

# Switching Devices – Soft Starters and Solid-State Switching Devices

## Introduction

### 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)

TIA Selection Tool Cloud (TST Cloud), see <http://mall.industry.siemens.com/spice/TSTWeb/?kmat=Sirius3rwFolder>

Industry Online Support (SIOS), see

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

Simulation Tool for Soft Starters (STS), see page 6/7 or

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



3RW55



3RW44



3RW52



3RW40



3RW30

Page

### 3RW soft starters

#### High Performance soft starters

##### 3RW55 soft starters

- TIA integration optional
- Plug-in communication modules for PROFINET, PROFIBUS and Modbus
- Removable HMI module with color display, local interface and slot for a micro SD memory card
- Extended protection functions
- Up to 560 kW at 400 V (can be used in supply systems up to 690 V)
- Automatic parameterization for simple commissioning and reliability even under changing load conditions
- Hybrid switching devices and three-phase motor control for minimum power loss and optimum/symmetrical motor control
- Pump stop for reduced mechanical stress and optimum pump stop control

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##### 3RW44 soft starters

- TIA Integration optional
- PROFIBUS and PROFINET
- Integrated display
- External display/control module optional
- Extended protection functions
- Up to 1200 kW at 400 V (can be used in supply systems up to 690 V)

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#### General Performance soft starters

##### 3RW52 soft starters

- TIA integration optional
- Plug-in communication modules for PROFINET, PROFIBUS and Modbus
- HMI modules optional
- Soft starting and stopping
- Current limiting
- Motor overload protection
- Up to 560 kW at 400 V (can be used in supply systems up to 600 V)
- Hybrid switching devices and three-phase motor control
- Soft Torque for reduced mechanical loading and optimum pump stop control
- Parameterization using potentiometers

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#### Basic Performance soft starters

##### 3RW40 soft starters

- Soft starting and stopping
- Current limiting
- Motor overload protection
- Up to 250 kW at 400 V (can be used in supply systems up to 600 V)

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##### 3RW30 soft starters

- Soft starting with voltage ramp
- Up to 55 kW at 400 V (can be used in supply systems up to 480 V)

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#### Use of soft starters in conjunction with IE3/IE4 motors

##### Note:

For the use of SIRIUS 3RW soft starters in conjunction with highly energy-efficient IE3/IE4 motors, please observe the information on dimensioning and configuring, see [Application Manual](#).

For more information, see [page 1/7](#).



		Article No.	Page
<b>SIRIUS solid-state switching devices for switching resistive/inductive loads</b>			
<b>Solid-state relays</b>			
<b>Solid-state relays</b>	<ul style="list-style-type: none"> <li>• Widths of 22.5 mm and 45 mm</li> <li>• Compact and space-saving design</li> <li>• "Zero-point switching" version</li> <li>• Mounting onto existing heat sinks</li> </ul>	<b>3RF21</b> <b>3RF20</b> <b>3RF22</b>	6/99 6/104 6/108
<b>Solid-state contactors</b>			
<b>Solid-state contactors</b>	<ul style="list-style-type: none"> <li>• Complete units comprising a solid-state relay and an optimized heat sink, "ready to use"</li> <li>• Compact and space-saving design</li> <li>• Versions for resistive loads "zero-point switching" and inductive loads "instantaneous switching"</li> <li>• Special versions "Low Noise" and "Short-Circuit Proof"</li> </ul>	<b>3RF23</b> <b>3RF24</b>	6/112 6/122
<b>Function modules</b>			
	For extending the functionality of the 3RF21 solid-state relays and the 3RF23 solid-state contactors for many different applications:		
<b>Converters</b>	<ul style="list-style-type: none"> <li>• For converting an analog input signal into an on/off ratio; can also be used on 3RF22 and 3RF24 three-phase switching devices</li> </ul>	<b>3RF2900-0EA18</b>	6/133
<b>Load monitoring</b>	<ul style="list-style-type: none"> <li>• For load monitoring of one or more loads (partial loads)</li> </ul>	<b>3RF29...0FA08,</b> <b>3RF29.0-0GA..</b>	6/134
<b>Heating current monitoring</b>	<ul style="list-style-type: none"> <li>• For load monitoring of one or more loads (partial loads); remote teach</li> </ul>	<b>3RF29...0JA..</b>	6/135
<b>Power controllers</b>	<ul style="list-style-type: none"> <li>• For setting the current by means of a solid-state switching device depending on a setpoint value set by the power controller. There is a choice of full-wave control and generalized phase control.</li> </ul>	<b>3RF29...0KA.</b>	6/136
<b>Power regulators</b>	<ul style="list-style-type: none"> <li>• For regulating the current by means of a solid-state switching device, depending on a setpoint value set by the power regulator. Closed-loop control: full-wave control or generalized phase control</li> </ul>	<b>3RF29.0-0HA..</b>	6/137
<b>SIRIUS solid-state switching devices for switching motors</b>			
<b>Solid-state contactors</b>			
<b>Solid-state contactors, solid-state reversing contactors</b>	<ul style="list-style-type: none"> <li>• Complete units in the insulated enclosure with integrated heat sink, "ready to use"</li> <li>• Compact and space-saving design</li> <li>• Version for motors, "instantaneous switching"</li> </ul>	<b>3RF34</b>	6/142, 6/146

#### **Use of SIRIUS solid-state switching devices for switching motors in conjunction with IE3/IE4 motors**

##### Note:

For the use of SIRIUS 3RF solid-state switching devices for switching motors in conjunction with highly energy-efficient IE3/IE4 motors, please observe the information on dimensioning and configuring, [see Application Manual](#).

For more information, [see page 1/7](#).

# SIRIUS 3RW Soft Starters

## General data

### Overview

#### More information

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

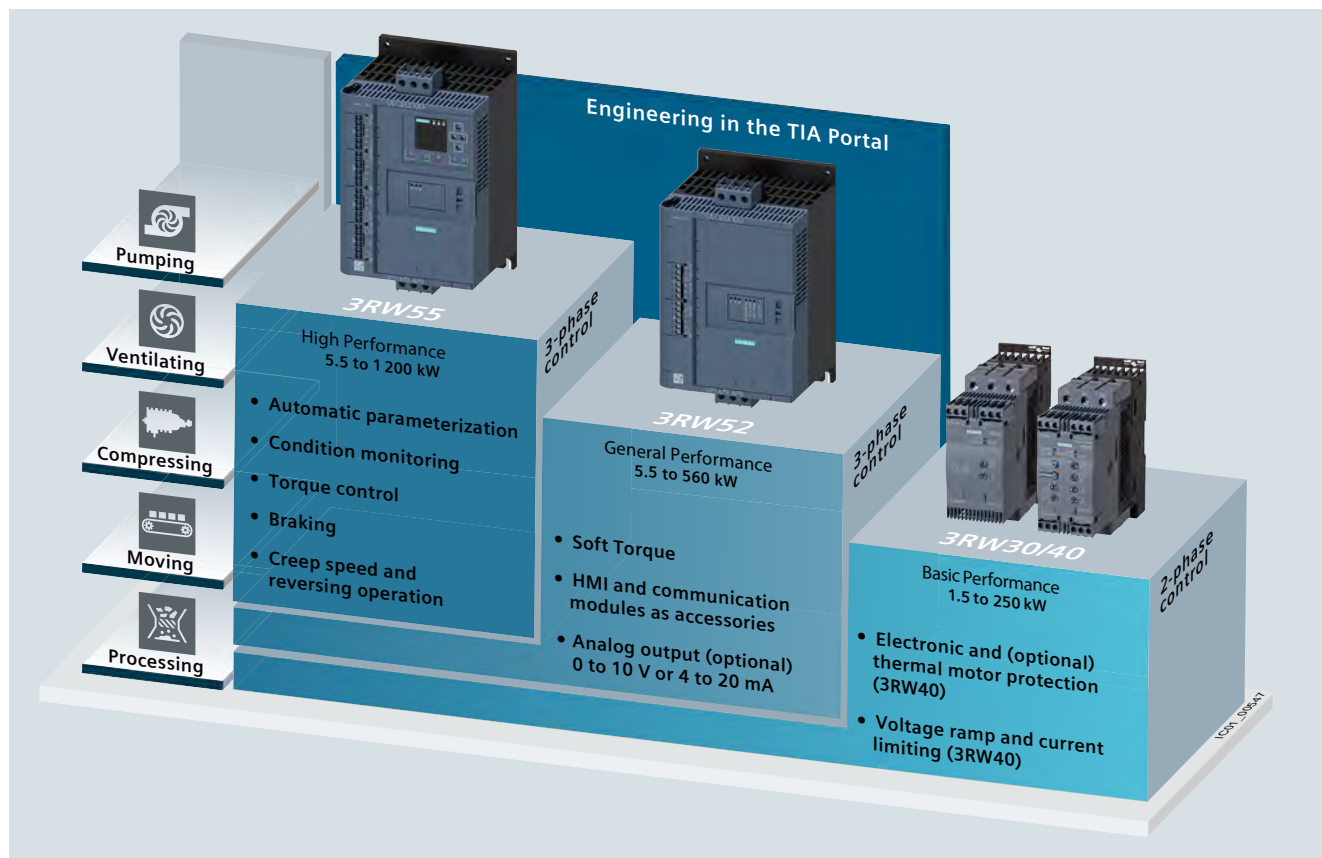
Industry Mall, see [www.siemens.com/product?3RW](http://www.siemens.com/product?3RW)

TIA Selection Tool Cloud (TST Cloud), see <https://mall.industry.siemens.com/spice/TSTWeb?kmat=Sirius3reFolder>

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Simulation Tool for Soft Starters (STS), see page 6/7 or <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	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	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	kW	5.5 ... 315	15 ... 710	5.5 ... 315	1.5 ... 55
	- Inside-delta circuit	kW	11 ... 560	22 ... 1 200	11 ... 560	--
• At 460/480 V at 50 °C	- Inline circuit	hp	7.5 ... 400	15 ... 950	7.5 ... 400	1.5 ... 75
	- Inside-delta circuit	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/stopping</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).

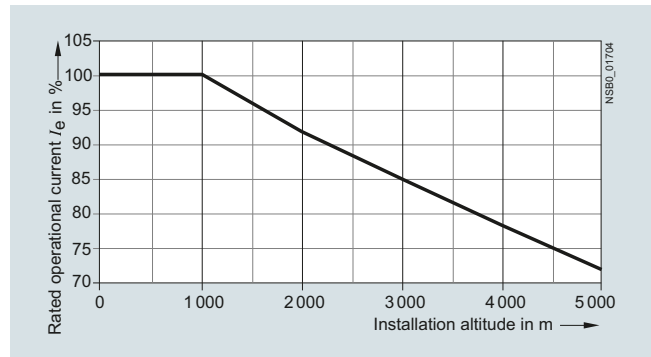
9) Only in conjunction with special accessories.

**Constraints**

The 3RW soft starters 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.



Installation altitude for SIRIUS 3RW soft starters

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

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

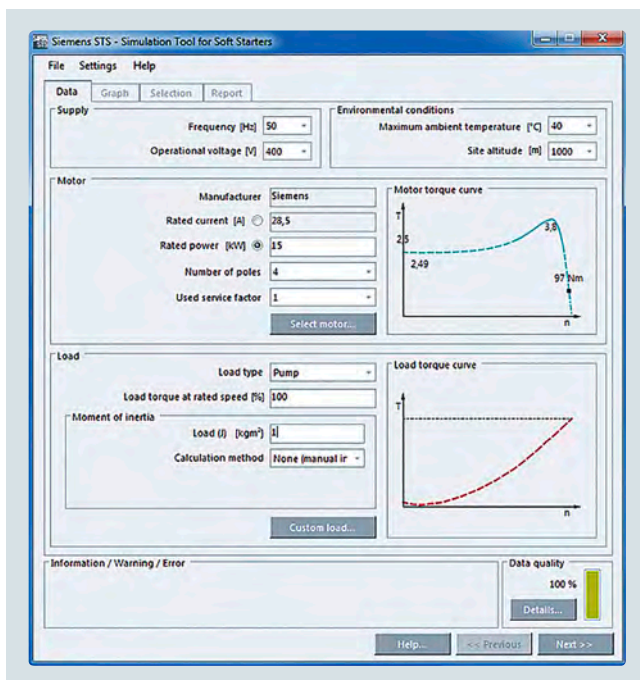
Simulation Tool for Soft Starters (STS)

The Simulation Tool for Soft Starters (STS) provides a convenient means of designing soft starters using a simple, quick and easy-to-use interface.

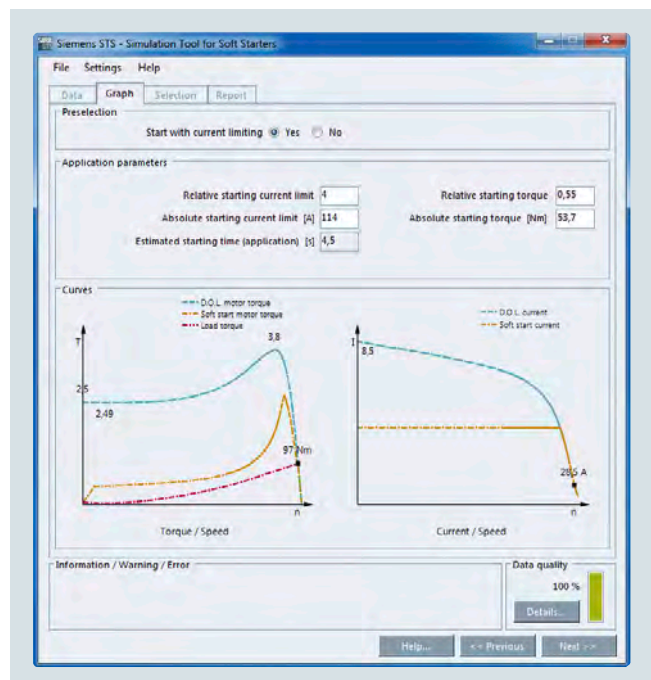
Entering the motor and load data will simulate the application and prompt suggestions for suitable soft starters.

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

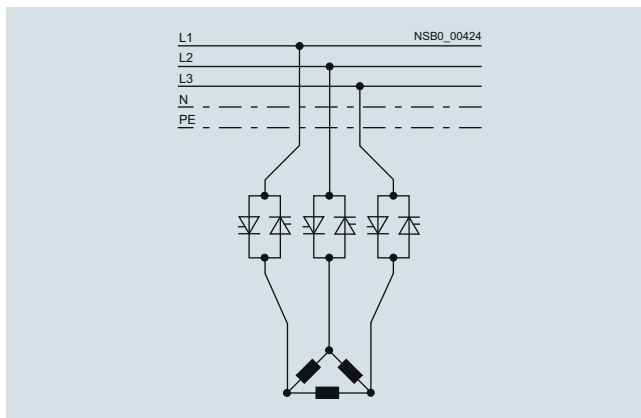
### General data

#### Circuit concept

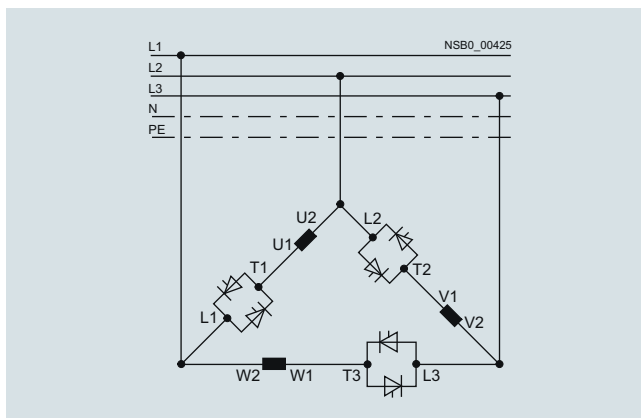
Three-phase controlled SIRIUS 3RW soft starters can be operated in two different types of circuit:

- **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 electronic 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" stopping modes, because during the stopping time in these modes, an additional current loading applies in contrast to coasting 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/circuit breakers (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 Support:

<https://support.industry.siemens.com/My/ww/en/requests>

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.

### Motor feeders with soft starters

The type of coordination according to which the motor feeder with soft starter is mounted depends on the application-specific requirements. Normally, fuseless mounting (combination of motor starter protector and soft starter) is sufficient.

If type of coordination "2" is to be fulfilled, then semiconductor fuses must be fitted in the motor feeder.

ToC  
1

Type of coordination "1" according to IEC 60947-4-1: After a short-circuit incident, the unit is defective and therefore unsuitable for further use (protection of persons and system guaranteed).

ToC  
2

Type of coordination "2" according to IEC 60947-4-1: After a short-circuit incident the unit is suitable for further use (protection of persons and system guaranteed).

The type of coordination refers to soft starters in combination with the stipulated protective device (motor starter protector/fuse), not to any additional components in the feeder.

The types of coordination are indicated in the corresponding tables by the symbols shown on orange backgrounds.

### Feeder tests and results

To keep the scope of feeder tests with SIRIUS 3RW soft starters within economically reasonable limits, tests were conducted with feeder components (motor starter protectors/circuit breakers, fuses) that cover the greatest number of use cases (different soft starter versions depending on, for example, line voltage, type of circuit, or necessary overdimensioning). For the combined tests that were conducted, the values for the short-circuit breaking capacity  $I_q$  in kA were determined and documented.

If the short-circuit breaking capacity is the same, of course, smaller motor starter protectors or fuses can also be used for the selected soft starter provided the dimensioning of the short-circuit components is suitable for the connected three-phase motor and the line protection for the cables used. For type of coordination "2" (with semiconductor protection), it is also necessary to compare the characteristics because the protection function would no longer be completely ensured if too small a fuse were selected. If the soft starter does not have a motor protection function, the motor protection must also be dimensioned appropriately.

### Line protection and motor protection

Line protection and motor protection are not ensured in all operating cases, depending on:

- how the motor feeder is constructed (e.g. with fuses or motor starter protectors),
- whether the SIRIUS 3RW soft starters are operated within the specification relevant for the tests (IEC 60947-4-2)
- or whether the documented constraints (see page 6/7) have been observed.

There are operating states of the thyristors (caused, for example, by high starting frequencies or heavy starting) that do not permit an overload to be disconnected by the SIRIUS 3RW soft starter. These cases are very rare but cannot be ruled out in all cases.

In accordance with IEC 60947-4-2, the SIRIUS 3RW soft starters are dimensioned and checked for operation with up to 8 times the rated operational current  $I_e$ . For currents larger than this, reliable disconnection of an overcurrent by the SIRIUS 3RW soft starter is not ensured. Such large overcurrents have to be disconnected by an upstream switching element (e.g. by a motor starter protector/circuit breaker or a fuse in conjunction with an optional line contactor).

Motor protection by the SIRIUS 3RW soft starter is ensured for currents up to 8 times the rated operational current  $I_e$  in any case. Line protection is covered by the line-side motor starter protector/circuit breaker or fuse. These motor feeder components must be dimensioned accordingly and the cable cross-sections must be chosen to match.

### Line protection

Line protection in motor feeders with soft starters is always covered by a fuse or a motor starter protector/circuit breaker both in case of an overload and in case of a short-circuit. The motor starter protector/circuit breaker must have an overload release. That is the case for motor starter protectors (e.g. SIRIUS 3RV20).

Circuit breakers without an overload release (e.g. SIRIUS 3RV23 motor starter protectors) must not be used because they do not provide overload protection. The feeder tests for these were therefore not performed. If the motor feeder with SIRIUS 3RW soft starters is configured without a fuse, motor starter protectors must be used that ensure tripping on an overload.

### Motor protection

If fuses are used to provide protection against overload and short-circuit of the cables, the motor is protected by the SIRIUS 3RW soft starter. If the constraints (simple starting conditions CLASS 10, listed maximum values for starting current, starting time and number of starts per hour) of page 6/7 are observed, the motor feeders can be configured according to IEC as described in the section about soft starters (an optional line contactor is not required). If these preconditions are met, the SIRIUS 3RW soft starters are able to trip on overloads to protect the motor in any case.

In other starting conditions and on heavy starting, the following must be considered:

- Tested fuseless switchgear assemblies comprising SIRIUS 3RW soft starters and motor starter protectors only comply with CLASS 10.  
To configure motor feeders, for example, for CLASS 20 or CLASS 30, fuses must be used together with SIRIUS 3RW soft starters.
- In applications with high starting frequencies or heavy starting as of CLASS 20, we recommend combining fuses with the use of a line contactor on the line side so that a motor overload is disconnected by the fault signaling contact of the soft starter in any case (that is, even in rare cases in which disconnection by the SIRIUS 3RW soft starter is no possible due to the operating state of the thyristors).

If circuit breakers with an overload release are used (e.g. SIRIUS 3RV20 motor starter protector), we recommend activating the motor protection function of the SIRIUS 3RW soft starter to protect the motor and setting the soft starter to the rated operational current  $I_e$  of the motor. We recommend setting the circuit breaker in such a way that it provides line protection but does not usually trip before the soft starter when a motor overload occurs.

## SIRIUS 3RW Soft Starters

### General data

#### 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:

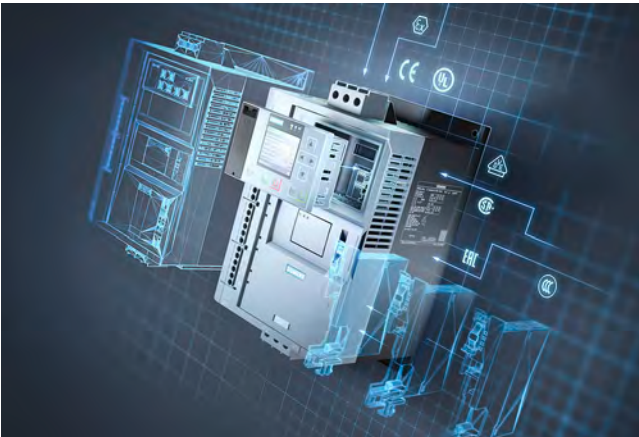
The Article No. scheme shows an overview of product versions for better understanding of the logic behind the article numbers.

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

## Benefits

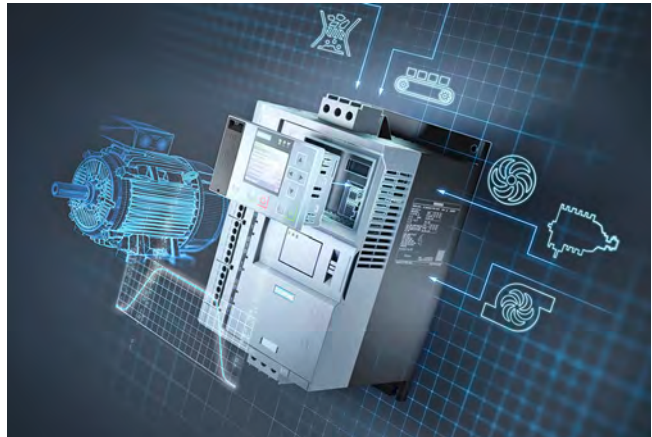
### Can be flexibly deployed in many applications

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



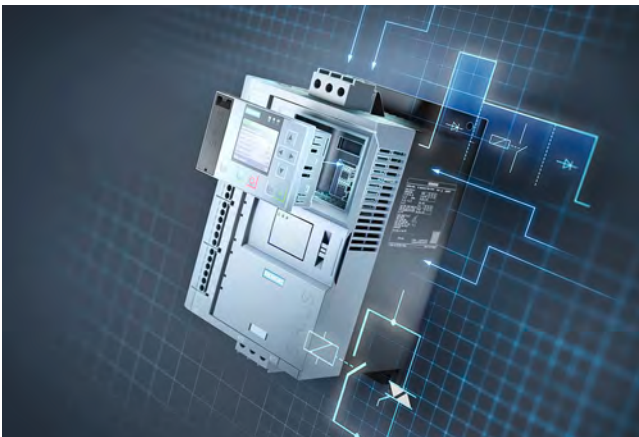
- The right hardware for all requirements, soft starters for tasks ranging from simple to demanding starting in Basic, General and High Performance versions
- Extensive portfolio for individual expansion: Optional HMIs for installation in the device or mounting on the control cabinet door  
Communication 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



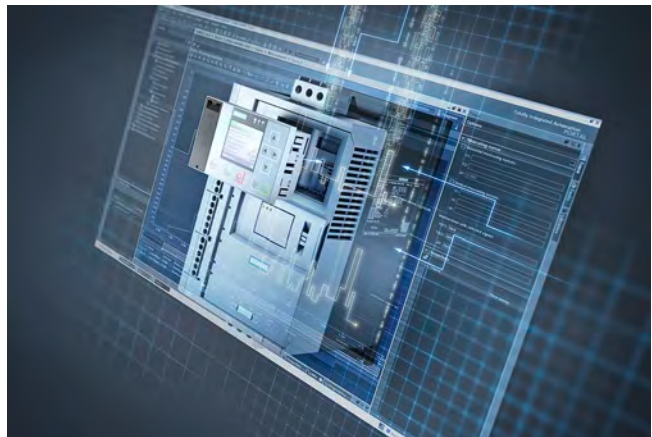
- Can be used in a wide variety of applications: Pumping, ventilating, compressing, moving and processing
- Integrated, self-learning automatic parameterization depending on motor starting conditions
- Application-specific functionality such as pump cleaning and pump stop
- Condition monitoring: Current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

# SIRIUS 3RW Soft Starters

## High Performance Soft Starters

### 3RW55 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)

TIA Selection Tool Cloud (TST Cloud), see <https://mall.industry.siemens.com/spice/tstweb/?KMAT=3rw55>

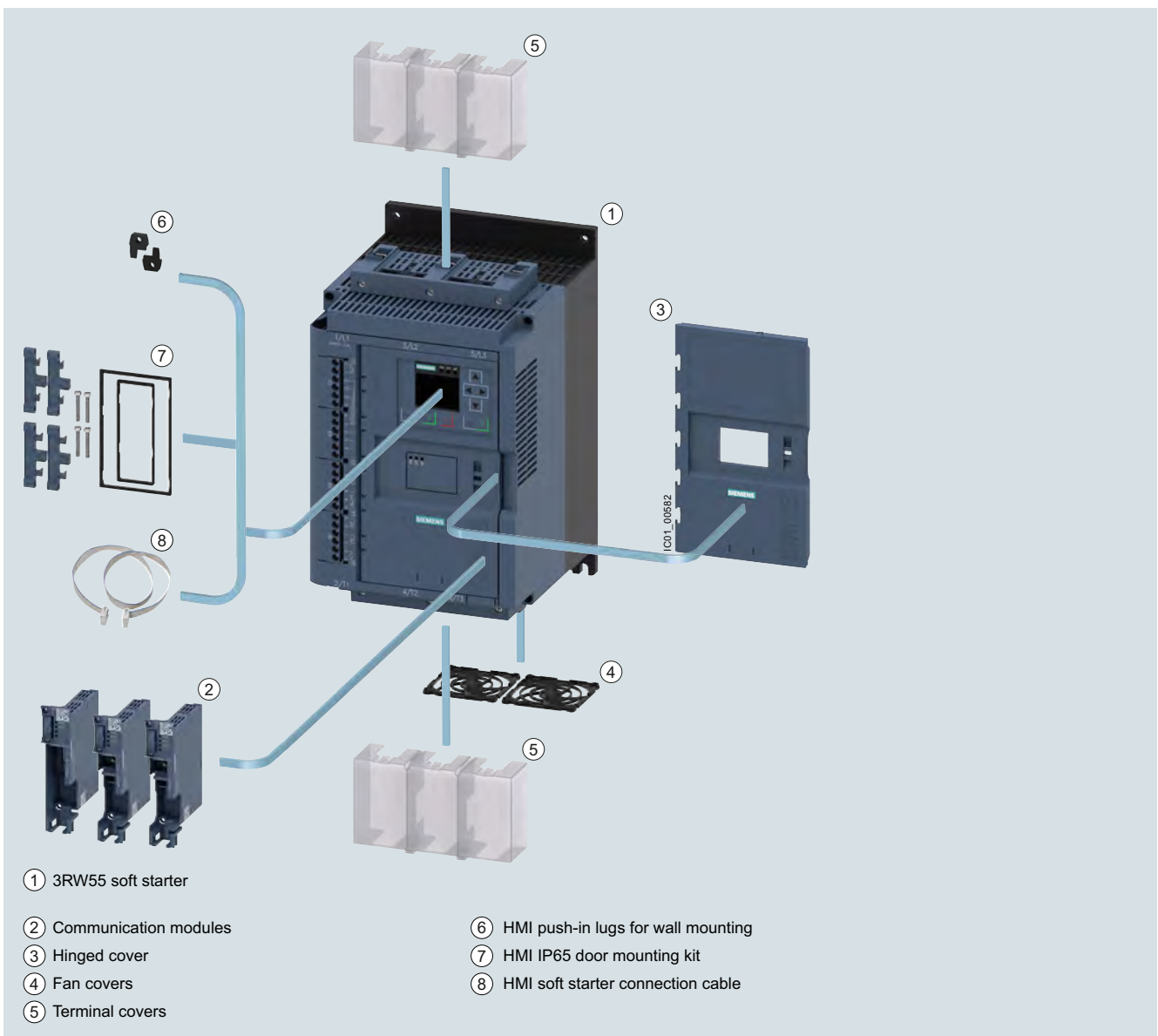
Simulation Tool for Soft Starters (STS), see page 6/7 or <https://support.industry.siemens.com/cs/ww/en/view/101494917>

