



Fuseless motor starter Reversing operation 600VAC Size S0 27-32A 220/240VAC 50/60HZ screw connection For snapping onto 60 mm busbar systems Type of coordination 2 IQ = 150 KA Also full fills type Of coordination 1 1NO+1NC (per contactor)

|                                                                                            |                               |
|--------------------------------------------------------------------------------------------|-------------------------------|
| <b>product brand name</b>                                                                  | SIRIUS                        |
| <b>product designation</b>                                                                 | non-fused motor starter 3RA2  |
| <b>design of the product</b>                                                               | reversing starter             |
| <b>manufacturer's article number</b>                                                       |                               |
| • of the supplied contactor                                                                | <a href="#">3RT2027-1AP60</a> |
| • of the supplied circuit-breakers                                                         | <a href="#">3RV2021-4EA10</a> |
| • of the supplied RS assembly kit                                                          | <a href="#">3RA2923-1DB1</a>  |
| • of the supplied busbar adapter                                                           | <a href="#">8US1251-5NT10</a> |
| • of the supplied link module                                                              | <a href="#">3RA2921-1AA00</a> |
| <b>General technical data</b>                                                              |                               |
| <b>size of the circuit-breaker</b>                                                         | S0                            |
| <b>size of load feeder</b>                                                                 | S0                            |
| product extension auxiliary switch                                                         | Yes                           |
| insulation voltage with degree of pollution 3 at AC rated value                            | 690 V                         |
| <b>degree of pollution</b>                                                                 | 3                             |
| <b>surge voltage resistance rated value</b>                                                | 6 kV                          |
| <b>shock resistance according to IEC 60068-2-27</b>                                        | 6g / 11 ms                    |
| mechanical service life (operating cycles) of contactor typical                            | 10 000 000                    |
| <b>type of coordination</b>                                                                | 2                             |
| <b>Substance Prohibition (Date)</b>                                                        | 03/01/2017                    |
| <b>Weight</b>                                                                              | 2.12 kg                       |
| <b>Ambient conditions</b>                                                                  |                               |
| <b>ambient temperature</b>                                                                 |                               |
| • during operation                                                                         | -20 ... +60 °C                |
| • during storage                                                                           | -50 ... +80 °C                |
| • during transport                                                                         | -55 ... +80 °C                |
| <b>Main circuit</b>                                                                        |                               |
| <b>number of poles for main current circuit</b>                                            | 3                             |
| <b>design of the switching contact</b>                                                     | electromechanical             |
| <b>adjustable current response value current of the current-dependent overload release</b> | 27 ... 32 A                   |
| <b>operating voltage</b>                                                                   |                               |
| • rated value                                                                              | 690 V                         |
| • at AC-3 rated value maximum                                                              | 690 V                         |
| <b>operating frequency rated value</b>                                                     | 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                      |
| • at 500 V rated value                                                                     | 18 500 W                      |
| <b>Control circuit/ Control</b>                                                            |                               |

