



SIRIUS Compact load feeder Reversing starter 690 V 24 V AC/DC 50...60 Hz 3...12 A IP20 Connection main circuit: Spring-type terminal Connection control circuit: Spring-type terminal

|                                                                                         |                                                                                  |
|-----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
| <b>product brand name</b>                                                               | SIRIUS                                                                           |
| <b>product designation</b>                                                              | compact starter                                                                  |
| <b>design of the product</b>                                                            | reversing starter                                                                |
| <b>product type designation</b>                                                         | 3RA62                                                                            |
| <b>General technical data</b>                                                           |                                                                                  |
| product function control circuit interface to parallel wiring                           | Yes                                                                              |
| product extension auxiliary switch                                                      | Yes                                                                              |
| power loss [W] for rated value of the current at AC in hot operating state              | 1.8 W                                                                            |
| • per pole                                                                              | 0.6 W                                                                            |
| <b>power loss [W] for rated value of the current without load current share typical</b> | 2.9 W                                                                            |
| insulation voltage rated value                                                          | 690 V                                                                            |
| <b>degree of pollution</b>                                                              | 3                                                                                |
| <b>surge voltage resistance rated value</b>                                             | 6 000 V                                                                          |
| <b>maximum permissible voltage for safe isolation</b>                                   |                                                                                  |
| • between main and auxiliary circuit                                                    | 400 V                                                                            |
| • between auxiliary and auxiliary circuit                                               | 250 V                                                                            |
| • between control and auxiliary circuit                                                 | 300 V                                                                            |
| <b>degree of protection NEMA rating</b>                                                 | other                                                                            |
| <b>shock resistance</b>                                                                 | a=60 m/s <sup>2</sup> (6g) with 10 ms per 3 shocks in all axes                   |
| <b>vibration resistance</b>                                                             | f= 4 ... 5.8 Hz, d= 15 mm; f= 5.8 ... 500 Hz, a= 20 m/s <sup>2</sup> ; 10 cycles |
| <b>mechanical service life (switching cycles)</b>                                       |                                                                                  |
| • of the main contacts typical                                                          | 10 000 000                                                                       |
| • of auxiliary contacts typical                                                         | 10 000 000                                                                       |
| • of the signaling contacts typical                                                     | 10 000 000                                                                       |
| <b>electrical endurance (switching cycles) of auxiliary contacts</b>                    |                                                                                  |
| • at DC-13 at 6 A at 24 V typical                                                       | 30 000                                                                           |
| • at AC-15 at 6 A at 230 V typical                                                      | 200 000                                                                          |
| <b>type of assignment</b>                                                               | continuous operation according to IEC 60947-6-2                                  |
| <b>reference code acc. to IEC 81346-2</b>                                               | Q                                                                                |
| Substance Prohibition (Date)                                                            | 01.05.2012 00:00:00                                                              |
| <b>Ambient conditions</b>                                                               |                                                                                  |
| installation altitude at height above sea level maximum                                 | 2 000 m                                                                          |
| <b>ambient temperature</b>                                                              |                                                                                  |
| • during operation                                                                      | -20 ... +60 °C                                                                   |
| • during storage                                                                        | -55 ... +80 °C                                                                   |

