# **SIEMENS**



Data sheet 3RW5547-6HF04



SIRIUS soft starter 200-480 V 470 A, 24 V AC/DC Screw terminals Failsafe

Figure similar

| product brand name                                                                                                           | SIRIUS                                                           |
|------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|
| product category                                                                                                             | Hybrid switching devices                                         |
| product designation                                                                                                          | Failsafe soft starters                                           |
| product type designation                                                                                                     | 3RW55                                                            |
| manufacturer's article number                                                                                                |                                                                  |
| <ul> <li>of high feature HMI module usable</li> </ul>                                                                        | 3RW5980-0HF00                                                    |
| <ul> <li>of communication module PROFINET standard usable</li> </ul>                                                         | 3RW5980-0CS00                                                    |
| <ul> <li>of communication module PROFINET high-feature usable</li> </ul>                                                     | 3RW5950-0CH00                                                    |
| <ul> <li>of communication module PROFIBUS usable</li> </ul>                                                                  | 3RW5980-0CP00                                                    |
| <ul> <li>of communication module Modbus TCP usable</li> </ul>                                                                | 3RW5980-0CT00                                                    |
| <ul> <li>of communication module Modbus RTU usable</li> </ul>                                                                | 3RW5980-0CR00                                                    |
| <ul> <li>of communication module Ethernet/IP</li> </ul>                                                                      | 3RW5980-0CE00                                                    |
| <ul> <li>of circuit breaker usable at 400 V</li> </ul>                                                                       | 3VA2450-7MN32-0AA0; Type of coordination 1, Iq = 65 kA, CLASS 10 |
| <ul> <li>of circuit breaker usable at 500 V</li> </ul>                                                                       | 3VA2450-7MN32-0AA0; Type of coordination 1, Iq = 65 kA, CLASS 10 |
| <ul> <li>of circuit breaker usable at 400 V at inside-delta<br/>circuit</li> </ul>                                           | 3VA2510-6HN32-0AA0; Type of coordination 1, Iq = 65 kA, CLASS 10 |
| <ul> <li>of circuit breaker usable at 500 V at inside-delta<br/>circuit</li> </ul>                                           | 3VA2510-6HN32-0AA0; Type of coordination 1, Iq = 65 kA, CLASS 10 |
| <ul> <li>of the gG fuse usable up to 690 V</li> </ul>                                                                        | 2x3NA3365-6; Type of coordination 1, Iq = 65 kA                  |
| <ul> <li>of the gG fuse usable at inside-delta circuit up to<br/>500 V</li> </ul>                                            | 2x3NA3365-6; Type of coordination 1, Iq = 65 kA                  |
| <ul> <li>of full range R fuse link for semiconductor protection<br/>usable up to 690 V</li> </ul>                            | 3NE1436-2; Type of coordination 2, Iq = 65 kA                    |
| <ul> <li>of back-up R fuse link for semiconductor protection<br/>usable up to 690 V</li> </ul>                               | 3NE3340-8; Type of coordination 2, Iq = 65 kA                    |
| <ul> <li>of the redundant contactor for applications &gt; SIL 1<br/>according to EN 62061</li> </ul>                         | 3TF69                                                            |
| <ul> <li>of the redundant contactor for applications &gt; SIL 1<br/>at inside-delta circuit according to EN 62061</li> </ul> | 3TF69                                                            |
| General technical data                                                                                                       |                                                                  |
| starting voltage [%]                                                                                                         | 20 100 %                                                         |
| stopping voltage [%]                                                                                                         | 50 %; non-adjustable                                             |
| start-up ramp time of soft starter                                                                                           | 0 360 s                                                          |
| ramp-down time of soft starter                                                                                               | 0 360 s                                                          |
| start torque [%]                                                                                                             | 10 100 %                                                         |
| stopping torque [%]                                                                                                          | 10 100 %                                                         |
| torque limitation [%]                                                                                                        | 20 200 %                                                         |
| current limiting value [%] adjustable                                                                                        | 125 800 %                                                        |
| breakaway voltage [%] adjustable                                                                                             | 40 100 %                                                         |

| hundravan tima adic-t-l-l-                                                                                                                            | 0.20                                                                                                                                                                                                                       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| breakaway time adjustable                                                                                                                             | 0 2 s                                                                                                                                                                                                                      |
| number of parameter sets                                                                                                                              | dientudong  3 5 %                                                                                                                                                                                                          |
| accuracy class according to IEC 61557-12                                                                                                              | 5 %                                                                                                                                                                                                                        |
| certificate of suitability                                                                                                                            | V.                                                                                                                                                                                                                         |
| CE marking                                                                                                                                            | Yes                                                                                                                                                                                                                        |
| UL approval                                                                                                                                           | Yes                                                                                                                                                                                                                        |
| CSA approval                                                                                                                                          | Yes                                                                                                                                                                                                                        |
| product component                                                                                                                                     | V                                                                                                                                                                                                                          |
| HMI-High Feature                                                                                                                                      | Yes                                                                                                                                                                                                                        |
| is supported HMI-High Feature                                                                                                                         | Yes                                                                                                                                                                                                                        |
| product feature integrated bypass contact system                                                                                                      | Yes                                                                                                                                                                                                                        |
| number of controlled phases                                                                                                                           | 3                                                                                                                                                                                                                          |
| trip class                                                                                                                                            | CLASS 10A / 10E (default) / 20E / 30E; acc. to IEC 60947-4-2                                                                                                                                                               |
| current unbalance limiting value [%]                                                                                                                  | 10 60 %                                                                                                                                                                                                                    |
| ground-fault monitoring limiting value [%]                                                                                                            | 10 95 %                                                                                                                                                                                                                    |
| buffering time in the event of power failure                                                                                                          | 400                                                                                                                                                                                                                        |
| for main current circuit                                                                                                                              | 100 ms                                                                                                                                                                                                                     |
| • for control circuit                                                                                                                                 | 100 ms                                                                                                                                                                                                                     |
| idle time adjustable                                                                                                                                  | 0 255 s                                                                                                                                                                                                                    |
| insulation voltage rated value                                                                                                                        | 480 V                                                                                                                                                                                                                      |
| degree of pollution                                                                                                                                   | 3, acc. to IEC 60947-4-2                                                                                                                                                                                                   |
| impulse voltage rated value                                                                                                                           | 6 kV                                                                                                                                                                                                                       |
| blocking voltage of the thyristor maximum                                                                                                             | 1 400 V                                                                                                                                                                                                                    |
| service factor                                                                                                                                        | 1.15                                                                                                                                                                                                                       |
| surge voltage resistance rated value                                                                                                                  | 6 kV                                                                                                                                                                                                                       |
| maximum permissible voltage for safe isolation                                                                                                        | 400.4                                                                                                                                                                                                                      |
| between main and auxiliary circuit                                                                                                                    | 480 V; does not apply for thermistor connection                                                                                                                                                                            |
| shock resistance                                                                                                                                      | 15 g / 11 ms, from 6 g / 11 ms with potential contact lifting                                                                                                                                                              |
| vibration resistance                                                                                                                                  | 15 mm up to 6 Hz; 2 g up to 500 Hz                                                                                                                                                                                         |
| recovery time after overload trip adjustable                                                                                                          | 60 1 800 s                                                                                                                                                                                                                 |
| utilization category according to IEC 60947-4-2                                                                                                       | AC 53a                                                                                                                                                                                                                     |
| reference code according to IEC 81346-2                                                                                                               | Q                                                                                                                                                                                                                          |
| Substance Prohibitance (Date)                                                                                                                         | 11/22/2019                                                                                                                                                                                                                 |
| product function                                                                                                                                      | Ver                                                                                                                                                                                                                        |
| ramp-up (soft starting)                                                                                                                               | Yes                                                                                                                                                                                                                        |
| • ramp-down (soft stop)                                                                                                                               | Yes                                                                                                                                                                                                                        |
| breakaway pulse                                                                                                                                       | Yes                                                                                                                                                                                                                        |
| adjustable current limitation                                                                                                                         | Yes                                                                                                                                                                                                                        |
| creep speed in both directions of rotation                                                                                                            | Yes                                                                                                                                                                                                                        |
| • pump ramp down                                                                                                                                      | Yes                                                                                                                                                                                                                        |
| DC braking                                                                                                                                            | Yes                                                                                                                                                                                                                        |
| motor heating                                                                                                                                         | Yes                                                                                                                                                                                                                        |
| slave pointer function                                                                                                                                | Yes                                                                                                                                                                                                                        |
| trace function     intrinsic devices productions                                                                                                      | Yes                                                                                                                                                                                                                        |
| intrinsic device protection                                                                                                                           | Yes                                                                                                                                                                                                                        |
| motor overload protection                                                                                                                             | Yes; Full motor protection (thermistor motor protection and electronic motor overload protection) / When using the motor overload protection according to ATEX, an upstream contactor is required in inside-delta circuit. |
| <ul> <li>evaluation of thermistor motor protection</li> </ul>                                                                                         | Yes; Type A PTC or Klixon / Thermoclick                                                                                                                                                                                    |
| inside-delta circuit                                                                                                                                  | Yes                                                                                                                                                                                                                        |
| • auto-RESET                                                                                                                                          | Yes                                                                                                                                                                                                                        |
|                                                                                                                                                       | 163                                                                                                                                                                                                                        |
| manual RESET                                                                                                                                          | Yes                                                                                                                                                                                                                        |
| <ul><li>manual RESET</li><li>remote reset</li></ul>                                                                                                   |                                                                                                                                                                                                                            |
|                                                                                                                                                       | Yes                                                                                                                                                                                                                        |
| • remote reset                                                                                                                                        | Yes<br>Yes                                                                                                                                                                                                                 |
| <ul><li>remote reset</li><li>communication function</li></ul>                                                                                         | Yes<br>Yes<br>Yes                                                                                                                                                                                                          |
| <ul> <li>remote reset</li> <li>communication function</li> <li>operating measured value display</li> <li>event list</li> </ul>                        | Yes Yes Yes Yes                                                                                                                                                                                                            |
| <ul> <li>remote reset</li> <li>communication function</li> <li>operating measured value display</li> <li>event list</li> <li>error logbook</li> </ul> | Yes Yes Yes Yes Yes Yes                                                                                                                                                                                                    |
| <ul> <li>remote reset</li> <li>communication function</li> <li>operating measured value display</li> <li>event list</li> </ul>                        | Yes Yes Yes Yes Yes Yes Yes                                                                                                                                                                                                |