SIRIUS Soft Starter ES (TIA Portal), see page 14/5

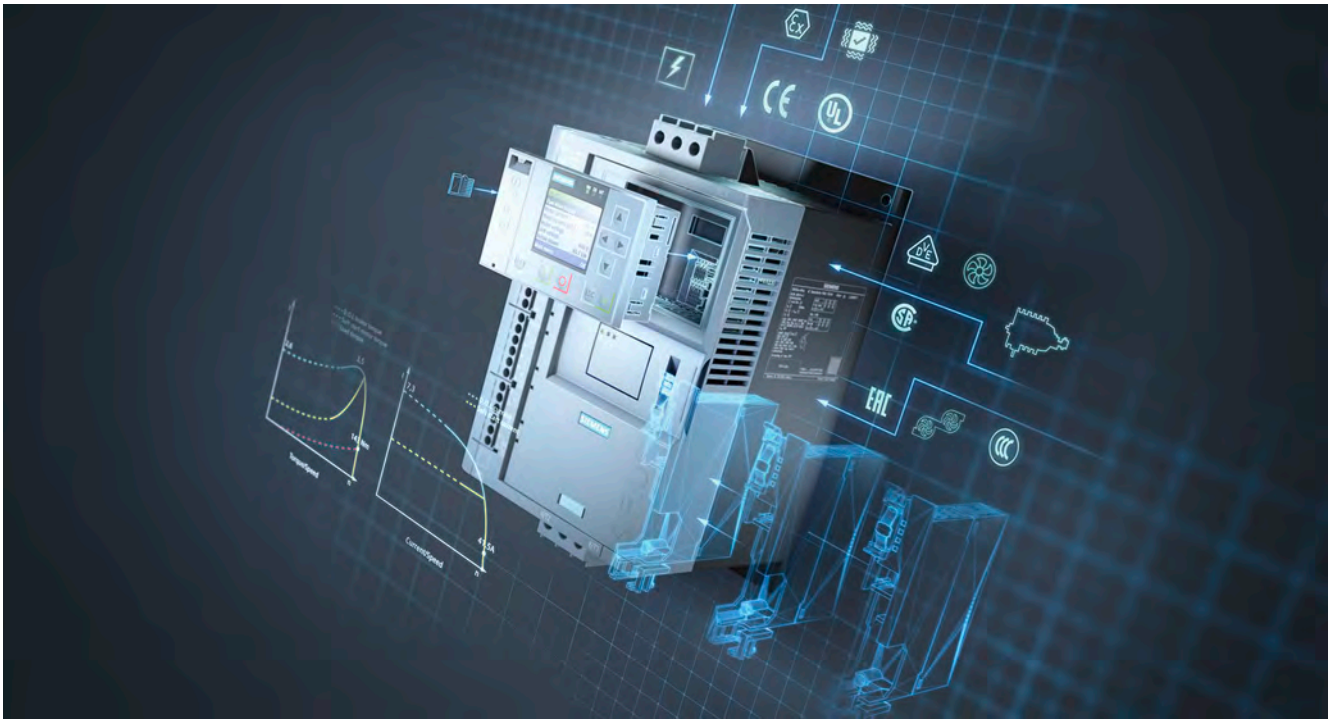


Equipped with the utmost functionality, the SIRIUS 3RW55 High Performance soft starters confidently handle even difficult starting and stopping operations. Thanks to innovative torque control, the device can be used for drives with an output of between 5.5 kW and 560 kW (at 400 V).

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.



3RW55 High Performance soft starter with accessories (see page 6/25)

**Benefits**


Product characteristics / function	Performance features / benefits
Automatic parameterization	Extremely simple commissioning and reliability even under changing load conditions
Hybrid switching devices and three-phase motor control	Minimum power loss and optimum/symmetrical motor control
Integration into TIA Portal – communication modules optional	Efficient configuration and maximum flexibility in automation engineering
HMI with color display, local interface, slot for micro SD card	Maximum flexibility with regard to user interface and intuitive menu guidance
Pump stop and torque control	Reduced mechanical loading and optimum pump stop control

# SIRIUS 3RW Soft Starters

## High Performance Soft Starters

### 3RW55 Soft Starters

General data **NEW**

#### Technical specifications

##### More information

Technical specifications, see <https://support.industry.siemens.com/cs/ww/en/ps/25099/td>  
 Manual "SIRIUS 3RW55 Soft Starter", 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 6/7 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>Maximum installation altitude above sea level<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 enter the devices), 1M4				
• During transport	2K2, 2C1, 2S1, 2M2 (max. height of fall 0.3 m)				

<sup>1)</sup> Derating from 1 000 m, see [Manual or characteristic curve on page 6/7](#).

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

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		

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

# SIRIUS 3RW Soft Starters

## High Performance Soft Starters

### 3RW55 Soft Starters

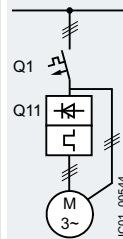
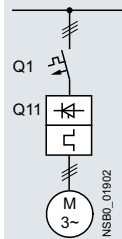
#### General data **NEW**

#### Motor feeders according to IEC with 3RV2/3VA motor starter protectors/circuit breakers (without semiconductor protection)

Type of coordination "1", CLASS 10,  
short-circuit breaking capacity  $I_q$  in kA, [see table](#)

#### Note:

For general recommendations for constructing motor feeders  
with soft starters, [see page 6/9](#).



Soft starters	Motor starter protectors/circuit breakers				Motor starter protectors/circuit breakers				
	for 400 V systems		for 500 V systems		for 400 V systems		for 500 V systems		
Q11	Q1	$I_q$	Q1	$I_q$	Q1	$I_q$	Q1	$I_q$	
Type	Type	kA	Type	kA	Type	kA	Type	kA	
<b>Type of coordination "1"</b>	<b>Inline circuit</b>				<b>Inside-delta circuit</b>				
	3RW5513	3RV2032-4TA10	65	3RV2032-4TA10	18	3RV2032-4DA10	65	3RV2032-4DA10	18
	3RW5514	3RV2032-4DA10	65	3RV2032-4DA10	15	3RV2032-4EA10	65	3RV2032-4EA10	15
	3RW5515	3RV2032-4EA10	65	3RV2032-4EA10	15	3RV2032-4VA10	65	3RV2032-4VA10	15
	3RW5516	3RV2032-4VA10	65	3RV2032-4VA10	10	3RV2032-4JA10	65	3RV2032-4JA10	10
	3RW5517	3RV2032-4WA10	65	3RV2032-4WA10	10	3RV2032-4RA10	65	3RV2032-4RA10	10
	3RW5521	--	--	--	--	--	--	--	--
	3RW5522	3RV2032-4JA10	65	3RV2032-4JA10	10	3RV2032-4RA10	65	3RV2032-4RA10	10
	3RW5525	3VA2163-7MN32-0AA0	65	3VA2163-7MN32-0AA0	65	3VA2110-7MN32-0AA0	65	3VA2110-7MN32-0AA0	65
	3RW5526	3VA2110-7MN32-0AA0	65	3VA2110-7MN32-0AA0	65	3VA2216-7MN32-0AA0	65	3VA2216-7MN32-0AA0	65
	3RW5527	3VA2216-7MN32-0AA0	15	3VA2216-7MN32-0AA0	10	3VA2220-7MN32-0AA0	15	3VA2220-7MN32-0AA0	10
	3RW5534	3VA2216-7MN32-0AA0	65	--	--	3VA2220-7MN32-0AA0	65	--	--
	3RW5535	3VA2220-7MN32-0AA0	65	--	--	3VA2325-7MN32-0AA0	65	--	--
	3RW5536	3VA2325-7MN32-0AA0	30	3VA2325-7MN32-0AA0	10	3VA2440-7MN32-0AA0	30	3VA2440-7MN32-0AA0	10
	3RW5543	3VA2325-7MN32-0AA0	65	3VA2325-7MN32-0AA0	65	3VA2440-7MN32-0AA0	65	3VA2440-7MN32-0AA0	65
	3RW5544	3VA2440-7MN32-0AA0	65	3VA2440-7MN32-0AA0	65	3VA2450-7MN32-0AA0	65	3VA2450-7MN32-0AA0	65
	3RW5545	3VA2440-7MN32-0AA0	65	3VA2440-7MN32-0AA0	65	3VA2580-6HN32-0AA0	65	3VA2580-6HN32-0AA0	65
	3RW5546	3VA2440-7MN32-0AA0	65	3VA2440-7MN32-0AA0	65	3VA2580-6HN32-0AA0	65	3VA2580-6HN32-0AA0	65
	3RW5547	3VA2450-7MN32-0AA0	65	3VA2450-7MN32-0AA0	65	3VA2510-6HN32-0AA0	65	3VA2510-6HN32-0AA0	65
	3RW5548	3VA2580-6HN32-0AA0	65	3VA2580-6HN32-0AA0	65	3VA2510-6HN32-0AA0	65	3VA2510-6HN32-0AA0	65

#### Note:

In 690 V systems, in motor feeder tests with soft starters demonstrable short-circuit breaking capacities can only be achieved with the use of fuses ( $I_q > 5$  to 10 kA).

#### Motor feeders to IEC with 3NA3 fuses

gG class full-range fuses for cable and line protection according to IEC 60269-2, without semiconductor protection

Type of coordination "1",  
short-circuit breaking capacity  $I_{q} = 65 \text{ kA}$

#### Note:

For general recommendations for constructing motor feeders with soft starters, [see page 6/9](#).

Soft starters	gG class fuse		Line contactor (optional)		gG class fuse		Line contactor (optional)		
	for systems up to 690 V	for systems up to 480 V	for systems up to 480 V	for systems up to 690 V	for systems up to 600 V	for systems up to 480 V in the supply cable	for systems up to 600 V in the supply cable	for systems up to 480 V in the delta	for systems up to 600 V in the delta
Q11	F1	Q21	Q21	F1	Q21	Q21	Q21	Q21	Q21
Type	Type	Type	Type	Type	Type	Type	Type	Type	Type
Type of coordination "1"	Inline circuit				Inside-delta circuit				
	3RW5513	3NA3820-6	3RT2025	3RT2025	3NA3820-6	3RT2027	3RT2035	3RT2025	3RT2025
	3RW5514	3NA3820-6	3RT2026	3RT2027	3NA3820-6	3RT2027	3RT2037	3RT2026	3RT2027
	3RW5515	3NA3822-6	3RT2027	3RT2037	3NA3822-6	3RT2036	3RT2037	3RT2027	3RT2037
	3RW5516	3NA3824-6	3RT2035	3RT2037	3NA3824-6	3RT2037	3RT2038	3RT2035	3RT2037
	3RW5517	3NA3824-6	3RT2035	3RT2037	3NA3824-6	3RT2038	3RT2046	3RT2035	3RT2037
	3RW5521	3NA3824-6	--	3RT2037	3NA3824-6	--	3RT2037	--	3RT2037
	3RW5524	3NA3824-6	3RT2036	3RT2037	3NA3824-6	3RT2046	3RT2047	3RT2036	3RT2037
	3RW5525	3NA3830-6	3RT2037	3RT2046	3NA3830-6	3RT2047	3RT1054	3RT2037	3RT2046
	3RW5526	3NA3132-6	3RT2038	3RT2046	3NA3132-6	3RT1055	3RT1055	3RT2038	3RT2046
	3RW5527	3NA3136-6	3RT2046	3RT2047	3NA3136-6	3RT1056	3RT1056	3RT2046	3RT2047
	3RW5534	3NA3244-6	3RT1054	3RT1054	3NA3244-6	3RT1064	3RT1064	3RT1054	3RT1054
	3RW5535	3NA3244-6	3RT1055	3RT1055	3NA3244-6	3RT1065	3RT1065	3RT1055	3RT1055
	3RW5536	3NA3365-6	3RT1056	3RT1064	3NA3365-6	3RT1066	3RT1075	3RT1056	3RT1064
	3RW5543	2 x 3NA3354-6	3RT1064	3RT1064	2 x 3NA3354-6	3RT1075	3RT1075	3RT1064	3RT1064
	3RW5544	2 x 3NA3354-6	3RT1065	3RT1065	2 x 3NA3354-6	3RT1076	3RT1076	3RT1065	3RT1065
	3RW5545	2 x 3NA3365-6	3RT1075	3RT1075	2 x 3NA3365-6	3TF68	3TF68	3RT1075	3RT1075
3RW5546	2 x 3NA3365-6	3RT1075	3RT1075	2 x 3NA3365-6	3TF69	3TF69	3RT1075	3RT1075	
3RW5547	2 x 3NA3365-6	3RT1076	3RT1276	2 x 3NA3365-6	3TF69	3TF69	3RT1076	3RT1276	
3RW5548	2 x 3NA3365-6	3TF68	3TF68	2 x 3NA3365-6	--	--	3TF68	3TF68	

#### Note:

In inside-delta circuits, motor feeders with soft starters can only be operated in systems with up to 600 V.

# SIRIUS 3RW Soft Starters

## High Performance Soft Starters

### 3RW55 Soft Starters

#### General data **NEW**

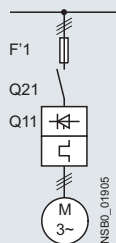
#### Motor feeders to IEC with 3NE1 SITOR fuses

gR class full-range fuses for semiconductor protection, cable and line protection

Type of coordination "2",  
short-circuit breaking capacity  $I_{q} = 65 \text{ kA}$

#### Note:

For general recommendations for constructing motor feeders with soft starters, [see page 6/9](#).



Soft starters	gR class fuse		Line contactor (optional)	
	for systems up to 690 V		for systems up to 480 V	for systems up to 690 V
Q11	F'1	Q21	Q21	Q21
Type	Type	Type	Type	Type
<b>Type of coordination "2"</b>	<b>Inline circuit</b>			
	TOC 2			
<b>3RW5513</b>	3NE1815-0	3RT2025	3RT2025	3RT2025
<b>3RW5514</b>	3NE1802-0	3RT2026	3RT2027	3RT2027
<b>3RW5515</b>	3NE1817-0	3RT2027	3RT2037	3RT2037
<b>3RW5516</b>	3NE1818-0	3RT2035	3RT2037	3RT2037
<b>3RW5517</b>	3NE1820-0	3RT2035	3RT2037	3RT2037
<b>3RW5521</b>	3NE1817-0	--	3RT2037	3RT2037
<b>3RW5524</b>	3NE1021-2	3RT2036	3RT2037	3RT2037
<b>3RW5525</b>	3NE1022-0	3RT2037	3RT2046	3RT2046
<b>3RW5526</b>	3NE1224-0	3RT2038	3RT2046	3RT2046
<b>3RW5527</b>	3NE1224-0	3RT2046	3RT2047	3RT2047
<b>3RW5534</b>	3NE1225-0	3RT1054	3RT1054	3RT1054
<b>3RW5535</b>	3NE1227-0	3RT1055	3RT1055	3RT1055
<b>3RW5536</b>	3NE1230-0	3RT1056	3RT1064	3RT1064
<b>3RW5543</b>	--	3RT1064	3RT1064	3RT1064
<b>3RW5544</b>	3NE1331-0	3RT1065	3RT1065	3RT1065
<b>3RW5545</b>	3NE1334-2	3RT1075	3RT1075	3RT1075
<b>3RW5546</b>	3NE1334-2	3RT1075	3RT1075	3RT1075
<b>3RW5547</b>	3NE1436-2	3RT1076	3RT1276	3RT1276
<b>3RW5548</b>	3NE1437-2	3TF68	3TF68	3TF68

#### Note:

In inside-delta circuits, a gR class full-range fuse could not provide the semiconductor protection of the delta-connected soft starter with a short-circuit breaking capacity that is adequate for practical use. In this case, we recommend using aR class partial-range fuses for semiconductor protection for type of coordination "2" ([see page 6/19](#)).

#### Motor feeders according to IEC with 3NE8 / 3NE3 / 3NC3 fuses

aR class partial-range fuses for semiconductor protection

Type of coordination "2",  
short-circuit breaking capacity  $I_{q} = 65 \text{ kA}$

#### Note:

For general recommendations for constructing motor feeders with soft starters, see page 6/9.

Soft starters	Inline circuit				Inside-delta circuit					
	gG class fuse	aR class fuse	Line contactor (optional)		gG class fuse	aR class fuse	Line contactor (optional)			
Q11 Type	for systems up to 690 V	for systems up to 690 V	for systems up to 480 V	for systems up to 690 V	for systems up to 600 V	for systems up to 600 V	for systems up to 480 V in the supply cable	for systems up to 600 V in the supply cable	for systems up to 480 V in the delta	for systems up to 600 V in the delta
Type	F1	F3	Q21	Q21	F1	F3	Q21	Q21	Q21	Q21
Type	Type	Type	Type	Type	Type	Type	Type	Type	Type	Type
	<b>Inline circuit</b>				<b>Inside-delta circuit</b>					
<b>3RW5513</b>	3NA3820-6	3NE8017-1	3RT2025	3RT2025	3NA3820-6	3NE8017-1	3RT2027	3RT2035	3RT2025	3RT2025
<b>3RW5514</b>	3NA3820-6	3NE8020-1	3RT2026	3RT2027	3NA3820-6	3NE8020-1	3RT2027	3RT2037	3RT2026	3RT2027
<b>3RW5515</b>	3NA3822-6	3NE8021-1	3RT2027	3RT2037	3NA3822-6	3NE8021-1	3RT2036	3RT2037	3RT2027	3RT2037
<b>3RW5516</b>	3NA3824-6	3NE8022-1	3RT2035	3RT2037	3NA3824-6	3NE8022-1	3RT2037	3RT2038	3RT2035	3RT2037
<b>3RW5517</b>	3NA3824-6	3NE8024-1	3RT2035	3RT2037	3NA3824-6	3NE8024-1	3RT2038	3RT2046	3RT2035	3RT2037
<b>3RW5521</b>	3NA3824-6	3NE8021-1	--	3RT2037	3NA3824-6	3NE8021-1	--	3RT2037	--	3RT2037
<b>3RW5524</b>	3NA3824-6	3NE8024-1	3RT2036	3RT2037	3NA3824-6	3NE8024-1	3RT2046	3RT2047	3RT2036	3RT2037
<b>3RW5525</b>	3NA3830-6	3NE3227	3RT2037	3RT2046	3NA3830-6	3NE3227	3RT2047	3RT1054	3RT2037	3RT2046
<b>3RW5526</b>	3NA3132-6	3NE3227	3RT2038	3RT2046	3NA3132-6	3NE3227	3RT1055	3RT1055	3RT2038	3RT2046
<b>3RW5527</b>	3NA3136-6	3NE3227	3RT2046	3RT2047	3NA3136-6	3NE3227	3RT1056	3RT1056	3RT2046	3RT2047
<b>3RW5534</b>	3NA3244-6	3NE3231	3RT1054	3RT1054	3NA3244-6	3NE3231	3RT1064	3RT1064	3RT1054	3RT1054
<b>3RW5535</b>	3NA3244-6	3NE3233	3RT1055	3RT1055	3NA3244-6	3NE3233	3RT1065	3RT1065	3RT1055	3RT1055
<b>3RW5536</b>	3NA3365-6	3NE3334-0B	3RT1056	3RT1064	3NA3365-6	3NE3334-0B	3RT1066	3RT1075	3RT1056	3RT1064
<b>3RW5543</b>	2 x 3NA3354-6	--	3RT1064	3RT1064	2 x 3NA3354-6	--	3RT1075	3RT1075	3RT1064	3RT1064
<b>3RW5544</b>	2 x 3NA3354-6	3NE3335	3RT1065	3RT1065	2 x 3NA3354-6	3NE3335	3RT1076	3RT1076	3RT1065	3RT1065
<b>3RW5545</b>	2 x 3NA3365-6	--	3RT1075	3RT1075	2 x 3NA3365-6	--	3TF68	3TF68	3RT1075	3RT1075
<b>3RW5546</b>	2 x 3NA3365-6	--	3RT1075	3RT1075	2 x 3NA3365-6	--	3TF69	3TF69	3RT1075	3RT1075
<b>3RW5547</b>	2 x 3NA3365-6	3NE3340-8	3RT1076	3RT1276	2 x 3NA3365-6	3NE3340-8	3TF69	3TF69	3RT1076	3RT1276
<b>3RW5548</b>	2 x 3NA3365-6	3NC3342-1U	3TF68	3TF68	2 x 3NA3365-6	3NC3342-1U	--	--	3TF68	3TF68

#### Note:

For CLASS 10 applications, as an alternative to the gG class full-range fuses for cable and line protection 3NA3 (F1), 3RV2/3VA motor starter protectors/circuit breakers can also be used, possibly with reduced short-circuit breaking capacity (see page 6/16). In these cases, optional line contactors can be dispensed with.

In inside-delta circuits, motor feeders with soft starters can only be operated in systems with up to 600 V.

# SIRIUS 3RW Soft Starters

## High Performance Soft Starters

### 3RW55 Soft Starters

#### General data **NEW**

#### Reversing operation with reversing contactors

Note:

For general recommendations for constructing motor feeders with soft starters, [see page 6/9](#).

(for an example circuit, [see 3RW55 Manual, Appendix A.3](#))

Soft starters	Reversing contactor assembly		Reversing contactor	
	for systems up to 480 V	for systems up to 690 V	for systems up to 480 V	for systems up to 690 V
Q11	Q21 / Q22	Q21 / Q22	Q21 / Q22	Q21 / Q22
Type	Type	Type	Type	Type
<b>3RW5513</b>	3RA2325	3RA2325	3RT2025	3RT2025
<b>3RW5514</b>	3RA2326	3RA2327	3RT2026	3RT2027
<b>3RW5515</b>	3RA2327	3RA2337	3RT2027	3RT2037
<b>3RW5516</b>	3RA2335	3RA2337	3RT2035	3RT2037
<b>3RW5517</b>	3RA2335	3RA2337	3RT2035	3RT2037
<b>3RW5521</b>	--	3RA2337	--	3RT2037
<b>3RW5524</b>	3RA2336	3RA2337	3RT2036	3RT2037
<b>3RW5525</b>	3RA2337	3RA2346	3RT2037	3RT2046
<b>3RW5526</b>	3RA2338	3RA2346	3RT2038	3RT2046
<b>3RW5527</b>	3RA2346	3RA2347	3RT2046	3RT2047
<b>3RW5534</b>	--	--	3RT1054	3RT1054
<b>3RW5535</b>	--	--	3RT1055	3RT1055
<b>3RW5536</b>	--	--	3RT1056	3RT1064
<b>3RW5543</b>	--	--	3RT1064	3RT1064
<b>3RW5544</b>	--	--	3RT1065	3RT1065
<b>3RW5545</b>	--	--	3RT1075	3RT1075
<b>3RW5546</b>	--	--	3RT1075	3RT1075
<b>3RW5547</b>	--	--	3RT1076	3RT1276
<b>3RW5548</b>	--	--	3TF68	3TF68

#### DC braking with braking contactors

(for an example circuit, [see 3RW55 Manual, Appendix A.3](#))

Soft starters	DC braking contactor	DC braking contactor assembly		for systems up to 690 V	
	for systems up to 400 V with 2 NC contacts + 2 NO contacts parallel	for systems up to 480 V with 3 NC contacts parallel	with 3 NO contacts parallel	with 3 NC contacts parallel	with 3 NO contacts parallel
Q11	Q93	Q91	Q92	Q91	Q92
Type	Type	Type	Type	Type	Type
<b>3RW5513</b>	3RT2517	3RT2015	3RT2016	3RT2015	3RT2016
<b>3RW5514</b>	3RT2518	3RT2015	3RT2017	3RT2015	3RT2023
<b>3RW5515</b>	3RT2526	3RT2015	3RT2025	3RT2015	3RT2025
<b>3RW5516</b>	3RT2526	3RT2015	3RT2025	3RT2015	3RT2027
<b>3RW5517</b>	3RT2535	3RT2015	3RT2027	3RT2015	3RT2027
<b>3RW5521</b>	--	--	--	3RT2015	3RT2025
<b>3RW5524</b>	3RT2535	3RT2016	3RT2027	3RT2016	3RT2035
<b>3RW5525</b>	--	3RT2024	3RT2027	3RT2024	3RT2037
<b>3RW5526</b>	--	3RT2025	3RT2035	3RT2025	3RT2037
<b>3RW5527</b>	--	3RT2027	3RT2036	3RT2027	3RT2037
<b>3RW5534</b>	--	3RT2035	3RT2037	3RT2035	3RT2038
<b>3RW5535</b>	--	3RT2036	3RT2038	3RT2036	3RT2046
<b>3RW5536</b>	--	3RT2037	3RT2046	3RT2037	3RT2047
<b>3RW5543</b>	--	3RT2045	3RT2047	3RT2045	3RT1054
<b>3RW5544</b>	--	3RT2045	3RT1055	3RT2045	3RT1055
<b>3RW5545</b>	--	3RT2446	3RT1056	3RT2446	3RT1056
<b>3RW5546</b>	--	3RT1055	3RT1056	3RT1055	3RT1064
<b>3RW5547</b>	--	3RT1456	3RT1065	3RT1456	3RT1065
<b>3RW5548</b>	--	3RT1456	3RT1066	3RT1456	3RT1075

# 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)



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 ... 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

1  
3

#### Control supply voltage

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

0  
1

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

#### Note:

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

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 ... 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

2  
6

#### Control supply voltage

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

0  
1

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

#### Note:

For the constraints 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).

Note:

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

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).

Note:

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

2  
6  
  
0  
1

# 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)



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
Operating power for three-phase motors			Rating [hp] for three-phase motors										
Operational current	At			Operational current	At								
	230 V	400 V	500 V		200/208 V	220/230 V	460/480 V	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).

#### Note:

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

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
Operating power for three-phase motors			Rating [hp] for three-phase motors										
Operational current	At			Operational current	At								
	230 V	400 V	500 V		200/208 V	220/230 V	460/480 V	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).

#### Note:

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

2  
6  
0  
1

# 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



**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).

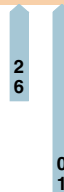
**Note:**

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

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



**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 constraints for the motor outputs specified here, see page 6/7.

**Selection and ordering data**

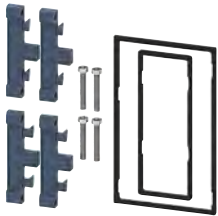


Product designation	Manufacturer's Article No. of the soft starter	Type of product	Application	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
<b>Fan covers</b>									
 3RW5983-0FC00	<b>Fan cover</b>	3RW551(1x), 3RW552, 3RW553 (2x)	--	--	1	<b>3RW5983-0FC00</b>	1	1 unit	42S
		3RW554	--	--	1	<b>3RW5984-0FC00</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					
										3RW5980-0HD00				
<b>Connection cables</b>														
	<b>HMI connection cable</b>	3RW55	5 m, round	For door mounting	1	<b>3RW5980-0HC60</b>	1	1 unit	42S					
			2.5 m, round							▶	<b>3UF7933-0BA00-0</b>	1	1 unit	42J
			1.0 m, round							▶	<b>3UF7937-0BA00-0</b>	1	1 unit	42J
			0.5 m, round							▶	<b>3UF7932-0BA00-0</b>	1	1 unit	42J
3UF793														
<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											

6

## 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)  
 TIA Selection Tool Cloud (TST Cloud), see <https://mall.industry.siemens.com/spice/tstweb/?KMAT=3rw44>

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 page 14/5

SIRIUS 3RW44 Soft Starter block library for SIMATIC PCS 7, see page 14/8



The SIRIUS 3RW44 High Performance soft starters are suitable for the torque-controlled soft starting and stopping as well as braking of three-phase asynchronous motors.

