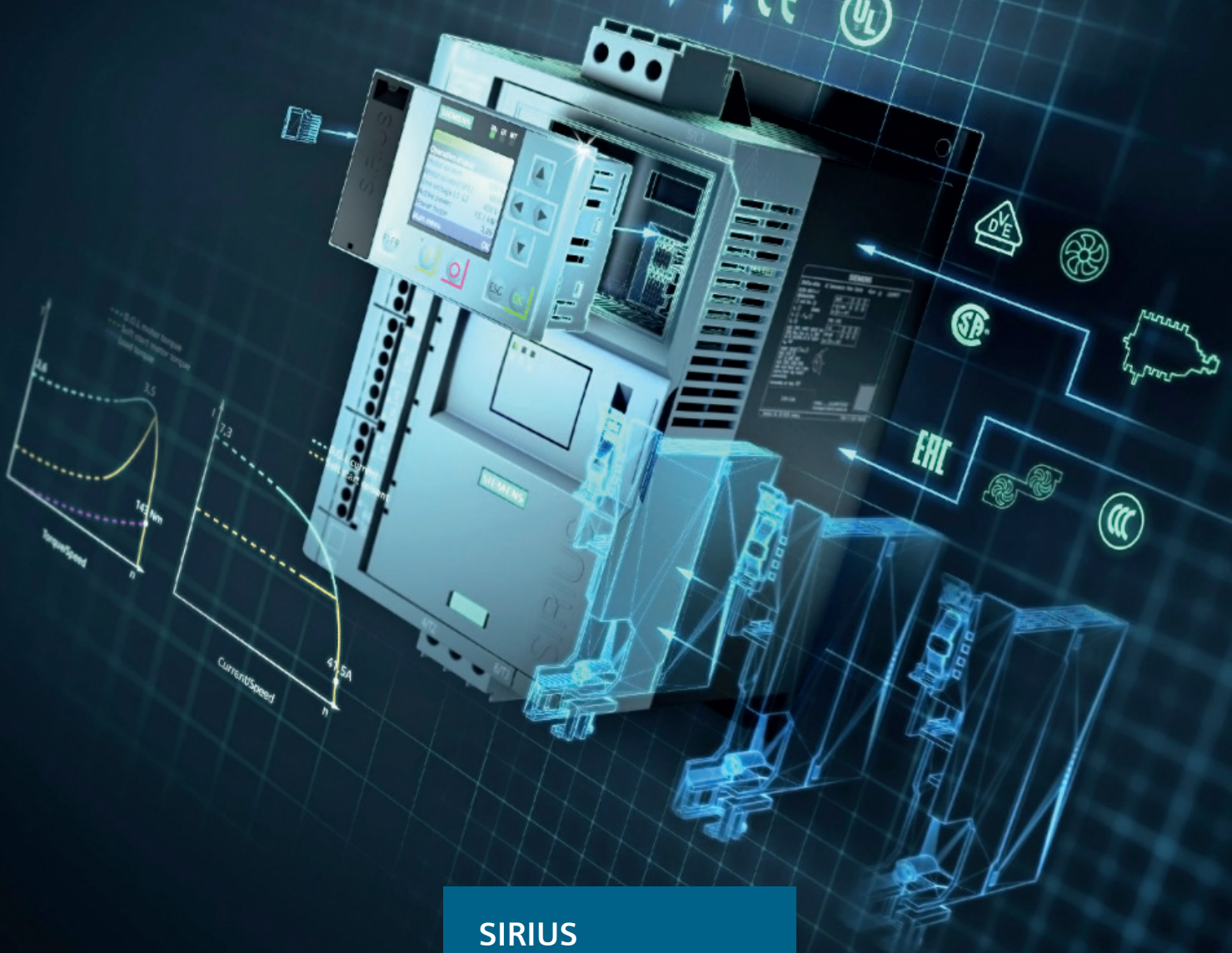


SIEMENS



SIRIUS

# Industrial Controls

SIRIUS 3RW soft starters

Catalog  
Abridged  
IC 10 A

Edition  
April  
2018

[siemens.com/soft-starter](http://siemens.com/soft-starter)

# SIRIUS 3RW Soft Starters

## General data

### Overview

#### More information

Homepage, see [www.siemens.com/soft-starter](http://www.siemens.com/soft-starter)

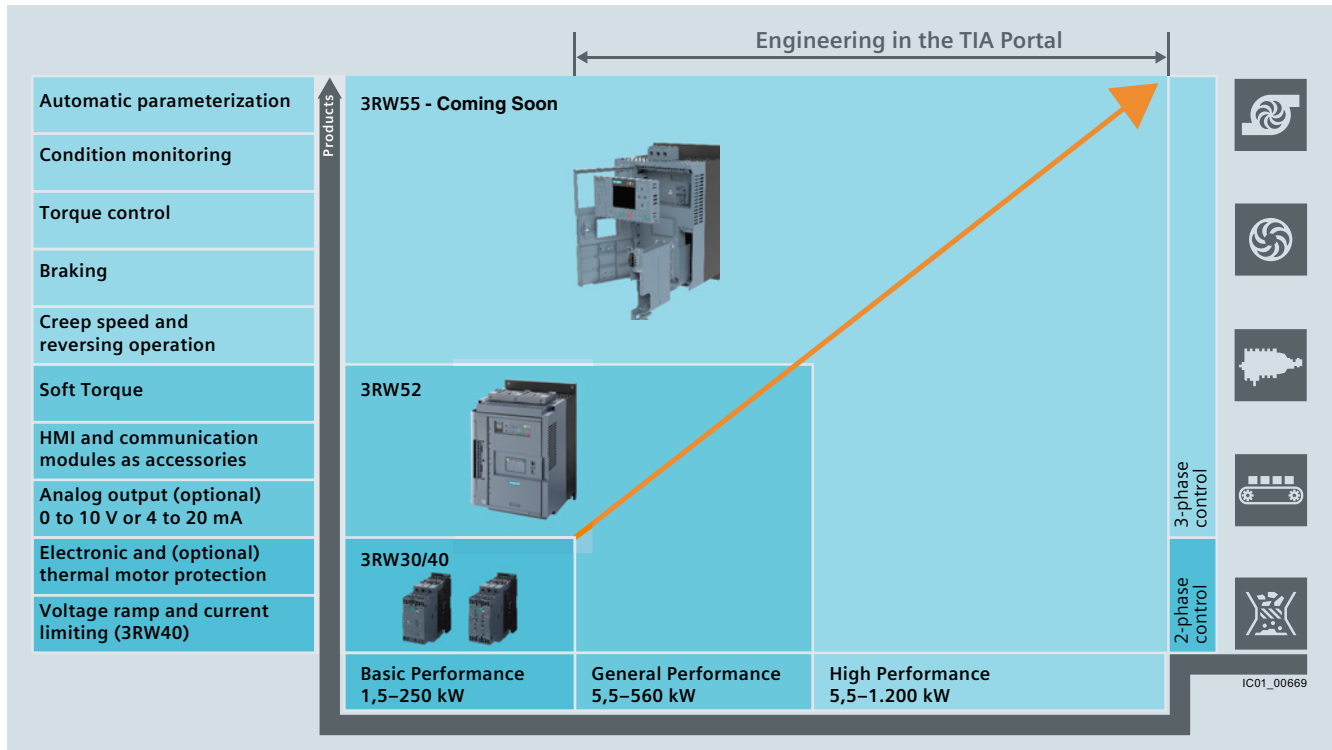
Industry Mall, see [www.siemens.com/product?3RW](http://www.siemens.com/product?3RW)

SIOS, see <https://support.industry.siemens.com/cs/ww/en/view/109747404>

Simulation Tool for Soft Starters (STS), see

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

### SIRIUS 3RW soft starters - as versatile as your application





## Applications

## High Performance

## General Performance

## Basic Performance

3RW55-Coming Soon

3RW44

3RW52

3RW40

3RW30

## Selection aid for soft starters

**Normal starting (CLASS 10)**

Pumps	●	●	●	●	●
Pumps with special pump stop (to prevent water hammer)	●	●	○		
Heat pumps	●	●	●	●	●
Hydraulic pumps	●	●	●	●	○
Presses	●	●	●	●	○
Conveyor belts	●	●	●	●	○
Roller conveyors	●	●	●	●	○
Screw conveyors	●	●	●	●	○
Escalators	●	●	●	●	
Piston compressors	●	●	●	●	
Screw compressors	●	●	●	●	
Small fans <sup>1)</sup>	●	●	●	●	
Centrifugal blowers	●	●	●	●	
Bow thrusters	●	●	●	●	

**Heavy starting (CLASS 20)**

Stirrers	●	●	○	○	
Extruders	●	●	○	○	
Lathes	●	●	○	○	
Milling machines	●	●	○	○	

**Very heavy starting (CLASS 30)**

Large fans <sup>2)</sup>	●	●			
Circular saws/bandsaws	●	●			
Centrifuges	●	●			
Mills	●	●			
Crushers	●	●			

● Recommended soft starter

○ Possible soft starter

<sup>1)</sup> The mass inertia of the fan is <10 times the mass inertia of the motor.<sup>2)</sup> The mass inertia of the fan is ≥10 times the mass inertia of the motor.

## SIRIUS 3RW Soft Starters

## General data



SIRIUS soft starters	High Performance		General Performance	Basic Performance		
	3RW55-Coming Soon	3RW44	3RW52	3RW40	3RW30	
<b>General technical specifications</b>						
<b>Operational current at 40 °C</b>	A	13 ... 987	29 ... 1 214	13 ... 987	12.5 ... 432	3 ... 106
<b>Operational voltage</b>	V	200 ... 690 <sup>1)</sup>	200 ... 690 <sup>1)</sup>	200 ... 600	200 ... 600	200 ... 480
<b>Operating power for three-phase motors</b>						
• At 400 V, at 40 °C - Inline circuit - Inside-delta circuit	kW	5.5 ... 315	15 ... 710	5.5 ... 315	5.5 ... 250	1.5 ... 55
	kW	11 ... 560	22 ... 1 200	11 ... 560	--	--
• At 460/480 V at 50 °C - Inline circuit - Inside-delta circuit	hp	7.5 ... 400	15 ... 950	7.5 ... 400	7.5 ... 300	1.5 ... 75
	hp	10 ... 750	30 ... 1 700	10 ... 750	--	--
<b>Ambient temperature<sup>2)</sup></b>	°C	-25 ... +60	0 ... +60	-25 ... +60	-25 ... +60	-25 ... +60
<b>Soft starting/ramp-down</b>		✓	✓	✓	✓	✓ <sup>3)</sup>
<b>Voltage ramp</b>		✓	✓	✓	✓	✓
<b>Starting voltage</b>	%	20 ... 100	20 ... 100	30 ... 100	40 ... 100	40 ... 100
<b>Ramp-up and ramp-down time</b>	s	0 ... 360	0 ... 360	0 ... 20	0 ... 20	0 ... 20 <sup>3)</sup>
<b>Pump stop (torque control)<sup>4)</sup></b>		✓	✓	--	--	--
• Starting torque	%	10 ... 100	20 ... 100	--	--	--
• Torque limit	%	20 ... 200	20 ... 200	--	--	--
<b>Soft Torque (torque limit)</b>		--	--	✓	--	--
<b>Integral bypass contact system</b>		✓	✓	✓	✓	✓
<b>Intrinsic device protection</b>		✓	✓	✓	✓	--
<b>Motor overload protection</b>		✓	✓	✓	✓ <sup>5)</sup>	--
<b>Thermistor motor protection evaluation</b>		✓	✓	✓ <sup>6)</sup>	✓ <sup>6)</sup>	--
<b>Analog output</b>		✓	--	✓ <sup>6)</sup>	--	--
<b>Remote RESET</b>		✓	✓	✓	✓ <sup>6)</sup>	--
<b>Adjustable current limiting</b>		✓	✓	✓	✓	--
<b>Inside-delta circuit<sup>1)</sup></b>		✓	✓	✓	--	--
<b>Breakaway pulse</b>		✓	✓	--	--	--
<b>Automatic parameterization</b>		✓	--	--	--	--
<b>Pump cleaning</b>		✓	--	--	--	--
<b>Reversing duty</b>		✓	--	--	--	--
<b>Condition monitoring</b>		✓	--	--	--	--
<b>User account administration<sup>8)</sup></b>		✓	--	--	--	--
<b>Creep speed in both directions of rotation</b>		✓	✓	--	--	--
<b>DC braking<sup>4) 7)</sup></b>		✓	✓	--	--	--
<b>Combined braking<sup>4) 7)</sup></b>		✓	✓	--	--	--
<b>Motor heating</b>		✓	✓	--	--	--
<b>Communication function<sup>9)</sup></b>		✓	✓	✓	--	--
<b>HMI module installable in the cabinet door</b>		✓	✓ <sup>9)</sup>	✓ <sup>9)</sup>	--	--
<b>Operating measured value display</b>		✓	✓	✓ <sup>9)</sup>	--	--
<b>Logbooks</b>		✓	✓ <sup>8)</sup>	✓ <sup>9)</sup>	--	--
<b>Event list</b>		✓	✓	--	--	--
<b>Slave pointer function</b>		✓	✓	--	--	--
<b>Trace function<sup>8)</sup></b>		✓	✓	--	--	--
<b>Programmable control inputs and outputs</b>		✓	✓	--	--	--
<b>Number of parameter sets</b>		3	3	1	1	1
• Parameterizable via software <sup>8)</sup>		✓	✓	--	--	--
<b>Number of controlled phases</b>		3	3	3	2	2
<b>Heavy starting CLASS 30<sup>4)</sup></b>		✓	✓	--	--	--

✓ Function available

-- Function not available

1) Inside-delta circuit only up to line voltage 600 V.

