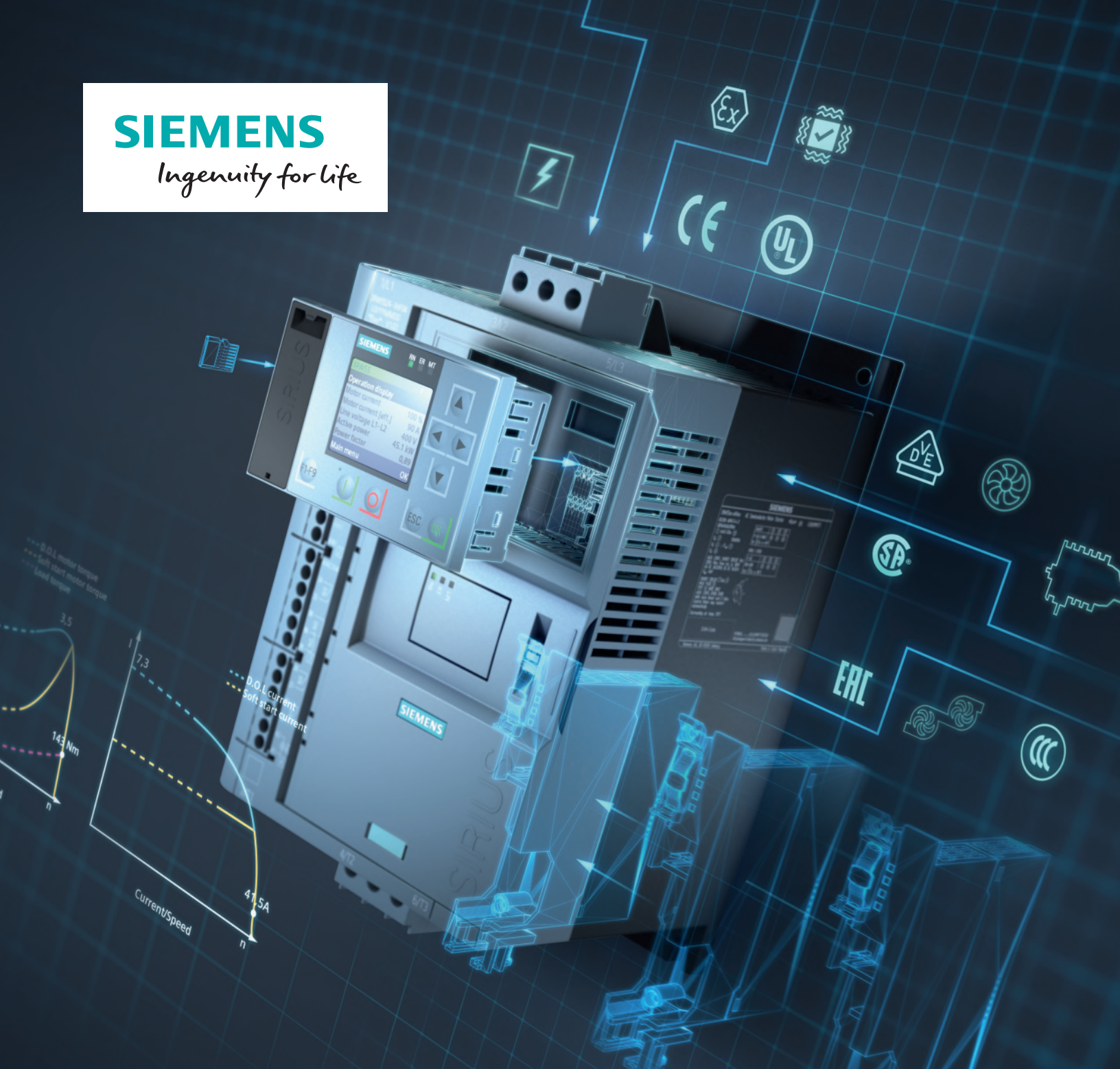


**SIEMENS**

*Ingenuity for life*



# SIRIUS 3RW5 soft starter core selection guide

SIRIUS 3RW5, the new generation of soft starters

# Soft starters help make your processes more reliable for the future.



Electric motors are significant in most industries; without them, your applications wouldn't work. Motors pump liquids, transport heavy materials, move air masses and support the processing of raw materials. Since motors are the leading unit in your facility, they should be durable and reliable with no chances of failure. SIRIUS soft starters do just this! They help limit the starting current and torque to best fit your application. This prevents mechanical load and voltage dips. The motor is adjusted to the load of

