## **SIEMENS**

Data sheet 3RW5554-2HA16



SIRIUS soft starter 200-690 V 840 A, 110-250 V AC Spring-type terminals

Figure similar

product brand name	SIRIUS
product category	Hybrid switching devices
product designation	Soft starter
product type designation	3RW55
manufacturer's article number	
of high feature HMI module usable	3RW5980-0HF00
<ul> <li>of communication module PROFINET standard usable</li> </ul>	3RW5980-0CS00
• of communication module PROFINET high-feature usable	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>	3VA2510-6HN32-0AA0; Type of coordination 1, Iq = 65 kA, CLASS 10
<ul> <li>of circuit breaker usable at 500 V</li> </ul>	3VA2510-6HN32-0AA0: Type of coordination 1, Iq = 65 kA, CLASS 10
• of circuit breaker usable at 400 V at inside-delta circuit	3VA2716-7AB05-0AA0; Type of coordination 1, Iq = 65 kA, CLASS 10
<ul> <li>of circuit breaker usable at 500 V at inside-delta circuit</li> </ul>	3VA2716-7AB05-0AA0; 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, lq = 65 kA
<ul> <li>of full range R fuse link for semiconductor protection usable up to 690 V</li> </ul>	3NB3351-1KK26; Type of coordination 2, lq = 65 kA
<ul> <li>of back-up R fuse link for semiconductor protection usable up to 690 V</li> </ul>	3NC3343-1U: Type of coordination 2, Iq = 65 kA
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 %
breakaway time adjustable	0 2 s
number of parameter sets	3
accuracy class	5 (based on IEC 61557-12)
certificate of suitability	
CE marking	Yes
UL approval	Yes
CSA approval	Yes
product component	
HMI-High Feature	Yes