2) Note derating above 40 °C.

3) Only soft starting available for 3RW30.

4) Calculate soft starter and motor with size allowance where required.

5) When using the motor overload protection according to ATEX, an upstream contactor is required.

6) Special device versions only.

7) Not possible in inside-delta circuit.

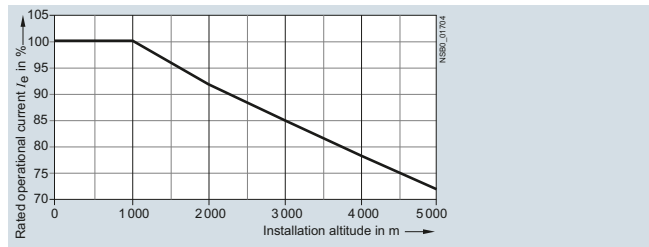
8) With software Soft Starter ES (TIA Portal)

9) Only in conjunction with special accessories.

**Boundary conditions**

The 3RW soft starter should always be designed on the basis of the required rated operational current of the motor. The motor ratings listed in the selection and ordering data are rough guide values and designed for basic starting conditions (CLASS 10). For other starting conditions we recommend the Simulation Tool for Soft Starters (STS).

Motor rating data in kW and hp is based on IEC 60947-4-1.



At an installation altitude above 2 000 m, max. permissible operational voltage is reduced to 480 V.

The selection and ordering data were determined for the following boundary conditions (stand-alone installation without additional fan)

SIRIUS soft starters	High Performance		General Performance	Basic Performance	
	3RW55-Coming Soon	3RW44	3RW52	3RW40	3RW30
<b>Boundary conditions</b>					
Maximum starting time	s	20	10	10	3
Maximum starting current in % of motor current	$I_c$	300			
Maximum number of starts per hour	1/h	5			20

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

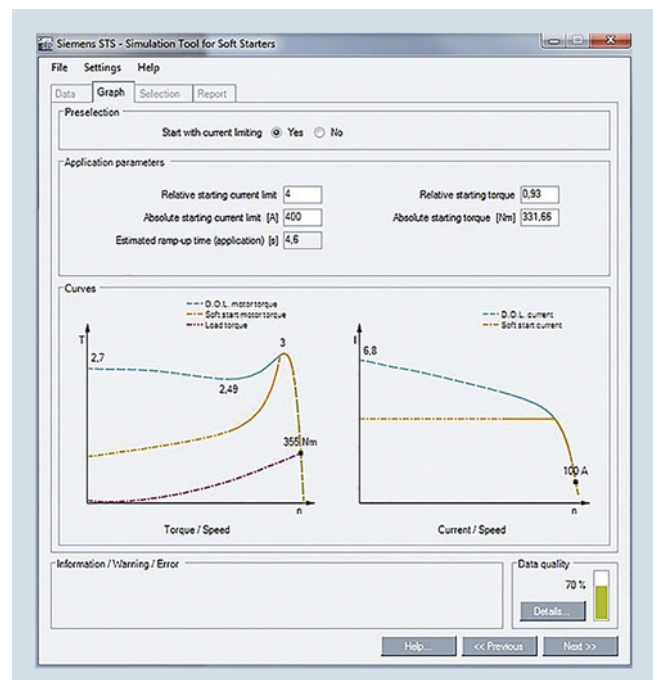
The Simulation Tool for Soft Starters (STS) provides a convenient means of designing soft starters using a simple, quick and easy-to-use interface. Entering the motor and load data will simulate the application and prompt suggestions for suitable soft starters.

Link to the free download of the [Simulation Tool for Soft Starters \(STS\)](#).

- Simple, quick and user-friendly interface
- Detailed and up-to-date Siemens motor database, including IE3 and IE4 motors.
- Simulation of heavy starting up to CLASS 30
- Update-capable (e.g. motors, load types, functions)
- Fast simulations with minimum input data
- Immediate, graphical curve charts of start operations with limit values
- Table view of suitable soft starters for the application



Easy input of motor and load data



Graphic display of start operations

## SIRIUS 3RW Soft Starters

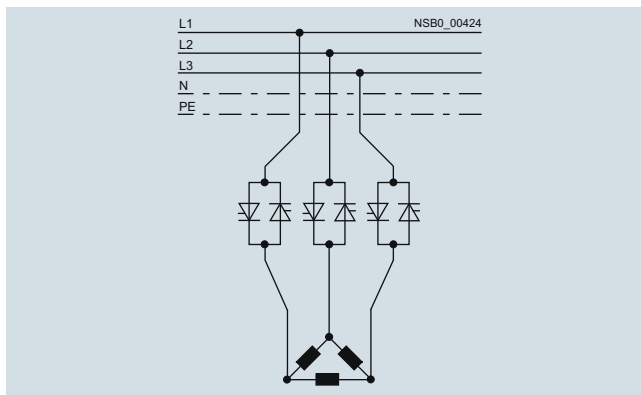
### General data

#### Circuit concept

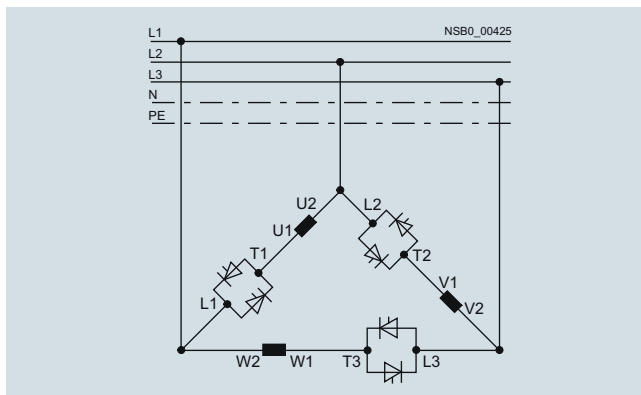
Three-phase controlled SIRIUS 3RW soft starters can be operated in two different types of circuit:

- **Inline circuit**  
The controls for isolating and protecting the motor are simply connected in series with the soft starter. The motor is connected to the soft starter with three leads.
- **Inside-delta circuit**  
The wiring is similar to that of wye-delta starters. The phases of the soft starter are connected in series with the individual motor windings. The soft starter then only has to carry the phase current, amounting to about 58% of the rated motor current (conductor current).

#### Comparison of the types of circuit:



Inline circuit: Rated current  $I_e$  corresponds to the rated motor current  $I_n$ , three cables to the motor



Inside-delta circuit: Rated current  $I_e$  corresponds to approx. 58% of the rated motor current  $I_n$ , six cables to the motor (as for wye-delta starters)

#### Which circuit?

Using the inline circuit involves the lowest wiring outlay. If the soft starter to motor connections are long, this circuit is preferable.

The wiring complexity is twice as high when using the inside-delta circuit, but a smaller device can be used with the same rating. Thanks to the choice of operating mode between the inline circuit and inside-delta circuit, it is always possible to select the most favorable solution.

The braking function is possible only in the inline circuit. The inside-delta circuit cannot be used in 690 V line supplies.

#### Configuration

The solid-state 3RW soft starters are designed for normal starting. In case of heavy starting or increased starting frequency, a larger unit must be selected. The 3RW44 and 3RW52 soft starters may be used in isolated supply networks (IT systems) up to 600 V AC and the 3RW55 soft starter even up to 690 V.

For long starting times it is recommended to have a PTC sensor or temperature switch in the motor. This also applies for the "torque control", "pump stop" and "DC braking" ramp-down modes, because during the ramp-down time in these modes, an additional current loading applies in contrast to free ramp-down.

No capacitive elements are permitted in the motor feeder between the SIRIUS 3RW soft starter and the motor (e.g. no reactive-power compensation equipment). In addition, neither static systems for reactive-power compensation nor dynamic PFC (Power Factor Correction) must be operated in parallel during starting and ramp-down of the soft starter. This is important to prevent faults arising on the compensation equipment and/or the soft starter.

All elements of the main circuit (such as fuses and controls) should be dimensioned for direct-on-line starting, following the load short-circuit conditions. Fuses and switching devices must be ordered separately. The harmonic component load for starting currents must be taken into consideration for the selection of motor starter protectors (selection of release). Please observe the maximum switching frequencies specified in the technical specifications.

#### Notes:

When three-phase motors are switched on, voltage drops occur as a rule on starters of all types (direct-on-line starters, wye-delta starters, soft starters). The infeed transformer must always be dimensioned such that the voltage dip when starting the motor remains within the permissible tolerance. If the infeed transformer is dimensioned with only a small margin, it is best for the control voltage to be supplied from a separate circuit (independently of the main voltage) in order to avoid the potential switching off of the soft starter.

For dimensioning soft starters, we recommend our Simulation Tool for Soft Starters (STS), see page 6/7.

or our Technical Assistance:

Phone: +49 911 895-5900,

email: [technical-assistance@siemens.com](mailto:technical-assistance@siemens.com).

Recommended parameters for the initial commissioning of our SIRIUS 3RW soft starters are listed in every report of our Simulation Tool for Soft Starters (STS). In addition, our High Performance soft starters provide support by means of their commissioning wizards.

**Article No. scheme**

Product versions		Article number								
Device type	<b>High Performance soft starters</b>	<b>3RW55</b>	<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<b>3RW44</b>	<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>General Performance soft starters</b>	<b>3RW52</b>	<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<b>Basic Performance soft starters</b>	<b>3RW40</b>	<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>3RW30</b>		<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Size/rated operational current $I_e$	e. g. 15 = 25 A in size S1	<input type="checkbox"/>	<input type="checkbox"/>							
Connection type	e.g. 1 = screw terminal					<input type="checkbox"/>				
Soft starter functionality	e.g. AC = with bypass and analog output, three-phase controlled						<input type="checkbox"/>	<input type="checkbox"/>		
Rated control supply voltage $U_s$	e.g. 0 = 24 V AC/DC								<input type="checkbox"/>	
Rated operational voltage $U_e$	e.g. 4 = 200 ... 480 V AC									<input type="checkbox"/>
Example		<b>3RW52</b>	<b>1</b>	<b>5</b>	<b>-</b>	<b>1</b>	<b>A</b>	<b>C</b>	<b>0</b>	<b>4</b>

**Note:**

The Article No. scheme shows an overview of product versions for better understanding of the logic behind the article numbers.

For your orders please use the article numbers quoted in the selection and ordering data.