|                                                                                                |                                                            |
|------------------------------------------------------------------------------------------------|------------------------------------------------------------|
| <b>control supply voltage at AC</b>                                                            |                                                            |
| • at 50 Hz rated value                                                                         | 220 V                                                      |
| • at 50 Hz rated value                                                                         | 176 ... 242 V                                              |
| • at 60 Hz rated value                                                                         | 240 V                                                      |
| • at 60 Hz rated value                                                                         | 192 ... 264 V                                              |
| <b>apparent holding power of magnet coil at AC</b>                                             | 9.4 VA                                                     |
| <b>inductive power factor with the holding power of the coil</b>                               | 0.28                                                       |
| <b>Auxiliary circuit</b>                                                                       |                                                            |
| <b>number of NC contacts for auxiliary contacts</b>                                            | 2                                                          |
| <b>number of NO contacts for auxiliary contacts</b>                                            | 2                                                          |
| <b>Protective and monitoring functions</b>                                                     |                                                            |
| <b>trip class</b>                                                                              | CLASS 10                                                   |
| <b>design of the overload release</b>                                                          | thermal (bimetallic)                                       |
| response value current of instantaneous short-circuit trip unit                                | 416 A                                                      |
| <b>UL/CSA ratings</b>                                                                          |                                                            |
| <b>full-load current (FLA) for 3-phase AC motor</b>                                            |                                                            |
| • at 480 V rated value                                                                         | 27 A                                                       |
| • at 600 V rated value                                                                         | 27 A                                                       |
| <b>yielded mechanical performance [hp]</b>                                                     |                                                            |
| • for single-phase AC motor                                                                    |                                                            |
| — at 230 V rated value                                                                         | 5 hp                                                       |
| • for 3-phase AC motor                                                                         |                                                            |
| — at 200/208 V rated value                                                                     | 10 hp                                                      |
| — at 220/230 V rated value                                                                     | 10 hp                                                      |
| — at 460/480 V rated value                                                                     | 20 hp                                                      |
| — at 575/600 V rated value                                                                     | 25 hp                                                      |
| <b>Short-circuit protection</b>                                                                |                                                            |
| <b>product function short circuit protection</b>                                               | Yes                                                        |
| <b>design of the short-circuit trip</b>                                                        | magnetic                                                   |
| <b>conditional short-circuit current (I<sub>q</sub>)</b>                                       |                                                            |
| • at 400 V according to IEC 60947-4-1 rated value                                              | 153 000 A                                                  |
| • at 500 V according to IEC 60947-4-1 rated value                                              | 100 000 A                                                  |
| <b>Installation/ mounting/ dimensions</b>                                                      |                                                            |
| <b>mounting position</b>                                                                       | vertical                                                   |
| <b>fastening method</b>                                                                        | for snapping onto 60 mm busbar systems                     |
| <b>height</b>                                                                                  | 260 mm                                                     |
| <b>width</b>                                                                                   | 90 mm                                                      |
| <b>depth</b>                                                                                   | 155 mm                                                     |
| <b>required spacing</b>                                                                        |                                                            |
| • for grounded parts                                                                           |                                                            |
| — forwards                                                                                     | 10 mm                                                      |
| — backwards                                                                                    | 0 mm                                                       |
| — upwards                                                                                      | 30 mm                                                      |
| — at the side                                                                                  | 9 mm                                                       |
| — downwards                                                                                    | 10 mm                                                      |
| • for live parts                                                                               |                                                            |
| — forwards                                                                                     | 10 mm                                                      |
| — backwards                                                                                    | 0 mm                                                       |
| — upwards                                                                                      | 30 mm                                                      |
| — downwards                                                                                    | 10 mm                                                      |
| — at the side                                                                                  | 9 mm                                                       |
| <b>Connections/ Terminals</b>                                                                  |                                                            |
| type of electrical connection for main current circuit                                         | screw-type terminals                                       |
| type of connectable conductor cross-sections for main contacts stranded                        | 1 ... 10 mm <sup>2</sup> , 2x (2.5 ... 6 mm <sup>2</sup> ) |
| connectable conductor cross-section for main contacts finely stranded with core end processing | 1 ... 6 mm <sup>2</sup>                                    |
| <b>Safety related data</b>                                                                     |                                                            |
| proportion of dangerous failures with high demand rate according to SN 31920                   | 73 %                                                       |
| <b>B10 value with high demand rate according to SN 31920</b>                                   | 1 000 000                                                  |

|                                                         |                                                  |
|---------------------------------------------------------|--------------------------------------------------|
| Electrical Safety                                       |                                                  |
| 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 |

#### Approvals Certificates

|                          |                                |                   |
|--------------------------|--------------------------------|-------------------|
| General Product Approval | For use in hazardous locations | Test Certificates |
|--------------------------|--------------------------------|-------------------|



[Special Test Certificate](#)

|                   |                      |
|-------------------|----------------------|
| Test Certificates | Maritime application |
|-------------------|----------------------|

[Type Test Certificates/Test Report](#)



|                      |       |         |             |
|----------------------|-------|---------|-------------|
| Maritime application | other | Railway | Environment |
|----------------------|-------|---------|-------------|



[Confirmation](#)

[Special Test Certificate](#)

[Environmental Confirmations](#)