In addition to soft starting and stopping, the SIRIUS 3RW44 soft starters provide numerous functions for higher-level requirements. Soft starters are available in a performance range up to 710 kW (at 400 V) in the inline circuit and up to 1 200 kW (at 400 V) in the inside-delta circuit.

Combinations of various starting, operating and stopping possibilities ensure optimum adaptation to the application-specific requirements.

## Benefits



3RW442.



3RW443.



3RW444.



3RW445.



3RW446.

### Product characteristics / function

Soft starting with breakaway pulse, torque control or adjustable current limiting

Keypad with a menu-prompted, multi-line graphic display with background lighting

Various setting options for the starting parameters such as starting torque, starting voltage, starting and stopping time, and much more in three separate parameter sets

Integral bypass contact system

Communication interface to the PC

Connection to PROFIBUS and PROFINET with optional PROFIBUS DP or PROFINET module

### Performance features / benefits

Optimum adaptation to the requirements of the application

Simple and fast commissioning and maintenance

Efficient configuration and maximum flexibility in automation engineering

Reduction of power loss during operation

More accurate setting of the parameters as well as control and monitoring

Fast integration into higher-level controls

# SIRIUS 3RW Soft Starters

## High Performance Soft Starters

### 3RW44 Soft Starters

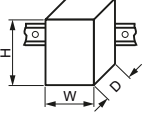
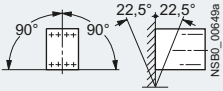
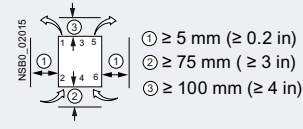
#### General data

#### Technical specifications

##### More information

Manual "SIRIUS 3RW44 Soft Starters", see <https://support.industry.siemens.com/cs/ww/en/view/21772518>  
 FAQs, see <https://support.industry.siemens.com/cs/ww/en/ps/16214/faq>

Catalog LV 10, see [www.siemens.com/lowvoltage/lv10](http://www.siemens.com/lowvoltage/lv10)

Type		3RW442.	3RW443.	3RW444.	3RW445.	3RW446.	
<b>Mechanics and environment</b>							
<b>Mounting dimensions (W x H x D)</b>							
<ul style="list-style-type: none"> <li>• Screw terminals</li> <li>• Spring-type terminals</li> </ul>		mm	170 x 184 x 270	170 x 198 x 270	210 x 230 x 298	510 x 638.5 x 290	576 x 667 x 290
		mm	170 x 184 x 270	170 x 198 x 270	210 x 230 x 298	510 x 638.5 x 290	576 x 667 x 290
<b>Permissible ambient temperature</b>							
During operation	°C	0 ... +60; (derating from +40)					
During storage	°C	-25 ... +80					
<b>Weight</b>	kg	6.5	7.9	11.5	50	78	
<b>Permissible mounting position</b>							
							
<b>Installation type</b>							
Stand-alone installation							
							
<b>Permissible installation altitude</b>							
m 5000 (derating from 1 000, see characteristic curve on page 6/7)							
<b>Degree of protection</b>							
IP00							

Type	Terminal		3RW44...BC3.	3RW44...BC4.
<b>Control electronics</b>				
<b>Rated values</b>				
Rated control supply voltage	A1/A2/PE	V	115 AC	230 AC
• Tolerance		%	-15/+10	
Rated frequency		Hz	50 ... 60	
• Tolerance		%	± 10	

Type		3RW44...BC.4	3RW44...BC.5	3RW44...BC.6
<b>Power electronics</b>				
<b>Rated operational voltage for inline circuit<sup>1)</sup></b>	V AC	200 ... 460	400 ... 600	400 ... 690
Tolerance	%	-15/+10		
<b>Maximum blocking voltage (thyristor)</b>	V AC	1 400	1 800	
<b>Rated operational voltage for inside-delta circuit</b>	V AC	200 ... 460	400 ... 600	
Tolerance	%	-15/+10		
<b>Rated frequency</b>	Hz	50 ... 60		
Tolerance	%	± 10		
<b>Uninterrupted duty at 40 °C (% of I<sub>e</sub>)</b>	%	115		
<b>Minimum load (% of set motor current I<sub>M</sub>)</b>	%	8		
<b>Maximum cable length</b> between soft starter and motor	m	500 <sup>2)</sup>		

<sup>1)</sup> 3RW44 soft starters may be used in isolated supply networks (IT systems) up to 600 V AC.

<sup>2)</sup> At the project configuration stage, it is important to make allowance for the voltage drop on the motor cable up to the motor connection.

# SIRIUS 3RW Soft Starters

## High Performance Soft Starters

### 3RW44 Soft Starters

#### General data

Type		3RW4422	3RW4423	3RW4424	3RW4425	3RW4426	3RW4427
<b>Power electronics</b>							
<b>Rated operational current <math>I_e</math></b>	A	29	36	47	57	77	93
<b>Load rating with rated operational current <math>I_e</math></b>							
• According to IEC and UL/CSA <sup>1)</sup> , for individual mounting, AC-53a - At 40 / 50 / 60 °C	A	29/26/23	36/32/29	47/42/37	57/51/45	77/68/59	93/82/72
<b>Smallest adjustable rated motor current <math>I_M</math></b> For the motor overload protection	A	5	7	9	11	15	18
<b>Power loss</b>							
• In operation after completed starting with uninterrupted rated operational current (40/50/60 °C) approx.	W	8/7.5/7	10/9/8.5	32/31/29	36/34/31	45/41/37	55/51/47
• During starting with current limit set to 350% $I_M$ (40 / 50 / 60 °C)	W	400/345/290	470/410/355	600/515/440	725/630/525	940/790/660	1160/980/830
<b>Permissible rated motor current and starts per hour at 40 / 50 / 60 °C</b>							
<b>• For normal starting (CLASS 10)</b>							
- Rated motor current $I_M^{(2)}$ , start-up time 10 s	A	29/26/23	36/32.5/29	47/42/37	57/51/45	77/68/59	93/82/72
- Starts per hour <sup>3)</sup>	1/h	20	15	20	20	20	20
- Rated motor current $I_M^{(2)}$ , start-up time 20 s	A	29/26/23	36/32.5/29	47/42/37	57/51/45	77/68/59	93/82/72
- Starts per hour <sup>3)</sup>	1/h	10	6	10	10	8	8

1) Measurement at 60 °C according to UL/CSA not required.

2) Current limit on soft starter set to 350%  $I_M$ , ON period = 70%.  
Maximum adjustable rated motor current  $I_M$  dependent on CLASS setting.

3) For intermittent duty S4 with ON period = 70%.  $T_u = 40 / 50 / 60$  °C, stand-alone installation vertical. The quoted switching frequencies do not apply for automatic mode.

Type		3RW4434	3RW4435	3RW4436
<b>Power electronics</b>				
<b>Rated operational current <math>I_e</math></b>	A	113	134	162
<b>Load rating with rated operational current <math>I_e</math></b>				
• According to IEC and UL/CSA <sup>1)</sup> , for individual mounting, AC-53a - At 40 / 50 / 60 °C	A	113/100/88	134/117/100	162/145/125
<b>Smallest adjustable rated motor current <math>I_M</math></b> For the motor overload protection	A	22	26	32
<b>Power loss</b>				
• In operation after completed starting with uninterrupted rated operational current (40/50/60 °C) approx.	W	64/58/53	76/67/58	95/83/71
• During starting with current limit set to 350% $I_M$ (40 / 50 / 60 °C)	W	1 350/1 140/970	1 700/1 400/1 140	2 460/1 980/1 620
<b>Permissible rated motor current and starts per hour at 40 / 50 / 60 °C</b>				
<b>• For normal starting (CLASS 10)</b>				
- Rated motor current $I_M^{(2)}$ , start-up time 10 s	A	113/100/88	134/117/100	162/145/125
- Starts per hour <sup>3)</sup>	1/h	20	15	20
- Rated motor current $I_M^{(2)}$ , start-up time 20 s	A	113/100/88	134/117/100	162/145/125
- Starts per hour <sup>3)</sup>	1/h	9	6	7

1) Measurement at 60 °C according to UL/CSA not required.

2) Current limit on soft starter set to 350%  $I_M$ , ON period = 70%.  
Maximum adjustable rated motor current  $I_M$  dependent on CLASS setting.

3) For intermittent duty S4 with ON period = 70%.  $T_u = 40 / 50 / 60$  °C, stand-alone installation vertical. The quoted switching frequencies do not apply for automatic mode.

Type		3RW4443	3RW4444	3RW4445	3RW4446	3RW4447
<b>Power electronics</b>						
<b>Rated operational current <math>I_e</math></b>	A	203	250	313	356	432
<b>Load rating with rated operational current <math>I_e</math></b>						
• According to IEC and UL/CSA <sup>1)</sup> , for individual mounting, AC-53a - At 40 / 50 / 60 °C	A	203/180/156	250/215/185	313/280/250	356/315/280	432/385/335
<b>Smallest adjustable rated motor current <math>I_M</math></b> For the motor overload protection	A	40	50	62	71	86
<b>Power loss</b>						
• In operation after completed starting with uninterrupted rated operational current (40/50/60 °C) approx.	W	89/81/73	110/94/83	145/126/110	174/147/126	232/194/159
• During starting with current limit set to 350% $I_M$ (40 / 50 / 60 °C)	W	3 350/2 600/2 150	4 000/2 900/2 350	4 470/4 000/3 400	5 350/4 050/3 500	5 860/5 020/4 200
<b>Permissible rated motor current and starts per hour at 40 / 50 / 60 °C</b>						
<b>• For normal starting (CLASS 10)</b>						
- Rated motor current $I_M^{(2)}$ , start-up time 10 s	A	203/180/156	250/215/185	313/280/250	356/315/280	432/385/335
- Starts per hour <sup>3)</sup>	1/h	20	20	19	17	16
- Rated motor current $I_M^{(2)}$ , start-up time 20 s	A	203/180/156	250/215/185	313/280/250	356/315/280	432/385/335
- Starts per hour <sup>3)</sup>	1/h	9	10	6	4	5

1) Measurement at 60 °C according to UL/CSA not required.

2) Current limit on soft starter set to 350%  $I_M$ , ON period = 70%.  
Maximum adjustable rated motor current  $I_M$  dependent on CLASS setting.

3) For intermittent duty S4 with ON period = 70%.  $T_u = 40 / 50 / 60$  °C, stand-alone installation vertical. The quoted switching frequencies do not apply for automatic mode.

# SIRIUS 3RW Soft Starters

## High Performance Soft Starters

### 3RW44 Soft Starters

#### General data

Type		3RW4453	3RW4454	3RW4455	3RW4456	3RW4457	3RW4458
<b>Power electronics</b>							
<b>Rated operational current <math>I_e</math></b>	A	551	615	693	780	880	970
<b>Load rating with rated operational current <math>I_e</math></b>							
• According to IEC and UL/CSA <sup>1)</sup> , for individual mounting, AC-53a							
- At 40 / 50 / 60 °C	A	551/494/438	615/551/489	693/615/551	780/693/615	880/780/693	970/850/760
<b>Smallest adjustable rated motor current <math>I_M</math></b>	A	110	123	138	156	176	194
For the motor overload protection							
<b>Power loss</b>							
• In operation after completed starting with uninterrupted rated operational current (40/50/60 °C) approx.	W	159/135/113	186/156/130	220/181/152	214/176/146	250/204/168	270/215/179
• During starting with current limit set to 350% $I_M$							
- At 40 °C	W	7 020	8 100	9 500	11 100	13 100	15 000
- At 50 °C	W	6 111	7 020	8 100	9 500	11 000	12 500
- At 60 °C	W	5 263	5 996	7 020	8 100	8 100	10 700
<b>Permissible rated motor current and starts per hour at 40 / 50 / 60 °C</b>							
• <b>For normal starting (CLASS 10)</b>							
- Rated motor current $I_M^{(2)}$ , start-up time 10 s	A	551/494/438	615/551/489	693/615/551	780/693/615	880/780/693	970/850/760
- Starts per hour <sup>3)</sup>	1/h	20	20	16	13	8	5
- Rated motor current $I_M^{(2)}$ , start-up time 20 s	A	551/494/438	615/551/489	693/615/551	780/693/615	880/780/693	970/850/760
- Starts per hour <sup>3)</sup>	1/h	10	9	6	4	0.3	0.3
<sup>1)</sup> Measurement at 60 °C according to UL/CSA not required. <sup>2)</sup> Current limit on soft starter set to 350% $I_M$ , ON period = 70%. Maximum adjustable rated motor current $I_M$ dependent on CLASS setting. <sup>3)</sup> For intermittent duty S4 with ON period = 70%, $T_u = 40 / 50 / 60$ °C, stand-alone installation vertical. The quoted switching frequencies do not apply for automatic mode.							

Type		3RW4465	3RW4466
<b>Power electronics</b>			
<b>Rated operational current <math>I_e</math></b>	A	1 076	1 214
<b>Load rating with rated operational current <math>I_e</math></b>			
• According to IEC and UL/CSA <sup>1)</sup> , for individual mounting, AC-53a			
- At 40 / 50 / 60 °C	A	1 076/970/880	1 214/1 076/970
<b>Smallest adjustable rated motor current <math>I_M</math></b>	A	215	242
For the motor overload protection			
<b>Power loss</b>			
• In operation after completed starting with uninterrupted rated operational current (40/50/60 °C) approx.	W	510/420/360	630/510/420
• During starting with current limit set to 350% $I_M$			
- At 40 °C	W	15 000	17 500
- At 50 °C	W	13 000	15 000
- At 60 °C	W	11 500	13 000
<b>Permissible rated motor current and starts per hour at 40 / 50 / 60 °C</b>			
• <b>For normal starting (CLASS 10)</b>			
- Rated motor current $I_M^{(2)}$ , start-up time 10 s	A	1 076/970/880	1 214/1 076/970
- Starts per hour <sup>3)</sup>	1/h	11	6
- Rated motor current $I_M^{(2)}$ , start-up time 20 s	A	1 076/970/880	1 214/1 076/970
- Starts per hour <sup>3)</sup>	1/h	3	0.5
<sup>1)</sup> Measurement at 60 °C according to UL/CSA not required. <sup>2)</sup> Current limit on soft starter set to 350% $I_M$ , ON period = 70%. Maximum adjustable rated motor current $I_M$ dependent on CLASS setting. <sup>3)</sup> For intermittent duty S4 with ON period = 70%, $T_u = 40 / 50 / 60$ °C, stand-alone installation vertical. The quoted switching frequencies do not apply for automatic mode.			

#### Motor feeders with soft starters

The type of coordination according to which the motor feeder with soft starter is mounted depends on the application-specific requirements. Normally, fuseless mounting (combination of motor starter protector and soft starter) is sufficient.

If type of coordination "2" is to be fulfilled, then semiconductor fuses must be fitted in the motor feeder.

ToC 1

Type of coordination "1" according to IEC 60947-4-1: After a short-circuit incident, the unit is defective and therefore unsuitable for further use (protection of persons and system guaranteed).

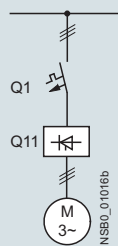
ToC 2

Type of coordination "2" according to IEC 60947-4-1: After a short-circuit incident the unit is suitable for further use (protection of persons and system guaranteed).

The type of coordination refers to soft starters in combination with the stipulated protective device (motor starter protector/fuse), not to any additional components in the feeder.

The types of coordination are indicated in the corresponding tables by the symbols shown on orange backgrounds.

#### Inline circuit fuseless version



#### Soft starters

ToC 1

Q11	Rated current
Type	A

#### Motor starter protectors/circuit breakers<sup>1)</sup>

Q1	$I_q$	Rated current
Type	kA	A

#### Type of coordination "1"

<b>3RW4422</b>	29	3RV2021-4EA10	42	32
<b>3RW4423</b>	36	3RV2021-4FA10	42	40
<b>3RW4424</b>	47	3RV2031-4WA10	32	52
<b>3RW4425</b>	57	3RV2031-4JA10	32	65
<b>3RW4426</b>	77	3RV2031-4RA10	32	80
<b>3RW4427</b>	93	3RV2042-4MA10	32	100
<b>3RW4434</b>	113	3VA2216-5MN32	55	160
<b>3RW4435</b>	134	3VA2216-5MN32	55	160
<b>3RW4436</b>	162	3VA2220-7MN32	55	200
<b>3RW4443</b>	203	3VA2325-7MN32	110	250
<b>3RW4444</b>	250	3VA2325-7MN32	110	250
<b>3RW4445</b>	313	3VA2440-7MN32	110	400
<b>3RW4446</b>	356	3VA2450-7MN32	110	500
<b>3RW4447</b>	432	3VA2450-7MN32	110	500
<b>3RW4453</b>	551	3VL6780-3SB36	65	800
<b>3RW4454</b>	615	3VL6780-3SB36	65	800
<b>3RW4455</b>	693	3VL6780-3SB36	65	800
<b>3RW4456</b>	780	3VL7710-3SB36	65	1 000
<b>3RW4457</b>	880	3VL7710-3SB36	65	1 000
<b>3RW4458</b>	970	3VL7712-3SB36	65	1 250
<b>3RW4465</b>	1 076	3VL7712-3SB36	65	1 250
<b>3RW4466</b>	1 214	3VL7712-3SB36	65	1 250

<sup>1)</sup> The rated motor current must be considered when selecting the devices.

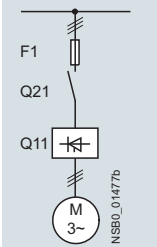
# SIRIUS 3RW Soft Starters

## High Performance Soft Starters

### 3RW44 Soft Starters

#### General data

##### Inline circuit fused version (line protection only)

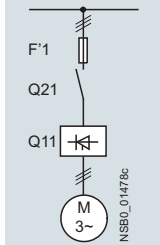


Soft starters		Line protection, maximum			Line contactors up to 400 V (optional)		Braking contactors <sup>1)2)</sup>	
Q11 Type	Rated current A	F1 Type	Rated current A	Size	Q21 Type	Q91 Type	Q92 Type	
<b>Type of coordination "1"<sup>3)</sup>: <math>I_q = 65 \text{ kA}</math></b>								
3RW4422	29	3NA3820-6	50	00	3RT2027	3RT2526	--	
3RW4423	36	3NA3822-6	63	00	3RT2035	3RT2526	--	
3RW4424	47	3NA3824-6	80	00	3RT2036	3RT2535	--	
3RW4425	57	3NA3830-6	100	00	3RT2037	3RT2535	--	
3RW4426	77	3NA3132-6	125	1	3RT2038	3RT2024	3RT2035	
3RW4427	93	3NA3136-6	160	1	3RT2046	3RT2025	3RT2036	
3RW4434	113	3NA3244-6	250	2	3RT1054	3RT2027	3RT2037	
3RW4435	134	3NA3244-6	250	2	3RT1055	3RT2036	3RT2038	
3RW4436	162	3NA3365-6	500	3	3RT1056	3RT2037	3RT2038	
3RW4443	203	2 x 3NA3354-6	2 x 355	3	3RT1064	3RT2037	3RT1054	
3RW4444	250	2 x 3NA3354-6	2 x 355	3	3RT1065	3RT2037	3RT1055	
3RW4445	313	2 x 3NA3365-6	2 x 500	3	3RT1075	3RT1054	3RT1056	
3RW4446	356	2 x 3NA3365-6	2 x 500	3	3RT1075	3RT1054	3RT1056	
3RW4447	432	2 x 3NA3365-6	2 x 500	3	3RT1076	3RT1055	3RT1064	
3RW4453	551	2 x 3NA3365-6	2 x 500	3	3TF68	3RT1064	3RT1066	
3RW4454	615	2 x 3NA3365-6	2 x 500	3	3TF68	3RT1064	3RT1075	
3RW4455	693	2 x 3NA3365-6	2 x 500	3	3TF69	3RT1065	3RT1075	
3RW4456	780	2 x 3NA3365-6	2 x 500	3	3TF69	3RT1065	3RT1075	
3RW4457	880	2 x 3NA3365-6	2 x 500	3	--	3RT1075	3RT1076	
3RW4458	970	3 x 3NA3365-6	3 x 500	3	--	3RT1075	3RT1076	
3RW4465	1 076	3 x 3NA3365-6	3 x 500	3	--	3RT1075	3TF68	
3RW4466	1 214	3 x 3NA3365-6	3 x 500	3	--	3RT1076	3TF68	

1) If the ramp-down function "Combined braking" is selected, no braking contactor is required.  
If the ramp-down function "DC braking" is selected, a braking contactor must be used in addition (type, see table).  
For applications with large centrifugal masses ( $J_{Load} > J_{Motor}$ ) the function "DC braking" is recommended.

2) Additional auxiliary relay K4:  
LZS:RT4A4T30  
(3RW44 soft starter with rated control supply voltage 230 V AC),  
LZS:RT4A4S15  
(3RW44 soft starter with rated control supply voltage 115 V AC).

3) The type of coordination "1" refers to soft starters in combination with the stipulated protective device (motor starter protector/fuse), not to any additional components in the feeder.

**Inline circuit fused version with 3NE1 SITOR all-range fuse (semiconductor and line protection)**

 For matching fuse bases, see [Catalog LV 10](#):

- "Fuse systems" →  
"SITOR Semiconductor Fuses"  
or [www.siemens.com/sitor](http://www.siemens.com/sitor)
- "Switch disconnectors"

Soft starters		All-range fuses				Line contactors up to 480 V (optional)	Braking contactors <sup>1)2)</sup>	
Q11 Type	Rated current A	F'1 Type	Rated current A	Voltage V	Size	Q21 Type	Q91 Type	Q92 Type
<b>Type of coordination "2"<sup>3)</sup>: <math>I_q = 65 \text{ kA}</math></b>								
3RW4422	29	3NE 1020-2	80	690 + 5%	00	3RT2027	3RT2526	--
3RW4423	36	3NE 1020-2	80	690 + 5%	00	3RT2035	3RT2526	--
3RW4424	47	3NE 1021-2	100	690 + 5%	00	3RT2036	3RT2535	--
3RW4425	57	3NE 1022-2	125	690 + 5%	00	3RT2037	3RT2535	--
3RW4426	77	3NE 1022-2	125	690 + 5%	00	3RT2038	3RT2024	3RT2035
3RW4427	93	3NE 1224-2	160	690 + 5%	1	3RT2046	3RT2025	3RT2036
3RW4434	113	3NE 1225-2	200	690 + 5%	1	3RT1054	3RT2027	3RT2037
3RW4435	134	3NE 1227-2	250	690 + 5%	1	3RT1055	3RT2036	3RT2038
3RW4436	162	3NE 1227-2	250	690 + 5%	1	3RT1056	3RT2037	3RT2038
3RW4443	203	3NE 1230-2	315	600 + 10%	1	3RT1064	3RT2037	3RT1054
3RW4444	250	3NE 1331-2	350	460 + 10%	2	3RT1065	3RT2037	3RT1055
3RW4445	313	3NE 1333-2	450	690 + 5%	2	3RT1075	3RT1054	3RT1056
3RW4446	356	3NE 1334-2	500	690 + 5%	2	3RT1075	3RT1054	3RT1056
3RW4447	432	3NE 1435-2	560	690 + 5%	3	3RT1076	3RT1055	3RT1064
3RW4453	551	2 x 3NE 1334-2	500	690 + 10%	2	3TF68	3RT1064	3RT1066
3RW4454	615	2 x 3NE 1334-2	500	690 + 10%	2	3TF68	3RT1064	3RT1075
3RW4455	693	2 x 3NE 1334-2	500	690 + 10%	2	3TF69	3RT1065	3RT1075
3RW4456	780	2 x 3NE 1435-2	560	690 + 10%	3	3TF69	3RT1065	3RT1075
3RW4457	880	2 x 3NE 1435-2	560	690 + 10%	3	--	3RT1075	3RT1076
3RW4458	970	2 x 3NE 1435-2	560	690 + 10%	3	--	3RT1075	3RT1076
3RW4465	1 076	3 x 3NE 1334-2	500	690 + 10%	2	--	3RT1075	3TF68
3RW4466	1 214	3 x 3NE 1435-2	560	690 + 10%	3	--	3RT1076	3TF68

1) If the ramp-down function "Combined braking" is selected, no braking contactor is required.  
If the ramp-down function "DC braking" is selected, a braking contactor must be used in addition (type, see table).  
For applications with large centrifugal masses ( $J_{Load} > J_{Motor}$ ) the function "DC braking" is recommended.

2) Additional auxiliary relay K4:  
LZS:RT4A4T30  
(3RW44 soft starter with rated control supply voltage 230 V AC),  
LZS:RT4A4S15  
(3RW44 soft starter with rated control supply voltage 115 V AC).

3) The type of coordination "2" refers to soft starters in combination with the stipulated protective device (motor starter protector/fuse), not to any additional components in the feeder.

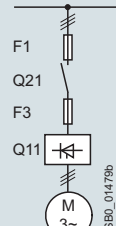
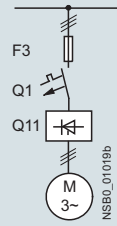
# SIRIUS 3RW Soft Starters

## High Performance Soft Starters

### 3RW44 Soft Starters

#### General data

**Inline circuit fused version with 3NE or 3NC SITOR semiconductor fuse**  
(semiconductor protection by fuse, line and overload protection by circuit breaker)



For matching fuse bases, see [Catalog LV 10](#):

- "Fuse systems" → "SITOR Semiconductor Fuses" or [www.siemens.com/sitor](http://www.siemens.com/sitor)
- "Switch disconnectors"

Soft starters		Semiconductor fuses, minimum			Semiconductor fuses (cylinder)		
Q11 Type	Rated current A	690 V + 10% F3 Type	Rated current A	Size	F3 Type	Rated current A	Size
<b>Type of coordination "2"<sup>1)</sup>: I<sub>q</sub> = 65 kA</b>							
3RW4422	29	3NE4120	80	0	3NC2280	80	22 x 58
3RW4423	36	3NE4121	100	0	3NC2200	100	22 x 58
3RW4424	47	3NE4121	100	0	3NC2200	100	22 x 58
3RW4425	57	3NE4122	125	0	--	--	--
3RW4426	77	3NE4124	160	0	--	--	--
3RW4427	93	3NE3224	160	1	--	--	--
3RW4434	113	3NE3225	200	1	--	--	--
3RW4435	134	3NE3225	200	1	--	--	--
3RW4436	162	3NE3227	250	1	--	--	--
3RW4443	203	3NE3230-0B	315	1	--	--	--
3RW4444	250	3NE3230-0B	315	1	--	--	--
3RW4445	313	3NE3233	450	1	--	--	--
3RW4446	356	3NE3333	450	2	--	--	--
3RW4447	432	3NE3335	560	2	--	--	--
3RW4453	551	2 x 3NE3335	560	2	--	--	--
3RW4454	615	2 x 3NE3335	560	2	--	--	--
3RW4455	693	2 x 3NE3335	560	2	--	--	--
3RW4456	780	2 x 3NE3336	630	2	--	--	--
3RW4457	880	2 x 3NE3336	630	2	--	--	--
3RW4458	970	2 x 3NE3336	630	2	--	--	--
3RW4465	1 076	2 x 3NE3340-8	900	2	--	--	--
3RW4466	1 214	2 x 3NE3340-8	900	2	--	--	--

Soft starters		Line contactors up to 480 V		Braking contactors <sup>2)3)</sup>		Motor starter protectors/circuit breakers		Line protection, maximum		
Q11 Type	Rated current A	(optional) Q21 Type	Q91 Type	Q92 Type	400 V + 10% Q1 Type	Rated current A	690 V + 5% F1 Type	Rated current A	Size	
<b>Type of coordination "2"<sup>1)</sup>: I<sub>q</sub> = 65 kA</b>										
3RW4422	29	3RT2027	3RT2526	--	3RV2021-4EA10	32	3NA3820-6	50	00	
3RW4423	36	3RT2035	3RT2526	--	3RV2021-4FA10	40	3NA3822-6	63	00	
3RW4424	47	3RT2036	3RT2535	--	3RV2031-4WA10	52	3NA3824-6	80	00	
3RW4425	57	3RT2037	3RT2535	--	3RV2031-4JA10	65	3NA3830-6	100	00	
3RW4426	77	3RT2038	3RT2024	3RT2035	3RV2031-4RA10	80	3NA3132-6	125	1	
3RW4427	93	3RT2046	3RT2025	3RT2036	3RV2042-4MA10	100	3NA3136-6	160	1	
3RW4434	113	3RT1054	3RT2027	3RT2037	3VA2216-5MN32	160	3NA3244-6	250	2	
3RW4435	134	3RT1055	3RT2036	3RT2038	3VA2216-5MN32	160	3NA3244-6	250	2	
3RW4436	162	3RT1056	3RT2037	3RT2038	3VA2220-7MN32	200	3NA3365-6	500	3	
3RW4443	203	3RT1064	3RT2037	3RT1054	3VA2325-7MN32	250	2 x 3NA3354-6	2 x 355	3	
3RW4444	250	3RT1065	3RT2037	3RT1055	3VA2325-7MN32	250	2 x 3NA3354-6	2 x 355	3	
3RW4445	313	3RT1075	3RT1054	3RT1056	3VA2440-7MN32	400	2 x 3NA3365-6	2 x 500	3	
3RW4446	356	3RT1075	3RT1054	3RT1056	3VA2450-7MN32	500	2 x 3NA3365-6	2 x 500	3	
3RW4447	432	3RT1076	3RT1055	3RT1064	3VA2450-7MN32	500	2 x 3NA3365-6	2 x 500	3	
3RW4453	551	3TF68	3RT1064	3RT1066	3VL6780	800	2 x 3NA3365-6	2 x 500	3	
3RW4454	615	3TF68	3RT1064	3RT1075	3VL6780	800	2 x 3NA3365-6	2 x 500	3	
3RW4455	693	3TF69	3RT1065	3RT1075	3VL6780	800	2 x 3NA3365-6	2 x 500	3	
3RW4456	780	3TF69	3RT1065	3RT1075	3VL7710	1 000	2 x 3NA3365-6	2 x 500	3	
3RW4457	880	--	3RT1075	3RT1076	3VL7710	1 000	2 x 3NA3365-6	2 x 500	3	
3RW4458	970	--	3RT1075	3RT1076	3VL7712	1 250	3 x 3NA3365-6	3 x 500	3	
3RW4465	1 076	--	3RT1075	3TF68	3VL7712	1 250	3 x 3NA3365-6	3 x 500	3	
3RW4466	1 214	--	3RT1076	3TF68	3VL7712	1 250	3 x 3NA3365-6	3 x 500	3	

<sup>1)</sup> The type of coordination "2" refers to soft starters in combination with the stipulated protective device (motor starter protector/fuse), not to any additional components in the feeder.