product feature integrated bypass contact system  vers number of controlled phases  3  CLASS 10A / 10E (default) / 20E / 30E; scc. to IEC 60947-4-2  current unbalance limiting value (%)  10 60 %  ground-fault monitoring limiting value (%)  bufforing time in the event of power failure  • for main current circuit  • for main current circuit  • for main current  for control circuit  100 ms  • for control circuit  100 ms  (lide time adjustable  100 ms  situation voltage rated value  680 V  degree of pollution  3, acc. to IEC 60947-4-2  minulate voltage rated value  8 kV  surge voltage resistance rated value  8 kV  maximum permissible voltage for protective separation • between main and auxiliary circuit  • between main and auxiliary circuit  • between main and auxiliary circuit  • for covery time after overload trip adjustable  600 V; does not apply for thermistor connection  • between main and auxiliary circuit  600 V; does not apply for thermistor connection  • between main and auxiliary circuit  • for covery time after overload trip adjustable  600 U; does not apply for thermistor connection  • for covery time after overload trip adjustable  600 V; does not apply for thermistor connection  • for covery time after overload trip adjustable  600 V; does not apply for thermistor connection  • for covery time after overload trip adjustable  600 V; does not apply for thermistor connection  • for covery time after overload trip adjustable  600 V; does not apply for thermistor connection  • for covery time after overload post for part of the covery time after overload post for part of the covery time after overload post for part of the covery time after overload post for part of the covery time after overload post for part of the covery for part	• is supported HMI-High Feature	Yes
trip class  CLASS 10A / 10E (default) / 20E / 30E; acc. to IEC 60947-4-2  trip class  CLASS 10A / 10E (default) / 20E / 30E; acc. to IEC 60947-4-2  trumpted round and the overhold prover failure  of or main current circuit  of or main current circuit  of main current circuit  of or		
CLASS 10A / 10E (default) / 20E / 30E; sec. to IEC 60847-4-2	number of controlled phases	
current unbalance limiting value (%) producting immiting value (%) producting immiting value (%) production in the event of power failure  • for main current circuit  • for control circuit  • for main current circuit  • for main and sualary circuit  • for main and sualary circuit  • for main and sualary circuit  • for for stating  • for main and sualary circuit  • for main and sualary ci	trip class	CLASS 10A / 10E (default) / 20E / 30E; acc. to IEC 60947-4-2
ground-fault monitoring limiting value (%)  I to make the event of power failure  I for main current cricuit  I to ma  I or control circuit  I to make the event of power failure  I or control circuit  I to make the many substable  I misulation voltage rated value  Segree of politurin  Segree of politurin  Service factor  I 1.15  SIV  Subciking vartage of the thyristor maximum  I 1800 V  Service factor  I 1.15  SIV  SIV  Service factor  I 1.15  SIV  SIV  Service factor  I 1.15  SIV  SIV  SIV  Service factor  I 1.15  SIV  SIV  SIV  SIV  SIV  SIV  SIV  SI	•	
• for main current circuit • for politution • gard of politution • between main and availary circuit • between main and availary circuit • between main and availary circuit • gard of politution • between main and availary circuit • gard of politution • between main and availary circuit • gard of politution • between main and availary circuit • gard of politution • between main and availary circuit • gard of politution • between main and availary circuit • gard of politution • between main and availary circuit • gard of politution • between main and availary circuit • gard of politution • between main and availary circuit • gard of politution • between main and availary circuit • gard of politution • between main and availary circuit • gard of politution • gard of pol	<u> </u>	10 95 %
effor control circuit folia time adjustable lodic time adjustable obegree of poliution 3, a.e., to IEC 60947-4-2 limpulse voltage rated value 8 kV  1	buffering time in the event of power failure	
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insulation voltage rated value degree of poliution 3, s.c. to IEC 60947-4-2 impulse voltage rated value 8 kV blocking voltage of the tryinstor maximum 1 800 V surge voltage rated value 8 kV maximum permissible voltage for protective separation • between main and auxiliary circuit 600 V; does not apply for thermistor connection • between main and auxiliary circuit 600 V; does not apply for thermistor connection • between main and auxiliary circuit 600 V; does not apply for thermistor connection • between main and auxiliary circuit 600 V; does not apply for thermistor connection • between main and auxiliary circuit 600 V; does not apply for thermistor connection • between main and auxiliary circuit 600 V; does not apply for thermistor connection • between main and auxiliary circuit 600 V; does not apply for thermistor connection • between main and auxiliary circuit 600 V; does not apply for thermistor connection • between main and auxiliary circuit 600 V; does not apply for thermistor connection • between main and auxiliary circuit 600 V; does not apply for thermistor connection 15 gr 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 60 Cs 2  Color contact cont	for control circuit	100 ms
degree of pollution 3, acc. to IEC 60947-4-2 impulse voltage rated value 8kV service factor 1.15 surge voltage resistance rated value 8kV maximum permissible voltage for protective separation • between main and audiliny circuit 690 V. does not apply for themistor connection • between main and audiliny circuit 15 g.11 ms, from 6 g.711 ms with potential contact lifting vibration resistance 15 g.11 ms, from 6 g.711 ms with potential contact lifting vibration resistance 15 g.11 ms, from 6 g.711 ms with potential contact lifting vibration resistance 15 g.11 ms, from 6 g.711 ms with potential contact lifting vibration resistance 15 g.11 ms, from 6 g.711 ms with potential contact lifting vibration resistance 15 g.11 ms, from 6 g.711 ms with potential contact lifting vibration resistance 20 g. 2	idle time adjustable	0 255 s
impulse voltage rated value  blocking voltage of the thyristor maximum  service factor  1 155  surge voltage resistance rated value  between main and auxiliary circuit  690 V; does not apply for thermistor connection  thock resistance  15 mm up 16 EHz; 2g up 15 500 Hz  600 L; 1 800 S  600 L; 20 S S S S S S S S S S S S S S S S S S	insulation voltage rated value	690 V
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service factor  surge voltage resistance rated value  swinge voltage resistance rated value  skiv  maximum permissible voltage for protective separation  • between main and auxiliary circuit  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  60 1 800 s  ultilization category according to IEC 81346-2  QC  Substance Prohibitance (Date)  reference code according to IEC 81346-2  QC  Substance Prohibitance (Date)  ramp-up (soft starting)  • ramp-up (soft starting)  • ramp-up (soft starting)  • ramp-down (soft stop)  • ramp-down (	impulse voltage rated value	8 kV
surge voltage resistance rated value maximum permissible voltage for protective separation between main and auxiliary circuit shock resistance  15 g/11 ms, from 6 g/11 ms with potential contact lifting vibration resistance  15 mm up 10 6 Hz; 2 g up to 500 Hz  60 1 800 S  utilization category according to IEC 60947-4-2 AC 53a  reference ode according to IEC 60947-4-2 AC 53a  reference ode according to IEC 81946-2 Q  Substance Prohibitance (Date)  20 yi1/2019  product function  - ramp-up (soft starting) - ramp-down (soft stop) - breakaway pulse - adjustable current limitation - creep speed in both directions of rotation - pump ramp down - DC braking - motor heating - motor heating - slave pointer function - slave pointer function - ves - slave pointer function - ves - slave pointer function - ves - slave pointer function - with reading - slave pointer function - with reading - slave pointer function - ves - slave function - ves - slave pointer function - ves - slave function of thermistor motor protection and electronic motor - verificate delic circuit - ves - ves - remote reset - ves - remote reset - ves - venue ist - veron configuration - ves - ves - via s	blocking voltage of the thyristor maximum	1 800 V
e between main and auxiliary circuit  between main and auxiliary c	service factor	1.15
between main and audiliary circuit shock resistance 15 g/11 ms, from 6 g/11 ms with potential contact lifting withoration resistance 15 g/11 ms, from 6 g/11 ms with potential contact lifting withoration resistance 15 mm up to 6 Hz; 2 g up to 500 Hz  15 mm up to 6 Hz; 2 g up to 6 U	surge voltage resistance rated value	8 kV