|                                                                                            |                            |
|--------------------------------------------------------------------------------------------|----------------------------|
| • during transport                                                                         | -55 ... +80 °C             |
| relative humidity during operation                                                         | 10 ... 90 %                |
| <b>Main circuit</b>                                                                        |                            |
| <b>number of poles for main current circuit</b>                                            | 3                          |
| <b>adjustable current response value current of the current-dependent overload release</b> | 3 ... 12 A                 |
| <b>formula for making capacity limit current</b>                                           | 12 x I <sub>e</sub>        |
| <b>formula for breaking capacity limit current</b>                                         | 10 x I <sub>e</sub>        |
| <b>yielded mechanical performance for 4-pole AC motor</b>                                  |                            |
| • at 400 V rated value                                                                     | 5.5 kW                     |
| • at 500 V rated value                                                                     | 5.5 kW                     |
| • at 690 V rated value                                                                     | 7.5 kW                     |
| operating voltage at AC-3 rated value maximum                                              | 690 V                      |
| <b>operational current</b>                                                                 |                            |
| • at AC at 400 V rated value                                                               | 12 A                       |
| • at AC-43                                                                                 |                            |
| — at 400 V rated value                                                                     | 11.5 A                     |
| — at 500 V rated value                                                                     | 12.4 A                     |
| — at 690 V rated value                                                                     | 8.9 A                      |
| <b>operating power</b>                                                                     |                            |
| • at AC-3 at 400 V rated value                                                             | 5.5 kW                     |
| • at AC-43                                                                                 |                            |
| — at 400 V rated value                                                                     | 5 500 W                    |
| — at 500 V rated value                                                                     | 5 500 W                    |
| — at 690 V rated value                                                                     | 7 500 W                    |
| <b>no-load switching frequency</b>                                                         | 3 600 1/h                  |
| <b>operating frequency</b>                                                                 |                            |
| • at AC-41 acc. to IEC 60947-6-2 maximum                                                   | 750 1/h                    |
| • at AC-43 acc. to IEC 60947-6-2 maximum                                                   | 250 1/h                    |
| <b>Control circuit/ Control</b>                                                            |                            |
| <b>type of voltage</b>                                                                     | AC/DC                      |
| <b>control supply voltage 1 at AC</b>                                                      |                            |
| • at 50 Hz rated value                                                                     | 24 V                       |
| • at 60 Hz rated value                                                                     | 24 V                       |
| <b>control supply voltage frequency</b>                                                    |                            |
| • 1 rated value                                                                            | 50 Hz                      |
| • 2 rated value                                                                            | 60 Hz                      |
| <b>control supply voltage 1</b>                                                            |                            |
| • at DC rated value                                                                        | 24 V                       |
| <b>holding power</b>                                                                       |                            |
| • at AC maximum                                                                            | 2.8 W                      |
| • at DC maximum                                                                            | 2.9 W                      |
| <b>Auxiliary circuit</b>                                                                   |                            |
| <b>number of NC contacts for auxiliary contacts</b>                                        | 0                          |
| <b>number of NO contacts for auxiliary contacts</b>                                        | 2                          |
| number of NO contacts of instantaneous short-circuit trip unit for signaling contact       | 1                          |
| number of CO contacts of the current-dependent overload release for signaling contact      | 1                          |
| <b>operational current of auxiliary contacts at AC-12 maximum</b>                          | 10 A                       |
| operational current of auxiliary contacts at DC-13 at 250 V                                | 0.27 A                     |
| <b>Protective and monitoring functions</b>                                                 |                            |
| <b>trip class</b>                                                                          | CLASS 10 and 20 adjustable |
| <b>breaking capacity operating short-circuit current (I<sub>cs</sub>)</b>                  |                            |
| • at 400 V                                                                                 | 53 kA                      |
| • at 500 V rated value                                                                     | 3 kA                       |
| • at 690 V rated value                                                                     | 3 kA                       |
| <b>UL/CSA ratings</b>                                                                      |                            |