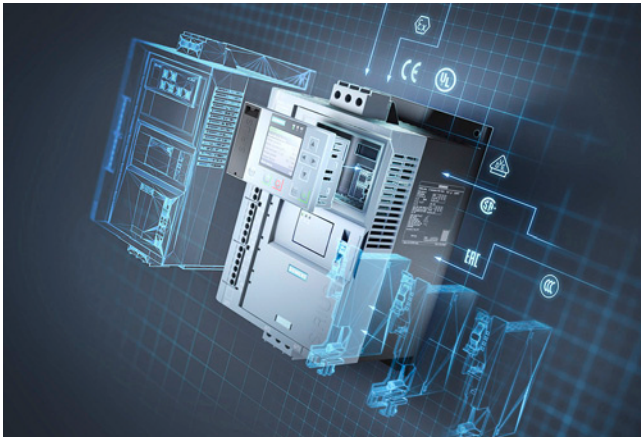
# SIRIUS 3RW Soft Starters

## General data

### Benefits

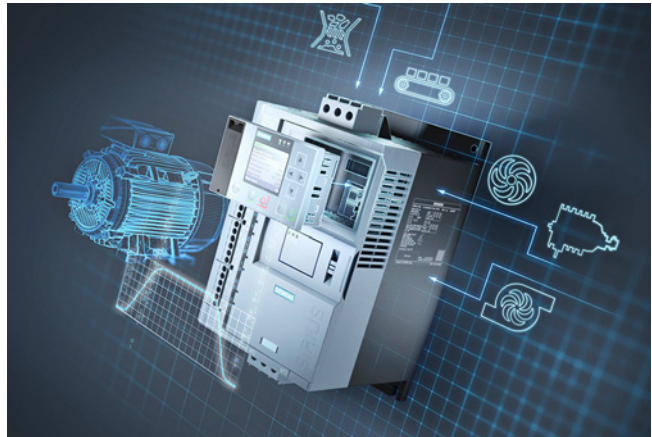
#### Can be flexibly deployed in many applications

**Strong portfolio:**  
comprehensive, coordinated soft starter portfolio



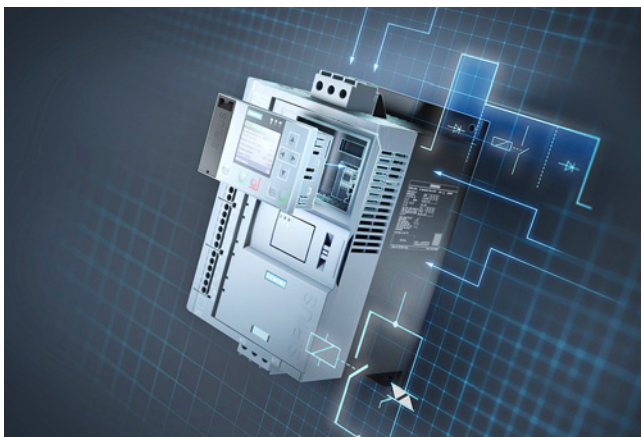
- The right hardware for all requirements, soft starters for tasks ranging from simple to demanding starting in Basic, General and High Performance versions
- Extensive portfolio for individual expansion:  
Optional HMI's for installation in the device or mounting on the control cabinet door  
Communication via PROFINET/PROFIBUS and Modbus
- Designer enclosure with removable terminals, space-saving thanks to compact design and rugged thanks to coated printed circuit boards
- Can be used worldwide thanks to numerous certificates and approvals, IEC, UL, CSA, CCC

**Intelligent operation:**  
concentrated, application-specific functionality



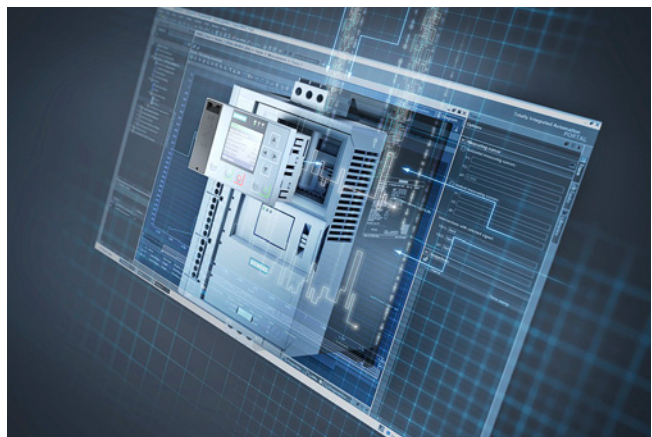
- Can be used in a wide variety of applications:  
Pumping, ventilating, compressing, moving and processing
- Integrated, self-learning automatic parameterization depending on motor starting conditions
- Application-specific functionality such as pump cleaning and pump stop
- Condition monitoring:  
Current and energy monitoring with warning and alarm limits, starting time monitoring

**Efficient switching:**  
hybrid switching technology on board



- Energy-efficient switching and mechanical protection of the drive train thanks to soft starters with hybrid switching technology
- Low-wear switching extends the service life of the devices
- Soft starting prevents current spikes, thereby increasing the network stability
- Protection against disturbances in the application.  
Mechanical protection for the drive train

**Ready for a digital future:**  
data available whenever and wherever needed



- Support from tools and data during engineering
- Simulation Tool for Soft Starters for support during product selection
- Very simple, standardized commissioning and configuration via Soft Starter ES in TIA Portal
- Integration in the automation system via communication interfaces
- Data availability and analysis: large volumes of data at any time and anywhere, even into MindSphere



## Overview

### More information

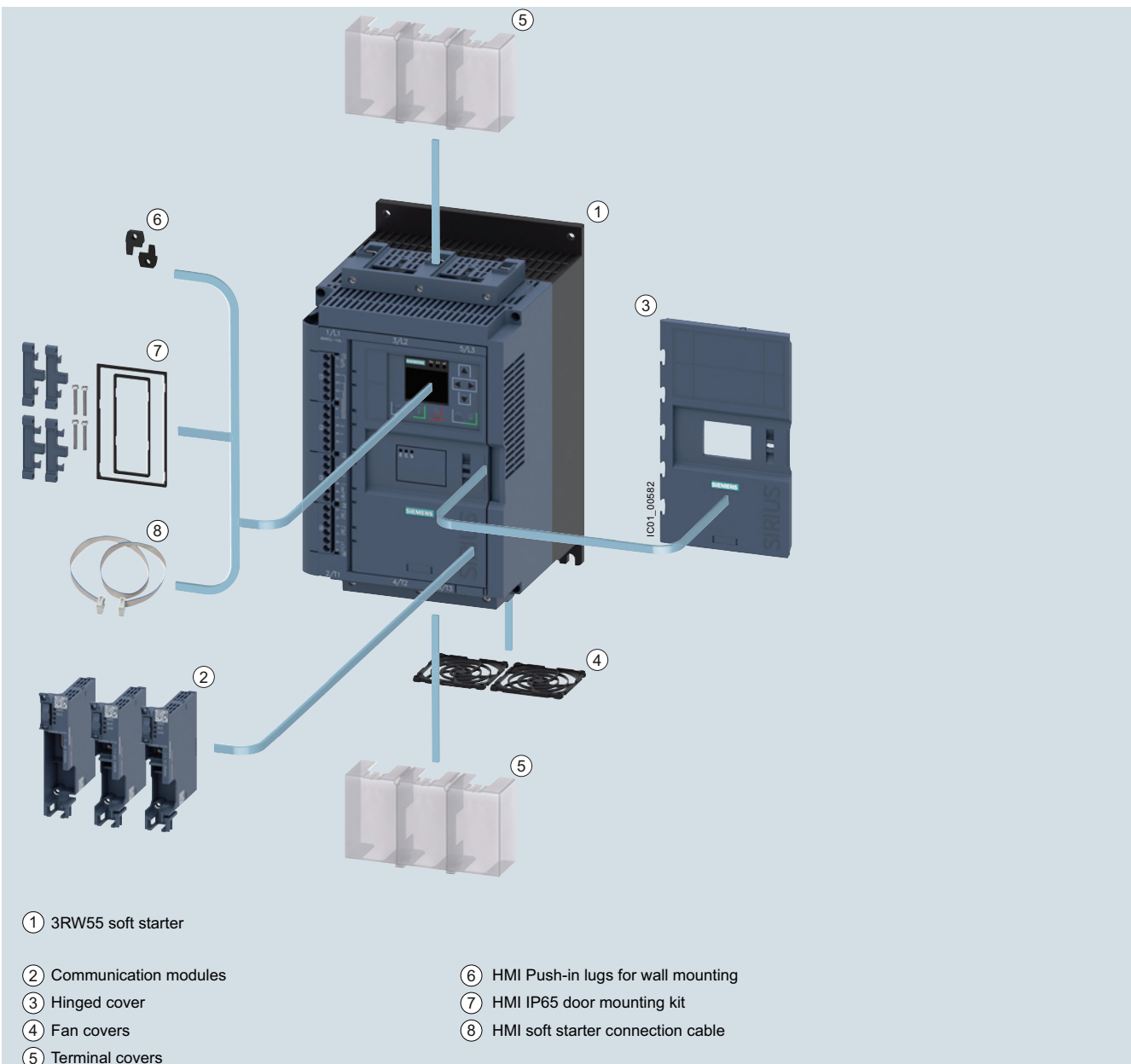
Homepage, see [www.siemens.com/soft-starter](http://www.siemens.com/soft-starter)  
 Industry Mall, see [www.siemens.com/product?3RW](http://www.siemens.com/product?3RW)

Simulation Tool for Soft Starters (STS), see page 6/7 or <https://support.industry.siemens.com/cs/ww/en/view/101494917>  
 SIRIUS Soft Starter ES (TIA Portal), see pages 14/6 and 14/9



Equipped with the utmost functionality, the SIRIUS 3RW55 High Performance soft starters confidently handle even difficult starting and stopping operations. Thanks to innovative torque control, the device can be used for drives with an output between 5.5 kW and 560 kW (at 400 V).

The functions have been specially designed to offer maximum user friendliness. By means of the detachable HMI (with color display, local interface and a slot for MicroSD memory card) and plug-in communication modules (PROFINET, PROFIBUS, Modbus), they ensure maximum flexibility. With their modern hybrid switching technology, the SIRIUS 3RW55 soft starters offer efficient switching for long-term, energy-saving use.



① 3RW55 soft starter

② Communication modules

③ Hinged cover

④ Fan covers

⑤ Terminal covers

⑥ HMI Push-in lugs for wall mounting

⑦ HMI IP65 door mounting kit

⑧ HMI soft starter connection cable

3RW55 High Performance soft starters - accessories, see page 6/19.

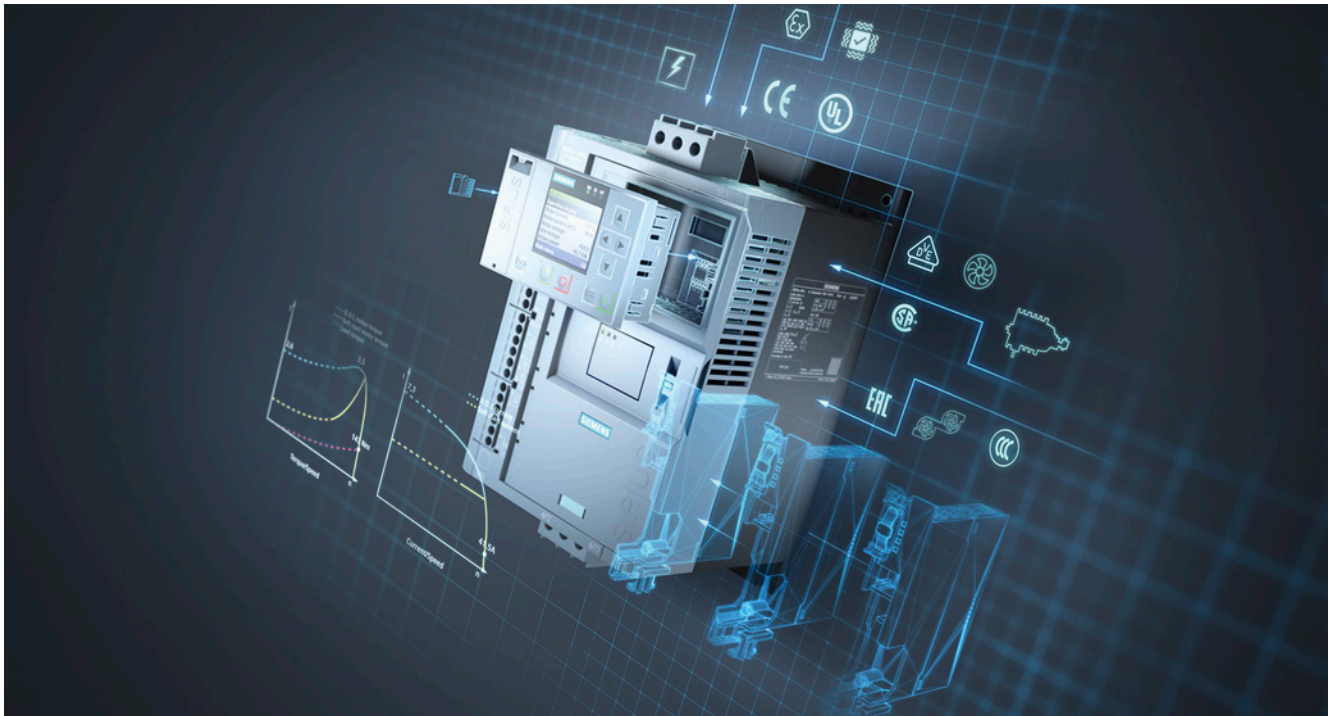
# SIRIUS 3RW Soft Starters

## High Performance Soft Starters

### 3RW55 Soft Starters

General data **NEW**

#### Benefits



#### Product characteristics / function

Automatic parameterization

Hybrid switching devices and three-phase motor control

Integration into TIA Portal – communication modules optional

Detachable HMI with color display, local interface, slot for micro SD card

Pump stop and torque control

#### Performance features / benefits

Extremely easy commissioning and reliability even under changing load conditions

Minimum power loss and optimum/symmetrical motor control

Efficient configuration and maximum flexibility in automation engineering

Maximum flexibility with regard to user interface and intuitive menu guidance

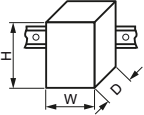
Reduced mechanical loading and optimum pump stop control