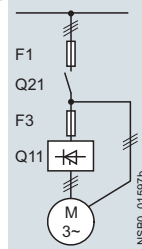
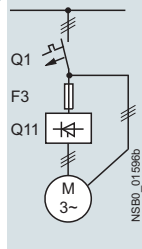
<sup>2)</sup> If the ramp-down function "Combined braking" is selected, no braking contactor is required. If the ramp-down function "DC braking" is selected, a braking contactor must be used in addition (type, see table).

For applications with large centrifugal masses ( $J_{Load} > J_{Motor}$ ) the function "DC braking" is recommended.

<sup>3)</sup> Additional auxiliary relay K4:  
LZS:RT4A4T30  
(3RW44 soft starter with rated control supply voltage 230 V AC),  
LZS:RT4A4S15  
(3RW44 soft starter with rated control supply voltage 115 V AC).

#### Inside-delta circuit fused version with 3NE or 3NC SITOR fuses

(semiconductor protection by fuse, line and overload protection by motor starter protector/circuit breaker)



For matching fuse bases, see Catalog LV 10:

- "Fuse systems" → "SITOR Semiconductor Fuses" or [www.siemens.com/sitor](http://www.siemens.com/sitor)
- "Switch disconnectors"

Soft starters		Semiconductor fuses, minimum			Semiconductor fuses (cylinder)		
Q11 Type	Rated current A	F3 Type	Rated current A	Size	F3 Type	Rated current A	Size
<b>Type of coordination "2"<sup>1)</sup></b>							
3RW4422	50	3NE4120	80	0	3NC2280	80	22 x 58
3RW4423	62	3NE4121	100	0	3NC2200	100	22 x 58
3RW4424	81	3NE4121	100	0	3NC2200	100	22 x 58
3RW4425	99	3NE4122	125	0	--	--	--
3RW4426	133	3NE4124	160	0	--	--	--
3RW4427	161	3NE3224	160	1	--	--	--
3RW4434	196	3NE3225	200	1	--	--	--
3RW4435	232	3NE3225	200	1	--	--	--
3RW4436	281	3NE3227	250	1	--	--	--
3RW4443	352	3NE3230-0B	315	1	--	--	--
3RW4444	433	3NE3230-0B	315	1	--	--	--
3RW4445	542	3NE3233	450	1	--	--	--
3RW4446	617	3NE3333	450	2	--	--	--
3RW4447	748	3NE3335	560	2	--	--	--
3RW4453	954	2 x 3NE3335	560	2	--	--	--
3RW4454	1 065	2 x 3NE3335	560	2	--	--	--
3RW4455	1 200	2 x 3NE3335	560	2	--	--	--
3RW4456	1 351	2 x 3NE3336	630	2	--	--	--
3RW4457	1 524	2 x 3NE3336	630	2	--	--	--
3RW4458	1 680	2 x 3NE3336	630	2	--	--	--
3RW4465	1 864	2 x 3NE3340-8	900	2	--	--	--
3RW4466	2 103	2 x 3NE3340-8	900	2	--	--	--

Soft starters		Line contactors up to 480 V		Motor starter protectors/circuit breakers		Line protection, maximum		
Q11 Type	Rated current A	(optional) Q21 Type	400 V + 10%	Rated current A	690 V + 5% F1 Type	Rated current A	Size	
<b>Type of coordination "2"<sup>1)</sup></b>								
3RW4422	50	3RT2036	3RV2032-4VA10	45	3NA3824-6	80	00	
3RW4423	62	3RT2037	3RV2032-4JA10	65	3NA3830-6	100	00	
3RW4424	81	3RT2046	3RV2042-4YA10	93	3NA3132-6	125	1	
3RW4425	99	3RT2047	3RV2042-4MA10	100	3NA3136-6	160	1	
3RW4426	133	3RT1055	3VA2216-.MS32-0AA0	160	3NA3240-6	200	2	
3RW4427	161	3RT1056	3VA2220-.MS32-0AA0	200	3NA3244-6	250	2	
3RW4434	196	3RT1064	3VA2325-.MS32-0AA0	250	3NA3360-6	400	3	
3RW4435	232	3RT1065	3VA2325-.MS32-0AA0	250	3NA3360-6	400	3	
3RW4436	281	3RT1066	3VA2440-.MS32-0AA0	400	2 x 3NA3360-6	2 x 400	3	
3RW4443	352	3RT1075	3VA2440-.MS32-0AA0	400	2 x 3NA3365-6	2 x 500	3	
3RW4444	433	3RT1076	3VA2450-.MS32-0AA0	500	2 x 3NA3365-6	2 x 500	3	
3RW4445	542	3TF6844	3VL5763	630	3 x 3NA3365-6	3 x 500	3	
3RW4446	617	3TF6844	3VL6780	800	3 x 3NA3365-6	3 x 500	3	
3RW4447	748	3TF69	3VL6780	800	3 x 3NA3365-6	3 x 500	3	
3RW4453	954	--	3VL7710	1 000	3 x 3NA3365-6	3 x 500	3	
3RW4454	1 065	--	3VL7712	1 250	3 x 3NA3365-6	3 x 500	3	
3RW4455	1 200	--	3VL8716	1 600	3 x 3NA3365-6	3 x 500	3	
3RW4456	1 351	--	3VL8716	1 600	3 x 3NA3372	3 x 630	3	
3RW4457	1 524	--	3VL8716	1 600	3 x 3NA3372	3 x 630	3	
3RW4458	1 680	--	3WL1220	2 000	2 x 3NA3480	2 x 1000	4	
3RW4465	1 864	--	3WL1225	2 500	2 x 3NA3482	2 x 1250	4	
3RW4466	2 103	--	3WL1225	2 500	2 x 3NA3482	2 x 1250	4	

<sup>1)</sup> The type of coordination "2" refers to soft starters in combination with the stipulated protective device (circuit breaker/fuse), not to any additional components in the feeder.  
If the F3 semiconductor fuse is not used, the type of coordination "2" is reduced to type of coordination "1" for soft starters in combination with the stipulated protective device.

# SIRIUS 3RW Soft Starters

## High Performance Soft Starters

### 3RW44 Soft Starters

Inline circuit **IE3/IE4 ready**

#### Selection and ordering data

For normal starting (CLASS 10)



3RW442.



3RW443.



3RW444.



3RW445.



3RW446.

3RW ambient temperature 40 °C				3RW ambient temperature 50 °C				SD <sup>1)</sup>	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Rated values of three-phase motors				Rated values of three-phase motors									
Operational current $I_e$	Rating at operational voltage $U_e$			Operational current $I_e$	Rating at operational voltage $U_e$								
	230 V	400 V	500 V		200 V	230 V	460 V						575 V
A	kW	kW	kW	A	hp	hp	hp	hp	d				
<b>Inline circuit, rated operational voltage 200 ... 460 V</b>													
29	5.5	<b>15</b>	--	26	7.5	7.5	<b>15</b>	--	5	<b>3RW4422-□BC□4</b>	1	1 unit	42H
36	7.5	<b>18.5</b>	--	32	10	10	<b>20</b>	--	5	<b>3RW4423-□BC□4</b>	1	1 unit	42H
47	11	<b>22</b>	--	42	10	15	<b>25</b>	--	5	<b>3RW4424-□BC□4</b>	1	1 unit	42H
57	15	<b>30</b>	--	51	15	15	<b>30</b>	--	5	<b>3RW4425-□BC□4</b>	1	1 unit	42H
77	18.5	<b>37</b>	--	68	20	20	<b>50</b>	--	5	<b>3RW4426-□BC□4</b>	1	1 unit	42H
93	22	<b>45</b>	--	82	25	25	<b>60</b>	--	5	<b>3RW4427-□BC□4</b>	1	1 unit	42H

#### Article No. supplement for connection types

- With screw terminals
- With spring-type terminals

113	30	<b>55</b>	--	100	30	30	<b>75</b>	--	5	<b>3RW4434-□BC□4</b>	1	1 unit	42H
134	37	<b>75</b>	--	117	30	40	<b>75</b>	--	5	<b>3RW4435-□BC□4</b>	1	1 unit	42H
162	45	<b>90</b>	--	145	40	50	<b>100</b>	--	5	<b>3RW4436-□BC□4</b>	1	1 unit	42H
203	55	<b>110</b>	--	180	50	60	<b>125</b>	--	5	<b>3RW4443-□BC□4</b>	1	1 unit	42H
250	75	<b>132</b>	--	215	60	75	<b>150</b>	--	5	<b>3RW4444-□BC□4</b>	1	1 unit	42H
313	90	<b>160</b>	--	280	75	100	<b>200</b>	--	5	<b>3RW4445-□BC□4</b>	1	1 unit	42H
356	110	<b>200</b>	--	315	100	125	<b>250</b>	--	5	<b>3RW4446-□BC□4</b>	1	1 unit	42H
432	132	<b>250</b>	--	385	125	150	<b>300</b>	--	5	<b>3RW4447-□BC□4</b>	1	1 unit	42H
551	160	<b>315</b>	--	494	150	200	<b>400</b>	--	15	<b>3RW4453-□BC□4</b>	1	1 unit	42H
615	200	<b>355</b>	--	551	150	200	<b>450</b>	--	15	<b>3RW4454-□BC□4</b>	1	1 unit	42H
693	200	<b>400</b>	--	615	200	250	<b>500</b>	--	15	<b>3RW4455-□BC□4</b>	1	1 unit	42H
780	250	<b>450</b>	--	693	200	250	<b>600</b>	--	15	<b>3RW4456-□BC□4</b>	1	1 unit	42H
880	250	<b>500</b>	--	780	250	300	<b>700</b>	--	15	<b>3RW4457-□BC□4</b>	1	1 unit	42H
970	315	<b>560</b>	--	850	300	350	<b>750</b>	--	15	<b>3RW4458-□BC□4</b>	1	1 unit	42H
1 076	355	<b>630</b>	--	970	350	400	<b>850</b>	--	15	<b>3RW4465-□BC□4</b>	1	1 unit	42H
1 214	400	<b>710</b>	--	1 076	350	450	<b>950</b>	--	15	<b>3RW4466-□BC□4</b>	1	1 unit	42H

#### Article No. supplement for connection types

- With spring-type terminals
- With screw terminals

#### Article No. supplement for rated control supply voltage $U_s$ <sup>2)</sup>

- 115 V AC
- 230 V AC

<sup>1)</sup> 3RW442. to 3RW444. soft starters with screw terminals: Standard delivery time SD = 1 day (d).

<sup>2)</sup> Control by way of the internal 24 V DC supply and direct control via PLC possible.

#### Note:

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

# SIRIUS 3RW Soft Starters

## High Performance Soft Starters

### 3RW44 Soft Starters

IE3/IE4 ready Inline circuit

For normal starting (CLASS 10)



3RW ambient temperature 40 °C				3RW ambient temperature 50 °C				SD <sup>1)</sup>	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	
Rated values of three-phase motors								A	d					
Operational current I <sub>e</sub>	Rating at operational voltage U <sub>e</sub>				Operational current I <sub>e</sub>	Rating at operational voltage U <sub>e</sub>								
	230 V	400 V	500 V	690 V		200 V	230 V	460 V	575 V					
A	kW	kW	kW	kW	A	hp	hp	hp	hp					
<b>Inline circuit, rated operational voltage 400 ... 600 V</b>														
29	--	15	<b>18.5</b>	--	26	--	--	15	<b>20</b>	5		1	1 unit	42H
36	--	18.5	<b>22</b>	--	32	--	--	20	<b>25</b>	5		1	1 unit	42H
47	--	22	<b>30</b>	--	42	--	--	25	<b>30</b>	5		1	1 unit	42H
57	--	30	<b>37</b>	--	51	--	--	30	<b>40</b>	5		1	1 unit	42H
77	--	37	<b>45</b>	--	68	--	--	50	<b>50</b>	5		1	1 unit	42H
93	--	45	<b>55</b>	--	82	--	--	60	<b>75</b>	5		1	1 unit	42H

**Article No. supplement for connection types**

- With screw terminals
- With spring-type terminals

113	--	55	<b>75</b>	--	100	--	--	75	<b>75</b>	5		1	1 unit	42H
134	--	75	<b>90</b>	--	117	--	--	75	<b>100</b>	5		1	1 unit	42H
162	--	90	<b>110</b>	--	145	--	--	100	<b>125</b>	5		1	1 unit	42H
203	--	110	<b>132</b>	--	180	--	--	125	<b>150</b>	5		1	1 unit	42H
250	--	132	<b>160</b>	--	215	--	--	150	<b>200</b>	5		1	1 unit	42H
313	--	160	<b>200</b>	--	280	--	--	200	<b>250</b>	5		1	1 unit	42H
356	--	200	<b>250</b>	--	315	--	--	250	<b>300</b>	5		1	1 unit	42H
432	--	250	<b>315</b>	--	385	--	--	300	<b>400</b>	5		1	1 unit	42H
551	--	315	<b>355</b>	--	494	--	--	400	<b>500</b>	15		1	1 unit	42H
615	--	355	<b>400</b>	--	551	--	--	450	<b>600</b>	15		1	1 unit	42H
693	--	400	<b>500</b>	--	615	--	--	500	<b>700</b>	15		1	1 unit	42H
780	--	450	<b>560</b>	--	693	--	--	600	<b>750</b>	15		1	1 unit	42H
880	--	500	<b>630</b>	--	780	--	--	700	<b>850</b>	15		1	1 unit	42H
970	--	560	<b>710</b>	--	850	--	--	750	<b>900</b>	15		1	1 unit	42H
1 076	--	630	<b>800</b>	--	970	--	--	850	<b>1 100</b>	15		1	1 unit	42H
1 214	--	710	<b>900</b>	--	1 076	--	--	950	<b>1 200</b>	15		1	1 unit	42H

**Article No. supplement for connection types**

- With spring-type terminals
- With screw terminals

**Article No. supplement for rated control supply voltage U<sub>s</sub><sup>2)</sup>**

- 115 V AC
- 230 V AC

<sup>1)</sup> Soft starter with screw terminals: 3RW442. to 3RW444. Standard delivery time SD = 2 days (d), 3RW445. to 3RW446. Standard delivery time SD = 5 days (d).  
<sup>2)</sup> Control by way of the internal 24 V DC supply and direct control via PLC possible.

Note:

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



# SIRIUS 3RW Soft Starters

## High Performance Soft Starters

### 3RW44 Soft Starters

Inline circuit **IE3/IE4 ready**

For normal starting (CLASS 10)



3RW442.

3RW443.

3RW444.

3RW445.

3RW446.

3RW ambient temperature 40 °C					3RW ambient temperature 50 °C				SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	
Rated values of three-phase motors					Rated values of three-phase motors										
Operational current $I_e$	Rating at operational voltage $U_e$				Operational current $I_e$	Rating at operational voltage $U_e$				d					
	230 V	400 V	500 V	690 V		200 V	230 V	460 V	575 V						
A	kW	kW	kW	kW	A	hp	hp	hp	hp						
<b>Inline circuit, rated operational voltage 400 ... 690 V</b>															
29	--	15	18.5	<b>30</b>	26	--	--	15	<b>20</b>	5	<b>3RW4422-□BC□6</b>		1	1 unit	42H
36	--	18.5	22	<b>37</b>	32	--	--	20	<b>25</b>	5	<b>3RW4423-□BC□6</b>		1	1 unit	42H
47	--	22	30	<b>45</b>	42	--	--	25	<b>30</b>	5	<b>3RW4424-□BC□6</b>		1	1 unit	42H
57	--	30	37	<b>55</b>	51	--	--	30	<b>40</b>	5	<b>3RW4425-□BC□6</b>		1	1 unit	42H
77	--	37	45	<b>75</b>	68	--	--	50	<b>50</b>	5	<b>3RW4426-□BC□6</b>		1	1 unit	42H
93	--	45	55	<b>90</b>	82	--	--	60	<b>75</b>	5	<b>3RW4427-□BC□6</b>		1	1 unit	42H

**Article No. supplement for connection types**

- With screw terminals
- With spring-type terminals

113	--	55	75	<b>110</b>	100	--	--	75	<b>75</b>	5	<b>3RW4434-□BC□6</b>		1	1 unit	42H
134	--	75	90	<b>132</b>	117	--	--	75	<b>100</b>	5	<b>3RW4435-□BC□6</b>		1	1 unit	42H
162	--	90	110	<b>160</b>	145	--	--	100	<b>125</b>	5	<b>3RW4436-□BC□6</b>		1	1 unit	42H
203	--	110	132	<b>200</b>	180	--	--	125	<b>150</b>	5	<b>3RW4443-□BC□6</b>		1	1 unit	42H
250	--	132	160	<b>250</b>	215	--	--	150	<b>200</b>	5	<b>3RW4444-□BC□6</b>		1	1 unit	42H
313	--	160	200	<b>315</b>	280	--	--	200	<b>250</b>	5	<b>3RW4445-□BC□6</b>		1	1 unit	42H
356	--	200	250	<b>355</b>	315	--	--	250	<b>300</b>	5	<b>3RW4446-□BC□6</b>		1	1 unit	42H
432	--	250	315	<b>400</b>	385	--	--	300	<b>400</b>	5	<b>3RW4447-□BC□6</b>		1	1 unit	42H
551	--	315	355	<b>560</b>	494	--	--	400	<b>500</b>	15	<b>3RW4453-□BC□6</b>		1	1 unit	42H
615	--	355	400	<b>630</b>	551	--	--	450	<b>600</b>	15	<b>3RW4454-□BC□6</b>		1	1 unit	42H
693	--	400	500	<b>710</b>	615	--	--	500	<b>700</b>	15	<b>3RW4455-□BC□6</b>		1	1 unit	42H
780	--	450	560	<b>800</b>	693	--	--	600	<b>750</b>	15	<b>3RW4456-□BC□6</b>		1	1 unit	42H
880	--	500	630	<b>900</b>	780	--	--	700	<b>850</b>	15	<b>3RW4457-□BC□6</b>		1	1 unit	42H
970	--	560	710	<b>1 000</b>	850	--	--	750	<b>900</b>	15	<b>3RW4458-□BC□6</b>		1	1 unit	42H
1 076	--	630	800	<b>1 100</b>	970	--	--	850	<b>1 100</b>	15	<b>3RW4465-□BC□6</b>		1	1 unit	42H
1 214	--	710	900	<b>1 200</b>	1 076	--	--	950	<b>1 200</b>	15	<b>3RW4466-□BC□6</b>		1	1 unit	42H

**Article No. supplement for connection types**

- With spring-type terminals
- With screw terminals

**Article No. supplement for rated control supply voltage  $U_s$ <sup>1)</sup>**

- 115 V AC
- 230 V AC

<sup>1)</sup> Control by way of the internal 24 V DC supply and direct control via PLC possible.

**Note:**

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

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# SIRIUS 3RW Soft Starters

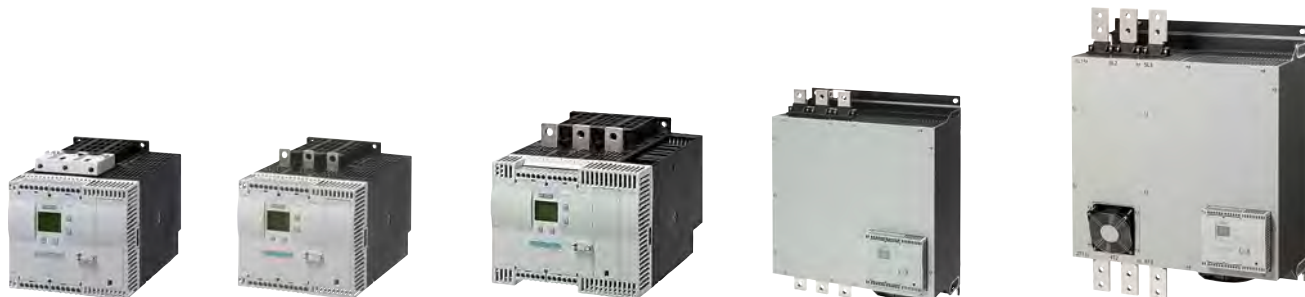
## High Performance Soft Starters

### 3RW44 Soft Starters

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

#### Selection and ordering data

For normal starting (CLASS 10)



3RW ambient temperature 40 °C					3RW ambient temperature 50 °C					SD <sup>1)</sup>	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Rated values of three-phase motors					Rated values of three-phase motors										
Operational current I <sub>e</sub>	Rating at operational voltage U <sub>e</sub>				Operational current I <sub>e</sub>	Rating at operational voltage U <sub>e</sub>									
	230 V	400 V	500 V	690 V		200 V	230 V	460 V	575 V						
A	kW	kW	kW	kW	A	hp	hp	hp	hp	d					
<b>Inside-delta circuit, rated operational voltage 200 ... 460 V</b>															
50	15	<b>22</b>	--	--	45	10	15	<b>30</b>	--	5	<b>3RW4422-□BC□4</b>		1	1 unit	42H
62	18.5	<b>30</b>	--	--	55	15	20	<b>40</b>	--	5	<b>3RW4423-□BC□4</b>		1	1 unit	42H
81	22	<b>45</b>	--	--	73	20	25	<b>50</b>	--	5	<b>3RW4424-□BC□4</b>		1	1 unit	42H
99	30	<b>55</b>	--	--	88	25	30	<b>60</b>	--	5	<b>3RW4425-□BC□4</b>		1	1 unit	42H
133	37	<b>75</b>	--	--	118	30	40	<b>75</b>	--	5	<b>3RW4426-□BC□4</b>		1	1 unit	42H
161	45	<b>90</b>	--	--	142	40	50	<b>100</b>	--	5	<b>3RW4427-□BC□4</b>		1	1 unit	42H

#### Article No. supplement for connection types

- With screw terminals
- With spring-type terminals

1  
3

196	55	<b>110</b>	--	--	173	50	60	<b>125</b>	--	5	<b>3RW4434-□BC□4</b>		1	1 unit	42H
232	75	<b>132</b>	--	--	203	60	75	<b>150</b>	--	5	<b>3RW4435-□BC□4</b>		1	1 unit	42H
281	90	<b>160</b>	--	--	251	75	100	<b>200</b>	--	5	<b>3RW4436-□BC□4</b>		1	1 unit	42H
352	110	<b>200</b>	--	--	312	100	125	<b>250</b>	--	5	<b>3RW4443-□BC□4</b>		1	1 unit	42H
433	132	<b>250</b>	--	--	372	125	150	<b>300</b>	--	5	<b>3RW4444-□BC□4</b>		1	1 unit	42H
542	160	<b>315</b>	--	--	485	150	200	<b>400</b>	--	5	<b>3RW4445-□BC□4</b>		1	1 unit	42H
617	200	<b>355</b>	--	--	546	150	200	<b>450</b>	--	5	<b>3RW4446-□BC□4</b>		1	1 unit	42H
748	250	<b>400</b>	--	--	667	200	250	<b>600</b>	--	5	<b>3RW4447-□BC□4</b>		1	1 unit	42H
954	315	<b>560</b>	--	--	856	300	350	<b>750</b>	--	15	<b>3RW4453-□BC□4</b>		1	1 unit	42H
1 065	355	<b>630</b>	--	--	954	350	400	<b>850</b>	--	15	<b>3RW4454-□BC□4</b>		1	1 unit	42H
1 200	400	<b>710</b>	--	--	1 065	350	450	<b>950</b>	--	15	<b>3RW4455-□BC□4</b>		1	1 unit	42H
1 351	450	<b>800</b>	--	--	1 200	450	500	<b>1 050</b>	--	15	<b>3RW4456-□BC□4</b>		1	1 unit	42H
1 524	500	<b>900</b>	--	--	1 351	450	600	<b>1 200</b>	--	15	<b>3RW4457-□BC□4</b>		1	1 unit	42H
1 680	560	<b>1 000</b>	--	--	1 472	550	650	<b>1 300</b>	--	15	<b>3RW4458-□BC□4</b>		1	1 unit	42H
1 864	630	<b>1 100</b>	--	--	1 680	650	750	<b>1 500</b>	--	15	<b>3RW4465-□BC□4</b>		1	1 unit	42H
2 103	710	<b>1 200</b>	--	--	1 864	700	850	<b>1 700</b>	--	15	<b>3RW4466-□BC□4</b>		1	1 unit	42H

2  
6

#### Article No. supplement for connection types

- With spring-type terminals
- With screw terminals

#### Article No. supplement for rated control supply voltage U<sub>s</sub><sup>2)</sup>

- 115 V AC
- 230 V AC

3  
4

<sup>1)</sup> 3RW442. to 3RW444. soft starters with screw terminals: Standard delivery time SD = 1 day (d).  
<sup>2)</sup> Control by way of the internal 24 V DC supply and direct control via PLC possible.

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

# SIRIUS 3RW Soft Starters

## High Performance Soft Starters

### 3RW44 Soft Starters

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

For normal starting (CLASS 10)



3RW442.



3RW443.



3RW444.



3RW445.



3RW446.