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	maximum permissible voltage for protective separation	
vibration resistance 15 mm up to 6 Hz; 2 g up to 500 Hz recovery time after overload trip adjustable 60 1 800 s  vibration recovery time after overload trip adjustable 60 1 800 s  vibration year occording to IEC 60947-4-2 AC 65 a  reference code according to IEC 81346-2 Q  Substance Prohibitance (Date) 02/11/2019  product function  • ramp-up (soft starting) Yes • ramp-down (soft stop) Yes • breakaway pulse Yes • adjustable current limitation Yes • adjustable current limitation Yes • or creep speed in both directions of rotation Yes • adjustable current limitation Yes • DC braking Yes • motor heating Yes • slave pointer function Yes • ramport of the protection Yes; Full motor protection (thermistor motor protection and electronic motor overload protection) • evaluation of thermistor motor protection Yes; Type A PTC or kitwan / Thermoclick • inside-delta circuit Yes; Only up to 600 V operating voltage • auto-RESET Yes • manual RESET Yes • remote reset Yes • communication function Yes • communication function Yes • operating measured value display Yes • communication function Yes • via software parameterizable Yes • sind parameterizable Yes • sind parameterizable Yes • sind parameterizable Yes • removable terminal Yes • programmable control circuit Yes • removable terminal for control circuit Yes • removable termi	<ul> <li>between main and auxiliary circuit</li> </ul>	690 V; does not apply for thermistor connection
recovery time after overload trip adjustable  60 1 800 s  AC 53a  reference code according to IEC 80347-4-2  AC 53a  Substance Prohibitance (Date)  02/11/2019  product function  - ramp-up (soft starling) - ramp-down (soft stop)  - breakaway pulse - order save adjustable current limitation - creep speed in both directions of rotation - pump ramp down - creep speed in both directions of rotation - pump ramp down - DC braking - motor heating - slave pointer function - trace function - wes - slave pointer function - wes - slave pointer function - wes - slave pointer function - wes - intrinsic device protection - word overload protection - word overload protection - word overload protection - evaluation of thermistor motor protection - word overload protection - word overload protection - wes ("Se", July up to 600 V operating voltage - auto-RESET - was - manual RESET - yes - communication function - operating measured value display - event list - error logbook - via software parameterizable - screw terminal - spring-loaded terminal - spring-loaded terminal - yes - PROFlenergy - FROFlenergy - firmware update - removable terminal for control circuit - voltage ramp - to recombined braking - analog output - organizable control inputs/outputs - ves - combined braking - analog output - organizable control inputs/outputs - ves - combined braking - analog output - organizable control inputs/outputs	shock resistance	15 g / 11 ms, from 6 g / 11 ms with potential contact lifting
utilization category according to IEC 60947-42 AC 53a  reference code according to IEC 81346-2 Q Substance Prohibitance (Date)  or amp-up (soft starting) - ramp-down (soft stop) - breakaway pulse - adjustable current limitation - creep speed in both directions of rotation - pump ramp down - DC braking - motor heating - slave pointer function - intrinsic device protection - evaluation of thermistor motor protection - individual RESET - manual RESET - remote reset - communication function - operating measured value display - event list - error logbook - via software parameterizable - via software parameterizable - via software parameterizable - via software update - removable terminal - PROFlenergy - intrinsing oput - infinising oput - ves - removable terminal - PROFlenergy - combined braking - infinishing - reset - removable terminal - reset - removable terminal - ves - voice control - ves - voice control - ves - ves - removable terminal - ves - voice control - ves - voice control - ves - ves - venous parameterizable - ves - removable terminal - ves - ves - removable terminal - ves - voice control - ves - ves - ves - venous parameterizable - ves - ves - removable terminal - ves - ves - venous parameterizable - ves - removable terminal - ves - venous parameterizable - ves - ves - removable terminal - ves - ves - venous parameterizable - ves - venous parameterizable - ves - venous parameterizable - ves - ves - removable terminal - ves - ves - venous parameterizable - ves - venous	vibration resistance	15 mm up to 6 Hz; 2 g up to 500 Hz
reference code according to IEC 81346-2  Substance Prohibitance (Date)  orduct function  i ramp-up (soft starting)  ramp-down (soft stop)  breakaway pulse  adjustable current limitation  recep speed in both directions of rotation  pump ramp down  DC braking  motor heating  slave pointer function  intrinsic device protection  e valuation of thermistor motor protection  inside-delta circuit  auto-RESET  manual RESET  remote reset  remote reset  communication function  operating measured value display  e vert list  e remote programmable  sorting and  proposition of the proposition of the proposition  spring-loaded terminal  proposition of the proposition of the proposition  proposition of the proposition of th	recovery time after overload trip adjustable	60 1 800 s
Substance Prohibitance (Date)  product function  • ramy-up (soft starting) • ramy-down (soft stop) • breakaway pulse • adjustable current limitation • creep speed in both directions of rotation • pump ramp down • DC braking • motor heating • motor heating • salve pointer function • trace function • trace function • wes • unitrinsic device protection • motor overload protection • waluation of thermistor motor protection • evaluation of thermistor motor protection • waluation of thermistor motor protection • evaluation of thermistor motor protection • was provided a circuit • autor-RESET • manual RESET • remote reset • communication function • operating measured value display • event list • error logbook • via software configurable • screw terminal • spring-loaded terminal • PROFlenergy • firmware update • removable terminal for control circuit • ves • voltage ramp • lorque control • reside outputs • analog output • reside outputs • reside outputs • reside outputs • ves • communication function • page ramp • lorque control • residence outputs • residen	utilization category according to IEC 60947-4-2	AC 53a
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• ramp-up (soft starting) • ramp-down (soft storp) • ramp-down (soft storp) • breakaway pulse • description of the provided of	Substance Prohibitance (Date)	02/11/2019
• ramp-down (soft stop) • breakaway pulse • adjustable current limitation • creep speed in both directions of rotation • yes • authorized protection • pump ramp down • DC braking • motor heating • slave pointer function • trace function • trace function • rese passed in both directions • rese passed in both directions of rotation • rese pointer function • rese pointer function • trace function • trace function • rese pointer function • research pointer function • research pointer function function • research pointer function • research pointer function • research pointer function function • research pointer func	product function	
breakaway pulse adjustable current limitation creep speed in both directions of rotation pump ramp down DC braking Tes ontor healing Tes ontor healing Tes ontor healing Tes ontor overload protection Tes overload protection (thermistor motor protection and electronic motor overload protection) Tes overload protection of thermistor motor protection and electronic motor overload protection Tes overloa	<ul><li>ramp-up (soft starting)</li></ul>	Yes
adjustable current limitation creep speed in both directions of rotation pump ramp down pump ramp down Pes DC braking motor heating person intrinsic device protection roteroid protection roteroid protection roteroid protection Pes evaluation of thermistor motor protection inside-delta circuit remote reset remote reset remote reset remoting measured value display event list referrologbook via software parameterizable via software parameterizable via software parameterizable spring-loaded terminal PROFIenergy Firmware update remote reset ves ves ves via software configurable screw terminal PROFIenergy Proside terminal for control circuit Pes ves ves ves ves ves ves ves ves ves v	<ul><li>ramp-down (soft stop)</li></ul>	Yes
