



SIRIUS soft starter S12 385 A, 400 hp/575 V, 50 °C 400-600 V AC, 115 V AC spring-type terminals !!! Phased-out product !!! Successor is SIRIUS 3RW5, Preferred successor type is >>3RW5076-2AB15<<

| General technical data                                                           |    |                          |
|----------------------------------------------------------------------------------|----|--------------------------|
| product brand name                                                               |    | SIRIUS                   |
| product feature                                                                  |    |                          |
| • integrated bypass contact system                                               |    | Yes                      |
| • thyristors                                                                     |    | Yes                      |
| product function                                                                 |    |                          |
| • intrinsic device protection                                                    |    | Yes                      |
| • motor overload protection                                                      |    | Yes                      |
| • evaluation of thermistor motor protection                                      |    | No                       |
| • external reset                                                                 |    | Yes                      |
| • adjustable current limitation                                                  |    | Yes                      |
| • inside-delta circuit                                                           |    | No                       |
| product component motor brake output                                             |    | No                       |
| insulation voltage rated value                                                   | V  | 600                      |
| degree of pollution                                                              |    | 3, acc. to IEC 60947-4-2 |
| reference code acc. to DIN EN 61346-2                                            |    | Q                        |
| reference code acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750 |    | G                        |
| Power Electronics                                                                |    |                          |
| product designation                                                              |    | Soft starter             |
| operational current                                                              |    |                          |
| • at 40 °C rated value                                                           | A  | 432                      |
| • at 50 °C rated value                                                           | A  | 385                      |
| • at 60 °C rated value                                                           | A  | 335                      |
| yielded mechanical performance for 3-phase motors                                |    |                          |
| • at 400 V                                                                       |    |                          |
| — at standard circuit at 40 °C rated value                                       | W  | 250 000                  |
| • at 500 V                                                                       |    |                          |
| — at standard circuit at 40 °C rated value                                       | W  | 315 000                  |
| operating frequency rated value                                                  | Hz | 50 ... 60                |
| relative negative tolerance of the operating frequency                           | %  | -10                      |
| relative positive tolerance of the operating frequency                           | %  | 10                       |
| operating voltage at standard circuit rated value                                | V  | 400 ... 600              |
| relative negative tolerance of the operating voltage at standard circuit         | %  | -15                      |
| relative positive tolerance of the operating voltage at standard circuit         | %  | 10                       |
| minimum load [%]                                                                 | %  | 20                       |