3RW ambient temperature 40 °C					3RW ambient temperature 50 °C					SD <sup>1)</sup>	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Rated values of three-phase motors					Rated values of three-phase motors										
Operational current $I_e$	Rating at operational voltage $U_e$				Operational current $I_e$	Rating at operational voltage $U_e$				d					
	230 V	400 V	500 V	690 V		200 V	230 V	460 V	575 V						
A	kW	kW	kW	kW	A	hp	hp	hp	hp						
<b>Inside-delta circuit, rated operational voltage 400 ... 600 V</b>															
50	--	22	<b>30</b>	--	45	--	--	30	<b>40</b>	5	<b>3RW4422-□BC□5</b>		1	1 unit	42H
62	--	30	<b>37</b>	--	55	--	--	40	<b>50</b>	5	<b>3RW4423-□BC□5</b>		1	1 unit	42H
81	--	45	<b>45</b>	--	73	--	--	50	<b>60</b>	5	<b>3RW4424-□BC□5</b>		1	1 unit	42H
99	--	55	<b>55</b>	--	88	--	--	60	<b>75</b>	5	<b>3RW4425-□BC□5</b>		1	1 unit	42H
133	--	75	<b>90</b>	--	118	--	--	75	<b>100</b>	5	<b>3RW4426-□BC□5</b>		1	1 unit	42H
161	--	90	<b>110</b>	--	142	--	--	100	<b>125</b>	5	<b>3RW4427-□BC□5</b>		1	1 unit	42H

#### Article No. supplement for connection types

- With screw terminals
- With spring-type terminals

196	--	110	<b>132</b>	--	173	--	--	125	<b>150</b>	5	<b>3RW4434-□BC□5</b>		1	1 unit	42H
232	--	132	<b>160</b>	--	203	--	--	150	<b>200</b>	5	<b>3RW4435-□BC□5</b>		1	1 unit	42H
281	--	160	<b>200</b>	--	251	--	--	200	<b>250</b>	5	<b>3RW4436-□BC□5</b>		1	1 unit	42H
352	--	200	<b>250</b>	--	312	--	--	250	<b>300</b>	5	<b>3RW4443-□BC□5</b>		1	1 unit	42H
433	--	250	<b>315</b>	--	372	--	--	300	<b>350</b>	5	<b>3RW4444-□BC□5</b>		1	1 unit	42H
542	--	315	<b>355</b>	--	485	--	--	400	<b>500</b>	5	<b>3RW4445-□BC□5</b>		1	1 unit	42H
617	--	355	<b>450</b>	--	546	--	--	450	<b>600</b>	5	<b>3RW4446-□BC□5</b>		1	1 unit	42H
748	--	400	<b>500</b>	--	667	--	--	600	<b>750</b>	5	<b>3RW4447-□BC□5</b>		1	1 unit	42H
954	--	560	<b>630</b>	--	856	--	--	750	<b>950</b>	15	<b>3RW4453-□BC□5</b>		1	1 unit	42H
1 065	--	630	<b>710</b>	--	954	--	--	850	<b>1 050</b>	15	<b>3RW4454-□BC□5</b>		1	1 unit	42H
1 200	--	710	<b>800</b>	--	1 065	--	--	950	<b>1 200</b>	15	<b>3RW4455-□BC□5</b>		1	1 unit	42H
1 351	--	800	<b>900</b>	--	1 200	--	--	1 050	<b>1 350</b>	15	<b>3RW4456-□BC□5</b>		1	1 unit	42H
1 524	--	900	<b>1 000</b>	--	1 351	--	--	1 200	<b>1 500</b>	15	<b>3RW4457-□BC□5</b>		1	1 unit	42H
1 680	--	1 000	<b>1 200</b>	--	1 472	--	--	1 300	<b>1 650</b>	15	<b>3RW4458-□BC□5</b>		1	1 unit	42H
1 864	--	1 100	<b>1 350</b>	--	1 680	--	--	1 500	<b>1 900</b>	15	<b>3RW4465-□BC□5</b>		1	1 unit	42H
2 103	--	1 200	<b>1 500</b>	--	1 864	--	--	1 700	<b>2 100</b>	15	<b>3RW4466-□BC□5</b>		1	1 unit	42H

#### Article No. supplement for connection types

- With spring-type terminals
- With screw terminals

#### Article No. supplement for rated control supply voltage $U_s$ <sup>2)</sup>

- 115 V AC
- 230 V AC

- 1) Soft starter with screw terminals:  
3RW442. to 3RW444. Standard delivery time SD = 2 days (d),  
3RW445. to 3RW446. Standard delivery time SD = 5 days (d).
- 2) Control by way of the internal 24 V DC supply and direct control via PLC possible.

#### Note:

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

#### Selection and ordering data

##### More information

Manual "SIRIUS 3RW44 Soft Starters", see  
<https://support.industry.siemens.com/cs/ww/en/view/21772518>

Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
<b>USB PC cables</b>						
		<b>For PC/PG communication with SIRIUS 3RW44 soft starters</b>		1	1 unit	42J
3UF7941-0AA00-0		Through the system interface, for connecting to the USB interface of the PC/PG				
<b>Communication modules</b>						
		<b>PROFIBUS communication module</b>		1	1 unit	42H
3RW4900-0KC00		For 3RW44 soft starter integration in the PROFIBUS network with DPV1 slave functionality. With firmware version E04 and higher (or date of manufacture 01.05.2009 and later) of the module, DPV1 operation of the soft starter on a Y-link is also possible (only DPV0 operation possible with < E04).				
		<b>PROFINET communication module</b>		1	1 unit	42H
3RW4900-0NC00		For 3RW44 soft starter integration in the PROFINET network, suitable for devices with firmware version E12 or higher				
<b>External display and operator module</b>						
		For indicating and operating the functions provided by the soft starter using an externally mounted display and operator module in degree of protection IP54 (e.g. in the control cabinet door)		1	1 unit	42H
3RW4900-0AC00						
<b>Connection cables</b>						
		From the device interface (serial) of the 3RW44 soft starter to the external display and operator module				
		• Length 0.5 m, flat		1	1 unit	42J
		• Length 0.5 m, round		1	1 unit	42J
		• Length 1.0 m, round		1	1 unit	42J
		• Length 2.5 m, round		1	1 unit	42J
<b>Box terminal blocks for soft starters</b>						
		<b>Box terminal block</b> (2 units are required for each device)				
3RW442.		Included in the scope of supply				
3RW443.		• Up to 70 mm <sup>2</sup>		1	1 unit	41B
		• Up to 120 mm <sup>2</sup>		1	1 unit	41B
3RT1956-4G		<b>Auxiliary conductor connection for box terminals</b>		1	1 unit	41B
	5					
3RW444.		• Up to 240 mm <sup>2</sup> (with auxiliary conductor connection)		1	1 unit	41B
<b>Covers for soft starters</b>						
<b>Terminal covers for box terminals</b>						
Additional touch protection to be fitted at the box terminals (2 units required per device)						
3RW442. and 3RW443.				1	1 unit	41B
3RW444.	2			1	1 unit	41B
<b>Terminal covers for cable lugs and busbar connections</b>						
		For complying with the voltage clearances and as touch protection (2 units required per contactor)				
3RW442. and 3RW443.				1	1 unit	41B
3RW444.	2	Also fits on mounted box terminals.		1	1 unit	41B
3RT1956-4EA1						

# 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)

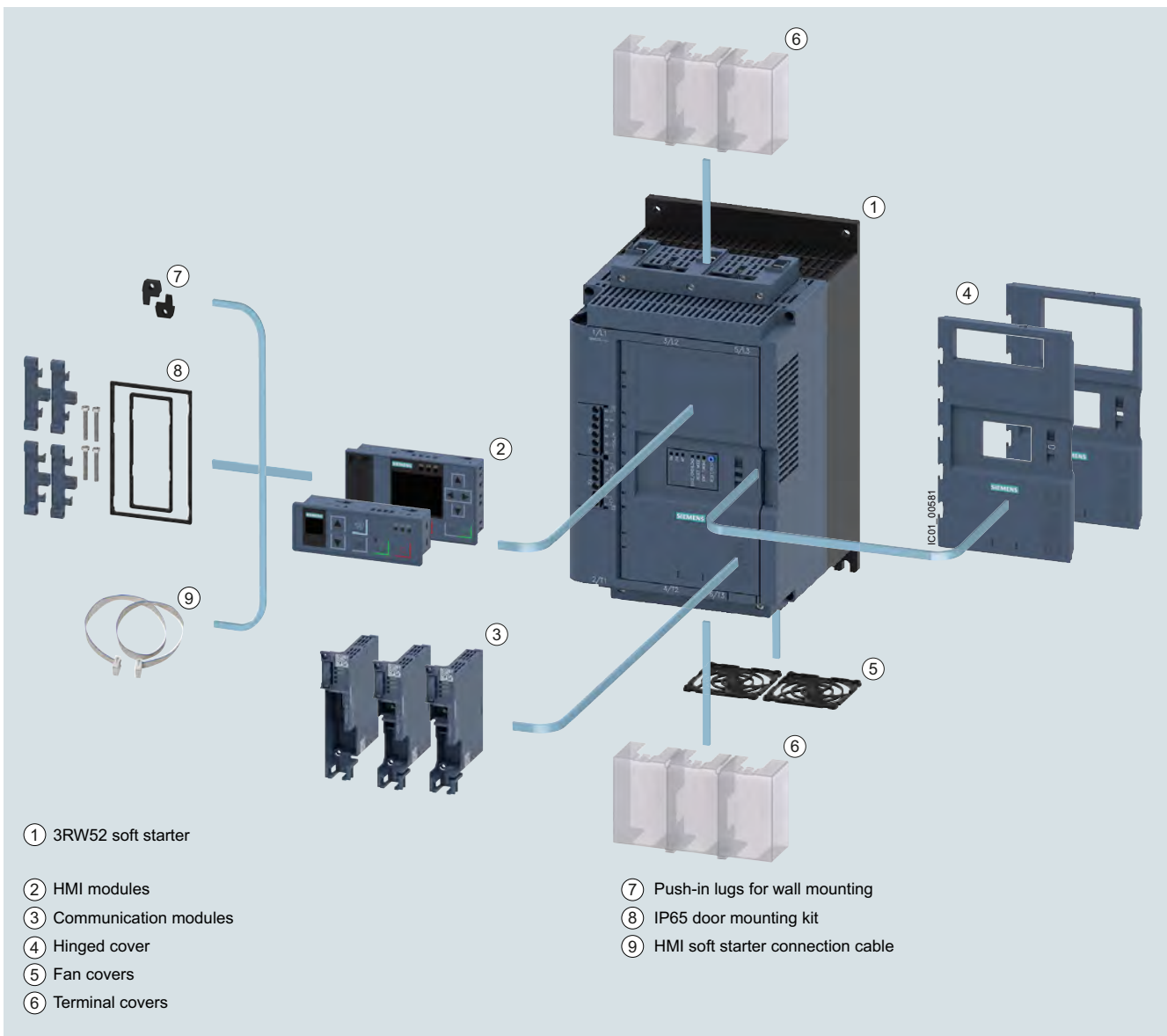
TIA Selection Tool Cloud (TST Cloud), see <https://mall.industry.siemens.com/spice/tstweb/?KMAT=3rw52>

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) for diagnostics, see page 14/5



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 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

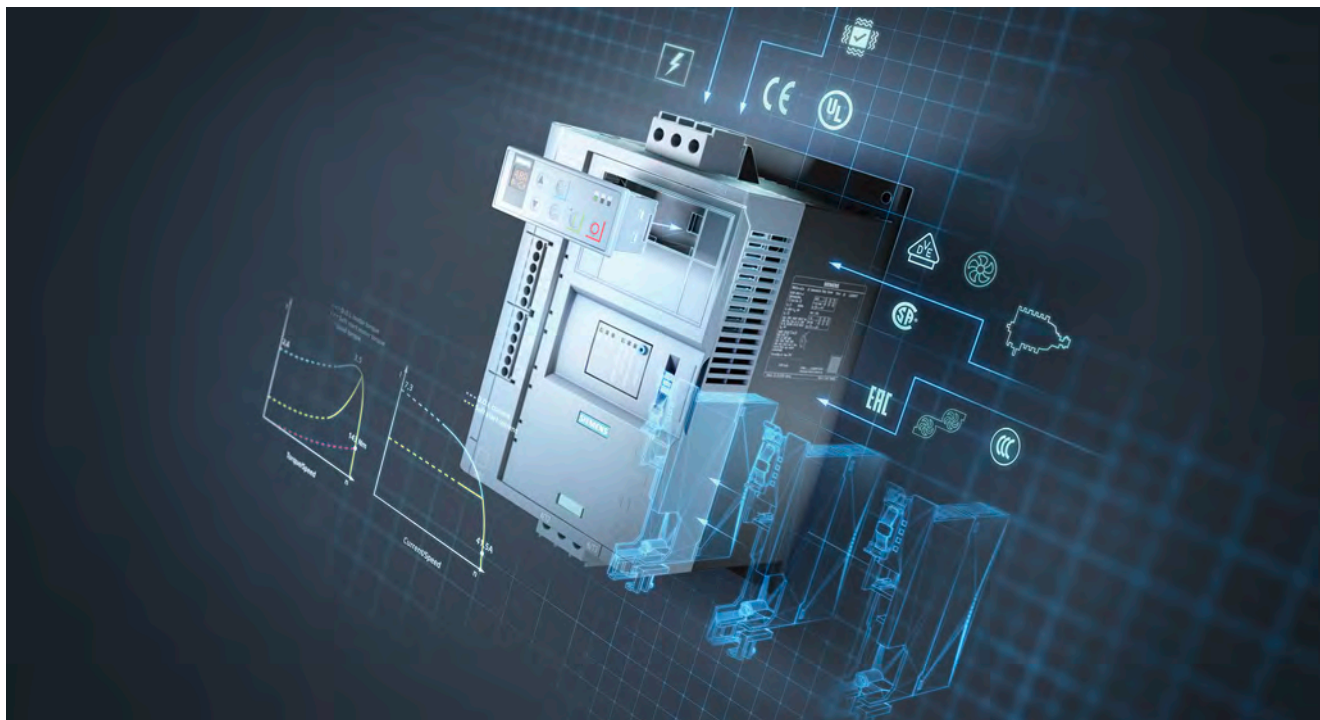
⑦ Push-in lugs for wall mounting

⑧ IP65 door mounting kit

⑨ HMI soft starter connection cable

General Performance soft starters with accessories (see page 6/54), for expansion with HMI module or communication modules.

## Benefits



6

### 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

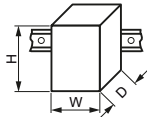
##### More information

Technical specifications, see <https://support.industry.siemens.com/cs/ww/en/ps/25100/td>  
 Manual "SIRIUS 3RW52 Soft Starter", 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		1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not enter the devices), 1M4		
• During transport		2K2, 2C1, 2S1, 2M2 (max. height of fall 0.3 m)		

<sup>1)</sup> Derating above 1 000 m, see Manual or characteristic curve on page 6/7.

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

# SIRIUS 3RW Soft Starters

## General Performance Soft Starters

### 3RW52 Soft Starters

**NEW** General data

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	%	50 ... 60					
		-10/10					
<b>Control supply current in standby mode, rated value</b>							
	mA	160	30	160	30	160	30
<b>Holding current in bypass mode, 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>			
	V	200 ... 480	
• Relative negative tolerance/ relative positive tolerance	%	-15/10	
<b>Operational voltage for inside-delta circuit, rated value</b>			
	V	200 ... 480	
• Relative negative tolerance/ relative positive tolerance	%	-15/10	
<b>Operating frequency</b>			
	Hz	50 ... 60	
• Relative negative tolerance/ relative positive tolerance	%	-10/10	
<b>Minimum load [% of <math>I_M</math>]<sup>1)</sup></b>			
	%	15	
<b>Maximum cable length between soft starter and motor</b>			
	m	800	

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

# SIRIUS 3RW Soft Starters

## General Performance Soft Starters

### 3RW52 Soft Starters

#### General data **NEW**

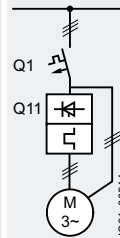
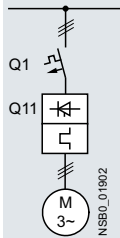
#### Motor feeders according to IEC with 3RV2/3VA motor starter protectors/circuit breakers

Without semiconductor protection

Type of coordination "1", CLASS 10,  
short-circuit breaking capacity  $I_q$  in kA, [see table](#)

Note:

For general recommendations for constructing motor feeders  
with soft starters, [see page 6/9](#).



#### Soft starters

Q11

Type

#### Motor starter protectors/circuit breakers

for 400 V systems

Q1

Type

$I_q$

kA

for 500 V systems

Q1

Type

$I_q$

kA

#### Motor starter protectors/circuit breakers

for 400 V systems

Q1

Type

$I_q$

kA

for 500 V systems

Q1

Type

$I_q$

kA

Type of  
coordination  
"1"

TOC  
1

#### Inline circuit

#### Inside-delta circuit

Soft starters	Motor starter protectors/circuit breakers for 400 V systems	$I_q$ kA	Motor starter protectors/circuit breakers for 500 V systems	$I_q$ kA	Motor starter protectors/circuit breakers for 400 V systems	$I_q$ kA	Motor starter protectors/circuit breakers for 500 V systems	$I_q$ kA
Q11 Type	Q1 Type		Q1 Type		Q1 Type		Q1 Type	
<b>3RW5213</b>	3RV2032-4TA10	65	3RV2032-4TA10	18	3RV2032-4DA10	65	3RV2032-4DA10	18
<b>3RW5214</b>	3RV2032-4DA10	65	3RV2032-4DA10	15	3RV2032-4EA10	65	3RV2032-4EA10	15
<b>3RW5215</b>	3RV2032-4EA10	65	3RV2032-4EA10	15	3RV2032-4VA10	65	3RV2032-4VA10	15
<b>3RW5216</b>	3RV2032-4VA10	65	3RV2032-4VA10	10	3RV2032-4JA10	65	3RV2032-4JA10	10
<b>3RW5217</b>	3RV2032-4WA10	65	3RV2032-4WA10	10	3RV2032-4RA10	65	3RV2032-4RA10	10
<b>3RW5224</b>	3RV2032-4JA10	65	3RV2032-4JA10	10	3RV2032-4RA10	65	3RV2032-4RA10	10
<b>3RW5225</b>	3VA2163-7MN32-0AA0	65	3VA2163-7MN32-0AA0	65	3VA2110-7MN32-0AA0	65	3VA2110-7MN32-0AA0	65
<b>3RW5226</b>	3VA2110-7MN32-0AA0	65	3VA2110-7MN32-0AA0	65	3VA2216-7MN32-0AA0	65	3VA2216-7MN32-0AA0	65
<b>3RW5227</b>	3VA2216-7MN32-0AA0	15	3VA2216-7MN32-0AA0	10	3VA2220-7MN32-0AA0	15	3VA2220-7MN32-0AA0	10
<b>3RW5234</b>	3VA2216-7MN32-0AA0	65	--	--	3VA2220-7MN32-0AA0	65	--	--
<b>3RW5235</b>	3VA2220-7MN32-0AA0	65	--	--	3VA2325-7MN32-0AA0	65	--	--
<b>3RW5236</b>	3VA2325-7MN32-0AA0	30	3VA2325-7MN32-0AA0	10	3VA2440-7MN32-0AA0	30	3VA2440-7MN32-0AA0	10
<b>3RW5243</b>	3VA2325-7MN32-0AA0	65	3VA2325-7MN32-0AA0	65	3VA2440-7MN32-0AA0	65	3VA2440-7MN32-0AA0	65
<b>3RW5244</b>	3VA2440-7MN32-0AA0	65	3VA2440-7MN32-0AA0	65	3VA2450-7MN32-0AA0	65	3VA2450-7MN32-0AA0	65
<b>3RW5245</b>	3VA2440-7MN32-0AA0	65	3VA2440-7MN32-0AA0	65	3VA2580-6HN32-0AA0	65	3VA2580-6HN32-0AA0	65
<b>3RW5246</b>	3VA2440-7MN32-0AA0	65	3VA2440-7MN32-0AA0	65	3VA2580-6HN32-0AA0	65	3VA2580-6HN32-0AA0	65
<b>3RW5247</b>	3VA2450-7MN32-0AA0	65	3VA2450-7MN32-0AA0	65	3VA2510-6HN32-0AA0	65	3VA2510-6HN32-0AA0	65
<b>3RW5248</b>	3VA2580-6HN32-0AA0	65	3VA2580-6HN32-0AA0	65	3VA2510-6HN32-0AA0	65	3VA2510-6HN32-0AA0	65

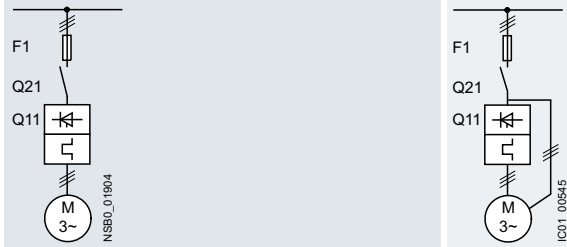
**Motor feeders according to IEC with 3NA3 fuses**

gG class full-range fuses for cable and line protection according to IEC 60269-2, without semiconductor protection

Type of coordination "1",  
short-circuit breaking capacity  $I_{q} = 65 \text{ kA}$

Note:

For general recommendations for constructing motor feeders with soft starters, [see page 6/9](#).



Soft starters	gG class fuse			Line contactor (optional)		gG class fuse			Line contactor (optional)	
	for systems up to 600 V	for systems up to 480 V	for systems up to 600 V	for systems up to 480 V in the supply cable	for systems up to 600 V in the supply cable	for systems up to 480 V in the delta	for systems up to 600 V in the delta	for systems up to 480 V in the delta	for systems up to 600 V in the delta	
Q11	F1	Q21	Q21	F1	Q21	Q21	Q21	Q21	Q21	
Type	Type	Type	Type	Type	Type	Type	Type	Type	Type	
Type of coordination "1"	Inline circuit			Inside-delta circuit						
	3RW5213	3NA3820-6	3RT2025	3RT2025	3NA3820-6	3RT2027	3RT2035	3RT2025	3RT2025	
	3RW5214	3NA3820-6	3RT2026	3RT2027	3NA3820-6	3RT2027	3RT2037	3RT2026	3RT2027	
	3RW5215	3NA3822-6	3RT2027	3RT2037	3NA3822-6	3RT2036	3RT2037	3RT2027	3RT2037	
	3RW5216	3NA3824-6	3RT2035	3RT2037	3NA3824-6	3RT2037	3RT2038	3RT2035	3RT2037	
	3RW5217	3NA3824-6	3RT2035	3RT2037	3NA3824-6	3RT2038	3RT2046	3RT2035	3RT2037	
	3RW5224	3NA3824-6	3RT2036	3RT2037	3NA3824-6	3RT2046	3RT2047	3RT2036	3RT2037	
	3RW5225	3NA3830-6	3RT2037	3RT2046	3NA3830-6	3RT2047	3RT1054	3RT2037	3RT2046	
	3RW5226	3NA3132-6	3RT2038	3RT2046	3NA3132-6	3RT1055	3RT1055	3RT2038	3RT2046	
	3RW5227	3NA3136-6	3RT2046	3RT2047	3NA3136-6	3RT1056	3RT1056	3RT2046	3RT2047	
	3RW5234	3NA3244-6	3RT1054	3RT1054	3NA3244-6	3RT1064	3RT1064	3RT1054	3RT1054	
	3RW5235	3NA3244-6	3RT1055	3RT1055	3NA3244-6	3RT1065	3RT1065	3RT1055	3RT1055	
	3RW5236	3NA3365-6	3RT1056	3RT1064	3NA3365-6	3RT1066	3RT1075	3RT1056	3RT1064	
	3RW5243	2 x 3NA3354-6	3RT1064	3RT1064	2 x 3NA3354-6	3RT1075	3RT1075	3RT1064	3RT1064	
	3RW5244	2 x 3NA3354-6	3RT1065	3RT1065	2 x 3NA3354-6	3RT1076	3RT1076	3RT1065	3RT1065	
	3RW5245	2 x 3NA3365-6	3RT1075	3RT1075	2 x 3NA3365-6	3TF68	3TF68	3RT1075	3RT1075	
3RW5246	2 x 3NA3365-6	3RT1075	3RT1075	2 x 3NA3365-6	3TF69	3TF69	3RT1075	3RT1075		
3RW5247	2 x 3NA3365-6	3RT1076	3RT1276	2 x 3NA3365-6	3TF69	3TF69	3RT1076	3RT1276		
3RW5248	2 x 3NA3365-6	3TF68	3TF68	2 x 3NA3365-6	--	--	3TF68	3TF68		



# SIRIUS 3RW Soft Starters

## General Performance Soft Starters

### 3RW52 Soft Starters

#### General data **NEW**

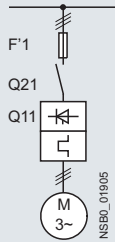
#### Motor feeders according to IEC with 3NE1 SITOR fuses

gR class full-range fuses for semiconductor protection, cable and line protection

Type of coordination "2",  
short-circuit breaking capacity  $I_{q} = 65 \text{ kA}$

#### Note:

For general recommendations for constructing motor feeders with soft starters, [see page 6/9](#).



Soft starters	gG class fuse	Line contactor (optional)	
	for systems up to 600 V	for systems up to 480 V	for systems up to 600 V
Q11	F'1	Q21	Q21
Type	Type	Type	Type
Type of coordination "2"	Inline circuit		
<b>3RW5213</b>	3NE1815-0	3RT2025	3RT2025
<b>3RW5214</b>	3NE1802-0	3RT2026	3RT2027
<b>3RW5215</b>	3NE1817-0	3RT2027	3RT2037
<b>3RW5216</b>	3NE1818-0	3RT2035	3RT2037
<b>3RW5217</b>	3NE1820-0	3RT2035	3RT2037
<b>3RW5224</b>	3NE1021-2	3RT2036	3RT2037
<b>3RW5225</b>	3NE1022-0	3RT2037	3RT2046
<b>3RW5226</b>	3NE1224-0	3RT2038	3RT2046
<b>3RW5227</b>	3NE1224-0	3RT2046	3RT2047
<b>3RW5234</b>	3NE1225-0	3RT1054	3RT1054
<b>3RW5235</b>	3NE1227-0	3RT1055	3RT1055
<b>3RW5236</b>	3NE1230-0	3RT1056	3RT1064
<b>3RW5243</b>	3NE1230-2	3RT1064	3RT1064
<b>3RW5244</b>	3NE1331-0	3RT1065	3RT1065
<b>3RW5245</b>	3NE1334-2	3RT1075	3RT1075
<b>3RW5246</b>	3NE1334-2	3RT1075	3RT1075
<b>3RW5247</b>	3NE1436-2	3RT1076	3RT1276
<b>3RW5248</b>	3NE1437-2	3TF68	3TF68

#### Note:

In inside-delta circuits, a gR class full-range fuse could not provide the semiconductor protection of the delta-connected soft starter with a short-circuit breaking capacity that is adequate for practical use. In this case, we recommend using aR class partial-range fuses for semiconductor protection for type of coordination "2" ([see page 6/49](#)).

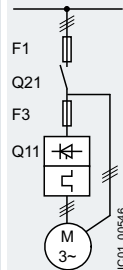
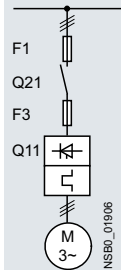
**Motor feeders according to IEC with 3NE8 / 3NE4 / 3NE3 fuses**

aR class partial-range fuses for semiconductor protection

Type of coordination "2",  
short-circuit breaking capacity  $I_{q} = 65 \text{ kA}$

Note:

For general recommendations for constructing motor feeders with soft starters, see page 6/9.