oracep speed in both directions of rotation     pump ramp down     Yes     DC braking     motor heating     Yes     slave pointer function     Yes     intrinsic device protection     motor overload protection     ves; Full motor protection (thermistor motor protection and electronic motor overload protection)     vesiulation of thermistor motor protection     vesiulation of thermistor motor protection with great protection overlading voltage      vesiulation of thermistor motor protection     vesiulation of thermistor motor protection and electronic motor overload protection, which greatly overlading voltage      vesiulation of thermistor motor protection overlading voltage      vesion of sold voltage and protection overlading voltage      vesiulation of thermistor motor protection overlading voltage      vesiulation of thermistor motor protection overlading voltage      vesiulation overlading volta	<ul> <li>breakaway pulse</li> </ul>	Yes
pump ramp down DC braking Yes notor heating Yes slave pointer function trace function intrinsic device protection motor overload protection  evaluation of thermistor motor protection versional protection  evaluation of thermistor motor protection Yes; Type A PTC or Klixon / Thermoclick inside-delta circuit Yes; Only up to 600 V operating voltage auto-RESET Yes manual RESET Yes remote reset Yes communication function operating measured value display event list error logbook via software parameterizable via software parameterizable since for the function Presidended terminal PROFlenergy Yes; in connection with the PROFINET Standard and PROFINET High-Feature communication modules removable terminal for control circuit ves voltage ramp to recombined braking analog output Yes; 4 20 mA (default) / 0 10 V programmable control inputs/outputs Yes ves also parameterizolouple Yes also parameterizolouple Yes ocombined braking Analog output Yes; 4 20 mA (default) / 0 10 V	<ul> <li>adjustable current limitation</li> </ul>	Yes
DC braking  motor heating  slave pointer function  trace function  ves  intrinsic device protection  roverload protection  evaluation of thermistor motor protection  ves; Full motor protection (thermistor motor protection and electronic motor overload protection)  evaluation of thermistor motor protection  ves; Type A PTC or Klixon / Thermoclick  inside-delta circuit  ves; Only up to 600 V operating voltage  auto-RESET  remote reset  communication function  ves  communication function  ves  event list  ves  error logbook  via software parameterizable  ves  via software configurable  screw terminal  spring-loaded terminal  PROFlenergy  res; in connection with the PROFINET Standard and PROFINET High-Feature communication modules  rese  removable terminal for control circuit  ves  removable terminal for control circuit  v	<ul> <li>creep speed in both directions of rotation</li> </ul>	Yes
slave pointer function     slave pointer function     trace function     intrinsic device protection     motor overload protection     ves; Full motor protection (thermistor motor protection and electronic motor overload protection)     vesituation of thermistor motor protection     vesituation of thermistor motor protection and electronic motor overload protection)      vesituation of thermistor motor protection     vesituation of thermistor motor protection with general protection and electronic motor overload protection)      vesituation of thermistor motor protection with general protection and electronic motor overload protection of thermistor motor protection in the protection and electronic motor overload protection in the protection of the protection in the protection of the protection in the protect	<ul> <li>pump ramp down</li> </ul>	Yes
<ul> <li>slave pointer function</li> <li>trace function</li> <li>trace function</li> <li>intrinsic device protection</li> <li>motor overload protection</li> <li>evaluation of thermistor motor protection</li> <li>evaluation of thermistor motor protection</li> <li>inside-delta circuit</li> <li>auto-RESET</li> <li>manual RESET</li> <li>remote reset</li> <li>communication function</li> <li>operating measured value display</li> <li>event list</li> <li>error logbook</li> <li>via software parameterizable</li> <li>sorew terminal</li> <li>spring-loaded terminal</li> <li>PROFlenergy</li> <li>firmware update</li> <li>removable terminal for control circuit</li> <li>ves</li> <li>opagrammable control inputs/outputs</li> <li>ves</li> <li>analog output</li> <li>programmable control inputs/outputs</li> <li>ves</li> <li>yes; unconnection with the PROFINET Standard and PROFINET High-Feature communication modules</li> <li>ves</li> <li>ocombined braking</li> <li>programmable control inputs/outputs</li> </ul>	DC braking	Yes
<ul> <li>trace function</li> <li>intrinsic device protection</li> <li>motor overload protection</li> <li>evaluation of thermistor motor protection</li> <li>evaluation of thermistor motor protection</li> <li>evaluation of thermistor motor protection</li> <li>inside-delta circuit</li> <li>auto-RESET</li> <li>manual RESET</li> <li>remote reset</li> <li>communication function</li> <li>operating measured value display</li> <li>event list</li> <li>event list</li> <li>error logbook</li> <li>via software parameterizable</li> <li>screw terminal</li> <li>spring-loaded terminal</li> <li>PROFlenergy</li> <li>firmware update</li> <li>removable terminal for control circuit</li> <li>ves</li> <li>removable terminal for control circuit</li> <li>ves</li> <li>ordinaction modules</li> <li>ves</li> <li>removable tortiol inputs/outputs</li> <li>ves</li> <li>analog output</li> <li>programmable control inputs/outputs</li> <li>ves</li> <li>yes; 4 20 mA (default) / 0 10 V</li> <li>programmable control inputs/outputs</li> </ul>	<ul> <li>motor heating</li> </ul>	Yes
intrinsic device protection  motor overload protection  evaluation of thermistor motor protection  evaluation of thermistor motor protection  evaluation of thermistor motor protection  established edita circuit  inside-delta circuit  eauto-RESET  manual RESET  manual RESET  emanual RESET  eremote reset  communication function  operating measured value display  event list  error logbook  via software parameterizable  via software configurable  escrew terminal  pring-loaded terminal  profenergy  efirmware update  removable terminal for control circuit  ves  removable terminal for control circuit  ves  ves  ves  ves  ves  ves  ves  removable terminal for control circuit  ves  voltage ramp  torque control  combined braking  analog output  ves  ves; 4 20 mA (default) / 0 10 V  ves  ves  ves  ves  ves  ves  ves  ve	slave pointer function	Yes
<ul> <li>motor overload protection</li> <li>evaluation of thermistor motor protection</li> <li>evaluation of thermistor motor protection</li> <li>inside-delta circuit</li> <li>auto-RESET</li> <li>manual RESET</li> <li>manual RESET</li> <li>remote reset</li> <li>communication function</li> <li>event list</li> <li>event list</li> <li>erro logbook</li> <li>via software parameterizable</li> <li>screw terminal</li> <li>spring-loaded terminal</li> <li>PROFlenergy</li> <li>firmware update</li> <li>removable terminal for control circuit</li> <li>removable terminal for control circuit</li> <li>ves</li> <li>communication modules</li> <li>removable terminal for control circuit</li> <li>ves</li> <li>communication inputs/outputs</li> <li>yes</li> <li>analog output</li> <li>programmable control inputs/outputs</li> <li>yes; Type A PTC or Klixon / Thermoclick</li> <li>Yes; Only up to 600 V operating voltage</li> <li>Yes</li> <li>yes</li> <li>yes</li> <li>om A00 V operating voltage</li> <li>Yes</li> <li>yes</li> <li>om A00 V operating voltage</li> <li>Yes</li> <li>yes</li> <li>om A00 V operating voltage</li> <li>Yes</li> <li>om A00 V operating voltage</li> <li>Yes</li> <li>om A00 V operating voltage</li> <li>Yes</li> <li>ves</li> <li>ves</li> <li>om A00 V operating voltage</li> <li>Yes</li> <li>som A00 V operating voltage</li> <li>yes</li> &lt;</ul>	trace function	Yes
overload protection)  • evaluation of thermistor motor protection  • inside-delta circuit  • auto-RESET  • manual RESET  • remote reset  • communication function  • operating measured value display  • event list  • error logbook  • via software parameterizable  • via software configurable  • screw terminal  • PROFlenergy  • firmware update  • removable terminal for control circuit  • ves  • tompinad protection)  Yes; Type A PTC or Klixon / Thermoclick  Yes  Only up to 600 V operating voltage  Yes  Yes  Yes  • ves  • via software ventinal  • pROFlenergy  Yes; in connection with the PROFINET Standard and PROFINET High-Feature communication modules  • firmware update  • removable terminal for control circuit  • voltage ramp  • torque control  • combined braking  • analog output  • programmable control inputs/outputs  Yes  • regarding vertication  Yes  • value (default) / 0 10 V  Yes  • programmable control inputs/outputs	<ul> <li>intrinsic device protection</li> </ul>	Yes