|                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                      |
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| <b>full-load current (FLA) for 3-phase AC motor</b>                                                                                                                                                                                                                                                                |                                                                                                                                                      |
| <ul style="list-style-type: none"> <li>at 480 V rated value</li> <li>at 600 V rated value</li> </ul>                                                                                                                                                                                                               | 12 A<br>12 A                                                                                                                                         |
| <b>yielded mechanical performance [hp] for 3-phase AC motor</b>                                                                                                                                                                                                                                                    |                                                                                                                                                      |
| <ul style="list-style-type: none"> <li>at 200/208 V rated value</li> <li>at 220/230 V rated value</li> <li>at 460/480 V rated value</li> <li>at 575/600 V rated value</li> </ul>                                                                                                                                   | 3 hp<br>3 hp<br>7.5 hp<br>10 hp                                                                                                                      |
| <b>contact rating of auxiliary contacts according to UL</b>                                                                                                                                                                                                                                                        | contacts 21-22, 13-14, 43-44 Q600 / A600, contacts 77-78 R300 / B300, contacts 95-96-98 R300 / D300                                                  |
| <b>Short-circuit protection</b>                                                                                                                                                                                                                                                                                    |                                                                                                                                                      |
| <b>product function short circuit protection</b>                                                                                                                                                                                                                                                                   | Yes                                                                                                                                                  |
| <b>design of short-circuit protection</b>                                                                                                                                                                                                                                                                          | electromagnetic                                                                                                                                      |
| <b>design of the fuse link</b>                                                                                                                                                                                                                                                                                     |                                                                                                                                                      |
| <ul style="list-style-type: none"> <li>for short-circuit protection of the auxiliary switch required</li> <li>for short-circuit protection of the signaling switch of the short-circuit release required</li> <li>for short-circuit protection of the signaling switch of the overload release required</li> </ul> | fuse gL/gG: 10 A<br><br>6A gL/gG/400V<br>4A gL/gG/400V                                                                                               |
| <b>Installation/ mounting/ dimensions</b>                                                                                                                                                                                                                                                                          |                                                                                                                                                      |
| <b>mounting position</b>                                                                                                                                                                                                                                                                                           | any                                                                                                                                                  |
| <ul style="list-style-type: none"> <li>recommended</li> </ul>                                                                                                                                                                                                                                                      | vertical, on horizontal standard mounting rail                                                                                                       |
| <b>fastening method</b>                                                                                                                                                                                                                                                                                            | screw and snap-on mounting                                                                                                                           |
| <b>height</b>                                                                                                                                                                                                                                                                                                      | 191 mm                                                                                                                                               |
| <b>width</b>                                                                                                                                                                                                                                                                                                       | 90 mm                                                                                                                                                |
| <b>depth</b>                                                                                                                                                                                                                                                                                                       | 165 mm                                                                                                                                               |
| <b>Connections/ Terminals</b>                                                                                                                                                                                                                                                                                      |                                                                                                                                                      |
| <b>product component</b>                                                                                                                                                                                                                                                                                           |                                                                                                                                                      |
| <ul style="list-style-type: none"> <li>removable terminal for main circuit</li> <li>removable terminal for auxiliary and control circuit</li> </ul>                                                                                                                                                                | Yes<br>Yes                                                                                                                                           |
| <b>type of electrical connection</b>                                                                                                                                                                                                                                                                               |                                                                                                                                                      |
| <ul style="list-style-type: none"> <li>for main current circuit</li> <li>for auxiliary and control circuit</li> </ul>                                                                                                                                                                                              | spring-loaded terminals<br>spring-loaded terminals                                                                                                   |
| <b>type of connectable conductor cross-sections</b>                                                                                                                                                                                                                                                                |                                                                                                                                                      |
| <ul style="list-style-type: none"> <li>for main contacts <ul style="list-style-type: none"> <li>solid</li> <li>finely stranded with core end processing</li> <li>finely stranded without core end processing</li> </ul> </li> <li>at AWG cables for main contacts</li> </ul>                                       | 2x (1.5 ... 6 mm <sup>2</sup> ), 1x 10 mm <sup>2</sup><br>2x (1.5 ... 6 mm <sup>2</sup> )<br>2x (1.5 ... 6 mm <sup>2</sup> )<br>2x (16 ... 10), 1x 8 |
| <b>type of connectable conductor cross-sections</b>                                                                                                                                                                                                                                                                |                                                                                                                                                      |
| <ul style="list-style-type: none"> <li>for auxiliary contacts <ul style="list-style-type: none"> <li>solid</li> <li>finely stranded with core end processing</li> <li>finely stranded without core end processing</li> </ul> </li> <li>at AWG cables for auxiliary contacts</li> </ul>                             | 2x (0.25 ... 1.5 mm <sup>2</sup> )<br>2x (0.25 ... 1.5 mm <sup>2</sup> )<br>2x (0.25 ... 1.5 mm <sup>2</sup> )<br>2x (24 ... 16)                     |
| <b>Safety related data</b>                                                                                                                                                                                                                                                                                         |                                                                                                                                                      |
| B10 value with high demand rate acc. to SN 31920                                                                                                                                                                                                                                                                   | 3 000 000                                                                                                                                            |
| <b>proportion of dangerous failures</b>                                                                                                                                                                                                                                                                            |                                                                                                                                                      |
| <ul style="list-style-type: none"> <li>with low demand rate acc. to SN 31920</li> <li>with high demand rate acc. to SN 31920</li> </ul>                                                                                                                                                                            | 40 %<br>50 %                                                                                                                                         |
| failure rate [FIT] with low demand rate acc. to SN 31920                                                                                                                                                                                                                                                           | 100 FIT                                                                                                                                              |
| <b>T1 value for proof test interval or service life acc. to IEC 61508</b>                                                                                                                                                                                                                                          | 20 y                                                                                                                                                 |
| <b>protection class IP on the front acc. to IEC 60529</b>                                                                                                                                                                                                                                                          | IP20                                                                                                                                                 |
| <b>touch protection on the front acc. to IEC 60529</b>                                                                                                                                                                                                                                                             | finger-safe                                                                                                                                          |
| <b>Communication/ Protocol</b>                                                                                                                                                                                                                                                                                     |                                                                                                                                                      |
| <b>product function bus communication</b>                                                                                                                                                                                                                                                                          | No                                                                                                                                                   |