Soft starters	Inline circuit				Inside-delta circuit					
	gG class fuse	aR class fuse	Line contactor (optional)		gG class fuse	aR class fuse	Line contactor (optional)			
	for systems up to 600 V	for systems up to 690 V	for systems up to 480 V	for systems up to 600 V	for systems up to 600 V	for systems up to 600 V	for systems up to 480 V in the supply cable	for systems up to 600 V in the supply cable	for systems up to 480 V in the delta	for systems up to 600 V in the delta
Q11	F1	F3	Q21	Q21	F1	F3	Q21	Q21	Q21	Q21
Type	Type	Type	Type	Type	Type	Type	Type	Type	Type	Type
<b>Type of coordination "2"</b>	<b>Inline circuit</b>				<b>Inside-delta circuit</b>					
<b>3RW5213</b>	3NA3820-6	3NE8017-1	3RT2025	3RT2025	3NA3820-6	3NE8017-1	3RT2027	3RT2035	3RT2025	3RT2025
<b>3RW5214</b>	3NA3820-6	3NE8020-1	3RT2026	3RT2027	3NA3820-6	3NE8020-1	3RT2027	3RT2037	3RT2026	3RT2027
<b>3RW5215</b>	3NA3822-6	3NE8021-1	3RT2027	3RT2037	3NA3822-6	3NE8021-1	3RT2036	3RT2037	3RT2027	3RT2037
<b>3RW5216</b>	3NA3824-6	3NE8022-1	3RT2035	3RT2037	3NA3824-6	3NE8022-1	3RT2037	3RT2038	3RT2035	3RT2037
<b>3RW5217</b>	3NA3824-6	3NE8024-1	3RT2035	3RT2037	3NA3824-6	3NE8024-1	3RT2038	3RT2046	3RT2035	3RT2037
<b>3RW5224</b>	3NA3824-6	3NE8024-1	3RT2036	3RT2037	3NA3824-6	3NE8024-1	3RT2046	3RT2047	3RT2036	3RT2037
<b>3RW5225</b>	3NA3830-6	3NE8024-1	3RT2037	3RT2046	3NA3830-6	3NE8024-1	3RT2047	3RT1054	3RT2037	3RT2046
<b>3RW5226</b>	3NA3132-6	3NE8024-1	3RT2038	3RT2046	3NA3132-6	3NE8024-1	3RT1055	3RT1055	3RT2038	3RT2046
<b>3RW5227</b>	3NA3136-6	3NE4124	3RT2046	3RT2047	3NA3136-6	3NE4124	3RT1056	3RT1056	3RT2046	3RT2047
<b>3RW5234</b>	3NA3244-6	3NE3332-0B	3RT1054	3RT1054	3NA3244-6	3NE3332-0B	3RT1064	3RT1064	3RT1054	3RT1054
<b>3RW5235</b>	3NA3244-6	3NE3334-0B	3RT1055	3RT1055	3NA3244-6	3NE3334-0B	3RT1065	3RT1065	3RT1055	3RT1055
<b>3RW5236</b>	3NA3365-6	3NE3335	3RT1056	3RT1064	3NA3365-6	3NE3335	3RT1066	3RT1075	3RT1056	3RT1064
<b>3RW5243</b>	2 x 3NA3354-6	3NE3333	3RT1064	3RT1064	2 x 3NA3354-6	3NE3333	3RT1075	3RT1075	3RT1064	3RT1064
<b>3RW5244</b>	2 x 3NA3354-6	3NE3336	3RT1065	3RT1065	2 x 3NA3354-6	3NE3336	3RT1076	3RT1076	3RT1065	3RT1065
<b>3RW5245</b>	2 x 3NA3365-6	3NE3336	3RT1075	3RT1075	2 x 3NA3365-6	3NE3336	3TF68	3TF68	3RT1075	3RT1075
<b>3RW5246</b>	2 x 3NA3365-6	3NE3336	3RT1075	3RT1075	2 x 3NA3365-6	3NE3336	3TF69	3TF69	3RT1075	3RT1075
<b>3RW5247</b>	2 x 3NA3365-6	3NE3340-8	3RT1076	3RT1276	2 x 3NA3365-6	3NE3340-8	3TF69	3TF69	3RT1076	3RT1276
<b>3RW5248</b>	2 x 3NA3365-6	3NE3340-8	3TF68	3TF68	2 x 3NA3365-6	3NE3340-8	--	--	3TF68	3TF68

Note:

For CLASS 10 applications, as an alternative to the gG class full-range fuses for cable and line protection 3NA3 (F1), 3RV2/3VA motor starter protectors/circuit breakers can also be used, possibly with reduced short-circuit breaking capacity (see page 6/46). In these cases, optional line contactors can be dispensed with.



# 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 10A)



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	A	hp	hp	hp	hp	d
<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).

#### Note:

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

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	A	hp	hp	hp	hp	d
<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 constraints 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 10A)



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-□□C□5</b>	1	1 unit	42S
18	4	<b>7.5</b>	11	15.9	3	5	<b>10</b>	10	5	<b>3RW5214-□□C□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-□□C□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-□□C□5</b>	1	1 unit	42S
38	11	<b>18.5</b>	22	33.5	10	10	<b>20</b>	30	5	<b>3RW5217-□□C□5</b>	1	1 unit	42S
47	11	<b>22</b>	30	41.6	10	10	<b>30</b>	40	5	<b>3RW5224-□□C□5</b>	1	1 unit	42S
63	18.5	<b>30</b>	37	55.5	15	20	<b>40</b>	50	5	<b>3RW5225-□□C□5</b>	1	1 unit	42S
77	22	<b>37</b>	45	68	20	25	<b>50</b>	60	5	<b>3RW5226-□□C□5</b>	1	1 unit	42S
93	22	<b>45</b>	55	82.5	25	30	<b>60</b>	75	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).

**Note:**

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

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-□□C□5</b>	1	1 unit	42S
143	37	<b>75</b>	90	128	40	40	<b>100</b>	125	5	<b>3RW5235-□□C□5</b>	1	1 unit	42S
171	45	<b>90</b>	110	153	50	50	<b>100</b>	150	5	<b>3RW5236-□□C□5</b>	1	1 unit	42S
210	55	<b>110</b>	132	186	60	60	<b>150</b>	150	5	<b>3RW5243-□□C□5</b>	1	1 unit	42S
250	75	<b>132</b>	160	220	60	75	<b>150</b>	200	5	<b>3RW5244-□□C□5</b>	1	1 unit	42S
315	90	<b>160</b>	200	279	75	100	<b>200</b>	250	5	<b>3RW5245-□□C□5</b>	1	1 unit	42S
370	110	<b>200</b>	250	328	100	125	<b>250</b>	300	5	<b>3RW5246-□□C□5</b>	1	1 unit	42S
470	132	<b>250</b>	315	416	150	150	<b>350</b>	450	5	<b>3RW5247-□□C□5</b>	1	1 unit	42S
570	160	<b>315</b>	355	504	150	200	<b>400</b>	500	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 constraints for the motor outputs specified here, see page 6/7.

# SIRIUS 3RW Soft Starters

## General Performance Soft Starters

### 3RW52 Soft Starters

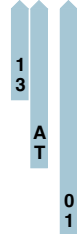
Inside-delta circuit **IE3/IE4 ready** **NEW**

#### Selection and ordering data

For normal starting (CLASS 10A)



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	<b>11</b>	--	19.9	5	5	<b>10</b>	--	5	<b>3RW5213-□□C□4</b>	1	1 unit	42S
31.5	7.5	<b>15</b>	--	28	7.5	7.5	<b>20</b>	--	5	<b>3RW5214-□□C□4</b>	1	1 unit	42S
43.3	11	<b>18.5</b>	--	39	10	10	<b>25</b>	--	5	<b>3RW5215-□□C□4</b>	1	1 unit	42S
55.4	15	<b>22</b>	--	49	15	15	<b>30</b>	--	5	<b>3RW5216-□□C□4</b>	1	1 unit	42S
65.8	18.5	<b>30</b>	--	58	15	20	<b>40</b>	--	5	<b>3RW5217-□□C□4</b>	1	1 unit	42S
81.4	22	<b>45</b>	--	72	20	25	<b>50</b>	--	5	<b>3RW5224-□□C□4</b>	1	1 unit	42S
109	30	<b>55</b>	--	96	30	30	<b>75</b>	--	5	<b>3RW5225-□□C□4</b>	1	1 unit	42S
133	37	<b>75</b>	--	118	30	40	<b>75</b>	--	5	<b>3RW5226-□□C□4</b>	1	1 unit	42S
161	45	<b>90</b>	--	143	40	50	<b>100</b>	--	5	<b>3RW5227-□□C□4</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 480 V:  
Standard delivery time SD = 1 day (d).

#### Note:

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

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	<b>110</b>	--	175	50	60	<b>125</b>	--	5	<b>3RW5234-□□C□4</b>	1	1 unit	42S
248	75	<b>132</b>	--	222	75	75	<b>150</b>	--	5	<b>3RW5235-□□C□4</b>	1	1 unit	42S
296	90	<b>160</b>	--	265	75	100	<b>200</b>	--	5	<b>3RW5236-□□C□4</b>	1	1 unit	42S
364	110	<b>200</b>	--	322	100	125	<b>250</b>	--	5	<b>3RW5243-□□C□4</b>	1	1 unit	42S
433	132	<b>250</b>	--	381	125	150	<b>300</b>	--	5	<b>3RW5244-□□C□4</b>	1	1 unit	42S
546	160	<b>315</b>	--	483	150	200	<b>400</b>	--	5	<b>3RW5245-□□C□4</b>	1	1 unit	42S
641	200	<b>355</b>	--	568	200	200	<b>450</b>	--	5	<b>3RW5246-□□C□4</b>	1	1 unit	42S
814	250	<b>400</b>	--	721	250	250	<b>600</b>	--	5	<b>3RW5247-□□C□4</b>	1	1 unit	42S
987	315	<b>560</b>	--	873	300	350	<b>750</b>	--	5	<b>3RW5248-□□C□4</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 480 V:  
Standard delivery time SD = 1 day (d).

#### Note:

For the constraints 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 10A)



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).

**Note:**

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

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	55	<b>110</b>	132	175	50	60	<b>125</b>	150	5	<b>3RW5234-□□C□5</b>		1	1 unit	42S
248	75	<b>132</b>	160	222	75	75	<b>150</b>	200	5	<b>3RW5235-□□C□5</b>		1	1 unit	42S
296	90	<b>160</b>	200	265	75	100	<b>200</b>	250	5	<b>3RW5236-□□C□5</b>		1	1 unit	42S
364	110	<b>200</b>	250	322	100	125	<b>250</b>	300	5	<b>3RW5243-□□C□5</b>		1	1 unit	42S
433	132	<b>250</b>	315	381	125	150	<b>300</b>	350	5	<b>3RW5244-□□C□5</b>		1	1 unit	42S
546	160	<b>315</b>	355	483	150	200	<b>400</b>	500	5	<b>3RW5245-□□C□5</b>		1	1 unit	42S
641	200	<b>355</b>	450	568	200	200	<b>450</b>	600	5	<b>3RW5246-□□C□5</b>		1	1 unit	42S
814	250	<b>400</b>	500	721	250	250	<b>600</b>	800	5	<b>3RW5247-□□C□5</b>		1	1 unit	42S
987	315	<b>560</b>	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 constraints for the motor outputs specified here, see page 6/7.

# SIRIUS 3RW Soft Starters

## General Performance Soft Starters



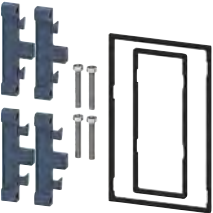



### 3RW52 Soft Starters

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										

**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, round	For door mounting	1	<b>3RW5980-0HC60</b>	1	1 unit	42S
3UF793.-0BA00-0			2.5 m, round			▶ <b>3UF7933-0BA00-0</b>	1	1 unit	42J
			1.0 m, round			▶ <b>3UF7937-0BA00-0</b>	1	1 unit	42J
			0.5 m, round			▶ <b>3UF7932-0BA00-0</b>	1	1 unit	42J
			0.1 m, flat	For mounting in the device	▶	<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									

# SIRIUS 3RW Soft Starters

## Basic Performance Soft Starters

### 3RW40 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)

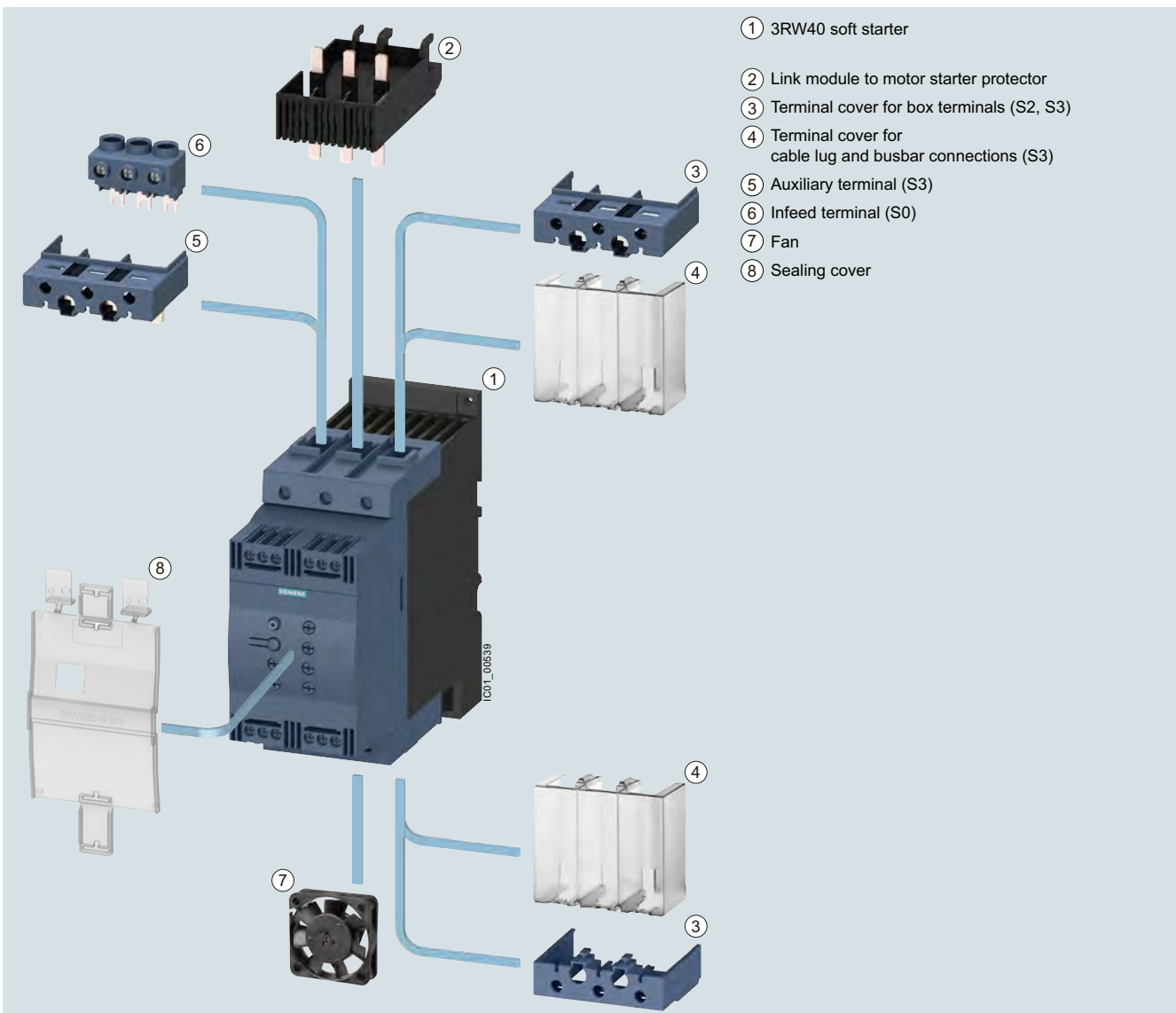
TIA Selection Tool Cloud (TST Cloud), see <https://mall.industry.siemens.com/spice/tstweb/?KMAT=3rw40>  
 Simulation Tool for Soft Starters (STS), see page 6/7 or <https://support.industry.siemens.com/cs/ww/en/view/101494917>



The SIRIUS 3RW40 Basic Performance soft starters are suitable for soft starting and stopping of three-phase asynchronous motors.

Due to two-phase control, the current is kept at minimum values in all three phases throughout the entire start-up time and disturbing direct current components are eliminated in addition. This not only enables the two-phase starting of motors up to 250 kW (at 400 V) but also avoids the current and torque peaks which occur e.g. with wye-delta starters.

The SIRIUS 3RW40 soft starters are suitable for the starting of explosion-proof motors with "increased safety" type of protection EEx e according to ATEX Directive 94/9/EC.



3RW40 Basic Performance soft starter with accessories (see page 6/68)

#### Benefits



3RW402.



3RW403.



3RW404.



3RW405.



3RW407.

Product characteristics / function	Performance features / benefits
Small and compact design	Space-saving, clearly arranged control panel layout
Motor overload and intrinsic device protection without additional wiring	Adjustable trip classes, integrated diagnostics functions
Integrated bypass contact system	Reduction of power loss during operation
Certified according to ATEX Directive 94/9/EC	Suitable for the starting of explosion-proof motors with "increased safety" type of protection EEx e.
Optional thermistor motor protection up to a rating of 55 kW	Full motor protection

# SIRIUS 3RW Soft Starters

## Basic Performance Soft Starters

### 3RW40 Soft Starters

#### General data

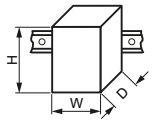
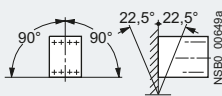
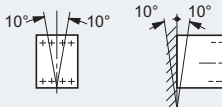
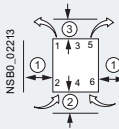
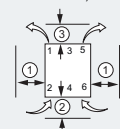
#### Technical specifications

##### More information

Manual "SIRIUS 3RW30/3RW40 Soft Starters", see <https://support.industry.siemens.com/cs/ww/en/view/38752095>

Catalog LV 10, see [www.siemens.com/lowvoltage/lv10](http://www.siemens.com/lowvoltage/lv10)

FAQs, see <https://support.industry.siemens.com/cs/ww/en/ps/25251/faq>

Type		3RW402.	3RW403.	3RW404.	3RW405.	3RW407.	
<b>Mechanics and environment</b>							
<b>Mounting dimensions (W x H x D)</b>							
<ul style="list-style-type: none"> <li>• Screw terminals</li> <li>• Spring-type terminals</li> </ul>		mm	45 x 125 x 154	55 x 144 x 170	70 x 160 x 188	120 x 198 x 250	160 x 230 x 278
		mm	45 x 150 x 154	55 x 144 x 170	70 x 160 x 188	120 x 198 x 250	160 x 230 x 278
<b>Permissible ambient temperature</b>							
During operation	°C	-25 ... +60; (derating from +40)					
During storage	°C	-40 ... +80					
<b>Weight</b>							
	kg	0.77	1.35	1.9	4.9 (3RW4055)	8.9 (3RW4056)	
<b>Permissible mounting position<sup>1)</sup></b>							
<ul style="list-style-type: none"> <li>• With auxiliary fan (for 3RW402. ... 3RW404.)</li> </ul>							
	<ul style="list-style-type: none"> <li>• Without auxiliary fan (for 3RW402. ... 3RW404.)</li> </ul>			-- (fan integrated in the soft starter)			
<b>Installation type<sup>1)</sup></b>							
Stand-alone installation		3RW402.  <ul style="list-style-type: none"> <li>① ≥ 15 mm (≥ 0.59 in)</li> <li>② ≥ 40 mm (≥ 1.56 in)</li> <li>③ ≥ 60 mm (≥ 2.36 in)</li> </ul>			3RW405., 3RW407. <ul style="list-style-type: none"> <li>① ≥ 5 mm (≥ 0.2 in)</li> <li>② ≥ 75 mm (≥ 3 in)</li> <li>③ ≥ 100 mm (≥ 4 in)</li> </ul>		
		3RW403., 3RW404.  <ul style="list-style-type: none"> <li>① ≥ 30 mm (≥ 1.18 in)</li> <li>② ≥ 40 mm (≥ 1.56 in)</li> <li>③ ≥ 60 mm (≥ 2.36 in)</li> </ul>					
<b>Permissible installation altitude</b>							
	m	5 000 (Derating from 1 000, see characteristic curve on page 6/7)					
<b>Degree of protection</b>							
		IP20 for 3RW402.; all others IP00					

<sup>1)</sup> In the case of deviations, please observe derating, see Manual in the chapter "Configuring".

Type	Terminal	3RW402., 3RW403., 3RW404.	3RW405., 3RW407.
<b>Control electronics</b>			
<b>Rated values</b>			
Rated control supply voltage	A1/A2	V	24 AC/DC 110 ... 230 AC/DC
• Tolerance		%	± 20 -15/+10
Rated frequency		Hz	50/60
• Tolerance		%	± 10

# SIRIUS 3RW Soft Starters

## Basic Performance Soft Starters

### 3RW40 Soft Starters

#### General data

Type		3RW402.-..B.4, 3RW403.-..B.4, 3RW404.-..B.4	3RW402.-..B.5, 3RW403.-..B.5, 3RW404.-..B.5	3RW405.-..BB.4, 3RW407.-..BB.4	3RW405.-..BB.5, 3RW407.-..BB.5
<b>Power electronics</b>					
<b>Rated operational voltage</b>	V AC	200 ... 480	400 ... 600	200 ... 460	400 ... 600
Tolerance	%	-15/+10			
<b>Maximum blocking voltage (thyristor)</b>	V AC	1 600		1 400	1 800
<b>Rated frequency</b>	Hz	50/60			
Tolerance	%	± 10			
<b>Uninterrupted duty at 40 °C (% of <math>I_e</math>)</b>	%	115			
<b>Minimum load (% of smallest adjustable rated motor current <math>I_M</math>)</b>	%	20 (at least 2 A)			
<b>Maximum cable length</b> between soft starter and motor	m	300			

Type		3RW4024	3RW4026	3RW4027	3RW4028
<b>Power electronics</b>					
<b>Load rating with rated operational current <math>I_e</math></b>					
• According to IEC and UL/CSA <sup>1)</sup> , for individual mounting, AC-53a					
- At 40 °C	A	12.5	25.3	32.2	38
- At 50 °C	A	11	23	29	34
- At 60 °C	A	10	21	26	31
<b>Smallest adjustable rated motor current <math>I_M</math></b>					
For the motor overload protection	A	5	10	17	23
<b>Power loss</b>					
• In operation after completed starting with uninterrupted rated operational current (40 °C) approx.	W	2	8	13	19
• During starting with current limit set to 300% $I_M$ (40 °C)	W	68	188	220	256
<b>Permissible rated motor current and starts per hour at 40 / 50 °C</b>					
• <b>For normal starting (CLASS 10)</b>					
- Rated motor current $I_M^{(2)}$ , start-up time 3 s	A	12.5/11	25/23	32/29	38/34
- Starts per hour <sup>3)</sup>	1/h	50/50	23/23	23/23	19/19
- Rated motor current $I_M^{(2)}$ , start-up time 4 s	A	12.5/11	25/23	32/29	38/34
- Starts per hour <sup>3)</sup>	1/h	36/36	15/15	16/16	12/12

<sup>1)</sup> Measurement at 60 °C according to UL/CSA not required.

<sup>2)</sup> Current limit on soft starter set to 300%  $I_M$ ,  $T_u = 40 / 50$  °C. Maximum adjustable rated motor current  $I_M$  dependent on CLASS setting.

<sup>3)</sup> For intermittent duty S4 with ON period = 30%,  $T_u = 40 / 50$  °C, stand-alone installation vertical. The quoted switching frequencies do not apply for automatic mode. Factors for permissible switching frequency in other mounting position, direct mounting, side-by-side mounting, and implementation of optional auxiliary fan, see [Manual in the chapter "Configuring"](#).

# SIRIUS 3RW Soft Starters

## Basic Performance Soft Starters

### 3RW40 Soft Starters

#### General data

Type		3RW4036	3RW4037	3RW4038	3RW4046	3RW4047
<b>Power electronics</b>						
<b>Load rating with rated operational current <math>I_e</math></b>						
• According to IEC and UL/CSA <sup>1)</sup> , for individual mounting, AC-53a						
- At 40 °C	A	45	63	72	80	106
- At 50 °C	A	42	58	62.1	73	98
- At 60 °C	A	39	53	60	66	90
<b>Smallest adjustable rated motor current <math>I_M</math></b>						
For the motor overload protection						
	A	23	26	35	43	46
<b>Power loss</b>						
• In operation after completed starting with uninterrupted rated operational current (40 °C) approx.						
	W	6	12	15	12	21
• During starting with current limit set to 300% $I_M$ (40 °C)						
	W	316	444	500	576	768
<b>Permissible rated motor current and starts per hour at 40 / 50 °C</b>						
• <b>For normal starting (CLASS 10)</b>						
- Rated motor current $I_M^{(2)}$ , start-up time 3 s						
	A	45/42	63/58	72/62	80/73	106/98
- Starts per hour <sup>3)</sup>	1/h	38/38	23/23	22/22	22/22	15/15
- Rated motor current $I_M^{(2)}$ , start-up time 4 s						
	A	45/42	63/58	72/62	80/73	106/98
- Starts per hour <sup>3)</sup>	1/h	26/26	15/15	15/15	15/15	10/10

<sup>1)</sup> Measurement at 60 °C according to UL/CSA not required.

<sup>2)</sup> Current limit on soft starter set to 300%  $I_M$ ,  $T_u = 40 / 50$  °C. Maximum adjustable rated motor current  $I_M$  dependent on CLASS setting.

<sup>3)</sup> For intermittent duty S4 with ON period = 30%,  $T_u = 40 / 50$  °C, stand-alone installation vertical. The quoted switching frequencies do not apply for automatic mode. Factors for permissible switching frequency in other mounting position, direct mounting, side-by-side mounting, and implementation of optional auxiliary fan, see Manual in the chapter "Configuring".

Type		3RW4055	3RW4056	3RW4073	3RW4074	3RW4075	3RW4076
<b>Power electronics</b>							
<b>Load rating with rated operational current <math>I_e</math></b>							
• According to IEC and UL/CSA <sup>1)</sup> , for individual mounting, AC-53a							
- At 40 °C	A	134	162	230	280	356	432
- At 50 °C	A	117	145	205	248	315	385
- At 60 °C	A	100	125	180	215	280	335
<b>Smallest adjustable rated motor current <math>I_M</math></b>							
For the motor overload protection							
	A	59	87	80	130	131	207
<b>Power loss</b>							
• In operation after completed starting with uninterrupted rated operational current (40 °C) approx.							
	W	60	75		90	125	165
• During starting with current limit set to 350% <sup>2)</sup> $I_M$ (40 °C)							
	W	1 043	1 355	2 448	3 257	3 277	3 600
<b>Permissible rated motor current and starts per hour at 40 / 50 °C</b>							
• <b>For normal starting (CLASS 10)</b>							
- Rated motor current $I_M^{(2)}$ , start-up time 10 s							
	A	134/117	162/145	230/205	280/248	356/315	432/385
- Starts per hour <sup>3)</sup>	1/h	20/20	8/8	14/14	20/20	16/16	17/17
- Rated motor current $I_M^{(2)}$ , start-up time 20 s							
	A	134/117	162/145	230/205	280/248	356/315	432/385
- Starts per hour <sup>3)</sup>	1/h	7/7	1.4/1.4	3/3	8/8	5/5	5/5

<sup>1)</sup> Measurement at 60 °C according to UL/CSA not required.

<sup>2)</sup> Current limit on soft starter set to 350%  $I_M$ ,  $T_u = 40 / 50$  °C. Maximum adjustable rated motor current  $I_M$  dependent on CLASS setting.

<sup>3)</sup> For intermittent duty S4 with ON period = 70%,  $T_u = 40 / 50$  °C, stand-alone installation vertical. The quoted switching frequencies do not apply for automatic mode.

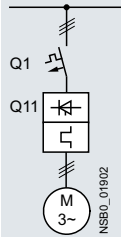
#### Motor feeders according to IEC with 3RV2/3VA motor starter protectors/circuit breakers

Without semiconductor protection

Type of coordination "1", CLASS 10,  
short-circuit breaking capacity  $I_q$  in kA, [see table](#)

Note:

For general recommendations for constructing motor feeders  
with soft starters, [see page 6/9](#).



Soft starters	Motor starter protectors/circuit breakers				
	for 400 V systems		for 500 V systems <sup>1)</sup>		
Q11 Type	Type	$I_q$ kA	Q1 Type	$I_q$ kA	
Type of coordination "1" 	<b>Inline circuit</b>				
	<b>3RW4024</b>	3RV2021-4AA10	55	3RV2021-4AA10	10
	<b>3RW4026</b>	3RV2021-4DA10	55	3RV2021-4DA10	10
	<b>3RW4027</b>	3RV2021-4EA10	55	3RV2021-4EA10	10
	<b>3RW4028</b>	3RV2021-4FA10	55	3RV2021-4FA10	10
	<b>3RW4036</b>	3RV2031-4WA10	10	3RV2031-4WA10	10
	<b>3RW4037</b>	3RV2031-4JA10	10	3RV2031-4JA10	5
	<b>3RW4038</b>	3RV2031-4KA10	10	3RV2031-4KA10	5
	<b>3RW4046</b>	3RV2041-4RA10	11	3RV2041-4RA10	5
	<b>3RW4047</b>	3RV2041-4MA10	11	3RV2041-4MA10	5
	<b>3RW4055</b>	3VA2216-5MN32	55	3VL3720-1DC36	12
	<b>3RW4056</b>	3VA2220-5MN32	55	3VL3720-1DC36	12
	<b>3RW4073</b>	3VA2325-7MN32	100	3VL5731-3DC36	35
	<b>3RW4074</b>	3VA2440-7MN32	110	3VL5740-3DC36	35
	<b>3RW4075</b>	3VA2450-7MN32	110	3VL5740-3DC36	35
	<b>3RW4076</b>	3VA2450-7MN32	110	3VL5040-3DC36	35

<sup>1)</sup> For 3RW405 and 3RW407 for systems up to 600 V.