<ul> <li>inside-delta circuit</li> <li>auto-RESET</li> <li>manual RESET</li> <li>remote reset</li> <li>communication function</li> <li>operating measured value display</li> <li>event list</li> <li>error logbook</li> <li>via software parameterizable</li> <li>sorew terminal</li> <li>spring-loaded terminal</li> <li>PROFlenergy</li> <li>firmware update</li> <li>removable terminal for control circuit</li> <li>voltage ramp</li> <li>torque control</li> <li>combined braking</li> <li>analog output</li> <li>programmable control inputs/outputs</li> <li>Yes</li> <li>Yes</li> <li>On On Operating voltage</li> <li>Yes</li> <li>Yes</li> <li>yes</li> <li>se</li> <li>combined braking</li> <li>programmable control inputs/outputs</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>20 mA (default) / 0 10 V</li> <li>yes</li> </ul>	motor overload protection	
<ul> <li>auto-RESET</li> <li>manual RESET</li> <li>remote reset</li> <li>communication function</li> <li>operating measured value display</li> <li>event list</li> <li>error logbook</li> <li>via software parameterizable</li> <li>via software configurable</li> <li>screw terminal</li> <li>spring-loaded terminal</li> <li>PROFlenergy</li> <li>firmware update</li> <li>removable terminal for control circuit</li> <li>ves</li> <li>removable terminal for control circuit</li> <li>ves</li> <li>ves</li> <li>removable terminal for control circuit</li> <li>rem</li></ul>	<ul> <li>evaluation of thermistor motor protection</li> </ul>	Yes; Type A PTC or Klixon / Thermoclick
<ul> <li>manual RESET</li> <li>remote reset</li> <li>communication function</li> <li>operating measured value display</li> <li>event list</li> <li>event list</li> <li>error logbook</li> <li>via software parameterizable</li> <li>via software configurable</li> <li>screw terminal</li> <li>spring-loaded terminal</li> <li>PROFlenergy</li> <li>firmware update</li> <li>removable terminal for control circuit</li> <li>ves</li> <li>analog output</li> <li>programmable control inputs/outputs</li> <li>ves</li> </ul>	• inside-delta circuit	Yes; Only up to 600 V operating voltage
<ul> <li>remote reset</li> <li>communication function</li> <li>operating measured value display</li> <li>event list</li> <li>error logbook</li> <li>via software parameterizable</li> <li>via software configurable</li> <li>screw terminal</li> <li>spring-loaded terminal</li> <li>PROFlenergy</li> <li>firmware update</li> <li>removable terminal for control circuit</li> <li>voltage ramp</li> <li>torque control</li> <li>combined braking</li> <li>analog output</li> <li>programmable control inputs/outputs</li> <li>Yes</li> <li>yes</li> <li>yes</li> <li>yes</li> <li>analog output</li> <li>programmable control inputs/outputs</li> <li>Yes</li> <li>yes</li> <li>yes</li> <li>20 mA (default) / 0 10 V</li> <li>programmable control inputs/outputs</li> <li>Yes</li> </ul>	• auto-RESET	Yes
<ul> <li>communication function</li> <li>operating measured value display</li> <li>event list</li> <li>error logbook</li> <li>via software parameterizable</li> <li>via software configurable</li> <li>screw terminal</li> <li>spring-loaded terminal</li> <li>PROFlenergy</li> <li>firmware update</li> <li>removable terminal for control circuit</li> <li>voltage ramp</li> <li>torque control</li> <li>combined braking</li> <li>analog output</li> <li>programmable control inputs/outputs</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>Quant (default) / 0 10 V</li> <li>Programmable control inputs/outputs</li> </ul>	manual RESET	Yes
<ul> <li>operating measured value display</li> <li>event list</li> <li>error logbook</li> <li>via software parameterizable</li> <li>via software configurable</li> <li>screw terminal</li> <li>spring-loaded terminal</li> <li>PROFlenergy</li> <li>firmware update</li> <li>removable terminal for control circuit</li> <li>ves</li> <li>removable terminal for control circuit</li> <li>ves</li> <li>voltage ramp</li> <li>torque control</li> <li>combined braking</li> <li>analog output</li> <li>programmable control inputs/outputs</li> <li>Yes</li> <li>yes</li> <li>20 mA (default) / 0 10 V</li> <li>programmable control inputs/outputs</li> </ul>	• remote reset	Yes
<ul> <li>event list</li> <li>error logbook</li> <li>via software parameterizable</li> <li>via software configurable</li> <li>screw terminal</li> <li>spring-loaded terminal</li> <li>PROFlenergy</li> <li>firmware update</li> <li>removable terminal for control circuit</li> <li>ves</li> <li>removable terminal for control circuit</li> <li>ves</li> <li>voltage ramp</li> <li>torque control</li> <li>combined braking</li> <li>analog output</li> <li>programmable control inputs/outputs</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>20 mA (default) / 0 10 V</li> <li>programmable control inputs/outputs</li> <li>Yes</li> </ul>	communication function	
<ul> <li>error logbook</li> <li>via software parameterizable</li> <li>via software configurable</li> <li>screw terminal</li> <li>spring-loaded terminal</li> <li>PROFlenergy</li> <li>firmware update</li> <li>removable terminal for control circuit</li> <li>voltage ramp</li> <li>torque control</li> <li>combined braking</li> <li>analog output</li> <li>prosession of the properties of the parameter of the programmable control inputs/outputs</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>OmA (default) / 0 10 V</li> <li>Yes</li> <li>Yes</li> </ul>	<ul> <li>operating measured value display</li> </ul>	Yes
<ul> <li>via software parameterizable</li> <li>via software configurable</li> <li>screw terminal</li> <li>spring-loaded terminal</li> <li>PROFlenergy</li> <li>firmware update</li> <li>removable terminal for control circuit</li> <li>voltage ramp</li> <li>torque control</li> <li>combined braking</li> <li>analog output</li> <li>programmable control inputs/outputs</li> </ul> Yes <ul> <li>Yes</li> </ul>		
<ul> <li>via software configurable</li> <li>screw terminal</li> <li>spring-loaded terminal</li> <li>PROFlenergy</li> <li>firmware update</li> <li>removable terminal for control circuit</li> <li>voltage ramp</li> <li>torque control</li> <li>combined braking</li> <li>analog output</li> <li>programmable control inputs/outputs</li> </ul> Yes <ul> <li>Yes</li> </ul>		
<ul> <li>screw terminal</li> <li>spring-loaded terminal</li> <li>PROFlenergy</li> <li>firmware update</li> <li>removable terminal for control circuit</li> <li>voltage ramp</li> <li>torque control</li> <li>combined braking</li> <li>analog output</li> <li>programmable control inputs/outputs</li> </ul> No Yes Yes; in connection with the PROFINET Standard and PROFINET High-Feature communication modules Yes Yes • removable terminal for control circuit Yes • torque control Yes • combined braking Yes • analog output Yes; 4 20 mA (default) / 0 10 V Yes Yes • programmable control inputs/outputs Yes	•	
<ul> <li>spring-loaded terminal</li> <li>PROFlenergy</li> <li>firmware update</li> <li>removable terminal for control circuit</li> <li>voltage ramp</li> <li>torque control</li> <li>combined braking</li> <li>analog output</li> <li>programmable control inputs/outputs</li> </ul> Yes <ul> <li>Yes</li> </ul>	<ul> <li>via software configurable</li> </ul>	
<ul> <li>PROFlenergy</li> <li>Firmware update</li> <li>Femovable terminal for control circuit</li> <li>Ves</li> <li>Ves</li> <li>Ves</li> <li>Ves</li> <li>Voltage ramp</li> <li>Ves</li> &lt;</ul>		
communication modules  • firmware update  • removable terminal for control circuit  • voltage ramp  • torque control  • combined braking  • analog output  • programmable control inputs/outputs  communication modules  Yes  Yes  Yes  Yes  Yes  • voltage ramp  Yes  • torque control  Yes  • combined braking  Yes  • analog output  Yes; 4 20 mA (default) / 0 10 V		
<ul> <li>removable terminal for control circuit</li> <li>voltage ramp</li> <li>torque control</li> <li>combined braking</li> <li>analog output</li> <li>programmable control inputs/outputs</li> </ul> Yes	PROFlenergy	Yes; in connection with the PROFINET Standard and PROFINET High-Feature communication modules
<ul> <li>voltage ramp</li> <li>torque control</li> <li>combined braking</li> <li>analog output</li> <li>programmable control inputs/outputs</li> </ul> Yes <ul> <li>Yes</li> <li>Yes</li> <li>Yes; 4 20 mA (default) / 0 10 V</li> </ul> Yes	firmware update	
<ul> <li>torque control</li> <li>combined braking</li> <li>analog output</li> <li>programmable control inputs/outputs</li> </ul> Yes Yes Yes; 4 20 mA (default) / 0 10 V Yes	<ul> <li>removable terminal for control circuit</li> </ul>	Yes
<ul> <li>combined braking</li> <li>analog output</li> <li>programmable control inputs/outputs</li> <li>Yes</li> <li>Yes; 4 20 mA (default) / 0 10 V</li> <li>Yes</li> </ul>	voltage ramp	Yes
<ul> <li>analog output</li> <li>Yes; 4 20 mA (default) / 0 10 V</li> <li>programmable control inputs/outputs</li> <li>Yes</li> </ul>	• torque control	Yes
programmable control inputs/outputs     Yes	combined braking	Yes
	analog output	Yes; 4 20 mA (default) / 0 10 V
• condition monitoring Yes	<ul> <li>programmable control inputs/outputs</li> </ul>	Yes
	<ul> <li>condition monitoring</li> </ul>	Yes