the driven machine by means of stepless control of the voltage supply. Mechanical equipment is accelerated softly, which highly influences operating characteristics, and extends service life. The comprehensive range offers the appropriate soft alternative for almost every application, whether for simple or demanding motor requirements. Optimized and reliable machine concepts can be implemented simply and economically thanks to the jerk-free start of three-phase motors.

## Advantages at a glance

- Soft start and soft stop
- Smooth starting, without steps
- Reduced current peaks
- Avoidance of line voltage fluctuations during start-up
- Reduced load on the power supply system
- Reduced mechanical load in the drive
- Considerable space savings and reduced wiring compared to other starters
- Maintenance-free switching
- Ease of handling
- Perfectly matched with SIRIUS devices for the control cabinet

## Features of the new 3RW5\*

- Up to 1,200HP (1,800HP inside Delta)
- Auto-parametrization for adaptive commissioning
- High feature colour operator panel
- Communication capable: PROFIBUS, PROFINET, Modbus, Ethernet/IP
- Pump control capability
- TIA integration
- Wide range control voltage: 24V AC/DC, 110–250V AC
- Analog output: 0–10V, 4–20mA
- Global Certification

\*Some features available only on select models

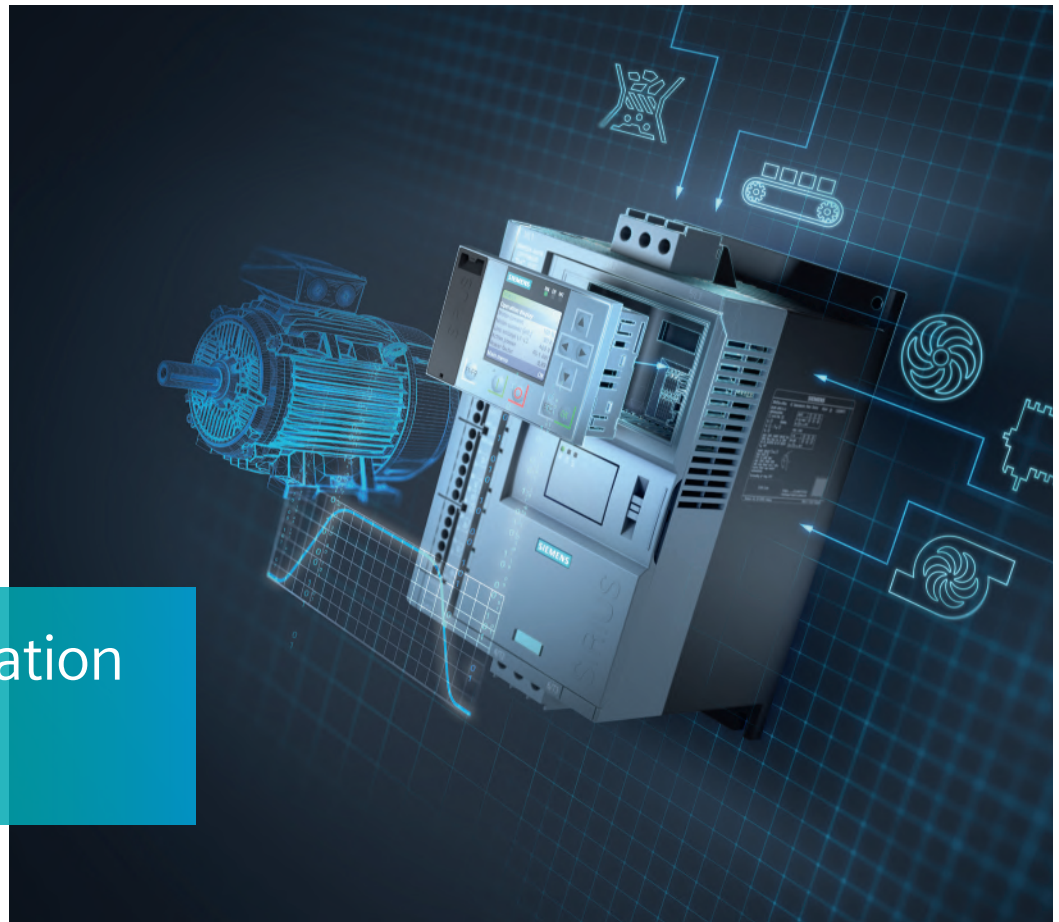
Soft starters are a cost-effective alternative to using direct or wye-delta starters for starting three-phase motors. They avoid undesirable side effects such as mechanical bumps in the machine and mechanics or voltage drops in the mains supply. The soft start in control cabinets can be implemented in almost any application in a simple and practical way with our complete soft starter range.