## Technical specifications

### More information

For "SIRIUS 3RW55 Soft Starter" Manual, see <https://support.industry.siemens.com/cs/ww/en/view/109753752>  
 FAQs, see <https://support.industry.siemens.com/cs/ww/en/ps/25099/faq>

Simulation Tool for Soft Starters (STS), see page 14/5 or <https://support.industry.siemens.com/cs/ww/en/view/101494917>

Type		3RW551.-.HA.4 3RW551.-.HA.5	3RW552.-.HA.6 3RW553.-.HA.6	3RW552.-.HA.4 3RW553.-.HA.4	3RW554.-.HA.4	3RW554.-.HA.6
<b>Installation/fixing/dimensions:</b>						
<b>Width x height x depth</b>		mm	170 × 275 × 152	185 × 306 × 203		210 × 393 × 203
<b>Type of fixing</b>			Screw fixing			
<b>Mounting position</b>			Vertical (can be rotated +/-90° and tilted +/- 22.5° forward or backward)			
<b>Distance to be maintained with side-by-side mounting</b>						
• Above	mm	100				
• At the side	mm	5				
• Below	mm	75				
<b>Installation altitude at height above sea level, maximum<sup>1)</sup></b>	m	5 000	2 000	5 000		2 000
<b>Ambient conditions</b>						
<b>Ambient temperature</b>						
• During operation <sup>2)</sup>	°C	-25 ... +60				
• During storage	°C	-40 ... +80				
<b>Environmental category according to IEC 60721</b>						
• During operation		3K6 (no ice formation, no condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6				
• During storage		1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4				
• During transport		2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m)				

<sup>1)</sup> Derating from 1000 m, see Manual or characteristic curve on page 6/7.

<sup>2)</sup> Note derating above 40 °C.

# SIRIUS 3RW Soft Starters

## High Performance Soft Starters

### 3RW55 Soft Starters

#### General data **NEW**

Type		3RW55...-HA0.	3RW55...-HA1.
<b>Control circuit/control</b>			
<b>Control supply voltage</b>			
• At AC/DC, rated value	V	24/24	--/--
• At AC	V	--/--	110 ... 250
• Relative negative tolerance/ relative positive tolerance with DC	%	-20/20	--/--
• Relative negative tolerance/ relative positive tolerance with AC	%	-20/20	-15/10
<b>Frequency of the control supply voltage</b>	Hz	50 ... 60	
• Relative negative tolerance/ relative positive tolerance	%	-10/10	
<b>Type of overvoltage protection</b>		Varistors	
<b>Type of short-circuit protection for control circuit<sup>1)</sup></b>		Fuse 4 A gG ( $I_{cu} = 1$ kA), fuse 6 A quick-response ( $I_{cu} = 1$ kA), MCB C1 ( $I_{cu} = 600$ A), MCB C6 ( $I_{cu} = 300$ A)	

<sup>1)</sup> Not included in scope of supply

Type		3RW55...-HA.4	3RW55...-HA.5	3RW55...-HA.6
<b>Power electronics</b>				
<b>Operational voltage rated value</b>	V	200 ... 480	200 ... 600	200 ... 690
• Relative negative tolerance/ relative positive tolerance	%	-15/10		
<b>Operational voltage for inside-delta circuit rated value</b>	V	200 ... 480	200 ... 600	--
• Relative negative tolerance/ relative positive tolerance	%	-15/10		--/--
<b>Operating frequency, rated value</b>	Hz	50 ... 60		
• Relative negative tolerance/ relative positive tolerance	%	-10/10		
<b>Minimum load [% of <math>I_M</math>]<sup>1)</sup></b>	%	10		
<b>Maximum cable length between soft starter and motor</b>	m	800		
<b>Power loss [W] at 40 °C</b>				
• At rated value current after startup	W	4		8

<sup>1)</sup> Relative to set  $I_e$

# SIRIUS 3RW Soft Starters

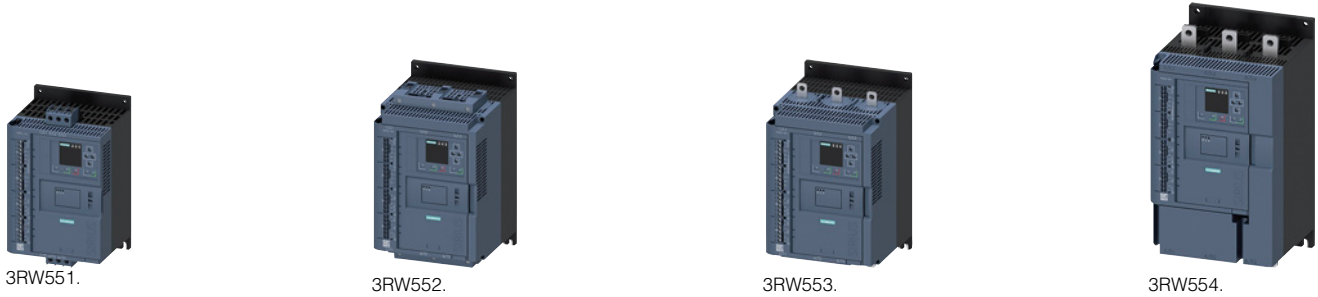
## High Performance Soft Starters

### 3RW55 Soft Starters

**NEW** IE3/IE4 ready Inline circuit

#### Selection and ordering data

For normal starting (CLASS 10E)



At 40 °C					At 50 °C					SD <sup>1)</sup>	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Operational current	Operating power for three-phase motors				Operational current	Rating [hp] for three-phase motors									
	at 230 V	at 400 V	at 500 V	at 690 V		at 200/208 V	at 220/230 V	at 460/480 V	at 575/600 V	d					
A	kW	kW	kW	kW	A	hp	hp	hp	hp						
<b>Operational voltage 200 ... 480 V</b>															
13	3	5.5	--	--	11.5	3	3	7.5	--	5	3RW5513-□HA□4		1	1 unit	42S
18	4	7.5	--	--	15.9	3	3	10	--	5	3RW5514-□HA□4		1	1 unit	42S
25	5.5	11	--	--	22.3	5	5	15	--	5	3RW5515-□HA□4		1	1 unit	42S
32	7.5	15	--	--	28.4	7.5	7.5	15	--	5	3RW5516-□HA□4		1	1 unit	42S
38	11	18.5	--	--	33.5	10	10	20	--	5	3RW5517-□HA□4		1	1 unit	42S
47	11	22	--	--	41.6	10	15	30	--	5	3RW5524-□HA□4		1	1 unit	42S
63	18.5	30	--	--	55.5	15	20	40	--	5	3RW5525-□HA□4		1	1 unit	42S
77	22	37	--	--	68	20	20	50	--	5	3RW5526-□HA□4		1	1 unit	42S
93	22	45	--	--	82.5	25	25	60	--	5	3RW5527-□HA□4		1	1 unit	42S

#### Type of electrical connection for the control circuit

- Screw terminals
- Spring-type terminals

#### Control supply voltage

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

<sup>1)</sup> 3RW55 soft starter with screw terminals for operational voltage up to 480 V: Standard delivery time SD = 1 day (d).

1  
3

0  
1

At 40 °C					At 50 °C					SD <sup>1)</sup>	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Operational current	Operating power for three-phase motors				Operational current	Rating [hp] for three-phase motors									
	At 230 V	At 400 V	At 500 V	At 690 V		At 200/208 V	At 220/230 V	At 460/480 V	At 575/600 V	d					
A	kW	kW	kW	kW	A	hp	hp	hp	hp						
<b>Operational voltage 200 ... 480 V</b>															
113	30	55	--	--	101	30	30	75	--	5	3RW5534-□HA□4		1	1 unit	42S
143	37	75	--	--	128	30	40	75	--	5	3RW5535-□HA□4		1	1 unit	42S
171	45	90	--	--	153	40	50	100	--	5	3RW5536-□HA□4		1	1 unit	42S
210	55	110	--	--	186	50	60	125	--	5	3RW5543-□HA□4		1	1 unit	42S
250	75	132	--	--	220	60	75	150	--	5	3RW5544-□HA□4		1	1 unit	42S
315	90	160	--	--	279	75	100	200	--	5	3RW5545-□HA□4		1	1 unit	42S
370	110	200	--	--	328	100	125	250	--	5	3RW5546-□HA□4		1	1 unit	42S
470	132	250	--	--	416	125	150	300	--	5	3RW5547-□HA□4		1	1 unit	42S
570	160	315	--	--	504	150	200	400	--	5	3RW5548-□HA□4		1	1 unit	42S

#### Type of electrical connection for the control circuit

- Spring-type terminals
- Screw terminals

#### Control supply voltage

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

<sup>1)</sup> 3RW55 soft starter with screw terminals for operational voltage up to 480 V: Standard delivery time SD = 1 day (d).

2  
6

0  
1

#### Note:

For the boundary conditions for the motor outputs specified here, see page 6/7.



# SIRIUS 3RW Soft Starters

## High Performance Soft Starters

### 3RW55 Soft Starters

Inline circuit **IE3/IE4 ready** **NEW**

For normal starting (CLASS 10E)



3RW551.



3RW552.



3RW553.



3RW554.

At 40 °C					At 50 °C					SD <sup>1)</sup>	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Operational current	Operating power for three-phase motors				Operational current	Rating [hp] for three-phase motors									
	At 230 V	At 400 V	At 500 V	At 690 V		At 200/208 V	At 220/230 V	At 460/480 V	At 575/600 V						
A	kW	kW	kW	kW	A	hp	hp	hp	hp	d					
<b>Operational voltage 200 ... 600 V</b>															
13	3	<b>5.5</b>	7.5	--	11.5	3	3	<b>7.5</b>	10	5	<b>3RW5513-□HA□5</b>		1	1 unit	42S
18	4	<b>7.5</b>	11	--	15.9	3	3	<b>10</b>	15	5	<b>3RW5514-□HA□5</b>		1	1 unit	42S
25	5.5	<b>11</b>	15	--	22.3	5	5	<b>15</b>	20	5	<b>3RW5515-□HA□5</b>		1	1 unit	42S
32	7.5	<b>15</b>	18.5	--	28.4	7.5	7.5	<b>15</b>	25	5	<b>3RW5516-□HA□5</b>		1	1 unit	42S
38	11	<b>18.5</b>	22	--	33.5	10	10	<b>20</b>	30	5	<b>3RW5517-□HA□5</b>		1	1 unit	42S
<b>Operational voltage 200 ... 690 V</b>															
25	5.5	<b>11</b>	15	22	22.3	5	5	<b>15</b>	20	5	<b>3RW5521-□HA□6</b>		1	1 unit	42S
47	11	<b>22</b>	30	45	41.6	10	15	<b>30</b>	40	5	<b>3RW5524-□HA□6</b>		1	1 unit	42S
63	18.5	<b>30</b>	37	55	55.5	15	20	<b>40</b>	50	5	<b>3RW5525-□HA□6</b>		1	1 unit	42S
77	22	<b>37</b>	45	75	68	20	20	<b>50</b>	60	5	<b>3RW5526-□HA□6</b>		1	1 unit	42S
93	22	<b>45</b>	55	90	82.5	25	25	<b>60</b>	75	5	<b>3RW5527-□HA□6</b>		1	1 unit	42S

**Type of electrical connection for the control circuit**

- Screw terminals
- Spring-type terminals

**Control supply voltage**

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

<sup>1)</sup> 3RW55 soft starter with screw terminals for operational voltage up to 690 V: Standard delivery time SD = 2 days (d).