# SIRIUS 3RW Soft Starters

## Basic Performance Soft Starters

### 3RW40 Soft Starters

#### General data

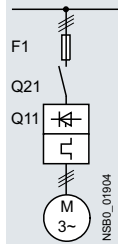
#### Motor feeders according to IEC with 3NA3 fuses

gG class full-range fuses for cable and line protection according to IEC 60269-2, without semiconductor protection

Type of coordination "1",  
short-circuit breaking capacity  $I_{q} = 65 \text{ kA}$

#### Note:

For general recommendations for constructing motor feeders with soft starters, [see page 6/9](#).



Soft starters	gG class fuse	Line contactor (optional)		
		for systems up to 400 V	for systems up to 480 V	for systems up to 600 V
Q11	F1	Q21	Q21	Q21
Type	Type	Type	Type	Type
Type of coordination "1"	Inline circuit <span style="float: right;">TqC 1</span>			
<b>3RW4024</b>	3NA3820-6	3RT2025	3RT2025/ 3RT2018 (in size S00)	3RT2025
<b>3RW4026</b>	3NA3822-6	3RT2026	3RT2027	3RT2037
<b>3RW4027</b>	3NA3824-6	3RT2027	3RT2028	3RT2037
<b>3RW4028</b>	3NA3824-6	3RT2028	3RT2035	3RT2037
<b>3RW4036</b>	3NA3130-6	3RT2036	3RT2036	3RT2038
<b>3RW4037</b>	3NA3132-6	3RT2037	3RT2037	3RT2046
<b>3RW4038</b>	3NA3132-6	3RT2038	3RT2038	3RT2046
<b>3RW4046</b>	3NA3136-6	3RT2045	3RT2045	3RT2047
<b>3RW4047</b>	3NA3136-6	3RT2047	3RT2047	3RT1054
<b>3RW4055</b>	3NA3244-6	3RT1055	3RT1055	3RT1055
<b>3RW4056</b>	3NA3244-6	3RT1056	3RT1056	3RT1056
<b>3RW4073</b>	2 x 3NA3354-6	3RT1065	3RT1065	3RT1065
<b>3RW4074</b>	2 x 3NA3354-6	3RT1066	3RT1066	3RT1066
<b>3RW4075</b>	2 x 3NA3365-6	3RT1075	3RT1075	3RT1075
<b>3RW4076</b>	2 x 3NA3365-6	3RT1076	3RT1076	3RT1076

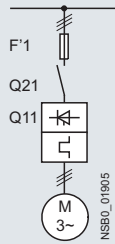
#### Motor feeders to IEC with 3NE1 SITOR fuses

gR class full-range fuses for semiconductor protection, cable and line protection

Type of coordination "2",  
short-circuit breaking capacity  $I_{q} = 65 \text{ kA}$

#### Note:

For general recommendations for constructing motor feeders with soft starters, [see page 6/9](#).



Soft starters	gG class fuse	Line contactor (optional)		
	for systems up to 600 V	for systems up to 400 V	for systems up to 480 V	for systems up to 600 V
Q11	F'1	Q21	Q21	Q21
Type	Type	Type	Type	Type
Type of coordination "2"	<div style="border: 1px solid black; padding: 2px; display: inline-block;">ToC 2</div> <b>Inline circuit</b>			
<b>3RW4024</b>	3NE1814-0	3RT2025	3RT2025/ 3RT2018 (in size S00)	3RT2025
<b>3RW4026</b>	3NE1803-0	3RT2026	3RT2027	3RT2037
<b>3RW4027</b>	3NE1020-2	3RT2027	3RT2028	3RT2037
<b>3RW4028</b>	3NE1020-2	3RT2028	3RT2035	3RT2037
<b>3RW4036</b>	3NE1020-2	3RT2036	3RT2036	3RT2038
<b>3RW4037</b>	3NE1820-0	3RT2037	3RT2037	3RT2046
<b>3RW4038</b>	3NE1820-0	3RT2038	3RT2038	3RT2046
<b>3RW4046</b>	3NE1021-0	3RT2045	3RT2045	3RT2047
<b>3RW4047</b>	3NE1022-0	3RT2047	3RT2047	3RT1054
<b>3RW4055</b>	3NE1227-2	3RT1055	3RT1055	3RT1055
<b>3RW4056</b>	3NE1227-2	3RT1056	3RT1056	3RT1056
<b>3RW4073</b>	3NE1331-2	3RT1065	3RT1065	3RT1065
<b>3RW4074</b>	3NE1333-2	3RT1066	3RT1066	3RT1066
<b>3RW4075</b>	3NE1334-2	3RT1075	3RT1075	3RT1075
<b>3RW4076</b>	3NE1435-2	3RT1076	3RT1076	3RT1076

# SIRIUS 3RW Soft Starters

## Basic Performance Soft Starters

### 3RW40 Soft Starters

#### General data

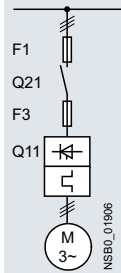
#### Motor feeders according to IEC with 3NE8 / 3NE4 / 3NE3 / 3NC fuses

aR class partial-range fuses for semiconductor protection

Type of coordination "2",  
short-circuit breaking capacity  $I_q = 65 \text{ kA}$

#### Note:

For general recommendations for constructing motor feeders with soft starters, [see page 6/9](#).



Soft starters	gG class fuse		aR class fuse		Cylindrical fuses	Line contactor (optional)		
	for systems up to 600 V	for systems up to 600 V	for systems up to 600 V	for systems up to 600 V		for systems up to 480 V	for systems up to 480 V	for systems up to 600 V
Q11	F1	F3	F3	F3	F3	Q21	Q21	Q21
Type	Type	Type	Type	Type	Type	Type	Type	Type
<b>Type of coordination "2"</b>	<b>Inline circuit</b>							
<b>3RW4024</b>	3NA3820-6	--	3NE4101	3NE8015-1	3NC2240	3RT2025	3RT2025/ 3RT2018 (in size S00)	3RT2025
<b>3RW4026</b>	3NA3822-6	--	3NE4102	3NE8017-1	3NC2263	3RT2026	3RT2027	3RT2037
<b>3RW4027</b>	3NA3824-6	--	3NE4118	3NE8018-1	3NC2280	3RT2027	3RT2028	3RT2037
<b>3RW4028</b>	3NA3824-6	--	3NE4118	3NE8020-1	3NC2280	3RT2028	3RT2035	3RT2037
<b>3RW4036</b>	3NA3130-6	--	3NE4120	3NE8020-1	3NC2280	3RT2036	3RT2036	3RT2038
<b>3RW4037</b>	3NA3132-6	--	3NE4121	3NE8021-1	--	3RT2037	3RT2037	3RT2046
<b>3RW4038</b>	3NA3132-6	3NE3221	--	3NE8022-1	--	3RT2038	3RT2038	3RT2046
<b>3RW4046</b>	3NA3136-6	3NE3222	--	3NE8022-1	--	3RT2045	3RT2045	3RT2047
<b>3RW4047</b>	3NA3136-6	3NE3224	--	3NE8024-1	--	3RT2047	3RT2047	3RT1054
<b>3RW4055</b>	3NA3244-6	3NE3227	--	--	--	3RT1055	3RT1055	3RT1055
<b>3RW4056</b>	3NA3244-6	3NE3227	--	--	--	3RT1056	3RT1056	3RT1056
<b>3RW4073</b>	2 x 3NA3354-6	3NE3232-0B	--	--	--	3RT1065	3RT1065	3RT1065
<b>3RW4074</b>	2 x 3NA3354-6	3NE3233	--	--	--	3RT1066	3RT1066	3RT1066
<b>3RW4075</b>	2 x 3NA3365-6	3NE3335	--	--	--	3RT1075	3RT1075	3RT1075
<b>3RW4076</b>	2 x 3NA3365-6	3NE3337-8	--	--	--	3RT1076	3RT1076	3RT1076

#### Note:

For CLASS 10 applications, as an alternative to the gG class full-range fuses for cable and line protection 3NA3 (F1), 3RV2/3VA motor starter protectors/circuit breakers can also be used, possibly with reduced short-circuit breaking capacity ([see page 6/61](#)). In these cases, optional line contactors can be dispensed with.

# SIRIUS 3RW Soft Starters

## Basic Performance Soft Starters

### 3RW40 Soft Starters

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

#### Selection and ordering data

**For normal starting (CLASS 10)**


3RW402.



3RW403.



3RW404.

3RW ambient temperature 40 °C				3RW ambient temperature 50 °C				Size	SD <sup>1)</sup>	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Rated values of three-phase motors				Rated values of three-phase motors										
Operational current $I_e$	Rating at operational voltage $U_e$			Operational current $I_e$	Rating at operational voltage $U_e$				d					
	230 V	400 V	500 V		200 V	230 V	460 V	575 V						
A	kW	kW	kW	A	hp	hp	hp	hp						
<b>Rated operational voltage <math>U_e</math> 200 ... 480 V</b>														
12.5	3	<b>5.5</b>	--	11	3	3	<b>7.5</b>	--	<b>S0</b>	2	<b>3RW4024-□BB□4</b>	1	1 unit	42G
25	5.5	<b>11</b>	--	23	5	5	<b>15</b>	--	<b>S0</b>	2	<b>3RW4026-□BB□4</b>	1	1 unit	42G
32	7.5	<b>15</b>	--	29	7.5	7.5	<b>20</b>	--	<b>S0</b>	2	<b>3RW4027-□BB□4</b>	1	1 unit	42G
38	11	<b>18.5</b>	--	34	10	10	<b>25</b>	--	<b>S0</b>	2	<b>3RW4028-□BB□4</b>	1	1 unit	42G
45	11	<b>22</b>	--	42	10	15	<b>30</b>	--	<b>S2</b>	2	<b>3RW4036-□BB□4</b>	1	1 unit	42G
63	18.5	<b>30</b>	--	58	15	20	<b>40</b>	--	<b>S2</b>	2	<b>3RW4037-□BB□4</b>	1	1 unit	42G
72	22	<b>37</b>	--	62	20	20	<b>40</b>	--	<b>S2</b>	2	<b>3RW4038-□BB□4</b>	1	1 unit	42G
80	22	<b>45</b>	--	73	20	25	<b>50</b>	--	<b>S3</b>	2	<b>3RW4046-□BB□4</b>	1	1 unit	42G
106	30	<b>55</b>	--	98	30	30	<b>75</b>	--	<b>S3</b>	2	<b>3RW4047-□BB□4</b>	1	1 unit	42G
<b>Rated operational voltage <math>U_e</math> 400 ... 600 V</b>														
12.5	--	5.5	<b>7.5</b>	11	--	--	7.5	<b>10</b>	<b>S0</b>	5	<b>3RW4024-□BB□5</b>	1	1 unit	42G
25	--	11	<b>15</b>	23	--	--	15	<b>20</b>	<b>S0</b>	5	<b>3RW4026-□BB□5</b>	1	1 unit	42G
32	--	15	<b>18.5</b>	29	--	--	20	<b>25</b>	<b>S0</b>	5	<b>3RW4027-□BB□5</b>	1	1 unit	42G
38	--	18.5	<b>22</b>	34	--	--	25	<b>30</b>	<b>S0</b>	5	<b>3RW4028-□BB□5</b>	1	1 unit	42G
45	--	22	<b>30</b>	42	--	--	30	<b>40</b>	<b>S2</b>	5	<b>3RW4036-□BB□5</b>	1	1 unit	42G
63	--	30	<b>37</b>	58	--	--	40	<b>50</b>	<b>S2</b>	5	<b>3RW4037-□BB□5</b>	1	1 unit	42G
72	--	37	<b>45</b>	62	--	--	40	<b>60</b>	<b>S2</b>	5	<b>3RW4038-□BB□5</b>	1	1 unit	42G
80	--	45	<b>55</b>	73	--	--	50	<b>60</b>	<b>S3</b>	5	<b>3RW4046-□BB□5</b>	1	1 unit	42G
106	--	55	<b>75</b>	98	--	--	75	<b>75</b>	<b>S3</b>	5	<b>3RW4047-□BB□5</b>	1	1 unit	42G

#### Article No. supplement for connection types

- With screw terminals
- With spring-type terminals<sup>2)</sup>

#### Article No. supplement for rated control supply voltage $U_s$

- 24 V AC/DC
- 110 ... 230 V AC/DC

- <sup>1)</sup> Soft starter  $U_e$  200 to 480 V with screw terminals: Standard delivery time SD = 1 day (d).
- <sup>2)</sup> Main connection from size S2: screw terminals.

#### Note:

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

**1**  
**2**
**0**  
**1**

# SIRIUS 3RW Soft Starters

## Basic Performance Soft Starters

### 3RW40 Soft Starters

Inline circuit **IE3/IE4 ready**

For normal starting (CLASS 10)



3RW402.



3RW403.



3RW404.

3RW ambient temperature 40 °C				3RW ambient temperature 50 °C				Size	SD <sup>1)</sup>	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Rated values of three-phase motors				Rated values of three-phase motors										
Operational current $I_e$	Rating at operational voltage $U_e$			Operational current $I_e$	Rating at operational voltage $U_e$									
	230 V	400 V	500 V		200 V	230 V	460 V	575 V						
A	kW	kW	kW	A	hp	hp	hp	hp	d					
<b>Rated operational voltage <math>U_e</math> 200 ... 480 V, with thermistor motor protection, rated control supply voltage <math>U_s</math> 24 V AC/DC</b>														
12.5	3	<b>5.5</b>	--	11	3	3	<b>7.5</b>	--	<b>S0</b>	5	<b>3RW4024-□TB04</b>	1	1 unit	42G
25	5.5	<b>11</b>	--	23	5	5	<b>15</b>	--	<b>S0</b>	5	<b>3RW4026-□TB04</b>	1	1 unit	42G
32	7.5	<b>15</b>	--	29	7.5	7.5	<b>20</b>	--	<b>S0</b>	5	<b>3RW4027-□TB04</b>	1	1 unit	42G
38	11	<b>18.5</b>	--	34	10	10	<b>25</b>	--	<b>S0</b>	5	<b>3RW4028-□TB04</b>	1	1 unit	42G
45	11	<b>22</b>	--	42	10	15	<b>30</b>	--	<b>S2</b>	5	<b>3RW4036-□TB04</b>	1	1 unit	42G
63	18.5	<b>30</b>	--	58	15	20	<b>40</b>	--	<b>S2</b>	5	<b>3RW4037-□TB04</b>	1	1 unit	42G
72	22	<b>37</b>	--	62	20	20	<b>40</b>	--	<b>S2</b>	5	<b>3RW4038-□TB04</b>	1	1 unit	42G
80	22	<b>45</b>	--	73	20	25	<b>50</b>	--	<b>S3</b>	5	<b>3RW4046-□TB04</b>	1	1 unit	42G
106	30	<b>55</b>	--	98	30	30	<b>75</b>	--	<b>S3</b>	5	<b>3RW4047-□TB04</b>	1	1 unit	42G
<b>Rated operational voltage <math>U_e</math> 400 ... 600 V, with thermistor motor protection, rated control supply voltage <math>U_s</math> 24 V AC/DC</b>														
12.5	--	5.5	<b>7.5</b>	11	--	--	7.5	<b>10</b>	<b>S0</b>	5	<b>3RW4024-□TB05</b>	1	1 unit	42G
25	--	11	<b>15</b>	23	--	--	15	<b>20</b>	<b>S0</b>	5	<b>3RW4026-□TB05</b>	1	1 unit	42G
32	--	15	<b>18.5</b>	29	--	--	20	<b>25</b>	<b>S0</b>	5	<b>3RW4027-□TB05</b>	1	1 unit	42G
38	--	18.5	<b>22</b>	34	--	--	25	<b>30</b>	<b>S0</b>	5	<b>3RW4028-□TB05</b>	1	1 unit	42G
45	--	22	<b>30</b>	42	--	--	30	<b>40</b>	<b>S2</b>	5	<b>3RW4036-□TB05</b>	1	1 unit	42G
63	--	30	<b>37</b>	58	--	--	40	<b>50</b>	<b>S2</b>	5	<b>3RW4037-□TB05</b>	1	1 unit	42G
72	--	37	<b>45</b>	62	--	--	40	<b>60</b>	<b>S2</b>	5	<b>3RW4038-□TB05</b>	1	1 unit	42G
80	--	45	<b>55</b>	73	--	--	50	<b>60</b>	<b>S3</b>	5	<b>3RW4046-□TB05</b>	1	1 unit	42G
106	--	55	<b>75</b>	98	--	--	75	<b>75</b>	<b>S3</b>	5	<b>3RW4047-□TB05</b>	1	1 unit	42G

#### Article No. supplement for connection types

- With screw terminals
- With spring-type terminals<sup>2)</sup>

<sup>1)</sup> Soft starter  $U_e$  200 to 480 V with screw terminals:  
Standard delivery time SD = 1 day (d).

<sup>2)</sup> Main connection from size S2: screw terminals.

#### Note:

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

1  
2

# SIRIUS 3RW Soft Starters

## Basic Performance Soft Starters

### 3RW40 Soft Starters

**IE3/IE4 ready**    Inline circuit

**For normal starting (CLASS 10)**


3RW405.



3RW407.

3RW ambient temperature 40 °C				3RW ambient temperature 50 °C				Size	SD <sup>1)</sup>	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Rated values of three-phase motors				Rated values of three-phase motors										
Operational current $I_e$	Rating at operational voltage $U_e$			Operational current $I_e$	Rating at operational voltage $U_e$									
	230 V	400 V	500 V		200 V	230 V	460 V	575 V						
A	kW	kW	kW	A	hp	hp	hp	hp	d					
<b>Rated operational voltage <math>U_e</math> 200 ... 460 V</b>														
134	37	<b>75</b>	--	117	30	40	<b>75</b>	--	<b>S6</b>	5	3RW4055-□BB□4	1	1 unit	42G
162	45	<b>90</b>	--	145	40	50	<b>100</b>	--		5		3RW4056-□BB□4	1	1 unit
230	75	<b>132</b>	--	205	60	75	<b>150</b>	--	<b>S12</b>	5	3RW4073-□BB□4	1	1 unit	42G
280	90	<b>160</b>	--	248	75	100	<b>200</b>	--		5		3RW4074-□BB□4	1	1 unit
356	110	<b>200</b>	--	315	100	125	<b>250</b>	--		5	3RW4075-□BB□4	1	1 unit	42G
432	132	<b>250</b>	--	385	125	150	<b>300</b>	--		5		3RW4076-□BB□4	1	1 unit
<b>Rated operational voltage <math>U_e</math> 400 ... 600 V</b>														
134	--	75	<b>90</b>	117	--	--	75	<b>100</b>	<b>S6</b>	5	3RW4055-□BB□5	1	1 unit	42G
162	--	90	<b>110</b>	145	--	--	100	<b>150</b>		5		3RW4056-□BB□5	1	1 unit
230	--	132	<b>160</b>	205	--	--	150	<b>200</b>	<b>S12</b>	5	3RW4073-□BB□5	1	1 unit	42G
280	--	160	<b>200</b>	248	--	--	200	<b>250</b>		5		3RW4074-□BB□5	1	1 unit
356	--	200	<b>250</b>	315	--	--	250	<b>300</b>		5	3RW4075-□BB□5	1	1 unit	42G
432	--	250	<b>315</b>	385	--	--	300	<b>400</b>		5		3RW4076-□BB□5	1	1 unit

**Article No. supplement for connection types<sup>2)</sup>**

- With spring-type terminals
- With screw terminals

**Article No. supplement for rated control supply voltage  $U_s$ <sup>3)</sup>**

- 115 V AC
- 230 V AC

<sup>1)</sup> Soft starter  $U_e$  200 to 460 V with screw terminals:  
Standard delivery time SD = 1 day (d),  
soft starter  $U_e$  400 to 600 V with screw terminals:  
Standard delivery time SD = 2 days (d).

<sup>2)</sup> Main circuit connection: busbar connection.

<sup>3)</sup> Control by way of the internal 24 V DC supply and direct control via PLC possible.

**Note:**

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

 2  
6

 3  
4







# SIRIUS 3RW Soft Starters

## Basic Performance Soft Starters

### 3RW40 Soft Starters

#### Accessories

#### Selection and ordering data

Conductor cross-section		Tightening torque	For soft starters size	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Solid or stranded	Finely stranded with end sleeve								
mm <sup>2</sup>	mm <sup>2</sup>	AWG	Nm	d					
<b>Three-phase infeed terminals</b>									
	2.5 ... 25	2.5 ... 16	10 ... 4	3 ... 4	<b>S0</b> (3RW402.)		1	1 unit	41E
3RW2925-5AB									
<b>Box terminal blocks for soft starters</b>									
<b>For round and ribbon cables</b> (2 units required for each device)									
	3RW405.	<b>S6</b>	<ul style="list-style-type: none"> <li>Up to 70 mm<sup>2</sup></li> <li>Up to 120 mm<sup>2</sup></li> </ul>	5	<b>3RT1955-4G</b> <b>3RT1956-4G</b> <b>3TX7500-0A</b>		1	1 unit	41B
3RT1956-4G									
<b>Auxiliary conductor connection for box terminals</b>									
	3RW407.	<b>S12</b>	<ul style="list-style-type: none"> <li>Up to 240 mm<sup>2</sup> (with auxiliary conductor connection)</li> </ul>	5	<b>3RT1966-4G</b>		1	1 unit	41B
<b>Auxiliary terminals</b>									
<b>Auxiliary terminals, 3-pole</b>									
	3RW404.	<b>S3</b>		5	<b>3RT2946-4F</b>		1	1 unit	41B
3RT2946-4F									
<b>Covers for soft starters</b>									
<b>Terminal covers for box terminals</b>									
Additional touch protection to be fitted at the box terminals (2 units required per device)									
	3RW403.	<b>S2</b>		5	<b>3RT2936-4EA2</b>		1	1 unit	41B
	3RW404.	<b>S3</b>		5	<b>3RT2946-4EA2</b>		1	1 unit	41B
	3RW405.	<b>S6</b>		5	<b>3RT1956-4EA2</b>		1	1 unit	41B
3RT2936-4EA2	3RW407.	<b>S12</b>		2	<b>3RT1966-4EA2</b>		1	1 unit	41B
<b>Terminal covers for cable lugs and busbar connections</b>									
	3RW404.	<b>S3</b>	For complying with the voltage clearances and as touch protection if box terminal is removed	5	<b>3RT1946-4EA1</b>		1	1 unit	41B
	3RW405.	<b>S6</b>		5	<b>3RT1956-4EA1</b>		1	1 unit	41B
	3RW407.	<b>S12</b>	(2 units required per device)	2	<b>3RT1966-4EA1</b>		1	1 unit	41B
3RT1946-4EA1			Also fits in case of S6 and S12 on mounted box terminals						
<b>Sealing covers</b>									
	3RW402. to 3RW404.	<b>S0, S2, S3</b>		5	<b>3RW4900-0PB10</b>		1	1 unit	42G
3RW4900-0PB10	3RW405. and 3RW407.	<b>S6, S12</b>		5	<b>3RW4900-0PB00</b>		1	1 unit	42G

# SIRIUS 3RW Soft Starters

## Basic Performance Soft Starters

### 3RW40 Soft Starters

#### Accessories

For motor starter protectors	For soft starters	Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Size	Size		d					

#### Standard mounting rail adapters



3RA2932-1CA00

		For mechanical fixing of motor starter protector and soft starter; for snapping onto standard mounting rail or for screw fixing						
<b>S2</b>	<b>S2</b>	<b>Single-unit packaging</b>	2	<b>3RA2932-1CA00</b>		1	1 unit	41B

For soft starters	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Type	Size					
	d					

#### Fans (to increase switching frequency and for device mounting in positions different to the standard position)

3RW4928-8VB00,  
3RW4947-8VB00

3RW402.	<b>S0</b>	▶	<b>3RW4928-8VB00</b>	1	1 unit	42G
3RW403., 3RW404.	<b>S2, S3</b>	▶	<b>3RW4947-8VB00</b>	1	1 unit	42G

For soft starters	Motor starter protectors	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Type	Size	Size					
		d					

#### Link modules to motor starter protectors<sup>1)</sup>



3RA2921-1BA00

3RW402.	<b>S0</b>	<b>S00/S0</b>	2	<b>3RA2921-1BA00</b>	1	1 unit	41B
3RW4036.	<b>S2</b>	<b>S2</b>	▶	<b>3RA2931-1AA00</b>	1	1 unit	41B
3RW4046., 3RW4047.	<b>S3</b>	<b>S3</b>	▶	<b>3RA1941-1AA00</b>	1	1 unit	41B

#### Screw terminals



3RA2921-2GA00

3RW402.	<b>S0</b>	<b>S0</b>	2	<b>3RA2921-2GA00</b>	1	1 unit	41B
---------	-----------	-----------	---	----------------------	---	--------	-----

#### Spring-type terminals





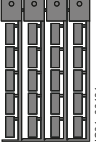
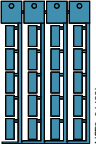
<sup>1)</sup> Can be used in size S0 up to maximum 32 A.  
Can be used in size S2 up to maximum 65 A in combination with 3RA2932-1CA00 standard mounting rail adapter (specially for soft starters).  
Can be used in size S3 only with mounting plate.

# SIRIUS 3RW Soft Starters

## Basic Performance Soft Starters

### 3RW40 Soft Starters

#### Accessories

Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
<b>Tools for opening spring-type terminals in sizes S00 and S0</b>						
 3RA2908-1A	2	<b>Spring-type terminals</b> 		1	1 unit	41B
		<b>3RA2908-1A</b>				
<b>Blank labels</b>						
 3RT2900-1SB20	20	<b>Unit labeling plates<sup>1)</sup></b> For SIRIUS devices		100	340 units	41B
		<ul style="list-style-type: none"> <li>• 20 mm x 7 mm, titanium gray</li> </ul>				
 3RT1900-1SB20	20	<ul style="list-style-type: none"> <li>• 20 mm x 7 mm, pastel turquoise</li> </ul>		100	340 units	41B

<sup>1)</sup> PC labeling systems for individual inscription of unit labeling plates are available from: murrplastik Systemtechnik GmbH, [see page 16/16](#).

