10 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  — 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 |

## 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



Type Test Certificates/Test Report

Special Test Certificate







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=3RA2220-4EB27-0AK6

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2220-4EB27-0AK6

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

https://support.industry.siemens.com/cs/ww/en/ps/3RA2220-4EB27-0AK6

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

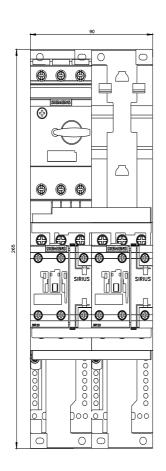
http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RA2220-4EB27-0AK6&lang=en

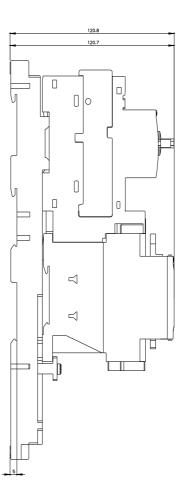
Characteristic: Tripping characteristics, I2t, Let-through current

https://support.industry.siemens.com/cs/ww/en/ps/3RA2220-4EB27-0AK6/char

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

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2220-4EB27-0AK6&objecttype=14&gridview=view1





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