|                                                                                                                |    |                                                                                                                                                                                                                                                                   |
|----------------------------------------------------------------------------------------------------------------|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| adjustable motor current for motor overload protection minimum rated value                                     | A  | 207                                                                                                                                                                                                                                                               |
| continuous operating current [% of I <sub>e</sub> ] at 40 °C                                                   | %  | 115                                                                                                                                                                                                                                                               |
| power loss [W] at operational current at 40 °C during operation typical                                        | W  | 165                                                                                                                                                                                                                                                               |
| <b>Control circuit/ Control</b>                                                                                |    |                                                                                                                                                                                                                                                                   |
| type of voltage of the control supply voltage                                                                  |    | AC                                                                                                                                                                                                                                                                |
| control supply voltage frequency 1 rated value                                                                 | Hz | 50                                                                                                                                                                                                                                                                |
| control supply voltage frequency 2 rated value                                                                 | Hz | 60                                                                                                                                                                                                                                                                |
| relative negative tolerance of the control supply voltage frequency                                            | %  | -10                                                                                                                                                                                                                                                               |
| relative positive tolerance of the control supply voltage frequency                                            | %  | 10                                                                                                                                                                                                                                                                |
| control supply voltage 1 at AC                                                                                 |    |                                                                                                                                                                                                                                                                   |
| • at 50 Hz rated value                                                                                         | V  | 115                                                                                                                                                                                                                                                               |
| • at 60 Hz rated value                                                                                         | V  | 115                                                                                                                                                                                                                                                               |
| relative negative tolerance of the control supply voltage at AC at 50 Hz                                       | %  | -15                                                                                                                                                                                                                                                               |
| relative positive tolerance of the control supply voltage at AC at 50 Hz                                       | %  | 10                                                                                                                                                                                                                                                                |
| relative negative tolerance of the control supply voltage at AC at 60 Hz                                       | %  | -15                                                                                                                                                                                                                                                               |
| relative positive tolerance of the control supply voltage at AC at 60 Hz                                       | %  | 10                                                                                                                                                                                                                                                                |
| display version for fault signal                                                                               |    | red                                                                                                                                                                                                                                                               |
| <b>Mechanical data</b>                                                                                         |    |                                                                                                                                                                                                                                                                   |
| size of engine control device                                                                                  |    | S12                                                                                                                                                                                                                                                               |
| width                                                                                                          | mm | 160                                                                                                                                                                                                                                                               |
| height                                                                                                         | mm | 230                                                                                                                                                                                                                                                               |
| depth                                                                                                          | mm | 278                                                                                                                                                                                                                                                               |
| fastening method                                                                                               |    | screw fixing                                                                                                                                                                                                                                                      |
| mounting position                                                                                              |    | With additional fan: With vertical mounting surface +/- 90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back Without additional fan: With vertical mounting surface +/- 10° rotatable, with vertical mounting surface +/- 10° t |
| required spacing with side-by-side mounting                                                                    |    |                                                                                                                                                                                                                                                                   |
| • upwards                                                                                                      | mm | 100                                                                                                                                                                                                                                                               |
| • at the side                                                                                                  | mm | 5                                                                                                                                                                                                                                                                 |
| • downwards                                                                                                    | mm | 75                                                                                                                                                                                                                                                                |
| wire length maximum                                                                                            | m  | 300                                                                                                                                                                                                                                                               |
| number of poles for main current circuit                                                                       |    | 3                                                                                                                                                                                                                                                                 |
| <b>Connections/ Terminals</b>                                                                                  |    |                                                                                                                                                                                                                                                                   |
| type of electrical connection                                                                                  |    |                                                                                                                                                                                                                                                                   |
| • for main current circuit                                                                                     |    | busbar connection                                                                                                                                                                                                                                                 |
| • for auxiliary and control circuit                                                                            |    | spring-loaded terminals                                                                                                                                                                                                                                           |
| number of NC contacts for auxiliary contacts                                                                   |    | 0                                                                                                                                                                                                                                                                 |
| number of NO contacts for auxiliary contacts                                                                   |    | 2                                                                                                                                                                                                                                                                 |
| number of CO contacts for auxiliary contacts                                                                   |    | 1                                                                                                                                                                                                                                                                 |
| type of connectable conductor cross-sections for main contacts for box terminal using the front clamping point |    |                                                                                                                                                                                                                                                                   |
| • finely stranded with core end processing                                                                     |    | 70 ... 240 mm²                                                                                                                                                                                                                                                    |
| • finely stranded without core end processing                                                                  |    | 70 ... 240 mm²                                                                                                                                                                                                                                                    |
| • stranded                                                                                                     |    | 95 ... 300 mm²                                                                                                                                                                                                                                                    |
| type of connectable conductor cross-sections for main contacts for box terminal using the back clamping point  |    |                                                                                                                                                                                                                                                                   |
| • finely stranded with core end processing                                                                     |    | 120 ... 185 mm²                                                                                                                                                                                                                                                   |
| • finely stranded without core end processing                                                                  |    | 120 ... 185 mm²                                                                                                                                                                                                                                                   |
| • stranded                                                                                                     |    | 120 ... 240 mm²                                                                                                                                                                                                                                                   |
| type of connectable conductor cross-sections for                                                               |    |                                                                                                                                                                                                                                                                   |