## Design Awards 2018

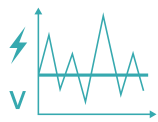
The SIRIUS 3RW5 soft starter received both the RedDot Design and the iF Design awards in 2018. Among other things, the iF design institute recognized the slim, coordinated, uniform design across all sizes: "Despite their size and materials, the devices look harmonious due to the consistent design throughout the entire family. The most important elements for the user, such as LEDs and safety locking, have been placed on the first level in a user-oriented manner."

## Your application in mind



### Pump cleaning and pump stopping mode

The pump cleaning function prevents pumps from blocking, therefore, increasing your productivity and system availability. The pump stopping mode avoids mechanical loading in the piping system and extends the service life of the equipment.



### Electrical ruggedness

Due to the wide control voltage range from 110–250 V AC, soft starters have a high degree of electrical ruggedness. This guarantees reliable operation even in the event of falling voltages.



### Condition monitoring

The condition monitoring function supports optimal planning of maintenance work on bearings or seals, therefore maximizing availability.



### Automatic parameterization

Automatic parameterization simplifies the commissioning and operation of critical applications, even in the case of highly dynamic load characteristics.



### Integrated braking functions

Intelligent functions such as soft starter braking ensure a fast and reliable stop without engineering and configuration work.

# 3RW55 high performance soft starter core selections

For normal starting (CLASS 10E)



3RW551



3RW552



3RW553



3RW554

Inline Circuit @ 50°C					
Operational current	Rating [hp] for three-phase motors				Article No.
	At 200 V	At 230 V	At 460 V	At 575 V	
A	hp	hp	hp	hp	
<b>Operational voltage 200 ... 600 V</b>					
11.5	3	3	7.5	<b>10</b>	3RW5513-■HA■5
15.9	3	3	10	<b>15</b>	3RW5514-■HA■5
22.3	5	5	15	<b>20</b>	3RW5515-■HA■5
28.4	7.5	7.5	15	<b>25</b>	3RW5516-■HA■5
33.5	10	10	20	<b>30</b>	3RW5517-■HA■5
<b>Operational voltage 200 ... 690 V</b>					
22.3	5	5	15	<b>20</b>	3RW5521-■HA■6
41.6	10	15	30	<b>40</b>	3RW5524-■HA■6
55.5	15	20	40	<b>50</b>	3RW5525-■HA■6
68	20	20	50	<b>60</b>	3RW5526-■HA■6
82.5	25	25	60	<b>75</b>	3RW5527-■HA■6

Inline Circuit @ 50°C					
Operational current	Rating [hp] for three-phase motors				Article No.
	At 200 V	At 230 V	At 460 V	At 575 V	
A	hp	hp	hp	hp	
<b>Operational voltage 200 ... 690 V</b>					
101	30	30	75	<b>75</b>	3RW5534-■HA■6
128	30	40	75	<b>100</b>	3RW5535-■HA■6
153	40	50	100	<b>125</b>	3RW5536-■HA■6
186	50	60	125	<b>150</b>	3RW5543-■HA■6
220	60	75	150	<b>200</b>	3RW5544-■HA■6
279	75	100	200	<b>250</b>	3RW5545-■HA■6
328	100	125	250	<b>300</b>	3RW5546-■HA■6
416	125	150	300	<b>400</b>	3RW5547-■HA■6
504	150	200	400	<b>500</b>	3RW5548-■HA■6