| PROPEDIATE  Fromware update  Fromware u  |                                                                           |                                                               |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|---------------------------------------------------------------|
| • firmware update  • monovable torminal for control circuit  • ordinge ramp  • lorque control  • combined braining  • analog output  • analog output  • condition monitoring  • analog output  • condition monitoring  • cond  |                                                                           | No Alloward Const                                             |
| • firmware update  • monovable torminal for control circuit  • ordinge ramp  • lorque control  • combined braining  • analog output  • analog output  • condition monitoring  • analog output  • condition monitoring  • cond  | <ul> <li>PROFlenergy</li> </ul>                                           | Yes; in connection the PLOF N E Stan a d a d PROF N E T High- |
| removable terminal for control circuit  voltage ramp  combined braking  condition monitoring  ves  con | a firmware undate                                                         | reduce communic                                               |
| • voltage many • torque control • combined braking • arrandog output • ves • arrandog output • ves • condition monitoring • ves • condition monitoring • ves • condition monitoring • automatic parameterisation • application vizzards • application vizzards • application vizzards • application vizzards • allermative fun-down • emergency operation mode • ves • creering operation • ves • condition monitoring • ves • and starting at heavy starting conditions  * ves • condition fuzzards • ves • creering operation • at 40 °C rated value • at 60 °C rate  | -                                                                         |                                                               |
| • combined braking • combined braking • combined braking • combined braking • combined monitoring • condition monitoring • automatic parameterisation • application vizards • allower parameterisation • application vizards • allower poperation mode • resersing operation • ceretary operation mode • resersing operation • soft starting at heavy starting conditions • 298 • and taterting at heavy starting conditions • 298 • and taterting at heavy starting conditions • 298 • and taterting at heavy starting conditions • 298 • and taterting at heavy starting conditions • 290 • and 40 °C rated value • at 40 °C rated value • at 60 °C rated value • at 1 miside-delta circuit • at 230 °V at 40 °C rated value • at 1 miside-delta circuit • at 230 °V at 30 °C rated value • at 230 °V at 30 °C rated value • at 230 °V at 30 °C rated value • at 230 °V at 30 °C rated value • at 230 °V at 30 °C rated value • at 230 °V at 30 °C rated value • at 230 °V at 30 °C rated value • at 230 °V at 30 °C rated value • at 230 °V at 30 °C rated value • at 230 °V at 30 °C rated value • at 230 °V at 30 °C rated value • at 230 °V at 30 °C rated value • at 230 °V at 30 °C rated value • at 230 °V at 30 °C rated value • at 230 °V at 30 °C rated value • at 230 °V at 30 °C rated value • at 230 °V at 30 °C rated value • at 230 °V at 30 °C rated value • at 30 °C rated value of the current at A°C • at 40 °C rated value of the current at A°C • at 40 °C rated value of the current at A°C • at 40 °C rated value of the current a |                                                                           |                                                               |
| ecombined braking enalog output enalog outpu | 5                                                                         |                                                               |
| analog output programmable control inputs/outputs automatic parameterisation papellation wizards programmable control inputs/outputs programmable control inputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outputs/outp  |                                                                           |                                                               |
| e programmable control inputs/outputs condition monitoring e automatic parameterisation e application wizards e application wizards e alternative run-down e emergency operation mode e reversing operation e soft starting at heavy starting conditions e at 40 °C rated value e at 80 °C rate | _                                                                         |                                                               |
| e condition monitoring e automatic parameterisation e application wizards e alternative run-down emergency operation mode reversing operation e soft starting at heavy starting conditions  Power Electronics  Power Electronics  operational current e at 40 °C rated value e at 40 °C rated value eminimum e at 60 °C rated value e at 60 °C rated val |                                                                           |                                                               |
| automatic parameterisation application wizards alternative run-down emergency operation mode reversing operation soft starting at heavy starting conditions  Power Electronics  Power Electronics  Power Electronics  1 40 °C rated value at 60  |                                                                           |                                                               |
| alternative run-down alternat  | <u> </u>                                                                  |                                                               |
| e illernative run-down e mergency operation mode reversing operation porations of starting at heavy starting conditions  Power Electrolics  operational current e at 40 °C rated value at 50 °C rated value at 60 °C rated  |                                                                           |                                                               |
| • reversing operation • soft starting at heavy starting conditions  Power Electronics  operational current • at 40 °C rated value • at 40 °C rated value • at 60 °C rated value • at inside-delta circuit rated value • at inside-delta circuit rated value • relative negative tolerance of the operating voltage relative positive tolerance of the operating voltage at inside-delta circuit relative positive tolerance of the operating voltage at inside-delta circuit relative positive tolerance of the operating voltage at inside-delta circuit operating power for 3-phase motors • at 230 V at 60 °C rated value • at 400 V at 40 °C rated value • at 400 V at 40 °C rated value • at 400 V at inside-delta circuit at 40 °C rated value • at 400 V at inside-delta circuit at 40 °C rated value • at 400 V at inside-delta circuit at 40 °C rated value • at 400 V at inside-delta circuit at 40 °C rated value • at 400 V at inside-delta circuit at 40 °C rated value • at 40 °C date raterup • at 40 °C date startup • at 60 °C dater startup • at 60 °C during startup • at 60  |                                                                           |                                                               |
| e reversing operation e soft starting at heavy starting conditions  Power Electronics  operational current  at 40 °C rated value  at 40 °C rated value  at 60 °C atter startup  at 60 °C atter startup  at 60 °C during startup  at 6 | emergency operation mode                                                  | Yes                                                           |
| e soft starting at heavy starting conditions  Power Electronics operational current  e at 40 °C rated value e at 40 °C rated value minimum e at 50 °C rated value e at 60 °C rated value e at inside delta circuit rated value e trelative negative tolerance of the operating voltage relative negative tolerance of the operating voltage relative positive tolerance of the operating voltage at inside-delta circuit relative positive tolerance of the operating voltage at inside-delta circuit operating power for 3-phase motors e at 230 °V at 60 °C rated value e at 400 °V at 160 °C rated value e at 400 °V at 160 °C rated value e at 400 °V at 160 °C rated value e at 400 °V at 160 °C rated value e at 400 °V at 160 °C rated value e at 400 °V at 160 °C rated value e at 400 °V at 160 °C rated value e at 400 °V at 160 °C rated value e at 400 °V at 160 °C rated value e at 400 °V at 160 °C rated value e at 400 °C at inside-delta circuit at 40 °C rated value e at 400 °C at inside-delta circuit at 40 °C rated value e at 400 °C at inside-delta circuit at 40 °C rated value e at 400 °C at inside-delta circuit at 40 °C rated value e at 40 °C at inside-delta circuit at 40 °C rated value e at 40 °C at inside delta circuit at 40 °C rated value e at 40 °C at inside delta circuit at 40 °C rated value e at 40 °C at inside delta circuit at 40 °C rated value e at 40 °C at inside delta circuit at 40 °C rated value e at 40 °C at inside delta circuit at 40 °C rated value e at 40 °C at inside delta circuit at 40 °C rated value e at 40 °C at inside delta circuit at 40 °C rated value e at 40 °C at inside delta circuit at 40 °C rated value e at 40 °C at inside delta circuit at 40 °C rated value e at 40 °C at inside delta circuit at 40 °C rated value e at 40 °C at inside at 40 °C at |                                                                           | Yes                                                           |
| operational current  • at 40 °C rated value • at 40 °C rated value • at 40 °C rated value • at 50 °C rated value • at 60 °C rated value • at inside-delta circuit rated value • relative negative tolerance of the operating voltage relative negative tolerance of the operating voltage at inside-delta circuit relative positive tolerance of the operating voltage at inside-delta circuit relative positive tolerance of the operating voltage at inside-delta circuit at 300 °C rated value • at 230 °C at inside-delta circuit at 40 °C rated value • at 400 °C rated value • at 40 °C rated val |                                                                           | Yes                                                           |
| operational current  • at 40 °C rated value • at 40 °C rated value • at 40 °C rated value • at 50 °C rated value • at 60 °C rated value • at inside-delta circuit rated value • relative negative tolerance of the operating voltage relative negative tolerance of the operating voltage at inside-delta circuit relative positive tolerance of the operating voltage at inside-delta circuit relative positive tolerance of the operating voltage at inside-delta circuit at 300 °C rated value • at 230 °C at inside-delta circuit at 40 °C rated value • at 400 °C rated value • at 40 °C rated val | Power Electronics                                                         |                                                               |
| at 40 °C rated value minimum at 45 °C rated value at 60 °C rated value operational current at inside-delta circuit at 60 °C rated value at 60 °C rated valu  |                                                                           |                                                               |
| a ti 50 °C rated value at 60 °C rated value at 60 °C rated value  at 40 °C rated value at 50 °C rated value at 50 °C rated value at 60 °C rated value at 658 A  operating voltage rated value at inside-delta circuit rated value relative negative tolerance of the operating voltage relative positive tolerance of the operating voltage at inside-delta circuit relative positive tolerance of the operating voltage at inside-delta circuit relative positive tolerance of the operating voltage at inside-delta circuit relative positive tolerance of the operating voltage at inside-delta circuit  operating power for 3-phase motors at 230 V at 40 °C rated value at 230 V at 10 °C rated value at 400 V at 40 °C rated value at 400 V at 10 °C rated value bat 400 V at 10 °C rated value cat 400 V at 10 °C rated value  Operating frequency 1 rated value  Operating frequency 2 rated value fol Hz relative negative tolerance of the operating frequency relative positive tolerance of the operating frequency relative negative tolerance relati  | •                                                                         | 470 A                                                         |
| e at 60 °C rated value operational current at inside-delta circuit e at 40 °C rated value e at 50 °C rated value e at 60 °C rated value e at 60 °C rated value e at 60 °C rated value e at inside-delta circuit rated value e at inside-delta circuit rated value e at inside-delta circuit rated value relative negative tolerance of the operating voltage relative positive tolerance of the operating voltage at inside-delta circuit relative positive tolerance of the operating voltage at inside-delta circuit relative positive tolerance of the operating voltage at inside-delta circuit operating power for 3-phase motors e at 230 V at 40 °C rated value e at 4200 V at 1nside-delta circuit at 40 °C rated value e at 400 V at 40 °C rated value e at 400 V at 1nside-delta circuit at 40 °C rated value e at 400 V at inside-delta circuit at 40 °C rated value e at 400 V at inside-delta circuit at 40 °C rated value e at 400 V at misde-delta circuit at 40 °C rated value follows e at 400 V at the follows at 40 °C rated value e at 400 °C rated value  Operating frequency 1 rated value  Operating frequency 2 rated value follows relative negative tolerance of the operating frequency relative positive tolerance of the operating frequency relative positive tolerance of the operating frequency 10 % relative negative tolerance of the operating frequency 10 % relative negative tolerance of the operating frequency 11 % e at 60 °C after startup  125 W  at 60 °C after startup  41 W  at 60 °C during startup  56 00 W  41 40 °C during startup  56 00 W  57 00 Octobrol Control  Type of voltage of the control supply voltage  control supply voltage at AC  at 60 Hz rated value 24 V  at 60 Hz rated value 24 V                                                                                                                                                                                                                                                                                                                        | • at 40 °C rated value minimum                                            | 94 A                                                          |
| operational current at inside-delta circuit  at 40 °C rated value at 60 °C rated value 721 A  658 A  operating voltage 1 cated value 200 480 V  relative negative tolerance of the operating voltage relative negative tolerance of the operating voltage at inside-delta circuit rated value relative positive tolerance of the operating voltage at inside-delta circuit relative positive tolerance of the operating voltage at inside-delta circuit relative positive tolerance of the operating voltage at inside-delta circuit  operating power for 3-phase motors at 1230 V at 40 °C rated value at 230 V at inside-delta circuit at 40 °C rated value at 400 V at 60 °C rated value at 400 V at inside-delta circuit at 40 °C rated value at 400 V at inside-delta circuit at 40 °C rated value be at 400 V at inside-delta circuit at 40 °C rated value coperating frequency 1 rated value Operating frequency 2 rated value coperating frequency 2 rated value relative negative tolerance of the operating frequency relative positive tolerance of the operating frequency 10 % relative positive tolerance of the operating frequency 10 % relative positive tolerance of the operating frequency 114 W  power loss [W] for rated value of the current at AC  at 40 °C after startup  5 620 W  type of the motor protection Electronic, tripping in the event of thermal overload of the motor Control circuit Control type of voltage of the control supply voltage at 60 °C trated value  24 V  at 60 °Hz rated value                                                                                                                                                                                          | ● at 50 °C rated value                                                    | 416 A                                                         |