|                                                                                                                                                                                                                                                                  |  |                                                                                                                                                                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>main contacts for box terminal using both clamping points</b> <ul style="list-style-type: none"> <li>finely stranded with core end processing</li> <li>finely stranded without core end processing</li> <li>stranded</li> </ul>                               |  | min. 2x 50 mm <sup>2</sup> , max. 2x 185 mm <sup>2</sup><br>min. 2x 50 mm <sup>2</sup> , max. 2x 185 mm <sup>2</sup><br>max. 2x 70 mm <sup>2</sup> , max. 2x 240 mm <sup>2</sup> |
| <b>type of connectable conductor cross-sections at AWG cables for main contacts for box terminal</b> <ul style="list-style-type: none"> <li>using the back clamping point</li> <li>using the front clamping point</li> <li>using both clamping points</li> </ul> |  | 250 ... 500 kcmil<br>3/0 ... 600 kcmil<br>min. 2x 2/0, max. 2x 500 kcmil                                                                                                         |
| <b>type of connectable conductor cross-sections for DIN cable lug for main contacts</b> <ul style="list-style-type: none"> <li>finely stranded</li> <li>stranded</li> </ul>                                                                                      |  | 50 ... 240 mm <sup>2</sup><br>70 ... 240 mm <sup>2</sup>                                                                                                                         |
| <b>type of connectable conductor cross-sections for auxiliary contacts</b> <ul style="list-style-type: none"> <li>solid</li> <li>finely stranded with core end processing</li> </ul>                                                                             |  | 2x (0.25 ... 1.5 mm <sup>2</sup> )<br>2x (0.25 ... 1.5 mm <sup>2</sup> )                                                                                                         |
| <b>type of connectable conductor cross-sections at AWG cables</b> <ul style="list-style-type: none"> <li>for main contacts</li> <li>for auxiliary contacts</li> </ul>                                                                                            |  | 2/0 ... 500 kcmil<br>2x (24 ... 16)                                                                                                                                              |

| Ambient conditions                                                                                                                                                                                       |          |                                                                                                                                                                                                                                                                         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>installation altitude at height above sea level</b>                                                                                                                                                   | m        | 5 000                                                                                                                                                                                                                                                                   |
| <b>environmental category</b> <ul style="list-style-type: none"> <li>during transport acc. to IEC 60721</li> <li>during storage acc. to IEC 60721</li> <li>during operation acc. to IEC 60721</li> </ul> |          | 2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m)<br>1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4<br>3K6 (no formation of ice, no condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 |
| <b>ambient temperature</b> <ul style="list-style-type: none"> <li>during operation</li> <li>during storage</li> </ul>                                                                                    | °C<br>°C | -25 ... +60<br>-40 ... +80                                                                                                                                                                                                                                              |
| <b>derating temperature</b>                                                                                                                                                                              | °C       | 40                                                                                                                                                                                                                                                                      |
| <b>protection class IP</b>                                                                                                                                                                               |          | IP00                                                                                                                                                                                                                                                                    |

| Certificates/ approvals  |  |     |
|--------------------------|--|-----|
| General Product Approval |  | EMC |



|                                |                           |                   |                   |
|--------------------------------|---------------------------|-------------------|-------------------|
| For use in hazardous locations | Declaration of Conformity | Test Certificates | Marine / Shipping |
|--------------------------------|---------------------------|-------------------|-------------------|



[Miscellaneous](#)



[Special Test Certificate](#)



|       |
|-------|
| other |
|-------|

[Confirmation](#)

#### UL/CSA ratings

|                                                          |                                            |             |
|----------------------------------------------------------|--------------------------------------------|-------------|
| yielded mechanical performance [hp] for 3-phase AC motor |                                            |             |
|                                                          | ● at 460/480 V                             |             |
|                                                          | — at standard circuit at 50 °C rated value |             |
|                                                          | hp                                         | 300         |
| ● at 575/600 V                                           |                                            |             |
|                                                          | — at standard circuit at 50 °C rated value |             |
|                                                          | hp                                         | 400         |
| contact rating of auxiliary contacts according to UL     |                                            | B300 / R300 |