1  
3  
0  
1

At 40 °C					At 50 °C					SD <sup>1)</sup>	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Operational current	Operating power for three-phase motors				Operational current	Rating [hp] for three-phase motors									
	At 230 V	At 400 V	At 500 V	At 690 V		At 200/208 V	At 220/230 V	At 460/480 V	At 575/600 V						
A	kW	kW	kW	kW	A	hp	hp	hp	hp	d					
<b>Operational voltage 200 ... 690 V</b>															
113	30	<b>55</b>	75	110	101	30	30	<b>75</b>	75	5	<b>3RW5534-□HA□6</b>		1	1 unit	42S
143	37	<b>75</b>	90	132	128	30	40	<b>75</b>	100	5	<b>3RW5535-□HA□6</b>		1	1 unit	42S
171	45	<b>90</b>	110	160	153	40	50	<b>100</b>	125	5	<b>3RW5536-□HA□6</b>		1	1 unit	42S
210	55	<b>110</b>	132	200	186	50	60	<b>125</b>	150	5	<b>3RW5543-□HA□6</b>		1	1 unit	42S
250	75	<b>132</b>	160	250	220	60	75	<b>150</b>	200	5	<b>3RW5544-□HA□6</b>		1	1 unit	42S
315	90	<b>160</b>	200	315	279	75	100	<b>200</b>	250	5	<b>3RW5545-□HA□6</b>		1	1 unit	42S
370	110	<b>200</b>	250	355	328	100	125	<b>250</b>	300	5	<b>3RW5546-□HA□6</b>		1	1 unit	42S
470	132	<b>250</b>	315	400	416	125	150	<b>300</b>	400	5	<b>3RW5547-□HA□6</b>		1	1 unit	42S
570	160	<b>315</b>	355	560	504	150	200	<b>400</b>	500	5	<b>3RW5548-□HA□6</b>		1	1 unit	42S

**Type of electrical connection for the control circuit**

- Spring-type terminals
- Screw terminals

**Control supply voltage**

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

<sup>1)</sup> 3RW55 soft starter with screw terminals for operational voltage up to 690 V: Standard delivery time SD = 2 days (d).

2  
6  
0  
1

Note:

For the boundary conditions for the motor outputs specified here, see page 6/7.

# SIRIUS 3RW Soft Starters

## High Performance Soft Starters

### 3RW55 Soft Starters

**NEW** **IE3/IE4 ready** Inside-delta circuit

#### Selection and ordering data

#### For normal starting (CLASS 10E)



3RW551.



3RW552.



3RW553.



3RW554.

At 40 °C for inside-delta circuit				At 50 °C for inside-delta circuit				SD <sup>1)</sup>	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	
Operational current	Operating power for three-phase motors			Operational current	Rating [hp] for three-phase motors									
	At 230 V	At 400 V	At 500 V		At 200/208 V	At 220/230 V	At 460/480 V	At 575/600 V	d					
A	kW	kW	kW	A	hp	hp	hp	hp						
<b>Operational voltage for inside-delta circuit 200 ... 480 V</b>														
22.5	5.5	<b>11</b>	--	19.9	5	5	<b>15</b>	--	5	<b>3RW5513-□HA□4</b>		1	1 unit	42S
31.2	7.5	<b>15</b>	--	28	5	5	<b>15</b>	--	5	<b>3RW5514-□HA□4</b>		1	1 unit	42S
43.3	11	<b>18.5</b>	--	39	7.5	7.5	<b>20</b>	--	5	<b>3RW5515-□HA□4</b>		1	1 unit	42S
55.4	15	<b>22</b>	--	49	10	10	<b>30</b>	--	5	<b>3RW5516-□HA□4</b>		1	1 unit	42S
65.8	18.5	<b>30</b>	--	58	15	15	<b>40</b>	--	5	<b>3RW5517-□HA□4</b>		1	1 unit	42S
81.4	22	<b>45</b>	--	72	20	25	<b>50</b>	--	5	<b>3RW5524-□HA□4</b>		1	1 unit	42S
109	30	<b>55</b>	--	96	25	30	<b>60</b>	--	5	<b>3RW5525-□HA□4</b>		1	1 unit	42S
133	37	<b>75</b>	--	118	30	40	<b>75</b>	--	5	<b>3RW5526-□HA□4</b>		1	1 unit	42S
161	45	<b>90</b>	--	143	40	50	<b>100</b>	--	5	<b>3RW5527-□HA□4</b>		1	1 unit	42S

#### Type of electrical connection for the control circuit

Screw terminals  
Spring-type terminals

#### Control supply voltage

24 V AC/DC  
110 ... 250 V AC

<sup>1)</sup> 3RW55 soft starter with screw terminals for operational voltage up to 480 V:  
Standard delivery time SD = 1 day (d).

1  
3  
0  
1

At 40 °C for inside-delta circuit				At 50 °C for inside-delta circuit				SD <sup>1)</sup>	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	
Operational current	Operating power for three-phase motors			Operational current	Rating [hp] for three-phase motors									
	At 230 V	At 400 V	At 500 V		At 200/208 V	At 220/230 V	At 460/480 V	At 575/600 V	d					
A	kW	kW	kW	A	hp	hp	hp	hp						
<b>Operational voltage for inside-delta circuit 200 ... 480 V</b>														
195	55	<b>110</b>	--	175	50	60	<b>125</b>	--	5	<b>3RW5534-□HA□4</b>		1	1 unit	42S
247	75	<b>132</b>	--	222	60	75	<b>150</b>	--	5	<b>3RW5535-□HA□4</b>		1	1 unit	42S
296	90	<b>160</b>	--	265	75	100	<b>200</b>	--	5	<b>3RW5536-□HA□4</b>		1	1 unit	42S
363	110	<b>200</b>	--	322	100	125	<b>250</b>	--	5	<b>3RW5543-□HA□4</b>		1	1 unit	42S
433	132	<b>250</b>	--	381	125	150	<b>300</b>	--	5	<b>3RW5544-□HA□4</b>		1	1 unit	42S
545	160	<b>315</b>	--	483	150	200	<b>400</b>	--	5	<b>3RW5545-□HA□4</b>		1	1 unit	42S
640	200	<b>355</b>	--	568	150	200	<b>450</b>	--	5	<b>3RW5546-□HA□4</b>		1	1 unit	42S
814	250	<b>400</b>	--	721	200	250	<b>600</b>	--	5	<b>3RW5547-□HA□4</b>		1	1 unit	42S
987	315	<b>560</b>	--	873	300	350	<b>750</b>	--	5	<b>3RW5548-□HA□4</b>		1	1 unit	42S

#### Type of electrical connection for the control circuit

Spring-type terminals  
Screw terminals

#### Control supply voltage

24 V AC/DC  
110 ... 250 V AC

<sup>1)</sup> 3RW55 soft starter with screw terminals for operational voltage up to 480 V:  
Standard delivery time SD = 1 day (d).

2  
6  
0  
1

#### Note:

For the boundary conditions for the motor outputs specified here, see page 6/7.

# SIRIUS 3RW Soft Starters

## High Performance Soft Starters

### 3RW55 Soft Starters

Inside-delta circuit **IE3/IE4 ready** **NEW**

For normal starting (CLASS 10E)



3RW551.



3RW552.



3RW553.



3RW554.

At 40 °C for inside-delta circuit				At 50 °C for inside-delta circuit				SD <sup>1)</sup>	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Operational current	Operating power for three-phase motors			Operational current	Rating [hp] for three-phase motors								
	At 230 V	At 400 V	At 500 V		At 200/208 V	At 220/230 V	At 460/480 V	At 575/600 V	d				
A	kW	kW	kW	A	hp	hp	hp	hp					
<b>Operational voltage for inside-delta circuit 200 ... 600 V</b>													
22.5	5.5	<b>11</b>	15	19.9	5	5	<b>15</b>	20	5	<b>3RW5513-□HA□5</b>	1	1 unit	42S
31.2	7.5	<b>15</b>	18.5	28	5	5	<b>15</b>	25	5	<b>3RW5514-□HA□5</b>	1	1 unit	42S
43.3	11	<b>18.5</b>	22	39	7.5	7.5	<b>20</b>	30	5	<b>3RW5515-□HA□5</b>	1	1 unit	42S
55.4	15	<b>22</b>	30	49	10	10	<b>30</b>	40	5	<b>3RW5516-□HA□5</b>	1	1 unit	42S
65.8	18.5	<b>30</b>	37	58	15	15	<b>40</b>	50	5	<b>3RW5517-□HA□5</b>	1	1 unit	42S
43.3	11	<b>18.5</b>	22	39	7.5	7.5	<b>20</b>	30	5	<b>3RW5521-□HA□6</b>	1	1 unit	42S
81.4	22	<b>45</b>	45	72	20	25	<b>50</b>	60	5	<b>3RW5524-□HA□6</b>	1	1 unit	42S
109	30	<b>55</b>	55	96	25	30	<b>60</b>	75	5	<b>3RW5525-□HA□6</b>	1	1 unit	42S
133	37	<b>75</b>	90	118	30	40	<b>75</b>	100	5	<b>3RW5526-□HA□6</b>	1	1 unit	42S
161	45	<b>90</b>	110	143	40	50	<b>100</b>	125	5	<b>3RW5527-□HA□6</b>	1	1 unit	42S

**Type of electrical connection for the control circuit**

Screw terminals  
Spring-type terminals

1  
3  
  
0  
1

**Control supply voltage**

24 V AC/DC  
110 ... 250 V AC

<sup>1)</sup> 3RW55 soft starter with screw terminals for operational voltage up to 600 V:  
Standard delivery time SD = 2 days (d).

At 40 °C for inside-delta circuit				At 50 °C for inside-delta circuit				SD <sup>1)</sup>	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Operational current	Operating power for three-phase motors			Operational current	Rating [hp] for three-phase motors								
	At 230 V	At 400 V	At 500 V		At 200/208 V	At 220/230 V	At 460/480 V	At 575/600 V	d				
A	kW	kW	kW	A	hp	hp	hp	hp					
<b>Operational voltage for inside-delta circuit 200 ... 600 V</b>													
195	55	<b>110</b>	132	175	50	60	<b>125</b>	150	5	<b>3RW5534-□HA□6</b>	1	1 unit	42S
247	75	<b>132</b>	160	222	60	75	<b>150</b>	200	5	<b>3RW5535-□HA□6</b>	1	1 unit	42S
296	90	<b>160</b>	200	265	75	100	<b>200</b>	250	5	<b>3RW5536-□HA□6</b>	1	1 unit	42S
363	110	<b>200</b>	250	322	100	125	<b>250</b>	300	5	<b>3RW5543-□HA□6</b>	1	1 unit	42S
433	132	<b>250</b>	315	381	125	150	<b>300</b>	350	5	<b>3RW5544-□HA□6</b>	1	1 unit	42S
545	160	<b>315</b>	355	483	150	200	<b>400</b>	500	5	<b>3RW5545-□HA□6</b>	1	1 unit	42S
640	200	<b>355</b>	450	568	150	200	<b>450</b>	600	5	<b>3RW5546-□HA□6</b>	1	1 unit	42S
814	250	<b>400</b>	500	721	200	250	<b>600</b>	750	5	<b>3RW5547-□HA□6</b>	1	1 unit	42S
987	315	<b>560</b>	630	873	300	350	<b>750</b>	950	5	<b>3RW5548-□HA□6</b>	1	1 unit	42S

**Type of electrical connection for the control circuit**

Spring-type terminals  
Screw terminals

2  
6  
  
0  
1

**Control supply voltage**

24 V AC/DC  
110 ... 250 V AC


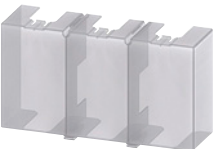
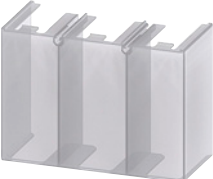


<sup>1)</sup> 3RW55 soft starter with screw terminals for operational voltage up to 600 V:  
Standard delivery time SD = 2 days (d).

Note:

For the boundary conditions for the motor outputs specified here, see page 6/7.