| ■ at 40 °C rated value     ■ at 50 °C rated value     ■ at 60 °C rated value     ■ at 60 °C rated value     ■ at 60 °C rated value     ■ crated value     ■ at inside-delta circuit rated value     ■ at inside-delta circuit rated value     = relative negative tolerance of the operating voltage     relative negative tolerance of the operating voltage at inside-delta circuit     relative positive tolerance of the operating voltage at inside-delta circuit     relative positive tolerance of the operating voltage at inside-delta circuit     operating power for 3-phase motors     ■ at 230 V at 40 °C rated value     ■ at 400 V at 40 °C rated value     ■ at 400 V at 40 °C rated value     ■ at 400 V at 40 °C rated value     ■ at 400 V at value     □ at 400 V at value     □ crated value     □ crated value     □ crated value     □ control supply voltage at value     □ crated value     □ value     □ value crated value     □ value cra       | • at 60 °C rated value                                                    | 380 A                                                         |
| at 50 °C rated value at 60 °C rated value operating voltage at an early value at inside-delta circuit rated value relative negative tolerance of the operating voltage at inside-delta circuit  relative positive tolerance of the operating voltage at inside-delta circuit relative power for 3-phase motors  at 230 V at 40 °C rated value at 230 V at 40 °C rated value at 400 V at of 1 sinside-delta circuit at 40 °C rated value at 400 V at of 1 sinside-delta circuit at 40 °C rated value but at 400 V at inside-delta circuit at 40 °C rated value coperating frequency 1 rated value Operating frequency 1 rated value Operating frequency 1 rated value Coperating frequency 2 rated value coperating frequency 2 rated value coperating frequency 2 rated value coperating frequency 3 rated value coperating frequency 4 rated value coperating frequency 50 rated value coperating frequency 1 rated value coperating frequency 4 rated value coperating frequency 50 rated value coperating frequency 50 rated value coperating frequency 6 rated value coperating frequency 7 rated value coperating frequency 7 rated value coperating frequency 7 rated value coperating frequency 6 rated value coperating frequency 7 rated   | operational current at inside-delta circuit                               |                                                               |
| e at 60 °C rated value operating voltage e rated value e at inside-delta circuit rated value relative negative tolerance of the operating voltage at inside-delta circuit relative positive tolerance of the operating voltage at inside-delta circuit  operating power for 3-phase motors e at 230 V at 40 °C rated value e at 230 V at inside-delta circuit at 40 °C rated value e at 200 V at inside-delta circuit at 40 °C rated value e at 400 V at inside-delta circuit at 40 °C rated value e at 400 V at inside-delta circuit at 40 °C rated value e at 400 V at inside-delta circuit at 40 °C rated value e at 400 V at inside-delta circuit at 40 °C rated value e at 400 V at inside-delta circuit at 40 °C rated value e at 400 V at inside-delta circuit at 40 °C rated value  Operating frequency 1 rated value  Operating frequency 2 rated value  Operating frequency 2 rated value  Operating frequency 2 rated value  Operating frequency 6 the operating frequency relative positive tolerance of the operating frequency minimum load [%]  power loss [W] for rated value of the current at AC  e at 40 °C after startup e at 50 °C after startup  114 W  power loss [W] at AC at current limitation 350 % e at 40 °C during startup e at 50 °C during startup  5 Electronic, tripping in the event of thermal overload of the motor  Control circuit Control  type of voltage of the control supply voltage control supply voltage at AC e at 60 Hz rated value e at 60 Hz rated value  4 V                                                                                                                                                                                                                                                                                                                                                                                                                                                | <ul> <li>at 40 °C rated value</li> </ul>                                  | 814 A                                                         |
| operating voltage  • rated value  • at inside-delta circuit rated value  relative negative tolerance of the operating voltage at inside-delta circuit  relative positive tolerance of the operating voltage at inside-delta circuit  relative positive tolerance of the operating voltage at inside-delta circuit  operating power for 3-phase motors  • at 230 V at 40 °C rated value • at 400 V at 40 °C rated value • at 400 V at 40 °C rated value • at 400 V at inside-delta circuit at 40 °C rated value • at 400 V at inside-delta circuit at 40 °C rated value Operating frequency 1 rated value  Operating frequency 2 rated value  To black Operating frequency 2 rated value  Operating frequency 2 rated value  To black Operating frequency 3 rated value  Operating frequency 6 the operating frequency relative positive tolerance of the operating frequency relative positive tolerance of the operating frequency  minimum load (%)  power loss [W] for rated value of the current at AC • at 40 °C after startup • at 50 °C after startup • at 50 °C after startup • at 60 °C after startup • at 60 °C during startup • at 60 ° | <ul> <li>at 50 °C rated value</li> </ul>                                  | 721 A                                                         |
| • rated value     • at inside-delta circuit rated value     relative negative tolerance of the operating voltage     relative positive tolerance of the operating voltage at inside-delta circuit     relative positive tolerance of the operating voltage at inside-delta circuit     relative positive tolerance of the operating voltage at inside-delta circuit     relative positive tolerance of the operating voltage at inside-delta circuit     relative positive tolerance of the operating voltage at inside-delta circuit at 40 °C rated value     operating power for 3-phase motors     • at 230 V at 40 °C rated value     • at 430 V at thiside-delta circuit at 40 °C rated value     • at 400 V at 40 °C rated value     • at 400 V at thiside-delta circuit at 40 °C rated value     • at 400 V at inside-delta circuit at 40 °C rated value     • at 400 V at inside-delta circuit at 40 °C rated value     Operating frequency 1 rated value     Operating frequency 2 rated value     operating frequency 3 rated value     operating frequency 4 rated value of the operating frequency     relative negative tolerance of the operating frequency     10 %     relative negative tolerance of the operating frequency     10 %     relative negative negative negative negative negat      | at 60 °C rated value                                                      | 658 A                                                         |
| e at inside-delta circuit rated value relative negative tolerance of the operating voltage relative positive tolerance of the operating voltage at inside-delta circuit relative positive tolerance of the operating voltage at inside-delta circuit relative positive tolerance of the operating voltage at inside-delta circuit operating power for 3-phase motors  • at 230 V at inside-delta circuit at 40 °C rated value • at 230 V at inside-delta circuit at 40 °C rated value • at 400 V at 40 °C rated value • at 400 V at vinside-delta circuit at 40 °C rated value • at 400 V at inside-delta circuit at 40 °C rated value • at 400 V at inside-delta circuit at 40 °C rated value • at 400 V at inside-delta circuit at 40 °C rated value  Operating frequency 1 rated value  Operating frequency 1 rated value  Operating frequency 2 rated value  relative negative tolerance of the operating frequency relative negative tolerance of the operating frequency relative positive tolerance of the operating frequency minimum load [%]  power loss [W] for rated value of the current at AC  • at 40 °C after startup • at 50 °C after startup • at 60 °C during startup                                                | operating voltage                                                         |                                                               |
| relative negative tolerance of the operating voltage relative positive tolerance of the operating voltage relative negative tolerance of the operating voltage at inside-delta circuit  relative positive tolerance of the operating voltage at inside-delta circuit  operating power for 3-phase motors  • at 230 V at 40 °C rated value • at 230 V at 40 °C rated value • at 400 V at inside-delta circuit at 40 °C rated value • at 400 V at inside-delta circuit at 40 °C rated value • at 400 V at inside-delta circuit at 40 °C rated value • at 400 V at inside-delta circuit at 40 °C rated value • Operating frequency 1 rated value  Operating frequency 2 rated value  Operating frequency 2 rated value  Operating frequency 2 rated value  10 %  relative negative tolerance of the operating frequency relative positive tolerance of the operating frequency minimum load [%]  power loss [W] for rated value of the current at AC • at 40 °C after startup • at 50 °C after startup • at 60 °C after startup • at 60 °C after startup • at 60 °C during startup • at 50 °C during  | rated value                                                               | 200 480 V                                                     |
| relative positive tolerance of the operating voltage at inside-delta circuit relative positive tolerance of the operating voltage at inside-delta circuit relative positive tolerance of the operating voltage at inside-delta circuit operating power for 3-phase motors  • at 230 V at 40 °C rated value • at 230 V at inside-delta circuit at 40 °C rated value • at 400 V at 40 °C rated value • at 400 V at inside-delta circuit at 40 °C rated value • at 400 V at inside-delta circuit at 40 °C rated value Operating frequency 1 rated value  Operating frequency 2 rated value Operating frequency 2 rated value  Operating frequency 2 rated value  Operative positive tolerance of the operating frequency relative positive tolerance of the operating frequency relative positive tolerance of the operating frequency 10 %; Relative to set le  power loss [W] for rated value of the current at AC • at 40 °C after startup • at 50 °C after startup • at 50 °C after startup • at 60 °C after startup • at 60 °C during startup                                                                                                        |                                                                           | 200 480 V                                                     |
| relative negative tolerance of the operating voltage at inside-delta circuit  relative positive tolerance of the operating voltage at inside-delta circuit  operating power for 3-phase motors  • at 230 V at 40 °C rated value • at 400 V at 40 °C rated value • at 400 V at 40 °C rated value • at 400 V at inside-delta circuit at 40 °C rated value • at 400 V at inside-delta circuit at 40 °C rated value • at 400 V at inside-delta circuit at 40 °C rated value • at 400 V at inside-delta circuit at 40 °C rated value  Operating frequency 1 rated value  Operating frequency 1 rated value  Operating frequency 2 rated value  Operating frequency 2 rated value  Operating frequency 6 the operating frequency  relative negative tolerance of the operating frequency  relative negative tolerance of the operating frequency  ninimum load [%]  power loss [W] for rated value of the current at AC  • at 40 °C after startup  • at 50 °C after startup  141 W  power loss [W] at AC at current limitation 350 %  • at 40 °C during startup  • at 50 °C during startup  • at 50 °C during startup  • at 60 °C during startup  • at 60 °C during startup  • at 60 °C during startup  • at 50 °C during startup                                                                                                                                                                                                 |                                                                           |                                                               |
| inside-delta circuit  relative positive tolerance of the operating voltage at inside-delta circuit  operating power for 3-phase motors  • at 230 V at 40 °C rated value • at 400 V at 40 °C rated value • at 400 V at 40 °C rated value • at 400 V at inside-delta circuit at 40 °C rated value • at 400 V at inside-delta circuit at 40 °C rated value • at 400 V at inside-delta circuit at 40 °C rated value • at 400 V at inside-delta circuit at 40 °C rated value  Operating frequency 1 rated value  Operating frequency 2 rated value  Operating frequency 10 %  relative negative tolerance of the operating frequency  relative positive tolerance of the operating frequency  minimum load [%]  10 %  in 41 W  in 450 °C after startup  141 W  power loss [W] at AC at current limitation 350 %  • at 40 °C during startup  • at 50 °C during startup  • at 50 °C during startup  • at 60 °C during startup  • at 50 °C during startup                                                                                                                                                                                                           |                                                                           |                                                               |
| inside-delta circuit  operating power for 3-phase motors  • at 230 V at 40 °C rated value • at 230 V at inside-delta circuit at 40 °C rated value • at 400 V at 40 °C rated value • at 400 V at 40 °C rated value • at 400 V at inside-delta circuit at 40 °C rated value • at 400 V at inside-delta circuit at 40 °C rated value  Operating frequency 1 rated value  Operating frequency 2 rated value  Operating frequency 2 rated value  Operating frequency 6 Hz  relative negative tolerance of the operating frequency relative positive tolerance of the operating frequency  inimum load [%]  10 %; Relative to set le  power loss [W] for rated value of the current at AC  • at 40 °C after startup • at 50 °C after startup  • at 60 °C after startup  114 W  power loss [W] at AC at current limitation 350 %  • at 40 °C during startup • at 50 °C during startup • at 50 °C during startup  • at 60 °C during startup  • at 60 °C during startup  • at 60 °C during startup  • at 50 °C during startup                                                                                                                                                                                                                                                                                                                                                                             | inside-delta circuit                                                      |                                                               |