|                                                                                                                                                                                                                                                                                    |                                                                                                                                                                |                                              |
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| <b>protocol is supported</b>                                                                                                                                                                                                                                                       |                                                                                                                                                                |                                              |
| <ul style="list-style-type: none"><li>• AS-Interface protocol</li><li>• IO-Link protocol</li></ul>                                                                                                                                                                                 | No                                                                                                                                                             |                                              |
| product function control circuit interface with IO link                                                                                                                                                                                                                            | No                                                                                                                                                             |                                              |
| <b>Electromagnetic compatibility</b>                                                                                                                                                                                                                                               |                                                                                                                                                                |                                              |
| <b>conducted interference</b>                                                                                                                                                                                                                                                      |                                                                                                                                                                |                                              |
| <ul style="list-style-type: none"><li>• due to burst acc. to IEC 61000-4-4</li><li>• due to conductor-earth surge acc. to IEC 61000-4-5</li><li>• due to conductor-conductor surge acc. to IEC 61000-4-5</li><li>• due to high-frequency radiation acc. to IEC 61000-4-6</li></ul> | 4 kV main contacts, 2 kV auxiliary contacts<br>4 kV main contacts, 2 kV auxiliary contacts<br>2 kV main contacts, 1 kV auxiliary contacts<br>0.15-80Mhz at 10V |                                              |
| <b>field-based interference acc. to IEC 61000-4-3</b>                                                                                                                                                                                                                              | 10 V/m                                                                                                                                                         |                                              |
| <b>electrostatic discharge acc. to IEC 61000-4-2</b>                                                                                                                                                                                                                               | 8 kV                                                                                                                                                           |                                              |
| <b>conducted HF interference emissions acc. to CISPR11</b>                                                                                                                                                                                                                         | 150 kHz ... 30 MHz Class A                                                                                                                                     |                                              |
| <b>field-bound HF interference emission acc. to CISPR11</b>                                                                                                                                                                                                                        | 30 ... 1000 MHz Class A                                                                                                                                        |                                              |
| <b>Supply voltage</b>                                                                                                                                                                                                                                                              |                                                                                                                                                                |                                              |
| <b>Supply voltage required Auxiliary voltage</b>                                                                                                                                                                                                                                   | No                                                                                                                                                             |                                              |
| <b>Display</b>                                                                                                                                                                                                                                                                     |                                                                                                                                                                |                                              |
| <b>number of LEDs</b>                                                                                                                                                                                                                                                              | 3                                                                                                                                                              |                                              |
| <b>Certificates/ approvals</b>                                                                                                                                                                                                                                                     |                                                                                                                                                                |                                              |
| <b>General Product Approval</b>                                                                                                                                                                                                                                                    | <b>EMC</b>                                                                                                                                                     | <b>Functional Safety/Safety of Machinery</b> |



|                                  |                          |                          |
|----------------------------------|--------------------------|--------------------------|
| <b>Declaration of Conformity</b> | <b>Test Certificates</b> | <b>Marine / Shipping</b> |
|----------------------------------|--------------------------|--------------------------|



[Type Test Certificates/Test Report](#)



|                          |              |
|--------------------------|--------------|
| <b>Marine / Shipping</b> | <b>other</b> |
|--------------------------|--------------|



[Confirmation](#)

#### 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=3RA6250-2DB32>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA6250-2DB32>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RA6250-2DB32>