Inside-delta Circuit @ 50°C					
Operational current	Rating [hp] for three-phase motors				Article No.
	At 200 V	At 230 V	At 460 V	At 575 V	
A	hp	hp	hp	hp	
<b>Operational voltage for inside-delta circuit 200 ... 600 V</b>					
19.9	5	5	15	<b>20</b>	3RW5513-■HA■5
28	5	5	15	<b>25</b>	3RW5514-■HA■5
39	7.5	7.5	20	<b>30</b>	3RW5515-■HA■5
49	10	10	30	<b>40</b>	3RW5516-■HA■5
58	15	15	40	<b>50</b>	3RW5517-■HA■5
39	7.5	7.5	20	<b>30</b>	3RW5521-■HA■6
72	20	25	50	<b>60</b>	3RW5524-■HA■6
96	25	30	60	<b>75</b>	3RW5525-■HA■6
118	30	40	75	<b>100</b>	3RW5526-■HA■6
143	40	50	100	<b>125</b>	3RW5527-■HA■6

Inside-delta Circuit @ 50°C					
Operational current	Rating [hp] for three-phase motors				Article No.
	At 200 V	At 230 V	At 460 V	At 575 V	
A	hp	hp	hp	hp	
<b>Operational voltage for inside-delta circuit 200 ... 600 V</b>					
175	50	60	125	<b>150</b>	3RW5534-■HA■6
222	60	75	150	<b>200</b>	3RW5535-■HA■6
265	75	100	200	<b>250</b>	3RW5536-■HA■6
322	100	125	250	<b>300</b>	3RW5543-■HA■6
381	125	150	300	<b>350</b>	3RW5544-■HA■6
483	150	200	400	<b>500</b>	3RW5545-■HA■6
568	150	200	450	<b>600</b>	3RW5546-■HA■6
721	200	250	600	<b>750</b>	3RW5547-■HA■6
873	300	350	750	<b>950</b>	3RW5548-■HA■6

Type of electrical connection for the control circuit

- Screw terminals 1
- Spring-type terminals 3

Control supply voltage

- 24 V AC/DC 0
- 110 ... 250 V AC 1

Type of electrical connection for the control circuit

- Spring-type terminals 2
- Screw terminals 6

Control supply voltage

- 24 V AC/DC 0
- 110 ... 250 V AC 1

# 3RW52 general performance soft starter core selections

For normal starting (CLASS 10E)



3RW5213



3RW522



3RW523



3RW524

Inline Circuit @ 50°C					
Operational current	Rating [hp] for three-phase motors				Article No.
	At 200 V	At 230 V	At 460 V	At 575 V	
A	hp	hp	hp	hp	
<b>Operational voltage 200 ... 600 V</b>					
11.5	2	3	7.5	10	3RW5213-C#5
15.9	3	5	10	10	3RW5214-C#5
22.3	5	7.5	15	20	3RW5215-C#5
28.4	7.5	10	20	25	3RW5216-C#5
33.5	10	10	20	30	3RW5217-C#5
41.6	10	10	30	40	3RW5224-C#5
55.5	15	20	40	50	3RW5225-C#5
68	20	25	50	60	3RW5226-C#5
82.5	25	30	60	75	3RW5227-C#5

Inline Circuit @ 50°C					
Operational current	Rating [hp] for three-phase motors				Article No.
	At 200 V	At 230 V	At 460 V	At 575 V	
A	hp	hp	hp	hp	
<b>Operational voltage 200 ... 600 V</b>					
101	30	30	75	100	3RW5234-C#5
128	40	40	100	125	3RW5235-C#5
153	50	50	100	150	3RW5236-C#5
186	60	60	150	150	3RW5243-C#5
220	60	75	150	200	3RW5244-C#5
279	75	100	200	250	3RW5245-C#5
328	100	125	250	300	3RW5246-C#5
416	150	150	350	450	3RW5247-C#5
504	150	200	400	500	3RW5248-C#5