| at 230 V at 40 °C rated value at 230 V at inside-delta circuit at 40 °C rated value at 400 V at 40 °C rated value at 400 V at inside-delta circuit at 40 °C rated value at 400 V at inside-delta circuit at 40 °C rated value be at 400 V at inside-delta circuit at 40 °C rated value  Operating frequency 1 rated value  Operating frequency 2 rated value relative negative tolerance of the operating frequency relative positive tolerance of the operating frequency relative positive tolerance of the operating frequency ninimum load [%]  power loss [W] for rated value of the current at AC at 40 °C after startup at 60 °C after startup at 60 °C after startup  at 60 °C during startup at 60 °C during startup be at 60 °C during startup at 60 °C during startup be at 60 °C during startup at 60 °C during startup be at 60 °C during startup                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                           | 10 %                                                          |
| at 230 V at inside-delta circuit at 40 °C rated value at 400 V at 40 °C rated value at 400 V at inside-delta circuit at 40 °C rated value  Operating frequency 1 rated value  Operating frequency 2 rated value  Operating frequency 2 rated value  Operating frequency 2 rated value  Operating frequency 5 on Hz  Operating frequency 2 rated value  Operating frequency 6 on Hz  relative negative tolerance of the operating frequency relative positive tolerance of the operating frequency  minimum load [%]  power loss [W] for rated value of the current at AC  at 40 °C after startup  at 50 °C after startup  at 60 °C after startup  ot at 60 °C during startup  at 60 °C during startup  at 60 °C during startup  type of the motor protection  Control circuit/ Control  type of voltage of the control supply voltage  at 60 Hz rated value  at 60 Hz rated value  at 60 Hz rated value  24 V  at 60 Hz rated value  24 V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | operating power for 3-phase motors                                        |                                                               |
| at 400 V at 40 °C rated value at 400 V at inside-delta circuit at 40 °C rated value  Operating frequency 1 rated value  Operating frequency 2 rated value  Operating frequency 2 rated value  Operating frequency 2 rated value  felative negative tolerance of the operating frequency relative positive tolerance of the operating frequency  minimum load [%]  power loss [W] for rated value of the current at AC  at 40 °C after startup  at 50 °C after startup  at 60 °C after startup  at 60 °C during startup  at 60 °C during startup  at 60 °C during startup  be at 60 °C during startup  at 60 °C during startup  control circuit/ Control  type of voltage of the control supply voltage  control supply voltage at AC  at 60 Hz rated value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <ul> <li>at 230 V at 40 °C rated value</li> </ul>                         | 132 kW                                                        |
| • at 400 V at inside-delta circuit at 40 °C rated value  Operating frequency 1 rated value  Operating frequency 2 rated value  relative negative tolerance of the operating frequency relative positive tolerance of the operating frequency minimum load [%]  power loss [W] for rated value of the current at AC      • at 40 °C after startup     • at 50 °C after startup      • at 60 °C during startup      • at 40 °C during startup      • at 60 °C during startup      • at 60 °C during startup      • at 50 °C during startup      • at 60 °C during startup      • at 50 °C during startup      • at 60 °C during startup      • at 60 °C during startup      • at 50 °C during startup      • at 50 °C during startup      • at 60 °C during startup      • at 50 °C during startup      • at 60 °C during startup      • at 50 °C during startup      • at 60 °C during startup      • at 60 °C during startup      • at 60 °C during startup      • at 50 °C during startup      • at 60 °C during startup                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <ul> <li>at 230 V at inside-delta circuit at 40 °C rated value</li> </ul> | 250 kW                                                        |
| Operating frequency 1 rated value Operating frequency 2 rated value relative negative tolerance of the operating frequency relative positive tolerance of the operating frequency relative positive tolerance of the operating frequency minimum load [%]  power loss [W] for rated value of the current at AC  • at 40 °C after startup • at 50 °C after startup  • at 60 °C after startup  • at 40 °C during startup • at 50 °C during startup • at 50 °C during startup  • at 60 °C during startup  type of the motor protection  Control circuit/ Control  type of voltage of the control supply voltage  control supply voltage at AC  • at 50 Hz rated value • at 60 Hz rated value  24 V  • at 60 Hz rated value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <ul> <li>at 400 V at 40 °C rated value</li> </ul>                         | 250 kW                                                        |
| Operating frequency 2 rated value  relative negative tolerance of the operating frequency relative positive tolerance of the operating frequency minimum load [%]  power loss [W] for rated value of the current at AC  • at 40 °C after startup • at 50 °C after startup • at 60 °C after startup  power loss [W] at AC at current limitation 350 %  • at 40 °C during startup • at 50 °C during startup • at 50 °C during startup • at 60 °C during startup  type of the motor protection  Electronic, tripping in the event of thermal overload of the motor  control circuit/ Control  type of voltage of the control supply voltage  control supply voltage at AC • at 50 Hz rated value • at 60 Hz rated value • at 60 Hz rated value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | at 400 V at inside-delta circuit at 40 °C rated value                     | 400 kW                                                        |
| relative negative tolerance of the operating frequency relative positive tolerance of the operating frequency minimum load [%]  power loss [W] for rated value of the current at AC  • at 40 °C after startup • at 50 °C after startup • at 60 °C after startup  power loss [W] at AC at current limitation 350 %  • at 40 °C during startup • at 50 °C during startup • at 50 °C during startup • at 60 °C during startup • at 60 °C during startup  • at 60 °C during startup  type of the motor protection  Control circuit/ Control  type of voltage of the control supply voltage  • at 50 Hz rated value • at 60 Hz rated value  • at 60 Hz rated value  • at 60 Hz rated value  24 V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                           |                                                               |
| relative positive tolerance of the operating frequency minimum load [%]  power loss [W] for rated value of the current at AC  • at 40 °C after startup • at 50 °C after startup • at 60 °C after startup  • at 40 °C after startup  • at 40 °C after startup  • at 40 °C during startup  • at 40 °C during startup  • at 50 °C during startup  • at 60 °C during startup  **Electronic, tripping in the event of thermal overload of the motor  **Control circuit/ Control**  type of voltage of the control supply voltage  control supply voltage at AC  • at 50 Hz rated value  • at 60 Hz rated value  • at 60 Hz rated value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                           |                                                               |
| minimum load [%]  power loss [W] for rated value of the current at AC  • at 40 °C after startup  • at 50 °C after startup  • at 60 °C after startup  114 W  power loss [W] at AC at current limitation 350 %  • at 40 °C during startup  • at 50 °C during startup  • at 50 °C during startup  • at 60 °C during startup   **Electronic, tripping in the event of thermal overload of the motor  **Control circuit/ Control**  type of voltage of the control supply voltage  control supply voltage at AC  • at 50 Hz rated value  • at 60 Hz rated value  • at 60 Hz rated value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                           |                                                               |
| power loss [W] for rated value of the current at AC  • at 40 °C after startup  • at 50 °C after startup  • at 60 °C after startup  114 W  power loss [W] at AC at current limitation 350 %  • at 40 °C during startup  • at 50 °C during startup  • at 50 °C during startup  • at 60 °C during startup  5 620 W  type of the motor protection  Electronic, tripping in the event of thermal overload of the motor  Control circuit/ Control  type of voltage of the control supply voltage  control supply voltage at AC  • at 50 Hz rated value  • at 60 Hz rated value  24 V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                           |                                                               |
| <ul> <li>at 40 °C after startup</li> <li>at 50 °C after startup</li> <li>at 60 °C after startup</li> <li>114 W</li> <li>power loss [W] at AC at current limitation 350 %</li> <li>at 40 °C during startup</li> <li>at 50 °C during startup</li> <li>at 60 °C during startup</li> <li>5 620 W</li> <li>type of the motor protection</li> <li>Electronic, tripping in the event of thermal overload of the motor</li> <li>Control circuit/ Control</li> <li>type of voltage of the control supply voltage</li> <li>AC/DC</li> <li>control supply voltage at AC</li> <li>at 50 Hz rated value</li> <li>at 60 Hz rated value</li> <li>24 V</li> <li>at 60 Hz rated value</li> <li>24 V</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                           | 10 %; Relative to set le                                      |
| <ul> <li>at 50 °C after startup</li> <li>at 60 °C after startup</li> <li>power loss [W] at AC at current limitation 350 %</li> <li>at 40 °C during startup</li> <li>at 50 °C during startup</li> <li>at 60 °C during startup</li> <li>5 620 W</li> <li>type of the motor protection</li> <li>Electronic, tripping in the event of thermal overload of the motor</li> <li>Control circuit/ Control</li> <li>type of voltage of the control supply voltage</li> <li>at 50 Hz rated value</li> <li>at 60 Hz rated value</li> <li>24 V</li> <li>at 60 Hz rated value</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                           | 141 \                                                         |
| <ul> <li>at 60 °C after startup</li> <li>power loss [W] at AC at current limitation 350 %</li> <li>at 40 °C during startup</li> <li>at 50 °C during startup</li> <li>at 60 °C during startup</li> <li>5 620 W</li> <li>type of the motor protection</li> <li>Electronic, tripping in the event of thermal overload of the motor</li> <li>Control circuit/ Control</li> <li>type of voltage of the control supply voltage</li> <li>AC/DC</li> <li>control supply voltage at AC</li> <li>at 50 Hz rated value</li> <li>at 60 Hz rated value</li> <li>24 V</li> <li>at 60 Hz rated value</li> <li>24 V</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | ·                                                                         |                                                               |
| power loss [W] at AC at current limitation 350 %  • at 40 °C during startup  • at 50 °C during startup  • at 60 °C during startup  5 620 W  type of the motor protection  Control circuit/ Control  type of voltage of the control supply voltage  control supply voltage at AC  • at 50 Hz rated value  • at 60 Hz rated value  24 V  • at 60 Hz rated value  24 V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | ·                                                                         |                                                               |
| <ul> <li>at 40 °C during startup</li> <li>at 50 °C during startup</li> <li>at 60 °C during startup</li> <li>5 620 W</li> <li>type of the motor protection</li> <li>Electronic, tripping in the event of thermal overload of the motor</li> <li>Control circuit/ Control</li> <li>type of voltage of the control supply voltage</li> <li>Control supply voltage at AC</li> <li>at 50 Hz rated value</li> <li>at 60 Hz rated value</li> <li>24 V</li> <li>at 60 Hz rated value</li> <li>24 V</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | ·                                                                         | 1 17 VV                                                       |
| <ul> <li>at 50 °C during startup</li> <li>at 60 °C during startup</li> <li>5 620 W</li> <li>type of the motor protection</li> <li>Electronic, tripping in the event of thermal overload of the motor</li> <li>Control circuit/ Control</li> <li>type of voltage of the control supply voltage</li> <li>AC/DC</li> <li>control supply voltage at AC</li> <li>at 50 Hz rated value</li> <li>at 60 Hz rated value</li> <li>24 V</li> <li>at 60 Hz rated value</li> <li>24 V</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                           | 7 651 W                                                       |
| <ul> <li>at 60 °C during startup</li> <li>type of the motor protection</li> <li>Control circuit/ Control</li> <li>type of voltage of the control supply voltage</li> <li>control supply voltage at AC</li> <li>at 50 Hz rated value</li> <li>at 60 Hz rated value</li> <li>at 60 Hz rated value</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                           |                                                               |
| type of the motor protection  Control circuit/ Control  type of voltage of the control supply voltage  control supply voltage at AC  at 50 Hz rated value  at 60 Hz rated value  Electronic, tripping in the event of thermal overload of the motor  AC/DC  24 V  24 V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                           |                                                               |
| type of voltage of the control supply voltage  control supply voltage at AC  at 50 Hz rated value  at 60 Hz rated value  24 V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                           |                                                               |
| type of voltage of the control supply voltage  control supply voltage at AC  • at 50 Hz rated value  • at 60 Hz rated value  24 V  24 V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                           |                                                               |
| control supply voltage at AC  • at 50 Hz rated value 24 V  • at 60 Hz rated value 24 V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                           | AC/DC                                                         |
| <ul> <li>at 50 Hz rated value</li> <li>at 60 Hz rated value</li> <li>24 V</li> <li>24 V</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                           |                                                               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                           | 24 V                                                          |
| relative negative tolerance of the control supply -20 %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | • at 60 Hz rated value                                                    | 24 V                                                          |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | relative negative tolerance of the control supply                         | -20 %                                                         |