<ul> <li>automatic parameterisation</li> </ul>	Yes
<ul> <li>application wizards</li> </ul>	Yes
alternative run-down	Yes
<ul> <li>emergency operation mode</li> </ul>	Yes
• reversing operation	Yes
<ul> <li>soft starting at heavy starting conditions</li> </ul>	Yes
Power Electronics	
operational current	
•	840 A
at 40 °C rated value	
at 40 °C rated value minimum	168 A
at 50 °C rated value	748 A
at 60 °C rated value	670 A
operational current at inside-delta circuit	
• at 40 °C rated value	1 454 A
at 50 °C rated value	1 295 A
at 60 °C rated value	1 160 A
operating voltage	
• rated value	200 690 V
at inside-delta circuit rated value	200 600 V
relative negative tolerance of the operating voltage	-15 %
relative positive tolerance of the operating voltage	10 %
relative negative tolerance of the operating voltage at inside-delta circuit	-15 %
relative positive tolerance of the operating voltage at inside-delta circuit	10 %
operating power for 3-phase motors	
at 230 V at 40 °C rated value	250 kW
at 230 V at 40 C lated value     at 230 V at inside-delta circuit at 40 °C rated value	450 kW
• at 400 V at 40 °C rated value	450 kW
at 400 V at inside-delta circuit at 40 °C rated value	800 kW
at 500 V at 40 °C rated value	560 kW
at 500 V at inside-delta circuit at 40 °C rated value	900 kW
at 690 V at 40 °C rated value	800 kW
Operating frequency 1 rated value	50 Hz
Operating frequency 2 rated value	60 Hz
relative negative tolerance of the operating frequency	-10 %
relative positive tolerance of the operating frequency	10 %
minimum load [%]	10 %; Relative to set le
power loss [W] for rated value of the current at AC	
<ul> <li>at 40 °C after startup</li> </ul>	252 W
• at 50 °C after startup	205 W
at 60 °C after startup	164 W
power loss [W] at AC at current limitation 350 %	
<ul> <li>at 40 °C during startup</li> </ul>	14 441 W
• at 50 °C during startup	12 187 W
at 60 °C during startup	10 405 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	AC
control supply voltage at AC	
• at 50 Hz	110 250 V
• at 60 Hz	110 250 V
relative negative tolerance of the control supply voltage at	-15 %
AC at 50 Hz	
relative positive tolerance of the control supply voltage at AC at 50 Hz	10 %
relative negative tolerance of the control supply voltage at AC at 60 Hz	-15 % 
relative positive tolerance of the control supply voltage at AC at 60 Hz	10 %
control supply voltage frequency	50 60 Hz
relative negative tolerance of the control supply voltage	-10 %
frequency	