#### Further information

Information on the packaging

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

Information for data generation and storage

<https://support.industry.siemens.com/cs/ww/en/view/109995012>

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=3RA2220-4ED27-0AP6>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2220-4ED27-0AP6>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2220-4ED27-0AP6>

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

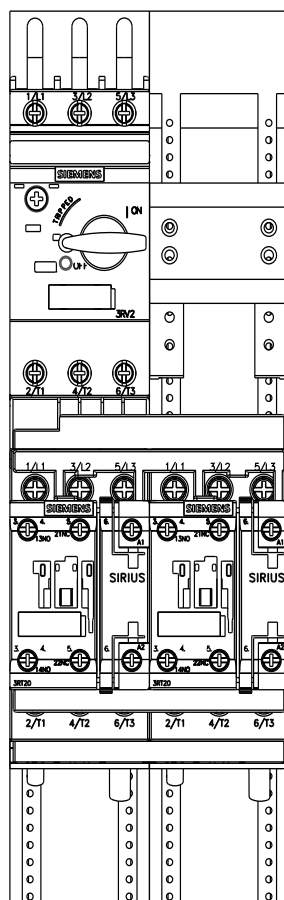
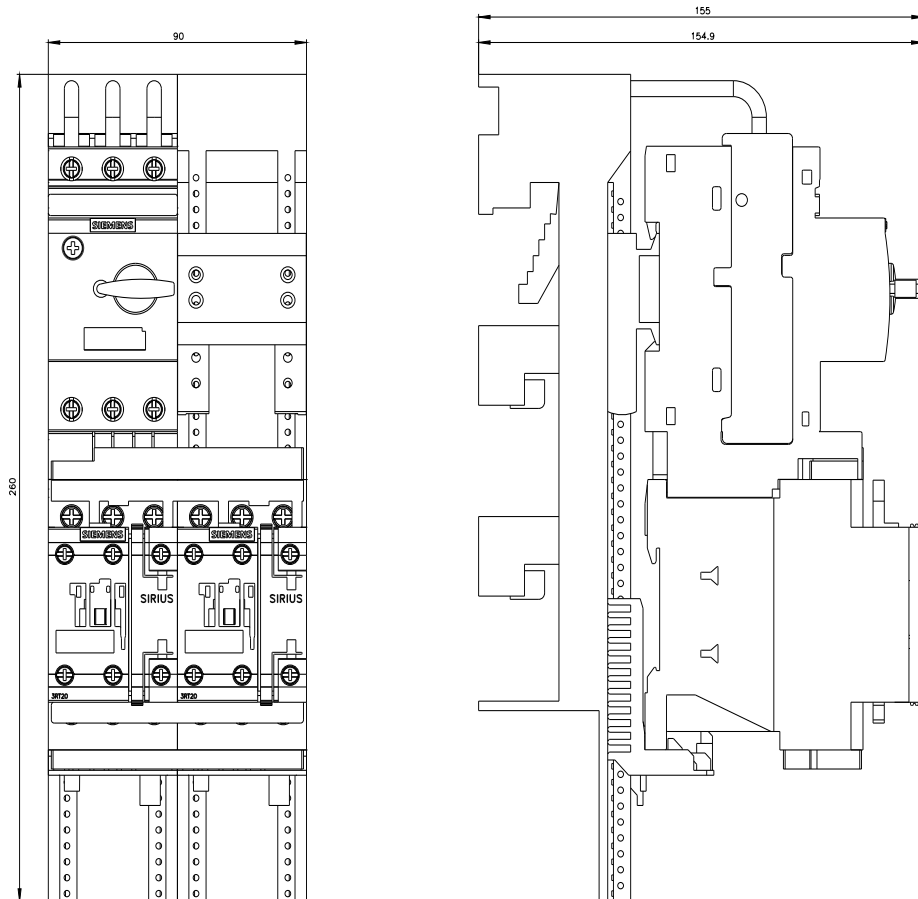
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RA2220-4ED27-0AP6&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2220-4ED27-0AP6&lang=en)

Characteristic: Tripping characteristics, I<sup>2</sup>t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2220-4ED27-0AP6/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2220-4ED27-0AP6&objecttype=14&gridview=view1>





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