| voltage at AC at 50 Hz                                                                  | on diontudona                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| relative positive tolerance of the control supply voltage at AC at 50 Hz                | The strength of the strength o |
| relative negative tolerance of the control supply voltage at AC at 60 Hz                | -20 %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| relative positive tolerance of the control supply voltage at AC at 60 Hz                | 20 %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| control supply voltage frequency                                                        | 50 60 Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| relative negative tolerance of the control supply voltage frequency                     | -10 %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| relative positive tolerance of the control supply voltage frequency                     | 10 %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| control supply voltage                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| at DC rated value                                                                       | 24 V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| relative negative tolerance of the control supply voltage at DC                         | -20 %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| relative positive tolerance of the control supply voltage at DC                         | 20 %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| control supply current in standby mode rated value                                      | 440 mA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| holding current in bypass operation rated value                                         | 720 mA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| locked-rotor current at close of bypass contact maximum                                 | 6.7 A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| inrush current peak at application of control supply voltage maximum                    | 7.5 A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| duration of inrush current peak at application of control supply voltage                | 20 ms                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| design of the overvoltage protection                                                    | Varistor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| design of short-circuit protection for control circuit                                  | 4 A gG fuse (Icu=1 kA), 6 A quick-acting fuse (Icu=1 kA), C1 miniature circuit breaker (Icu= 600 A), C6 miniature circuit breaker (Icu= 300 A); Is not part of scope of supply                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Inputs/ Outputs                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| number of digital inputs                                                                | 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| • with fail-safe                                                                        | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| parameterizable                                                                         | 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <ul> <li>number of digital outputs</li> </ul>                                           | 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <ul> <li>Number of digital outputs with fail-safe</li> </ul>                            | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| number of digital outputs parameterizable                                               | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| number of digital outputs not parameterizable                                           | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| digital output version                                                                  | 2 normally-open contacts (NO) / 1 normally-closed contact (NC) / 1 changeover contact (CO)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| number of analog outputs                                                                | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| switching capacity current of the relay outputs  • at AC-15 at 250 V rated value        | 3 A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| at DC-13 at 250 V rated value      at DC-13 at 24 V rated value                         | 1 A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Response times                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| OFF-delay time with safety-related request when switched off via control inputs maximum | 100 ms                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Installation/ mounting/ dimensions                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| mounting position                                                                       | Vertical (can be rotated +/- 90° and tilted forward or backward +/- 22.5°)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| fastening method                                                                        | screw fixing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| height                                                                                  | 393 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| width                                                                                   | 210 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| depth                                                                                   | 203 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| required spacing with side-by-side mounting                                             | 40                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| • forwards                                                                              | 10 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| backwards     upwards                                                                   | 0 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <ul><li>upwards</li><li>downwards</li></ul>                                             | 100 mm<br>75 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| at the side                                                                             | 75 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| weight without packaging                                                                | 10.9 kg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Connections/ Terminals                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| type of electrical connection                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| for main current circuit                                                                | busbar connection                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