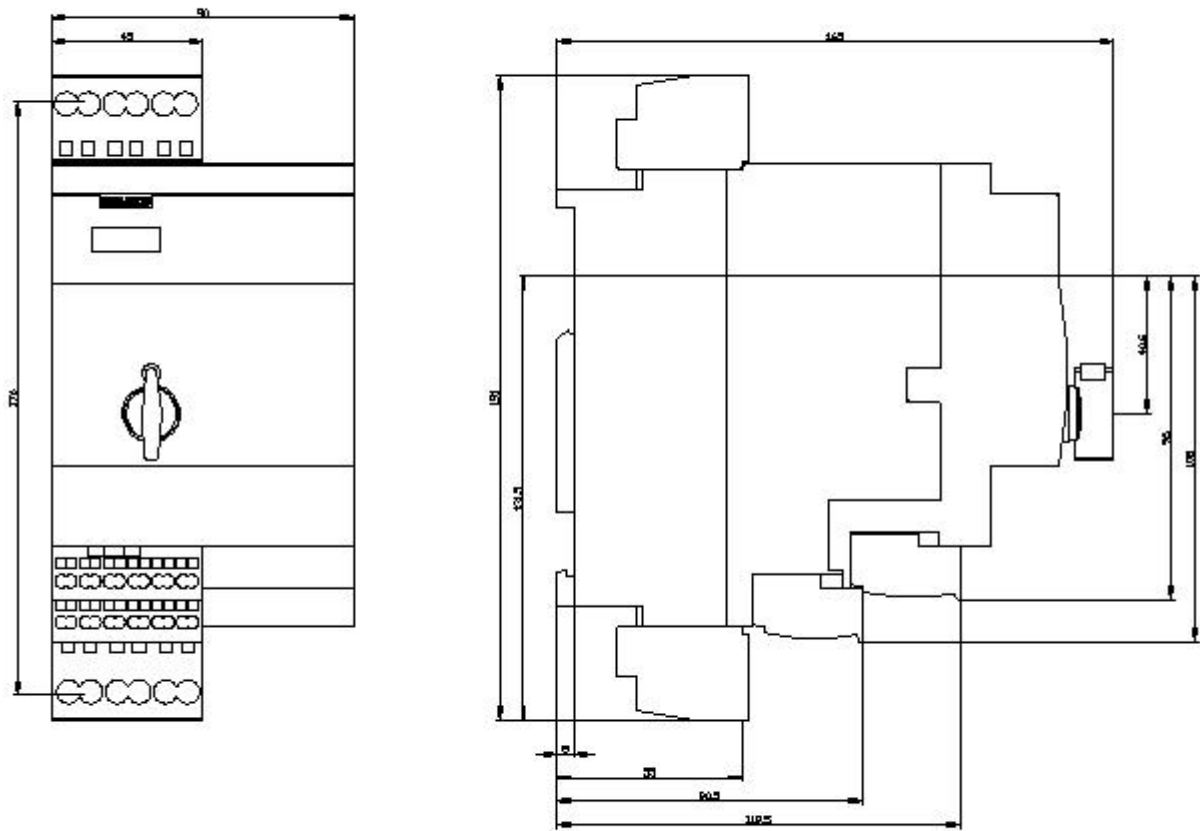
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

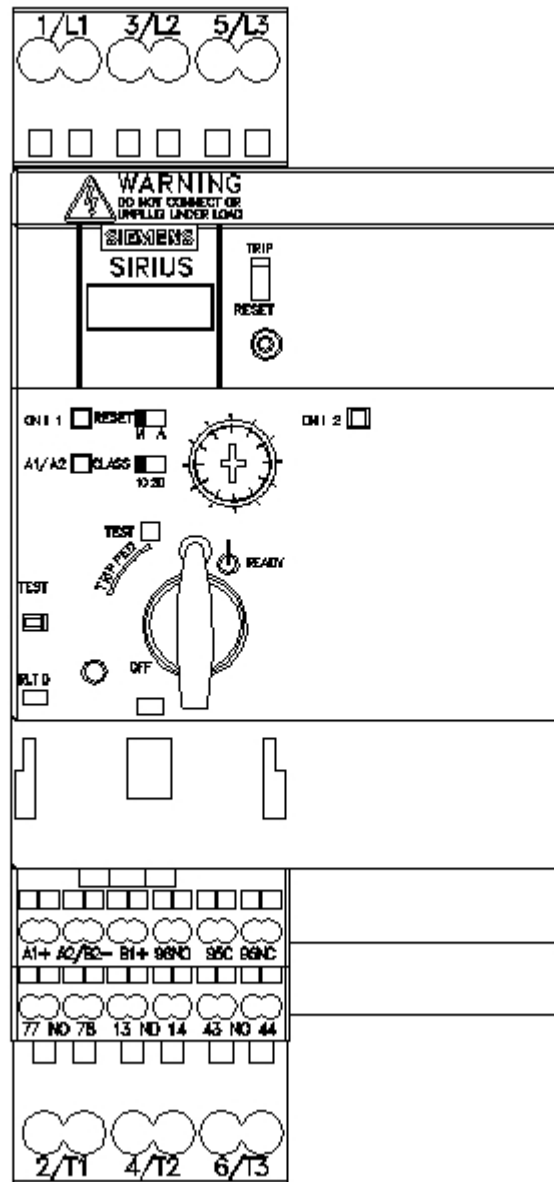
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RA6250-2DB32&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA6250-2DB32&lang=en)