Inside-delta Circuit @ 50°C					
Operational current	Rating [hp] for three-phase motors				Article No.
	At 200 V	At 230 V	At 460 V	At 575 V	
A	hp	hp	hp	hp	
<b>Operational voltage for inside-delta circuit 200 ... 600 V</b>					
19.9	5	5	10	15	3RW5213-C#5
28	7.5	7.5	20	25	3RW5214-C#5
39	10	10	25	30	3RW5215-C#5
49	15	15	30	40	3RW5216-C#5
58	15	20	40	50	3RW5217-C#5
72	20	25	50	60	3RW5224-C#5
96	30	30	75	75	3RW5225-C#5
118	30	40	75	100	3RW5226-C#5
143	40	50	100	125	3RW5227-C#5

Inside-delta Circuit @ 50°C					
Operational current	Rating [hp] for three-phase motors				Article No.
	At 200 V	At 230 V	At 460 V	At 575 V	
A	hp	hp	hp	hp	
<b>Operational voltage for inside-delta circuit 200 ... 600 V</b>					
175	50	60	125	150	3RW5234-C#5
222	75	75	150	200	3RW5235-C#5
265	75	100	200	250	3RW5236-C#5
322	100	125	250	300	3RW5243-C#5
381	125	150	300	350	3RW5244-C#5
483	150	200	400	500	3RW5245-C#5
568	200	200	450	600	3RW5246-C#5
721	250	250	600	800	3RW5247-C#5
873	300	350	750	950	3RW5248-C#5