| • for control circuit                                                                        | screw-type terminal                                                                                                     |
|----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| width of connection bar maximum                                                              | 45 mm dientudong                                                                                                        |
| wire length for thermistor connection                                                        |                                                                                                                         |
| with conductor cross-section = 0.5 mm² maximum                                               | 50 m                                                                                                                    |
| with conductor cross-section = 1.5 mm² maximum                                               | 150 m                                                                                                                   |
| with conductor cross-section = 2.5 mm² maximum                                               | 250 m                                                                                                                   |
| type of connectable conductor cross-sections                                                 | 250 111                                                                                                                 |
| for DIN cable lug for main contacts stranded                                                 | 2x (50 240 mm²)                                                                                                         |
| for DIN cable lug for main contacts finely stranded                                          | 2x (70 240 mm²)                                                                                                         |
| type of connectable conductor cross-sections                                                 | ZX (10 Z40 IIIIII )                                                                                                     |
| • for control circuit solid                                                                  | 1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²)                                                                                      |
| for control circuit solid     for control circuit finely stranded with core end              | 1x (0.5 4.5 mm²), 2x (0.5 1.5 mm²)                                                                                      |
| processing                                                                                   | 1x (0.5 2.5 11111 ), 2x (0.5 1.5 11111 )                                                                                |
| at AWG cables for control circuit solid                                                      | 1x (20 12), 2x (20 14)                                                                                                  |
| wire length                                                                                  |                                                                                                                         |
| between soft starter and motor maximum                                                       | 800 m                                                                                                                   |
| at the digital inputs at DC maximum                                                          | 1 000 m                                                                                                                 |
| tightening torque                                                                            |                                                                                                                         |
| for main contacts with screw-type terminals                                                  | 14 24 N·m                                                                                                               |
| for auxiliary and control contacts with screw-type                                           | 0.8 1.2 N·m                                                                                                             |
| terminals                                                                                    |                                                                                                                         |
| tightening torque [lbf·in]                                                                   |                                                                                                                         |
| for main contacts with screw-type terminals                                                  | 124 210 lbf·in                                                                                                          |
| <ul> <li>for auxiliary and control contacts with screw-type</li> </ul>                       | 7 10.3 lbf·in                                                                                                           |
| terminals                                                                                    |                                                                                                                         |
| Ambient conditions                                                                           |                                                                                                                         |
| installation altitude at height above sea level maximum                                      | 2 000 m; Derating as of 1000 m, see catalog                                                                             |
| ambient temperature                                                                          |                                                                                                                         |
| <ul><li>during operation</li></ul>                                                           | -25 +60 °C; Please observe derating at temperatures of 40 °C or                                                         |
|                                                                                              | above                                                                                                                   |
| during storage and transport                                                                 | -40 +80 °C                                                                                                              |
| environmental category                                                                       |                                                                                                                         |
| <ul> <li>during operation according to IEC 60721</li> </ul>                                  | 3K6 (no ice formation, only occasional condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 |
| <ul> <li>during storage according to IEC 60721</li> </ul>                                    | 1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must                                                  |
| during storage according to IEC 00721                                                        | not get inside the devices), 1M4                                                                                        |
| <ul> <li>during transport according to IEC 60721</li> </ul>                                  | 2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m)                                                                             |
| EMC emitted interference                                                                     | acc. to IEC 60947-4-2: Class A                                                                                          |
| Communication/ Protocol                                                                      |                                                                                                                         |
| communication module is supported                                                            |                                                                                                                         |
| PROFINET standard                                                                            | Yes                                                                                                                     |
| PROFINET high-feature                                                                        | Yes                                                                                                                     |
| EtherNet/IP                                                                                  | Yes                                                                                                                     |
| Modbus RTU                                                                                   | Yes                                                                                                                     |
| Modbus TCP                                                                                   | Yes                                                                                                                     |
| PROFIBUS                                                                                     | Yes                                                                                                                     |
| UL/CSA ratings                                                                               |                                                                                                                         |
| manufacturer's article number                                                                |                                                                                                                         |
| • of the fuse                                                                                |                                                                                                                         |
| — usable for Standard Faults up to 575/600 V                                                 | Type: Class J / L, max. 1600 A; Iq = 30 kA                                                                              |
| according to UL  — usable for High Faults up to 575/600 V                                    | Type: Class J / L, max. 1200 A; Iq = 100 kA                                                                             |
| according to UL  — usable for Standard Faults at inside-delta                                | Type: Class J / L, max. 1600 A; Iq = 30 kA                                                                              |
| circuit up to 575/600 V according to UL  — usable for High Faults at inside-delta circuit up | Type: Class J / L, max. 1200 A; Iq = 100 kA                                                                             |
| to 575/600 V according to UL operating power [hp] for 3-phase motors                         |                                                                                                                         |
| • at 200/208 V at 50 °C rated value                                                          | 150 hp                                                                                                                  |
| • at 220/230 V at 50 °C rated value                                                          | 150 hp                                                                                                                  |
| • at 460/480 V at 50 °C rated value                                                          | 350 hp                                                                                                                  |
|                                                                                              |                                                                                                                         |
| <ul> <li>at 200/208 V at inside-delta circuit at 50 °C rated</li> </ul>                      | 250 hp                                                                                                                  |