volativa positiva talavanas af the control	10.07
relative positive tolerance of the control supply voltage frequency	10 %
control supply current in standby mode rated value	100 mA
holding current in bypass operation rated value	210 mA
inrush current by closing the bypass contacts maximum	1 A
inrush current peak at application of control supply voltage maximum	44 A
duration of inrush current peak at application of control supply voltage	1.7 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
parameterizable	4
<ul> <li>number of digital outputs</li> </ul>	4
<ul> <li>number of digital outputs parameterizable</li> </ul>	3
<ul> <li>number of digital outputs not parameterizable</li> </ul>	1
digital output version	3 normally-open contacts (NO) / 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 24 V rated value	1 A
Installation/ mounting/ dimensions	
mounting position	Vertical (can be rotated +/- 90° and tilted forward or backward +/- 22.5°)
fastening method	screw fixing
height	764 mm
width	478 mm
depth	241 mm
required spacing with side-by-side mounting	
• forwards	10 mm
backwards	0 mm
• upwards	100 mm
• downwards	75 mm
at the side	5 mm
weight without packaging	45 kg
Connections/ Terminals	
type of electrical connection	
• for main current circuit	busbar connection
• for control circuit	spring-loaded terminals
width of connection bar maximum	55 mm
wire length for thermistor connection	00 11111
with conductor cross-section = 0.5 mm² maximum	50 m
with conductor cross-section = 0.5 mm maximum     with conductor cross-section = 1.5 mm² maximum	150 m
with conductor cross-section = 1.5 mm maximum     with conductor cross-section = 2.5 mm² maximum	250 m
type of connectable conductor cross-sections	200 111
	2v /50 240 mm²)
for DIN cable lug for main contacts stranded     for DIN cable lug for main contacts finely stranded	2x (50 240 mm²) 2x (70 240 mm²)
for DIN cable lug for main contacts finely stranded  type of connectable conductor cross-sections	۵۸ (۱۷ ۲۹۷ ۱۱۱۱۱۱ )
type of connectable conductor cross-sections	2v /0.25 1.5 mm²)
for control circuit solid     for control circuit finely stranded with core and processing.	2x (0.25 1.5 mm²)
for control circuit finely stranded with core end processing     for AWG cables for control circuit solid.	2x (0.25 1.5 mm²)
for AWG cables for control circuit solid     for AWG cables for control circuit finally stranded with	2x (24 16)
<ul> <li>for AWG cables for control circuit finely stranded with core end processing</li> </ul>	2x (24 16)
wire length	
between soft starter and motor maximum	800 m
at the digital inputs at DC maximum	1 000 m
tightening torque	1 000 111
agazoning torquo	
• for main contacts with screw-type terminals	20 35 N·m
<ul> <li>for main contacts with screw-type terminals</li> <li>for auxiliary and control contacts with screw-type</li> </ul>	20 35 N·m 0.8 1.2 N·m