**Selection and ordering data**

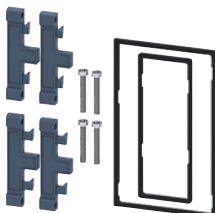


Product designation	Manufacturer's Article No. of the soft starter	Type of product	Application	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
<b>Fan covers</b>									
 3RW5983-0FC00	<b>Fan cover</b>	3RW551(1x), 3RW552, 3RW553 (2x)	--	--	1	<b>3RW5983-0FC00</b>	1	1 unit	42S
		3RW554	--	--	1	<b>3RW5984-0FC00</b>	1	1 unit	42S
<b>Terminal covers</b>									
 3RW5983-0TC20	<b>Terminal cover</b>	3RW552, 3RW553 (2x)	--	--	1	<b>3RW5983-0TC20</b>	1	1 unit	42S
		3RW554 (2x)	--	--	1	<b>3RW5984-0TC20</b>	1	1 unit	42S
 3RW5984-0TC20									
<b>Enclosure components</b>									
 3RW5950-0GL20	<b>Hinged cover</b>	3RW55	Without cutout	--	1	<b>3RW5950-0GL20</b>	1	1 unit	42S
<b>Communication modules</b>									
 3RW5980-0CS00	<b>Communication module</b>	3RW55	PROFINET Standard	--	1	<b>3RW5980-0CS00</b>	1	1 unit	42S
			PROFIBUS	--	1	<b>3RW5980-0CP00</b>	1	1 unit	42S
			Modbus TCP	--	1	<b>3RW5980-0CT00</b>	1	1 unit	42S

# SIRIUS 3RW Soft Starters

## High Performance Soft Starters

### 3RW55 Soft Starters

#### Accessories **NEW**

Product designation	Manufacturer's Article No. of the soft starter	Type of product	Application	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	
<b>HMI modules</b>										
	<b>Door mounting kit</b>	3RW55	IP65	For HMI modules	1	<b>3RW5980-0HD00</b>		1	1 unit	42S
<b>Connection cables</b>										
	<b>HMI connection cable</b>	3RW55	5 m	For door mounting	1	<b>3RW5980-0HC60</b>		1	1 unit	42S
	<b>Connection cables</b>	--	Length 2.5 m, round	For connection of the system components	▶	<b>3UF7933-0BA00-0</b>		1	1 unit	42J
			Length 1.0 m, round	For connection of the system components	▶	<b>3UF7937-0BA00-0</b>		1	1 unit	42J
			Length 0.5 m, round	For connection of the system components	▶	<b>3UF7932-0BA00-0</b>		1	1 unit	42J
<b>Further accessories</b>										
	<b>Push-in lugs for wall mounting</b>		Two lugs are required per device	--	2	<b>3ZY1311-0AA00</b>		1	10 units	41L

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# SIRIUS 3RW Soft Starters

## General Performance Soft Starters

### 3RW52 Soft Starters

General data **NEW**

#### Overview

##### More information

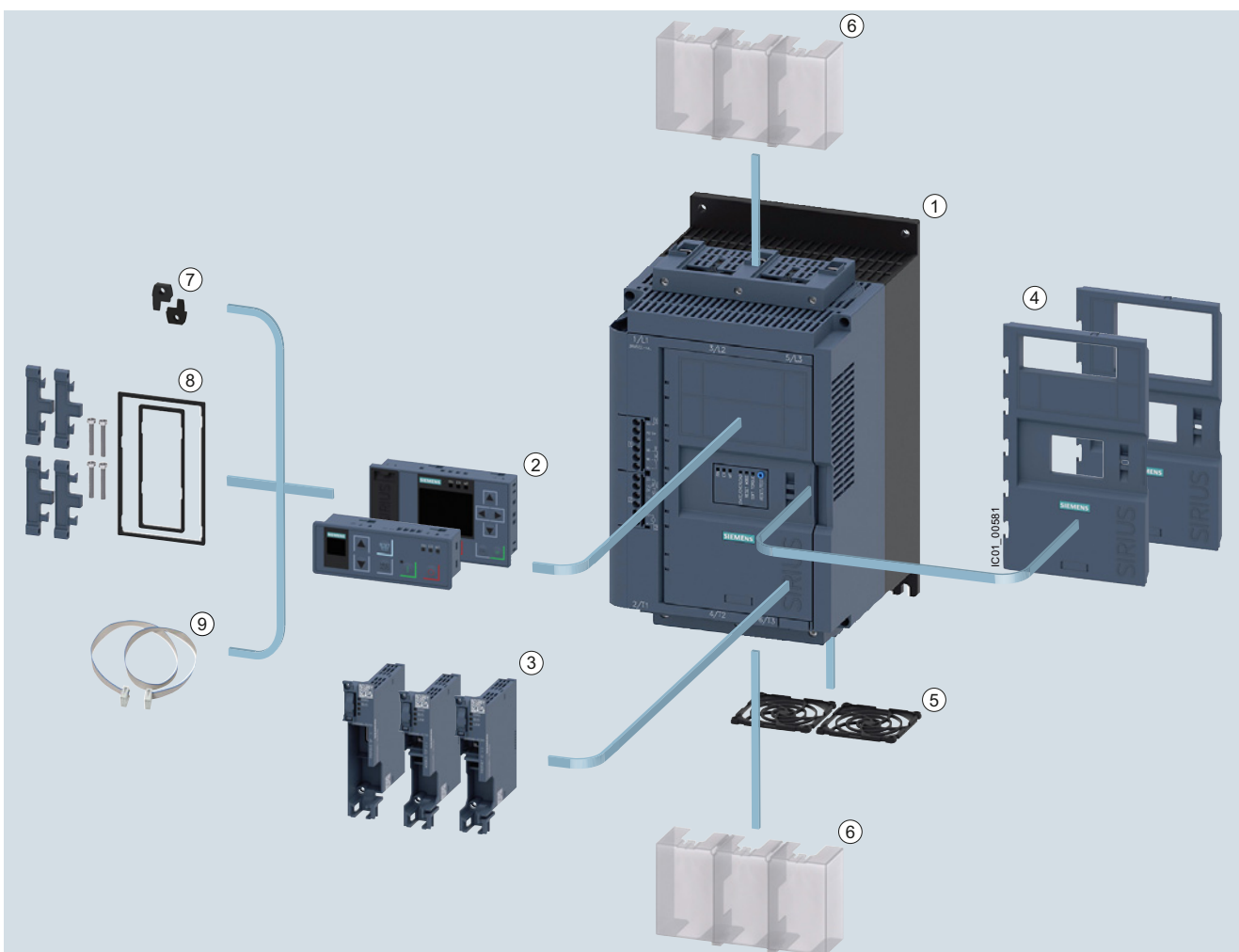
Homepage, see [www.siemens.com/soft-starter](http://www.siemens.com/soft-starter)  
 Industry Mall, see [www.siemens.com/product?3RW](http://www.siemens.com/product?3RW)

Online configurator, see [www.siemens.com/sirius/configurators](http://www.siemens.com/sirius/configurators)  
 Simulation Tool for Soft Starters (STS), see page 6/7 or  
<https://support.industry.siemens.com/cs/ww/en/view/101494917>



SIRIUS 3RW52 General Performance soft starters are the ideal solution for standard applications. With ideal 3-phase motor control, they cover the performance range from 5.5 kW to 560 kW (at 400 V).

With optional HMI modules, plug-in communication modules (PROFINET, PROFIBUS, Modbus) and either an analog output or thermistor motor protection, they ensure maximum flexibility. With their modern hybrid switching technology, the SIRIUS 3RW52 soft starters offer efficient switching for long-term, energy-saving use.



① 3RW52 soft starter

② HMI modules

③ Communication modules

④ Hinged cover

⑤ Fan covers

⑥ Terminal covers

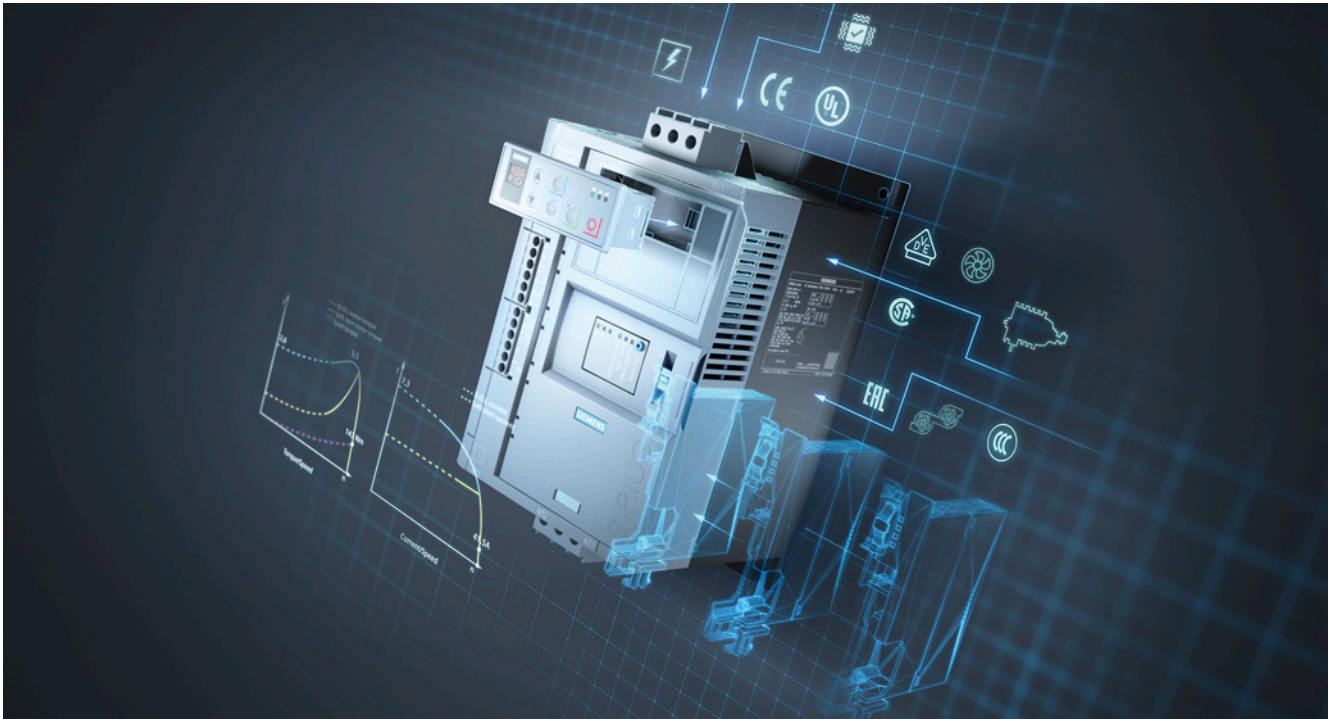
⑦ Push-in lugs for wall mounting

⑧ IP65 door mounting kit

⑨ HMI soft starter connection cable

General Performance soft starters with accessories, for expansion with HMI module or communication modules, see [Accessories](#), page 6/44

## Benefits



### Product characteristics / function

Hybrid switching devices and three-phase motor control

TIA-Integration – communication modules and HMI modules optional

Soft Torque

Parameterization using potentiometers

Wide range for control supply and main voltage

### Performance features / benefits

Minimum power loss and optimum/symmetrical motor control

Efficient configuration and maximum flexibility in automation engineering

Reduced mechanical loading and optimum pump stop

Simple and fast commissioning

Low variance, high system availability even with weak supply networks

# SIRIUS 3RW Soft Starters

## General Performance Soft Starters

### 3RW52 Soft Starters

General data **NEW**

#### Technical specifications

##### More information

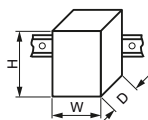
Technical specifications, see <https://support.industry.siemens.com/cs/ww/en/ps/25100/td>  
 Manual, see <https://support.industry.siemens.com/cs/ww/en/view/109753751>  
 FAQs, see <https://support.industry.siemens.com/cs/ww/en/ps/25100/faq>

Simulation Tool for Soft Starters (STS), see page 6/7 or <https://support.industry.siemens.com/cs/ww/en/view/101494917>

Type	3RW5213 3RW5214 3RW5215	3RW5216 3RW5217	3RW5224 3RW5225	3RW5226 3RW5227 3RW5234 3RW5235 3RW5236	3RW5243 3RW5244 3RW5245 3RW5246 3RW5247 3RW5248
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##### Installation/fixing/dimensions

##### Width x height x depth



mm	170 × 275 × 152	185 × 306 × 203	210 × 393 × 203
----	-----------------	-----------------	-----------------

##### Type of fixing

Screw fixing

##### Mounting position

For vertical mounting surface can be rotated +/-10° and tilted forward or backward	For vertical mounting surface can be rotated +/-90°, for vertical mounting surface can be tilted +/- 22.5° forward or backward	For vertical mounting surface can be rotated +/-10° and tilted forward or backward	For vertical mounting surface can be rotated +/-90°, for vertical mounting surface can be tilted +/- 22.5° forward or backward
--	--	--	--

##### Distance to be maintained with side-by-side mounting

• Above	mm	100
• At the side	mm	5
• Below	mm	75

##### Maximum installation altitude above sea level<sup>1)</sup>

m	5 000
---	-------

##### Ambient conditions

##### Ambient temperature

• During operation <sup>2)</sup>	°C	-25 ... +60
• During storage	°C	-40 ... +80

##### Environmental category according to IEC 60721

• During operation	3K6 (no ice formation, no condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6
• During storage	3K6 (no ice formation, no condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6
• During transport	3K6 (no ice formation, no condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6

<sup>1)</sup> Derating above 1000 m, see Manual or characteristic curve on page 6/7.