value lientudong at 220/230 V at inside-delta circuit at 50 °C rated 250 hp value • at 460/480 V at inside-delta circuit at 50 °C rated 600 hp value R300-B300 contact rating of auxiliary contacts according to UL Safety related data safety device type according to IEC 61508-2 Type B B10d value 648 000 Safety Integrity Level (SIL) SIL1 according to IEC 61508 SIL Claim Limit (subsystem) according to EN 62061 SIL 1 performance level (PL) according to EN ISO 13849-1 С category according to EN ISO 13849-1 2 stop category according to EN 60204-1 0 Safe failure fraction (SFF) 60 % 90 % average diagnostic coverage level (DCavg) diagnostics test interval by internal test function 1 000 s maximum PFHD with high demand rate according to EN 62061 1E-6 1/h PFDavg with low demand rate according to IEC 61508 0.09 hardware fault tolerance according to IEC 61508 0 T1 value for proof test interval or service life according to 20 y IEC 61508 safe state Open load circuit protection class IP on the front according to IEC IP00; IP20 with cover 60529 touch protection on the front according to IEC 60529 finger-safe, for vertical contact from the front with cover acc. to IEC 60947-4-2 electromagnetic compatibility ATEX certificate of suitability ATEX Yes IECEx Yes • according to ATEX directive 2014/34/EU BVS 18 ATEX F 003 X type of protection according to ATEX directive II (2)G [Ex eb Gb] [Ex db Gb] [Ex pxb Gb], II (2)D [Ex tb Db] [Ex pxb Db], 2014/34/EU I (M2) [Ex db Mb] hardware fault tolerance according to IEC 61508 relating to ATEX PFDavg with low demand rate according to IEC 61508 0.008 relating to ATEX PFHD with high demand rate according to EN 62061 5E-7 1/h relating to ATEX Safety Integrity Level (SIL) according to IEC 61508 SIL<sub>1</sub> relating to ATEX T1 value for proof test interval or service life 3 s according to IEC 61508 relating to ATEX