Type of electrical connection for the control circuit

- Screw terminals 1
- Spring-type terminals 3

Product function

- Analog output A
- Thermistor motor protection T

Control supply voltage

- 24 V AC/DC 0
- 110 ... 250 V AC 1

Type of electrical connection for the control circuit

- Spring-type terminals 2
- Screw terminals 6

Product function

- Analog output A
- Thermistor motor protection T

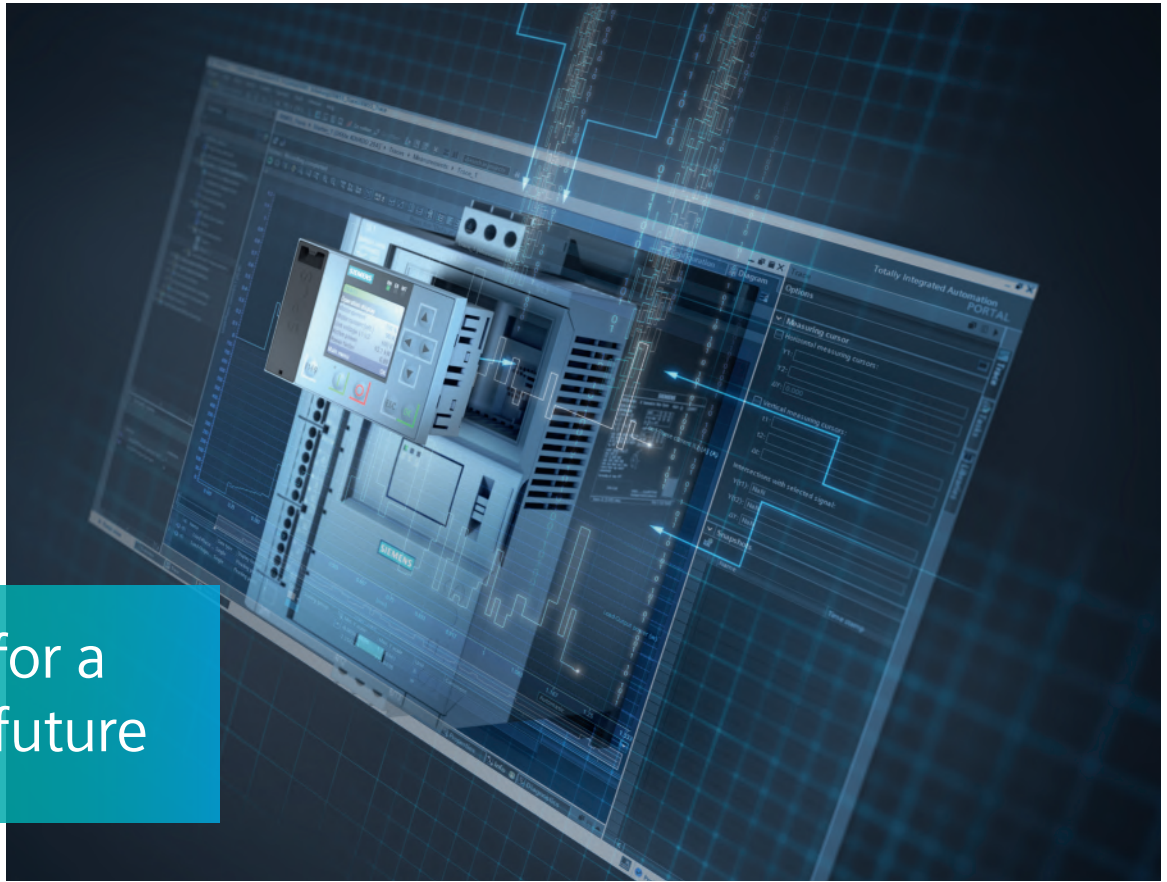
Control supply voltage

- 24 V AC/DC 0
- 110 ... 250 V AC 1

# SIRIUS 3RW5 soft starter accessories

## General and High Performance Soft Starters

	Product designation	Manufacturer's Article No. of the soft starter	Type of product	Application	Article No.	
<b>Enclosure components</b>						
 3RW5950-0GL30    3RW5950-0GL40    3RW5950-0GL20	Hinged Cover	3RW52 only	With cutout for HMI module High feature	--	3RW5950-0GL30	
			With cutout for HMI module Standard	--	3RW5950-0GL40	
			Without cutout	--	3RW5950-0GL20	
<b>Communication modules</b>						
 3RW5980-0CS00		3RW52 / 3RW55	PROFINET Standard	--	3RW5980-0CS00	
			PROFIBUS	--	3RW5980-0CP00	
			Modbus TCP	--	3RW5980-0CT00	
<b>HMI modules</b>						
 3RW5980-0HF00    3RW5980-0HS00	HMI module	3RW52 only	High feature	--	3RW5980-0HF00	
			Standard	--	3RW5980-0HS00	
 3RW5980-0HD00	Door mounting kit	3RW52 / 3RW55	IP65	For HMI modules	3RW5980-0HD00	
<b>Connection cables</b>						
 3UF7933-0BA00-0    3UF7931-0AA00-0	HMI connection cable	3RW52 / 3RW55	5 m	For door mounting	3RW5980-0HC60	
	Connection cables	3RW52 / 3RW55	2.5 m	Connect system components	3UF7933-0BA00-0	
			1.0 m			3UF7937-0BA00-0
			0.5 m			3UF7932-0BA00-0
		3RW52 only	0.1 m, flat	Connect system components	3UF7931-0AA00-0	



Ready for a digital future

**Data whenever and wherever needed**

The digital transformation of industry is in full swing and our latest generation of soft starters supports companies in fully embracing the potential of digitization. This is particularly beneficial when it comes to economic efficiency, making it faster and easier to achieve optimum results, with permanently high availability thanks to shorter downtimes.

Digitalization requires far simpler processes and time savings in the planning and configuration phases. The wide digital availability of product data considerably simplifies the process of putting together the required devices; and parameterization can be completed a lot quicker. This also shortens on-site commissioning times.

Machine and plant data is readily available at all times, delivering greater transparency. This means you can avoid plant downtimes and increase cost-effectiveness. The soft starters can transfer data to the cloud, enabling flexible use both directly at the switchgear as well as at the management level. Analyses and benchmarking allow you to determine the energy consumption of your equipment and use the findings to optimize your processes.

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