<sup>2)</sup> Note derating above 40 °C

Type		3RW521-..C0.	3RW521-..C1.	3RW522-..C0. 3RW523-..C0.	3RW522-..C1. 3RW523-..C1.	3RW524-..C0.	3RW524-..C1.
<b>Control circuit/control</b>							
<b>Control supply voltage</b>							
• At AC/DC, rated value	V	24/24	--/--	24/24	--/--	24/24	--/--
• At AC	V	--	110 ... 250	--	110 ... 250	--	110 ... 250
• Relative negative tolerance/ relative positive tolerance with AC	%	-20/20	-15/10	-20/20	-15/10	-20/20	-15/10
• Relative negative tolerance/ relative positive tolerance with DC	%	-20/20	--/--	-20/20	--/--	-20/20	--/--
<b>Frequency of the control supply voltage</b>							
• Relative negative tolerance/relative positive tolerance	Hz	50 ... 60					
	%	-10/10					
<b>Control supply current in standby mode</b>							
<b>Rated value</b>	mA	160	30	160	30	160	30
<b>Holding current in bypass mode</b>							
<b>Rated value</b>	mA	360	75	380	75	470	100
<b>Maximum locked-rotor current on closing the bypass contacts</b>							
	A	0.75	0.17	7.6	2.5	7.6	2.2
<b>Maximum inrush current peak on applying the control supply voltage</b>							
	A	3.3	12.2	3.3	12.2	3.3	12.2
<b>Duration of inrush current peak on applying the control supply voltage</b>							
	ms	12.1	2.2	12.1	2.2	12.1	2.2
<b>Type of overvoltage protection</b>							
		Varistors					
<b>Type of short-circuit protection for control circuit<sup>1)</sup></b>							
		Fuse 4 A gG ( $I_{cu}=1$ kA), fuse 6 A quick-response ( $I_{cu}=1$ kA), MCB C1 ( $I_{cu} = 600$ A), MCB C6 ( $I_{cu} = 300$ A)					

<sup>1)</sup> Not included in scope of supply

Type		3RW52-..C.4	3RW52-..C.5
<b>Power electronics</b>			
<b>Operational voltage rated value</b>			
• Relative negative tolerance/ relative positive tolerance	V	200 ... 480	
	%	-15/10	
<b>Operational voltage for inside-delta circuit rated value</b>			
• Relative negative tolerance/ relative positive tolerance	V	200 ... 480	
	%	-15/10	
<b>Operating frequency</b>			
• Relative negative tolerance/ relative positive tolerance	Hz	50 ... 60	
	%	-10/10	
<b>Minimum load [% of <math>I_M</math>]<sup>1)</sup></b>			
	%	15	
<b>Length of cable between soft starter and motor</b>			
	m	800	
<b>Power loss [W] at 40 °C</b>			
• At rated value current after startup	W	4	

<sup>1)</sup> Relative to set  $I_e$

# SIRIUS 3RW Soft Starters

## General Performance Soft Starters

### 3RW52 Soft Starters

Inline circuit **IE3/IE4 ready** **NEW**

#### Selection and ordering data

For normal starting (CLASS 10E)



3RW521.



3RW522.



3RW523.



3RW524.

At 40 °C				At 50 °C				SD <sup>1)</sup>	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Operational current	Operating power for three-phase motors			Operational current	Rating [hp] for three-phase motors								
	At 230 V	At 400 V	At 500 V		At 200/208 V	At 220/230 V	At 460/480 V	At 575/600 V	d				
A	kW	kW	kW	A	hp	hp	hp	hp					
<b>Operational voltage 200 ... 480 V</b>													
13	3	5.5	--	11.5	2	3	7.5	--	5	3RW5213-□□C□4	1	1 unit	42S
18	4	7.5	--	15.9	3	5	10	--	5	3RW5214-□□C□4	1	1 unit	42S
25	5.5	11	--	22.3	5	7.5	15	--	5	3RW5215-□□C□4	1	1 unit	42S
32	7.5	15	--	28.4	7.5	10	20	--	5	3RW5216-□□C□4	1	1 unit	42S
38	11	18.5	--	33.5	10	10	20	--	5	3RW5217-□□C□4	1	1 unit	42S
47	11	22	--	41.6	10	10	30	--	5	3RW5224-□□C□4	1	1 unit	42S
63	18.5	30	--	55.5	15	20	40	--	5	3RW5225-□□C□4	1	1 unit	42S
77	22	37	--	68	20	25	50	--	5	3RW5226-□□C□4	1	1 unit	42S
93	22	45	--	82.5	25	30	60	--	5	3RW5227-□□C□4	1	1 unit	42S



#### Type of electrical connection for the control circuit

- Screw terminals
- Spring-type terminals

#### Product function

- Analog output
- Thermistor motor protection

#### Control supply voltage

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

<sup>1)</sup> 3RW52 soft starter with screw terminals for operational voltage up to 480 V: Standard delivery time SD = 1 day (d).

At 40 °C				At 50 °C				SD <sup>1)</sup>	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Operational current	Operating power for three-phase motors			Operational current	Rating [hp] for three-phase motors								
	At 230 V	At 400 V	At 500 V		At 200/208 V	At 220/230 V	At 460/480 V	At 575/600 V	d				
A	kW	kW	kW	A	hp	hp	hp	hp					
<b>Operational voltage 200 ... 480 V</b>													
113	30	55	--	101	30	30	75	--	5	3RW5234-□□C□4	1	1 unit	42S
143	37	75	--	128	40	40	100	--	5	3RW5235-□□C□4	1	1 unit	42S
171	45	90	--	153	50	50	100	--	5	3RW5236-□□C□4	1	1 unit	42S
210	55	110	--	186	60	60	150	--	5	3RW5243-□□C□4	1	1 unit	42S
250	75	132	--	220	60	75	150	--	5	3RW5244-□□C□4	1	1 unit	42S
315	90	160	--	279	75	100	200	--	5	3RW5245-□□C□4	1	1 unit	42S
370	110	200	--	328	100	125	250	--	5	3RW5246-□□C□4	1	1 unit	42S
470	132	250	--	416	150	150	350	--	5	3RW5247-□□C□4	1	1 unit	42S
570	160	315	--	504	150	200	400	--	5	3RW5248-□□C□4	1	1 unit	42S



#### Type of electrical connection for the control circuit

- Spring-type terminals
- Screw terminals

#### Product function

- Analog output
- Thermistor motor protection

#### Control supply voltage

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

<sup>1)</sup> 3RW52 soft starter with screw terminals for operational voltage up to 480 V: Standard delivery time SD = 1 day (d).

Note:  
For the boundary conditions for the motor outputs specified here, see page 6/7.

# SIRIUS 3RW Soft Starters

## General Performance Soft Starters

### 3RW52 Soft Starters

**NEW** IE3/IE4 ready Inline circuit

For normal starting (CLASS 10E)



3RW5213.



3RW522.



3RW523.



3RW524.

At 40 °C				At 50 °C				SD <sup>1)</sup>	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Operational current	Operating power for three-phase motors			Operational current	Rating [hp] for three-phase motors								
	At 230 V	At 400 V	At 500 V		At 200/208 V	At 220/230 V	At 460/480 V	At 575/600 V	d				
A	kW	kW	kW	A	hp	hp	hp	hp					
<b>Operational voltage 200 ... 600 V</b>													
13	3	<b>5.5</b>	7.5	11.5	2	3	<b>7.5</b>	10	5	<b>3RW5213-□□□□5</b>	1	1 unit	42S
18	4	<b>7.5</b>	11	15.9	3	5	<b>10</b>	10	5	<b>3RW5214-□□□□5</b>	1	1 unit	42S
25	5.5	<b>11</b>	15	22.3	5	7.5	<b>15</b>	20	5	<b>3RW5215-□□□□5</b>	1	1 unit	42S
32	7.5	<b>15</b>	18.5	28.4	7.5	10	<b>20</b>	25	5	<b>3RW5216-□□□□5</b>	1	1 unit	42S
38	11	<b>18.5</b>	22	33.5	10	10	<b>20</b>	30	5	<b>3RW5217-□□□□5</b>	1	1 unit	42S
47	11	<b>22</b>	30	41.6	10	10	<b>30</b>	40	5	<b>3RW5224-□□□□5</b>	1	1 unit	42S
63	18.5	<b>30</b>	37	55.5	15	20	<b>40</b>	50	5	<b>3RW5225-□□□□5</b>	1	1 unit	42S
77	22	<b>37</b>	45	68	20	25	<b>50</b>	60	5	<b>3RW5226-□□□□5</b>	1	1 unit	42S
93	22	<b>45</b>	55	82.5	25	30	<b>60</b>	75	5	<b>3RW5227-□□□□5</b>	1	1 unit	42S

**Type of electrical connection for the control circuit**

- Screw terminals
- Spring-type terminals

**Product function**

- Analog output
- Thermistor motor protection

**Control supply voltage**

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



<sup>1)</sup> 3RW52 soft starter with screw terminals for operational voltage up to 600 V: Standard delivery time SD = 2 days (d).

At 40 °C				At 50 °C				SD <sup>1)</sup>	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Operational current	Operating power for three-phase motors			Operational current	Rating [hp] for three-phase motors								
	At 230 V	At 400 V	At 500 V		At 200/208 V	At 220/230 V	At 460/480 V	At 575/600 V	d				
A	kW	kW	kW	A	hp	hp	hp	hp					
<b>Operational voltage 200 ... 600 V</b>													
113	30	<b>55</b>	75	101	30	30	<b>75</b>	100	5	<b>3RW5234-□□□□5</b>	1	1 unit	42S
143	37	<b>75</b>	90	128	40	40	<b>100</b>	125	5	<b>3RW5235-□□□□5</b>	1	1 unit	42S
171	45	<b>90</b>	110	153	50	50	<b>100</b>	150	5	<b>3RW5236-□□□□5</b>	1	1 unit	42S
210	55	<b>110</b>	132	186	60	60	<b>150</b>	150	5	<b>3RW5243-□□□□5</b>	1	1 unit	42S
250	75	<b>132</b>	160	220	60	75	<b>150</b>	200	5	<b>3RW5244-□□□□5</b>	1	1 unit	42S
315	90	<b>160</b>	200	279	75	100	<b>200</b>	250	5	<b>3RW5245-□□□□5</b>	1	1 unit	42S
370	110	<b>200</b>	250	328	100	125	<b>250</b>	300	5	<b>3RW5246-□□□□5</b>	1	1 unit	42S
470	132	<b>250</b>	315	416	150	150	<b>350</b>	450	5	<b>3RW5247-□□□□5</b>	1	1 unit	42S
570	160	<b>315</b>	355	504	150	200	<b>400</b>	500	5	<b>3RW5248-□□□□5</b>	1	1 unit	42S



<sup>1)</sup> 3RW52 soft starter with screw terminals for operational voltage up to 600 V: Standard delivery time SD = 2 days (d).

**Note:**

For the boundary conditions for the motor outputs specified here, see page 6/7.