## Certificates/ approvals

### **General Product Approval**





Confirmation







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









Type Test Certificates/Test Report



### Marine / Shipping











#### 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=3RW5547-6HF04

Cax online generator

 $\underline{http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3RW5547-6HF04}$ 

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3RW5547-6HF04

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

http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RW5547-6HF04&lang=en

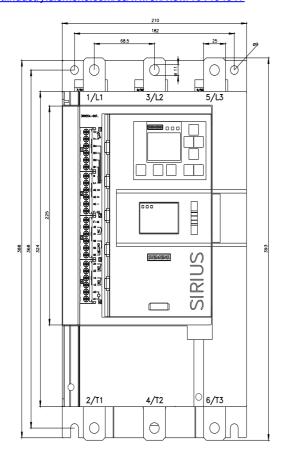
Characteristic: Tripping characteristics, I²t, Let-through current <a href="https://support.industry.siemens.com/cs/ww/en/ps/3RW5547-6HF04/char">https://support.industry.siemens.com/cs/ww/en/ps/3RW5547-6HF04/char</a>

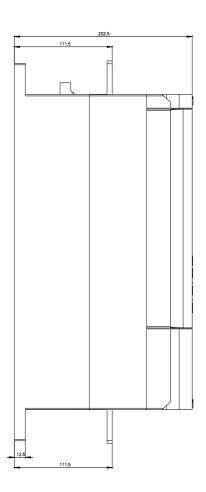
Characteristic: Installation altitude

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RW5547-6HF04&objecttype=14&gridview=view1

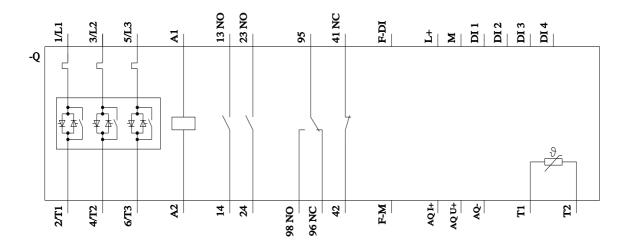
Simulation Tool for Soft Starters (STS)

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









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