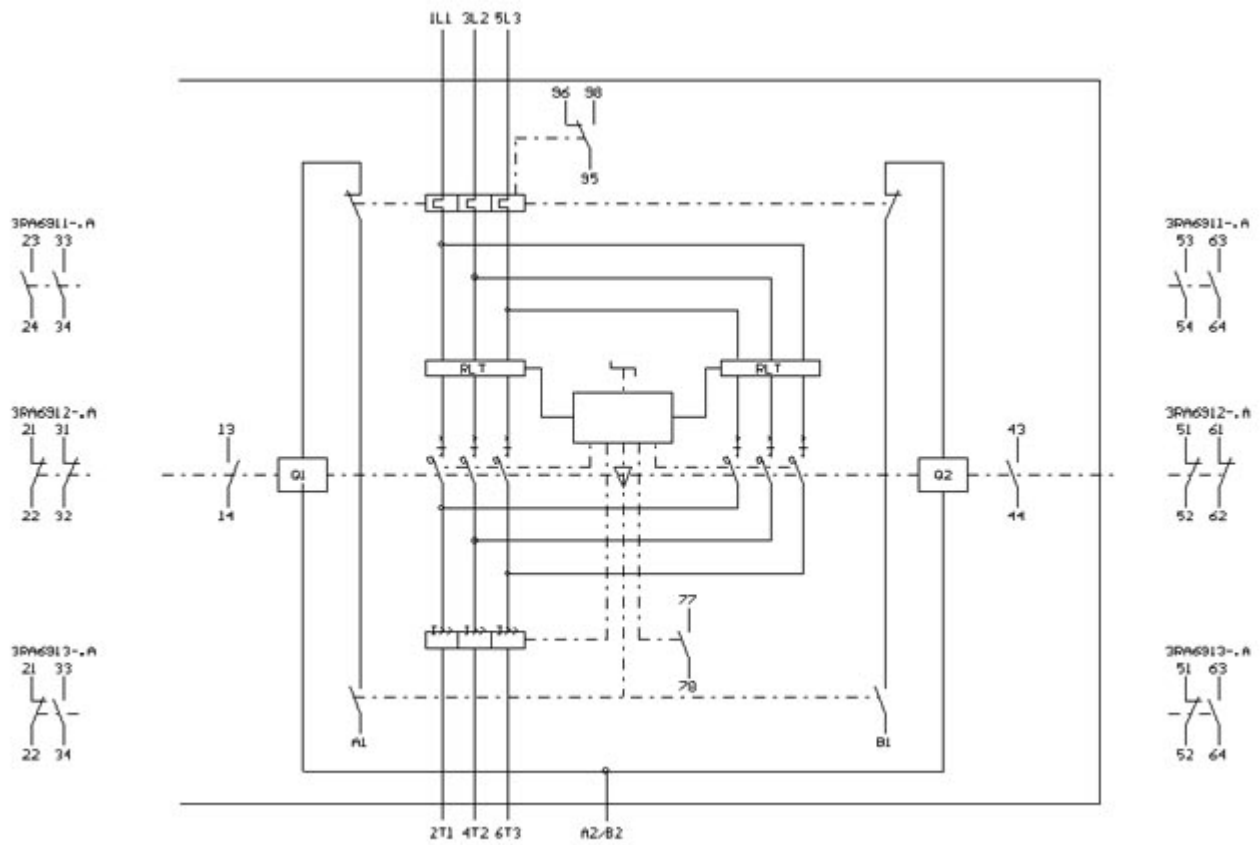
Characteristic: Tripping characteristics, I<sup>2</sup>t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RA6250-2DB32/char>

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







last modified:

1/20/2021 