# SIRIUS 3RW Soft Starters

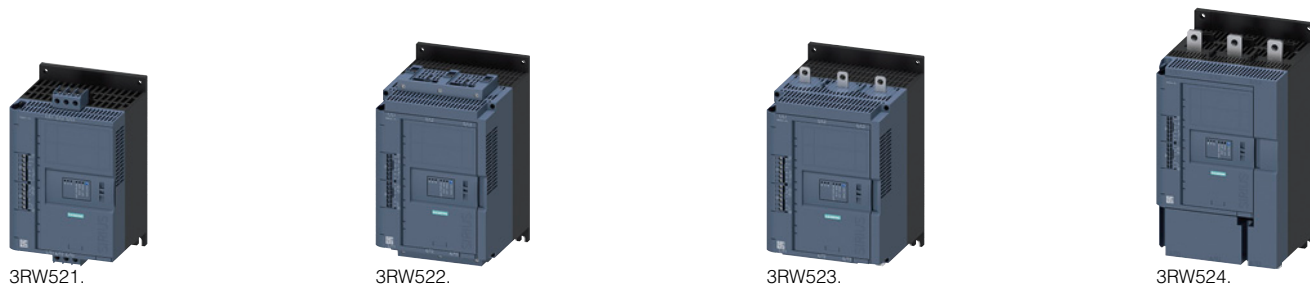
## General Performance Soft Starters

### 3RW52 Soft Starters

Inside-delta circuit **IE3/IE4 ready** **NEW**

#### Selection and ordering data

For normal starting (CLASS 10E)



At 40 °C for inside-delta circuit				At 50 °C for inside-delta circuit				SD <sup>1)</sup>	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Operational current	Operating power for three-phase motors			Operational current	Rating [hp] for three-phase motors								
	At 230 V	At 400 V	At 500 V		At 200/208 V	At 220/230 V	At 460/480 V	At 575/600 V	d				
A	kW	kW	kW	A	hp	hp	hp	hp					
<b>Operational voltage 200 ... 480 V</b>													
22.5	5.5	11	--	19.9	5	5	10	--	5	3RW5213-□□C□4	1	1 unit	42S
31.5	7.5	15	--	28	7.5	7.5	20	--	5	3RW5214-□□C□4	1	1 unit	42S
43.3	11	18.5	--	39	10	10	25	--	5	3RW5215-□□C□4	1	1 unit	42S
55.4	15	22	--	49	15	15	30	--	5	3RW5216-□□C□4	1	1 unit	42S
65.8	18.5	30	--	58	15	20	40	--	5	3RW5217-□□C□4	1	1 unit	42S
81.4	22	45	--	72	20	25	50	--	5	3RW5224-□□C□4	1	1 unit	42S
109	30	55	--	96	30	30	75	--	5	3RW5225-□□C□4	1	1 unit	42S
133	37	75	--	118	30	40	75	--	5	3RW5226-□□C□4	1	1 unit	42S
161	45	90	--	143	40	50	100	--	5	3RW5227-□□C□4	1	1 unit	42S

#### Type of electrical connection for the control circuit

Screw terminals  
Spring-type terminals

#### Product function

Analog output  
Thermistor motor protection

#### Control supply voltage

24 V AC/DC  
110 ... 250 V AC



<sup>1)</sup> 3RW52 soft starter with screw terminals for operational voltage up to 480 V:  
Standard delivery time SD = 1 day (d).

At 40 °C for inside-delta circuit				At 50 °C for inside-delta circuit				SD <sup>1)</sup>	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Operational current	Operating power for three-phase motors			Operational current	Rating [hp] for three-phase motors								
	At 230 V	At 400 V	At 500 V		At 200/208 V	At 220/230 V	At 460/480 V	At 575/600 V	d				
A	kW	kW	kW	A	hp	hp	hp	hp					
<b>Operational voltage 200 ... 480 V</b>													
196	55	110	--	175	50	60	125	--	5	3RW5234-□□C□4	1	1 unit	42S
248	75	132	--	222	75	75	150	--	5	3RW5235-□□C□4	1	1 unit	42S
296	90	160	--	265	75	100	200	--	5	3RW5236-□□C□4	1	1 unit	42S
364	110	200	--	322	100	125	250	--	5	3RW5243-□□C□4	1	1 unit	42S
433	132	250	--	381	125	150	300	--	5	3RW5244-□□C□4	1	1 unit	42S
546	160	315	--	483	150	200	400	--	5	3RW5245-□□C□4	1	1 unit	42S
641	200	355	--	568	200	200	450	--	5	3RW5246-□□C□4	1	1 unit	42S
814	250	400	--	721	250	250	600	--	5	3RW5247-□□C□4	1	1 unit	42S
987	315	560	--	873	300	350	750	--	5	3RW5248-□□C□4	1	1 unit	42S

#### Type of electrical connection for the control circuit

Spring-type terminals  
Screw terminals

#### Product function

Analog output  
Thermistor motor protection

#### Control supply voltage

24 V AC/DC  
110 ... 250 V AC



<sup>1)</sup> 3RW52 soft starter with screw terminals for operational voltage up to 480 V:  
Standard delivery time SD = 1 day (d).

Note:  
For the boundary conditions for the motor outputs specified here, see page 6/7.

# SIRIUS 3RW Soft Starters

## General Performance Soft Starters

### 3RW52 Soft Starters

**NEW** IE3/IE4 ready Inside-delta circuit

For normal starting (CLASS 10)



3RW521.



3RW522.



3RW523.



3RW524.

At 40 °C for inside-delta circuit				At 50 °C for inside-delta circuit				SD <sup>1)</sup>	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Operational current	Operating power for three-phase motors			Operational current	Rating [hp] for three-phase motors								
	At 230 V	At 400 V	At 500 V		At 200/208 V	At 220/230 V	At 460/480 V	At 575/600 V	d				
A	kW	kW	kW	A	hp	hp	hp	hp					
<b>Operational voltage 200 ... 600 V</b>													
22.5	5.5	<b>11</b>	15	19.9	5	5	<b>10</b>	15	5	<b>3RW5213-□□C□5</b>	1	1 unit	42S
31.5	7.5	<b>15</b>	18.5	28	7.5	7.5	<b>20</b>	25	5	<b>3RW5214-□□C□5</b>	1	1 unit	42S
43.3	11	<b>18.5</b>	22	39	10	10	<b>25</b>	30	5	<b>3RW5215-□□C□5</b>	1	1 unit	42S
55.4	15	<b>22</b>	30	49	15	15	<b>30</b>	40	5	<b>3RW5216-□□C□5</b>	1	1 unit	42S
65.8	18.5	<b>30</b>	37	58	15	20	<b>40</b>	50	5	<b>3RW5217-□□C□5</b>	1	1 unit	42S
81.4	22	<b>45</b>	45	72	20	25	<b>50</b>	60	5	<b>3RW5224-□□C□5</b>	1	1 unit	42S
109	30	<b>55</b>	55	96	30	30	<b>75</b>	75	5	<b>3RW5225-□□C□5</b>	1	1 unit	42S
133	37	<b>75</b>	90	118	30	40	<b>75</b>	100	5	<b>3RW5226-□□C□5</b>	1	1 unit	42S
161	45	<b>90</b>	110	143	40	50	<b>100</b>	125	5	<b>3RW5227-□□C□5</b>	1	1 unit	42S

**Type of electrical connection for the control circuit**

- Screw terminals
- Spring-type terminals

**Product function**

- Analog output
- Thermistor motor protection

**Control supply voltage**

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

<sup>1)</sup> 3RW52 soft starter with screw terminals for operational voltage up to 600 V: Standard delivery time SD = 2 days (d).



At 40 °C for inside-delta circuit				At 50 °C for inside-delta circuit				SD <sup>1)</sup>	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Operational current	Operating power for three-phase motors			Operational current	Rating [hp] for three-phase motors								
	At 230 V	At 400 V	At 500 V		At 200/208 V	At 220/230 V	At 460/480 V	At 575/600 V	d				
A	kW	kW	kW	A	hp	hp	hp	hp					
<b>Operational voltage 200 ... 600 V</b>													
196	<b>55</b>	110	132	175	50	60	<b>125</b>	150	5	<b>3RW5234-□□C□5</b>	1	1 unit	42S
248	<b>75</b>	132	160	222	75	75	<b>150</b>	200	5	<b>3RW5235-□□C□5</b>	1	1 unit	42S
296	<b>90</b>	160	200	265	75	100	<b>200</b>	250	5	<b>3RW5236-□□C□5</b>	1	1 unit	42S
364	<b>110</b>	200	250	322	100	125	<b>250</b>	300	5	<b>3RW5243-□□C□5</b>	1	1 unit	42S
433	<b>132</b>	250	315	381	125	150	<b>300</b>	350	5	<b>3RW5244-□□C□5</b>	1	1 unit	42S
546	<b>160</b>	315	355	483	150	200	<b>400</b>	500	5	<b>3RW5245-□□C□5</b>	1	1 unit	42S
641	<b>200</b>	355	450	568	200	200	<b>450</b>	600	5	<b>3RW5246-□□C□5</b>	1	1 unit	42S
814	<b>250</b>	400	500	721	250	250	<b>600</b>	800	5	<b>3RW5247-□□C□5</b>	1	1 unit	42S
987	<b>315</b>	560	630	873	300	350	<b>750</b>	950	5	<b>3RW5248-□□C□5</b>	1	1 unit	42S

**Type of electrical connection for the control circuit**

- Spring-type terminals
- Screw terminals

**Product function**

- Analog output
- Thermistor motor protection

**Control supply voltage**

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

<sup>1)</sup> 3RW52 soft starter with screw terminals for operational voltage up to 600 V: Standard delivery time SD = 2 days (d).



**Note:**

For the boundary conditions for the motor outputs specified here, see page 6/7.



# SIRIUS 3RW Soft Starters

## General Performance Soft Starters

### 3RW52 Soft Starters

Accessories **NEW**

#### Selection and ordering data



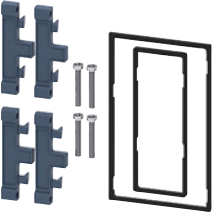



Product designation	Manufacturer's Article No. of the soft starter	Type of product	Application	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	
<b>Fan covers</b>										
	<b>Fan cover</b>	3RW5216/17 (1x), 3RW5226/27, 3RW523 (2x)	--	--	1	<b>3RW5983-0FC00</b>		1	1 unit	42S
3RW5983-0FC00		3RW524	--	--	1	<b>3RW5984-0FC00</b>		1	1 unit	42S
<b>Terminal covers</b>										
	<b>Terminal cover</b>	3RW522, 3RW523 (2x)	--	--	1	<b>3RW5983-0TC20</b>		1	1 unit	42S
3RW5983-0TC20		3RW524 (2x)	--	--	1	<b>3RW5984-0TC20</b>		1	1 unit	42S
										
3RW5984-0TC20										
<b>Enclosure components</b>										
	<b>Hinged cover</b>	3RW52	With cutout for HMI module High Feature	--	1	<b>3RW5950-0GL30</b>		1	1 unit	42S
3RW5950-0GL30										
			With cutout for HMI module Standard	--	1	<b>3RW5950-0GL40</b>		1	1 unit	42S
3RW5950-0GL40										
<b>Communication modules</b>										
	<b>Communication module</b>	3RW52	PROFINET Standard	--	1	<b>3RW5980-0CS00</b>		1	1 unit	42S
			PROFIBUS	--	1	<b>3RW5980-0CP00</b>		1	1 unit	42S
			Modbus TCP	--	1	<b>3RW5980-0CT00</b>		1	1 unit	42S
3RW5980-0CS00										

# SIRIUS 3RW Soft Starters

## General Performance Soft Starters

### 3RW52 Soft Starters

**NEW** Accessories

Product designation	Manufacturer's Article No. of the soft starter	Type of product	Application	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
<b>HMI modules</b>									
	<b>HMI module</b>	3RW52	High Feature	--	1	<b>3RW5980-0HF00</b>	1	1 unit	42S
3RW5980-0HF00									
			Standard	--	1	<b>3RW5980-0HS00</b>	1	1 unit	42S
3RW5980-0HS00									
	<b>Door mounting kit</b>	3RW52	IP65	For HMI modules	1	<b>3RW5980-0HD00</b>	1	1 unit	42S
3RW5980-0HD00									
<b>Connection cables</b>									
	<b>HMI connection cable</b>	3RW52	5 m	For door mounting	1	<b>3RW5980-0HC60</b>	1	1 unit	42S
	<b>Connection cables</b>	--	Length 2.5 m, round	For connection of the system components	▶	<b>3UF7933-0BA00-0</b>	1	1 unit	42J
3UF7933-0BA00-0			Length 1.0 m, round	For connection of the system components	▶	<b>3UF7937-0BA00-0</b>	1	1 unit	42J
			Length 0.5 m, round	For connection of the system components	▶	<b>3UF7932-0BA00-0</b>	1	1 unit	42J
			Length 0.1 m, flat	For connection of the system components	▶	<b>3UF7931-0AA00-0</b>	1	1 unit	42J
3UF7931-0AA00-0									
<b>Further accessories</b>									
	<b>Push-in lugs for wall mounting</b>	--	Two lugs are required per device	--	2	<b>3ZY1311-0AA00</b>	1	10 units	41L
3ZY1311-0AA00									