#### Further information

##### Simulation Tool for Soft Starters (STS)

<https://support.industry.siemens.com/cs/ww/en/view/101494917>

##### 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=3RW4076-2BB35>

##### Cax online generator

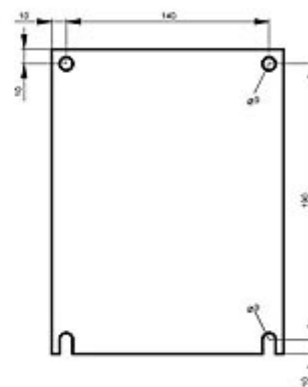
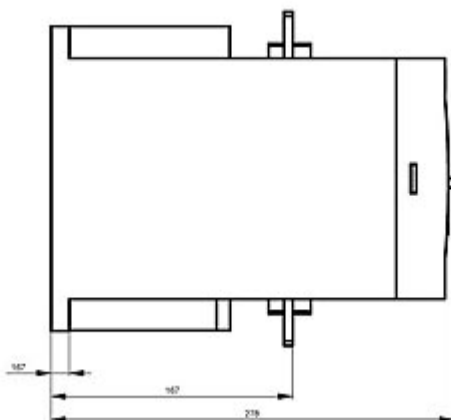
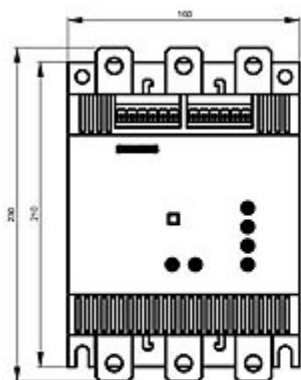
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW4076-2BB35>

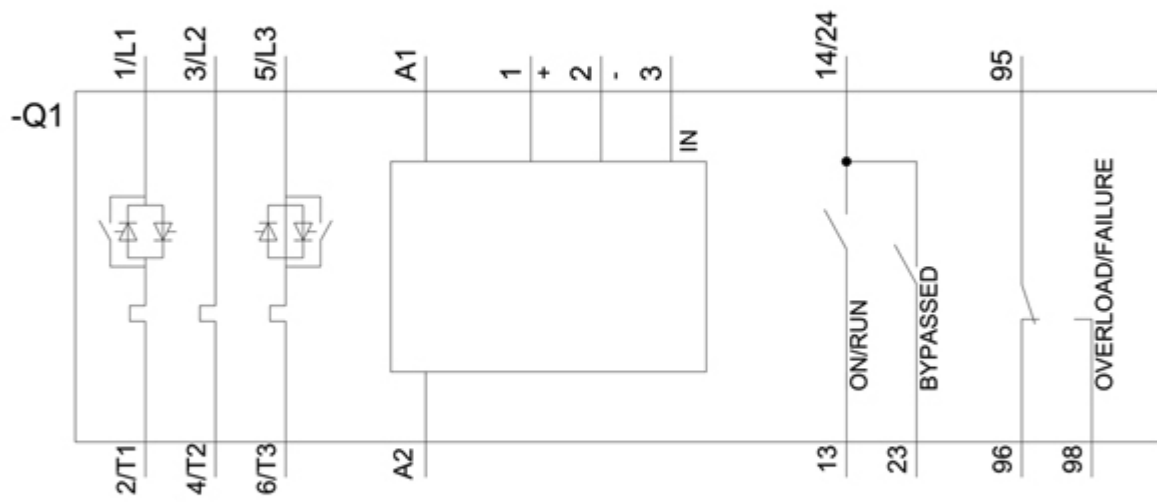
##### Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3RW4076-2BB35>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RW4076-2BB35&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RW4076-2BB35&lang=en)





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