diable and a second PILE 1. S	
tightening torque [lbf·in]	477 040    51
for main contacts with screw-type terminals	177 310 lbf·in
<ul> <li>for auxiliary and control contacts with screw-type terminals</li> </ul>	7 10.3 lbf-in
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m; Derating as of 1000 m, see catalog
ambient temperature	2 ood iii, Bolduing ab of 1000 iii, ood datalog
during operation	-25 +60 °C; Please observe derating at temperatures of 40 °C or above
during operation     during storage and transport	-40 +80 °C
environmental category	
during operation according to IEC 60721	3K6 (no ice formation, only occasional condensation), 3C3 (no salt mist), 3S2
• during operation according to IEC 00721	(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 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     according to UL	Type: Class J / L, max. 2500 A; Iq = 42 kA
usable for High Faults up to 575/600 V according to UL	Type: Class J / L, max. 2500 A; Iq = 100 kA
<ul> <li>usable for Standard Faults at inside-delta circuit up to 575/600 V according to UL</li> </ul>	Type: Class J / L, max. 2500 A; Iq = 42 kA
<ul> <li>usable for High Faults at inside-delta circuit up to 575/600 V according to UL</li> </ul>	Type: Class J / L, max. 2500 A; Iq = 100 kA
operating power [hp] for 3-phase motors	
<ul> <li>at 200/208 V at 50 °C rated value</li> </ul>	250 hp
<ul> <li>at 220/230 V at 50 °C rated value</li> </ul>	300 hp
• at 460/480 V at 50 °C rated value	600 hp
• at 575/600 V at 50 °C rated value	800 hp
• at 200/208 V at inside-delta circuit at 50 °C rated value	450 hp
• at 220/230 V at inside-delta circuit at 50 °C rated value	550 hp
• at 460/480 V at inside-delta circuit at 50 °C rated value	1 150 hp
• at 575/600 V at inside-delta circuit at 50 °C rated value	1 450 hp
contact rating of auxiliary contacts according to UL	R300-B300
Safety related data	
protection class IP on the front according to IEC 60529	IP00
electromagnetic compatibility	acc. to IEC 60947-4-2
ATEX	300.10 120 000 17 12
certificate of suitability	
ATEX	Yes
• IECEX	Yes
	BVS 18 ATEX F 003 X
according to ATEX directive 2014/34/EU  type of protection according to ATEX directive 2014/34/EU	
type of protection according to ATEX directive 2014/34/EU	II (2)G [Ex eb Gb] [Ex db Gb] [Ex pxb Gb], II (2)D [Ex tb Db] [Ex pxb Db], I (M2) [Ex db Mb]
hardware fault tolerance according to IEC 61508 relating to ATEX  PEDagg with low depend rate according to IEC 61508	
PFDavg with low demand rate according to IEC 61508 relating to ATEX	0.008
PFHD with high demand rate according to EN 62061 relating to ATEX  Safety Integrity Level (SIL) according to IEC 61508 relating	5E-7 1/h
Safety Integrity Level (SIL) according to IEC 61508 relating to ATEX	SIL1
T1 value for proof test interval or service life according to	3 a

## IEC 61508 relating to ATEX

Certificates/ approvals

**General Product Approval** 

EMC





Confirmation







For use in hazardous locations

**Declaration of Conformity** 

**Test Certificates** 

Marine / Shipping







Type Test Certificates/Test Report





Marine / Shipping

other





Confirmation

## Further information

Siemens has decided to exit the Russian market (see here).

https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business

Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

Information on the packaging

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

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=3RW5554-2HA16

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RW5554-2HA16

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

https://support.industry.siemens.com/cs/ww/en/ps/3RW5554-2HA16

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

http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RW5554-2HA16&lang=en

Characteristic: Tripping characteristics, I²t, Let-through current

https://support.industry.siemens.com/cs/ww/en/ps/3RW5554-2HA16/char

Characteristic: Installation altitude

 $\underline{\text{http://www.automation.siemens.com/bilddb/index.aspx?view=Search\&mlfb=3RW5554-2HA16\&objecttype=14\&gridview=view1}$ 

Simulation Tool for Soft Starters (STS)

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