## Overview

### More information

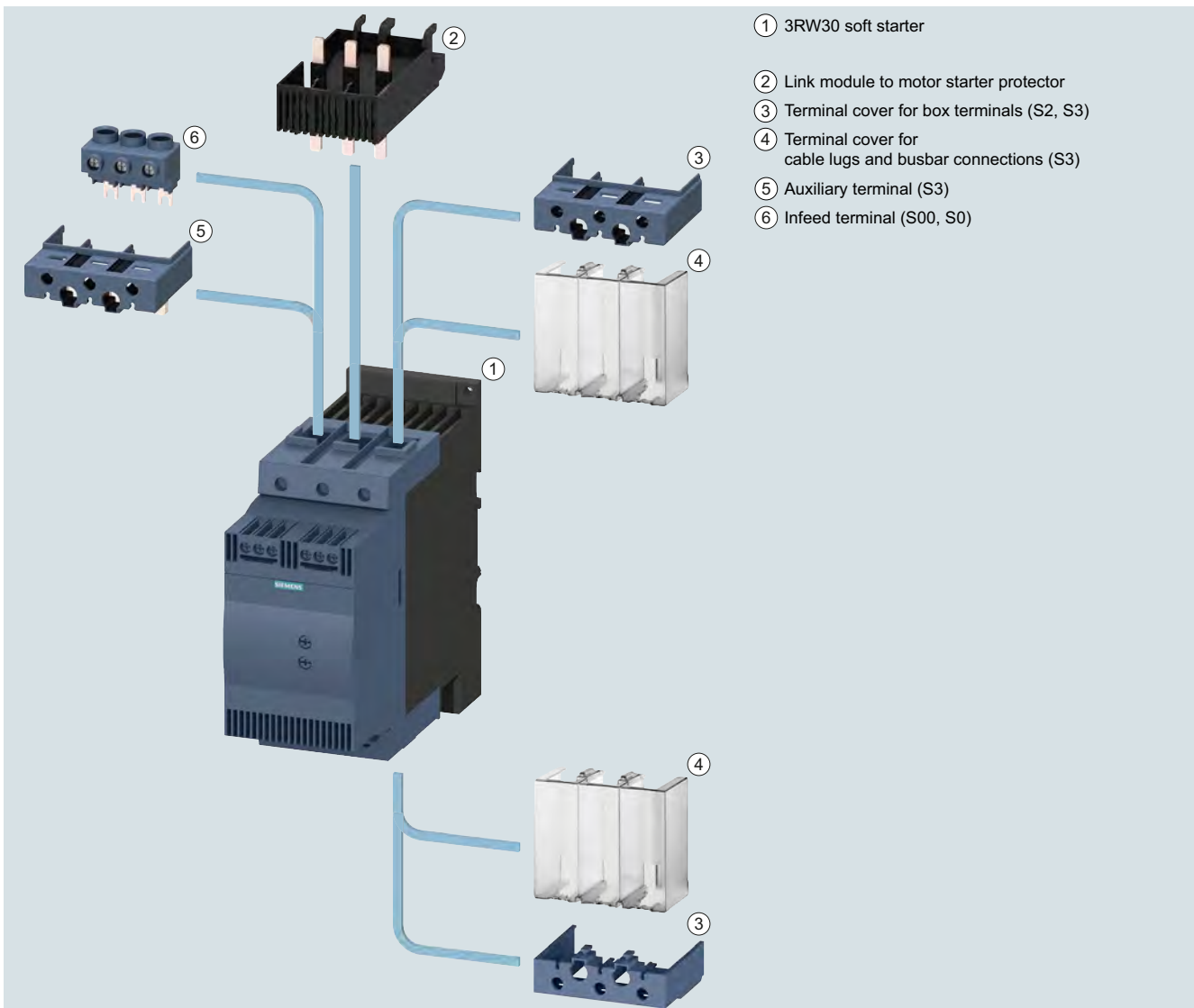
Homepage, see [www.siemens.com/soft-starter](http://www.siemens.com/soft-starter)  
 Industry Mall, see [www.siemens.com/product?3RW](http://www.siemens.com/product?3RW)

TIA Selection Tool Cloud (TST Cloud), see <https://mall.industry.siemens.com/spice/tstweb/?KMAT=3rw30>  
 Simulation Tool for Soft Starters (STS), see page 6/7 or <https://support.industry.siemens.com/cs/ww/en/view/101494917>



The SIRIUS 3RW30 Basic Performance soft starters are suitable for soft starting of three-phase asynchronous motors.

Due to two-phase control, the current is kept at minimum values in all three phases throughout the entire start-up time and disturbing direct current components are eliminated in addition. This not only enables the two-phase starting of motors up to 55 kW (at 400 V) but also avoids the current and torque peaks which occur e.g. with wye-delta starters.



- ① 3RW30 soft starter
- ② Link module to motor starter protector
- ③ Terminal cover for box terminals (S2, S3)
- ④ Terminal cover for cable lugs and busbar connections (S3)
- ⑤ Auxiliary terminal (S3)
- ⑥ Infeed terminal (S00, S0)

3RW30 Basic Performance soft starter with accessories (see page 6/81)

# SIRIUS 3RW Soft Starters

## Basic Performance Soft Starters

### 3RW30 Soft Starters

#### General data

#### Benefits



3RW301.



3RW302.



3RW303.



3RW304.



3RW3003-2CB54

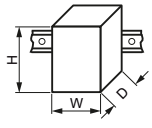
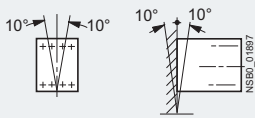
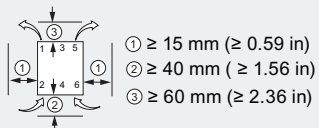
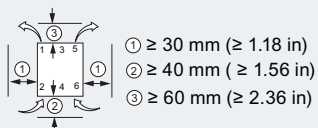
Product characteristics / function	Performance features / benefits
Small and compact design	Space-saving, clearly arranged control panel layout
Parameterization using potentiometers	Simple and fast commissioning
Integrated bypass contact system	Reduction of power loss during operation
"Polarity Balancing" control method	Avoidance of direct current components in two-phase controlled soft starters.

## Technical specifications

### More information

Manual "SIRIUS 3RW30/3RW40 Soft Starters", see <https://support.industry.siemens.com/cs/ww/en/view/38752095>  
 FAQs, see <https://support.industry.siemens.com/cs/ww/en/ps/16213/faq>

Catalog LV 10, see [www.siemens.com/lowvoltage/lv10](http://www.siemens.com/lowvoltage/lv10)

Type		3RW301.	3RW302.	3RW303.	3RW304.	
<b>Mechanics and environment</b>						
<b>Mounting dimensions (W x H x D)</b>						
<ul style="list-style-type: none"> <li>• Screw terminals</li> <li>• Spring-type terminals</li> </ul>		mm	45 x 95 x 151	45 x 125 x 151	55 x 144 x 168	70 x 160 x 186
		mm	45 x 117 x 151	45 x 150 x 151	55 x 144 x 168	70 x 160 x 186
<b>Permissible ambient temperature</b>						
During operation	°C	-25 ... +60; (derating from +40)				
During storage	°C	-40 ... +80				
<b>Weight</b>						
	kg	0.58	0.69	1.20	1.71	
<b>Permissible mounting position<sup>1)</sup></b> (auxiliary fan not available)						
						
<b>Installation type<sup>1)</sup></b>						
Stand-alone installation						
<b>Permissible installation altitude</b>						
	m	5 000 (Derating from 1 000, see characteristic curve on page 6/7)				
<b>Degree of protection</b>						
IP20 for 3RW301. and 3RW302.; IP00 for 3RW303. and 3RW304.						

<sup>1)</sup> In the case of deviations, please observe derating, see Manual in the chapter "Configuring".

Type	Terminal	3RW301., 3RW302.	3RW303., 3RW304.			
<b>Control electronics</b>						
<b>Rated values</b>						
Rated control supply voltage	A1/A2	V	24	110 ... 230	24	110 ... 230
• Tolerance		%	± 20	-15/+10	± 20	-15/+10
Rated frequency		Hz	50/60			
• Tolerance		%	± 10			

Type		3RW301.	3RW302.	3RW303.	3RW304.
<b>Power electronics</b>					
<b>Rated operational voltage</b>					
	V AC	200 ... 480			
Tolerance	%	-15/+10			
<b>Rated frequency</b>					
	Hz	50/60			
Tolerance	%	± 10			
<b>Uninterrupted duty at 40 °C (% of I<sub>e</sub>)</b>					
	%	115			
<b>Minimum load (% of I<sub>e</sub>)</b>					
	%	10 (at least 1 A)			
<b>Maximum cable length between soft starter and motor</b>					
	m	300			

# SIRIUS 3RW Soft Starters

## Basic Performance Soft Starters

### 3RW30 Soft Starters

#### General data

Type		3RW3013	3RW3014	3RW3016	3RW3017	3RW3018
<b>Power electronics</b>						
<b>Load rating with rated operational current <math>I_e</math></b>						
• According to IEC and UL/CSA <sup>1)</sup> , for individual mounting, AC-53a						
- At 40 °C	A	3.6	6.5	9	12.5	17.6
- At 50 °C	A	3.3	6	8	12	17
- At 60 °C	A	3	5.5	7	11	14
<b>Power loss</b>						
• In operation after completed starting with uninterrupted rated operational current (40 °C) approx.						
	W	0.25	0.5	1	2	4
• During starting with 300% $I_M$ (40 °C)						
	W	24	52	80	80	116
<b>Permissible rated motor current and starts per hour</b>						
• For normal starting (CLASS 10) at 40 / 50 °C						
- Rated motor current $I_M^{(2)}$ , start-up time 3 s	A	3.6/3.3	6.5/6.0	9/8	12.5/12.0	17.6/17.0
- Starts per hour <sup>3)</sup>	1/h	200/150	87/60	50/50	85/70	62/46
- Rated motor current $I_M^{(2)}$ , start-up time 4 s	A	3.6/3.3	6.5/6.0	9/8	12.5/12.0	17.6/17.0
- Starts per hour <sup>3)</sup>	1/h	150/100	64/46	35/35	62/47	45/32

1) Measurement at 60 °C according to UL/CSA not required.

2) At 300%  $I_M$ ,  $T_U = 40 / 50$  °C.

3) For intermittent duty S4 with ON period = 30%,  $T_U = 40 / 50$  °C, stand-alone installation vertical. The quoted switching frequencies do not apply for automatic mode.

Type		3RW3026	3RW3027	3RW3028
<b>Power electronics</b>				
<b>Load rating with rated operational current <math>I_e</math></b>				
• According to IEC and UL/CSA <sup>1)</sup> , for individual mounting, AC-53a				
- At 40 °C	A	25.3	32.2	38
- At 50 °C	A	23	29	34
- At 60 °C	A	21	26	31
<b>Power loss</b>				
• In operation after completed starting with uninterrupted rated operational current (40 °C) approx.				
	W	8	13	19
• During starting with 300% $I_M$ (40 °C)				
	W	188	220	256
<b>Permissible rated motor current and starts per hour</b>				
• For normal starting (CLASS 10) at 40 / 50 °C				
- Rated motor current $I_M^{(2)}$ , start-up time 3 s	A	25/23	32/29	38/34
- Starts per hour <sup>3)</sup>	1/h	23/23	23/23	19/19
- Rated motor current $I_M^{(2)}$ , start-up time 4 s	A	25/23	32/29	38/34
- Starts per hour <sup>3)</sup>	1/h	15/15	16/16	12/12

1) Measurement at 60 °C according to UL/CSA not required.

2) At 300%  $I_M$ ,  $T_U = 40 / 50$  °C.

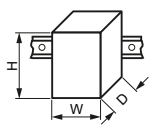
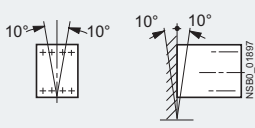
3) For intermittent duty S4 with ON period = 30%,  $T_U = 40 / 50$  °C, stand-alone installation vertical. The quoted switching frequencies do not apply for automatic mode. Factors for permissible switching frequency with deviating mounting position, direct mounting, side-by-side mounting, see Manual in the chapter "Configuring".

Type		3RW3036	3RW3037	3RW3038	3RW3046	3RW3047
<b>Power electronics</b>						
<b>Load rating with rated operational current <math>I_e</math></b>						
• According to IEC and UL/CSA <sup>1)</sup> , for individual mounting, AC-53a						
- At 40 °C	A	45	65	72	80	106
- At 50 °C	A	42	58	62.1	73	98
- At 60 °C	A	39	53	60	66	90
<b>Power loss</b>						
• In operation after completed starting with uninterrupted rated operational current (40 °C) approx.						
	W	6	12	15	12	21
• During starting with 300% $I_M$ (40 °C)						
	W	316	444	500	576	768
<b>Permissible rated motor current and starts per hour</b>						
• For normal starting (CLASS 10) at 40 / 50 °C						
- Rated motor current $I_M^{(2)}$ , start-up time 3 s	A	45/42	63/58	72/62	80/73	106/108
- Starts per hour <sup>3)</sup>	1/h	38/38	23/23	22/22	22/22	15/15
- Rated motor current $I_M^{(2)}$ , start-up time 4 s	A	45/42	63/58	72/62	80/73	106/98
- Starts per hour <sup>3)</sup>	1/h	26/26	15/15	15/15	15/15	10/10

1) Measurement at 60 °C according to UL/CSA not required.

2) At 300%  $I_M$ ,  $T_U = 40 / 50$  °C.

3) For intermittent duty S4 with ON period = 30%,  $T_U = 40 / 50$  °C, stand-alone installation vertical. The quoted switching frequencies do not apply for automatic mode.

Type		3RW3003-1CB54	3RW3003-2CB54
<b>Mechanics and environment</b>			
<b>Mounting dimensions (W x H x D)</b>		mm	22.5 x 100 x 120
<ul style="list-style-type: none"> <li>Screw terminals</li> <li>Spring-type terminals</li> </ul>		mm	-- 22.5 x 101.6 x 120
<b>Permissible ambient temperature</b>		°C	-25 ... +60; (derating from +40)
During operation		°C	-40 ... +80
During storage			
<b>Weight</b>		kg	0.207
<b>Permissible mounting position</b>			
<b>Permissible installation altitude</b>		m	5 000 (Derating from 1 000, <a href="#">see characteristic curve on page 6/7</a> )
<b>Degree of protection</b> acc. to IEC 60529			IP20 (IP00 terminal compartment)
<b>Control electronics</b>			
<b>Rated values</b>			
Rated control supply voltage	V		24 ... 230 AC/DC
• Tolerance	%		± 10
Rated frequency at AC	Hz		50/60
• Tolerance	%		± 10
<b>Power electronics</b>			
<b>Rated operational voltage</b>	V AC		200 ... 400
Tolerance	%		± 10
<b>Rated frequency</b>	Hz		50/60
Tolerance	%		± 10
<b>Uninterrupted duty</b> (% of $I_e$ )	%		100
<b>Minimum load<sup>1)</sup></b> (% of $I_e$ ); at 40 °C	%		9
<b>Maximum conductor length</b> between soft starter and motor	m		100 <sup>2)</sup>
<b>Load rating with rated operational current <math>I_e</math></b>			
• According to IEC and UL/CSA for individual mounting at 40/50/60 °C, AC-53a	A		3/2.6/2.2
• According to IEC and UL/CSA for side-by-side-mounting at 40/50/60 °C, AC-53a	A		2.6/2.2 /1.8
<b>Power loss</b>			
• In operation after completed starting with uninterrupted rated operational current (40 °C) approx.	W		6.5
• With utilization of maximum switching frequency	W		3
<b>Permissible starts per hour (cannot be increased by using a fan)</b>			
• For intermittent duty S4 $T_{ij} = 40$ °C, stand-alone installation vertical	1/h		1 500
• ON period = 70% for 300% $I_e$	1/s		0.2
<b>Dead time after uninterrupted duty</b> with $I_e$ before restart	s		0

<sup>1)</sup> The rated motor current (specified on the motor's name plate) should at least amount to the specified percentage of the SIRIUS soft starter unit's rated operational current  $I_e$ .

<sup>2)</sup> If this value is exceeded, problems with line capacities may arise, which can result in false firing.

# SIRIUS 3RW Soft Starters

## Basic Performance Soft Starters

### 3RW30 Soft Starters

#### General data

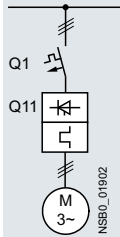
#### Motor feeders according to IEC with 3RV2 motor starter protectors

Without semiconductor protection

Type of coordination "1", CLASS 10,  
short-circuit breaking capacity  $I_q$  in kA, [see table](#)

Note:

For general recommendations for constructing motor feeders  
with soft starters, [see page 6/9](#).



#### Soft starters

Q11  
Type

#### Motor starter protectors/circuit breakers

for 400 V systems

Q1  
Type

$I_q$   
kA

Type of  
coordination  
"1"

ToC  
1

Soft starters	Motor starter protectors/circuit breakers	$I_q$
Q11 Type	Q1 Type	kA
<b>3RW3003</b>	3RV2011-1EA10	50
<b>3RW3013</b>	3RV2011-1FA10	5
<b>3RW3014</b>	3RV2011-1HA10	5
<b>3RW3016</b>	3RV2011-1JA10	5
<b>3RW3017</b>	3RV2011-1KA10	5
<b>3RW3018</b>	3RV2021-4BA10	5
<b>3RW3026</b>	3RV2021-4DA10	55
<b>3RW3027</b>	3RV2021-4EA10	55
<b>3RW3028</b>	3RV2021-4FA10	55
<b>3RW3036</b>	3RV2031-4WA10	10
<b>3RW3037</b>	3RV2031-4JA10	10
<b>3RW3038</b>	3RV2031-4KA10	10
<b>3RW3046</b>	3RV2041-4RA10	11
<b>3RW3047</b>	3RV2041-4MA10	11

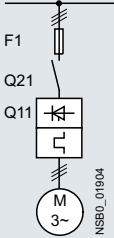

#### Motor feeders according to IEC with 3NA3 fuses

gG class full-range fuses for cable and line protection according to IEC 60269-2, without semiconductor protection

Type of coordination "1",  
short-circuit breaking capacity  $I_q = 65 \text{ kA}$

#### Note:

For general recommendations for constructing motor feeders with soft starters, [see page 6/9](#).

					
Soft starters	gG class fuse	Line contactor (optional)			
	for systems up to 480 V	for systems up to 400 V	for systems up to 480 V		
Q11 Type	F1 Type	Q21 Type	Q21 Type		
Type of coordination "1"	 <b>Inline circuit</b>				
<b>3RW3003</b> <sup>1)</sup>	3NA3805 <sup>2)</sup>	3RT2015	3RT2015		
<b>3RW3013</b>	3NA3803-6	3RT2015	3RT2015		
<b>3RW3014</b>	3NA3805-6	3RT2015	3RT2016		
<b>3RW3016</b>	3NA3807-6	3RT2016	3RT2017		
<b>3RW3017</b>	3NA3810-6	3RT2018	3RT2025		
<b>3RW3018</b>	3NA3814-6	3RT2026	3RT2026		
<b>3RW3026</b>	3NA3822-6	3RT2026	3RT2027		
<b>3RW3027</b>	3NA3824-6	3RT2027	3RT2028		
<b>3RW3028</b>	3NA3824-6	3RT2028	3RT2035		
<b>3RW3036</b>	3NA3130-6	3RT2036	3RT2036		
<b>3RW3037</b>	3NA3132-6	3RT2037	3RT2037		
<b>3RW3038</b>	3NA3132-6	3RT2038	3RT2038		
<b>3RW3046</b>	3NA3136-6	3RT2045	3RT2045		
<b>3RW3047</b>	3NA3136-6	3RT2047	3RT2047		

<sup>1)</sup>  $I_q = 50 \text{ kA}$  at 400 V.

<sup>2)</sup> 3NA3805-1 (NH00), 5SB261 (DIAZED), 5SE2201-6 (NEOZED).

# SIRIUS 3RW Soft Starters

## Basic Performance Soft Starters

### 3RW30 Soft Starters

#### General data

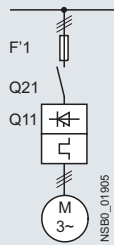
#### Motor feeders according to IEC with 3NE1 SITOR fuses

gR class full-range fuses for semiconductor protection, cable and line protection

Type of coordination "2",  
short-circuit breaking capacity  $I_q = 65 \text{ kA}$

#### Note:

For general recommendations for constructing motor feeders with soft starters, [see page 6/9](#).



Soft starters	gG class fuse	Line contactor (optional)	
	for systems up to 480 V	for systems up to 400 V	for systems up to 480 V
Q11 Type	F'1 Type	Q21 Type	Q21 Type
Type of coordination "2"	Inline circuit		
<b>3RW3003<sup>1)</sup></b>	3NE1813-0 <sup>2)</sup>	3RT2015	3RT2015
<b>3RW3013</b>	3NE1813-0	3RT2015	3RT2015
<b>3RW3014</b>	3NE1813-0	3RT2015	3RT2016
<b>3RW3016</b>	3NE1813-0	3RT2016	3RT2017
<b>3RW3017</b>	3NE1813-0	3RT2018	3RT2025
<b>3RW3018</b>	3NE1814-0	3RT2026	3RT2026
<b>3RW3026</b>	3NE1803-0	3RT2026	3RT2027
<b>3RW3027</b>	3NE1020-2	3RT2027	3RT2028
<b>3RW3028</b>	3NE1020-2	3RT2028	3RT2035
<b>3RW3036</b>	3NE1020-2	3RT2036	3RT2036
<b>3RW3037</b>	3NE1820-0	3RT2037	3RT2037
<b>3RW3038</b>	3NE1820-0	3RT2038	3RT2038
<b>3RW3046</b>	3NE1021-0	3RT2045	3RT2045
<b>3RW3047</b>	3NE1022-0	3RT2047	3RT2047

<sup>1)</sup>  $I_q = 50 \text{ kA}$  at 400 V.

<sup>2)</sup> No SITOR fuse required!  
Alternatively: 3NA3803 (NH00), 5SB221 (DIAZED), 5SE2206 (NEOZED).

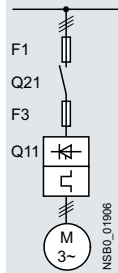
#### Motor feeders according to IEC with 3NE8 / 3NE4 / 3NE3 / 3NC fuses

aR class partial-range fuses for semiconductor protection

Type of coordination "2",  
short-circuit breaking capacity  $I_q = 65 \text{ kA}$

#### Note:

For general recommendations for constructing motor feeders with soft starters, [see page 6/9](#).



Soft starters	gG class fuse		aR class fuse		Cylindrical fuses		Line contactor (optional)	
	for systems up to 480 V	Type	for systems up to 480 V	Type	for systems up to 480 V	Type	for systems up to 400 V	for systems up to 480 V
Q11	F1	Type	F3	Type	F3	Type	Q21	Q21
Type	Type	Type	Type	Type	Type	Type	Type	Type
<b>Type of coordination "2"</b>	<b>Inline circuit</b>							
<b>3RW3003<sup>1)</sup></b>	3NA3805 <sup>2)</sup>	--	--	--	3NE8015-1	3NC1010	3RT2015	3RT2015
<b>3RW3013</b>	3NA3803-6	--	3NE4101	--	3NE8015-1	3NC2220	3RT2015	3RT2015
<b>3RW3014</b>	3NA3805-6	--	3NE4101	--	3NE8015-1	3NC2220	3RT2015	3RT2016
<b>3RW3016</b>	3NA3807-6	--	3NE4101	--	3NE8015-1	3NC2220	3RT2016	3RT2017
<b>3RW3017</b>	3NA3810-6	--	3NE4101	--	3NE8015-1	3NC2250	3RT2018	3RT2025
<b>3RW3018</b>	3NA3814-6	--	3NE4101	--	3NE8003-1	3NC2263	3RT2026	3RT2026
<b>3RW3026</b>	3NA3822-6	--	3NE4102	--	3NE8017-1	3NC2263	3RT2026	3RT2027
<b>3RW3027</b>	3NA3824-6	--	3NE4118	--	3NE8018-1	3NC2280	3RT2027	3RT2028
<b>3RW3028</b>	3NA3824-6	--	3NE4118	--	3NE8020-1	3NC2280	3RT2028	3RT2035
<b>3RW3036</b>	3NA3130-6	--	3NE4120	--	3NE8020-1	3NC2280	3RT2036	3RT2036
<b>3RW3037</b>	3NA3132-6	--	3NE4121	--	3NE8021-1	--	3RT2037	3RT2037
<b>3RW3038</b>	3NA3132-6	3NE3221	--	--	3NE8022-1	--	3RT2038	3RT2038
<b>3RW3046</b>	3NA3136-6	3NE3222	--	--	3NE8022-1	--	3RT2045	3RT2045
<b>3RW3047</b>	3NA3136-6	3NE3224	--	--	3NE8024-1	--	3RT2047	3RT2047

<sup>1)</sup>  $I_q = 50 \text{ kA}$  at 400 V.

<sup>2)</sup> 3NA3805-1 (NH00), 5SB261 (DIAZED).

#### Note:

For CLASS 10 applications, as an alternative to the gG class full-range fuses for cable and line protection 3NA3 (F1), 3RV2/3VA motor starter protectors/circuit breakers can also be used, possibly with reduced short-circuit breaking capacity ([see page 6/76](#)). In these cases, optional line contactors can be dispensed with.

# SIRIUS 3RW Soft Starters

## Basic Performance Soft Starters

### 3RW30 Soft Starters

Inline circuit **IE3/IE4 ready**

#### Selection and ordering data

*For simple starting conditions*



3RW ambient temperature 40 °C				3RW ambient temperature 50 °C				Size	SD <sup>1)</sup>	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Rated values of three-phase motors				Rated values of three-phase motors										
Operational current $I_e$	Rating at operational voltage $U_e$			Operational current $I_e$	Rating at operational voltage $U_e$			d						
	230 V	400 V	500 V		200 V	230 V	460 V							575 V
A	kW	kW	kW	A	hp	hp	hp	hp						
<b>Rated operational voltage <math>U_e</math> 200 ... 480 V</b>														
3.6	0.75	<b>1.5</b>	--	3	0.5	0.5	<b>1.5</b>	--	<b>S00</b>	2	<b>3RW3013-□BB□4</b>	1	1 unit	42G
6.5	1.5	<b>3</b>	--	6	1	1	<b>3</b>	--	<b>S00</b>	2	<b>3RW3014-□BB□4</b>	1	1 unit	42G
9	2.2	<b>4</b>	--	8	2	2	<b>5</b>	--	<b>S00</b>	2	<b>3RW3016-□BB□4</b>	1	1 unit	42G
12.5	3	<b>5.5</b>	--	12	3	3	<b>7.5</b>	--	<b>S00</b>	2	<b>3RW3017-□BB□4</b>	1	1 unit	42G
17.6	4	<b>7.5</b>	--	17	3	3	<b>10</b>	--	<b>S00</b>	2	<b>3RW3018-□BB□4</b>	1	1 unit	42G
25	5.5	<b>11</b>	--	23	5	5	<b>15</b>	--	<b>S0</b>	2	<b>3RW3026-□BB□4</b>	1	1 unit	42G
32	7.5	<b>15</b>	--	29	7.5	7.5	<b>20</b>	--	<b>S0</b>	2	<b>3RW3027-□BB□4</b>	1	1 unit	42G
38	11	<b>18.5</b>	--	34	10	10	<b>25</b>	--	<b>S0</b>	2	<b>3RW3028-□BB□4</b>	1	1 unit	42G
45	11	<b>22</b>	--	42	10	15	<b>30</b>	--	<b>S2</b>	2	<b>3RW3036-□BB□4</b>	1	1 unit	42G
63	18.5	<b>30</b>	--	58	15	20	<b>40</b>	--	<b>S2</b>	2	<b>3RW3037-□BB□4</b>	1	1 unit	42G
72	22	<b>37</b>	--	62	20	20	<b>40</b>	--	<b>S2</b>	2	<b>3RW3038-□BB□4</b>	1	1 unit	42G
80	22	<b>45</b>	--	73	20	25	<b>50</b>	--	<b>S3</b>	2	<b>3RW3046-□BB□4</b>	1	1 unit	42G
106	30	<b>55</b>	--	98	30	30	<b>75</b>	--	<b>S3</b>	2	<b>3RW3047-□BB□4</b>	1	1 unit	42G

#### Article No. supplement for connection types

- With screw terminals
- With spring-type terminals<sup>2)</sup>

#### Article No. supplement for rated control supply voltage $U_s$

- 24 V AC/DC
- 110 ... 230 V AC/DC

Soft starters for simple starting conditions and high switching frequency, rated operational voltage  $U_e$  200 ... 400 V, rated control supply voltage  $U_s$  24 ... 230 V AC/DC

3	0.55	<b>1.1</b>	--	A	0.5	<b>0.5</b>	--	--	22.5 mm					
											1	1 unit	42G	
											1	1 unit	42G	

- With screw terminals
- With spring-type terminals

- <sup>1)</sup> Soft starter  $U_e$  200 to 480 V with screw terminals: Standard delivery time SD = 1 day (d).  
<sup>2)</sup> Main connection from size S2: screw terminals.

#### Note:

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

1  
2  
0  
1

## Accessories

### More information

Manual "SIRIUS 3RW30/3RW40 Soft Starters", see  
<https://support.industry.siemens.com/cs/ww/en/view/38752095>

Conductor cross-section			Tightening torque	For soft starters size	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Solid or stranded	Finely stranded with end sleeve	AWG cables, solid or stranded								
mm <sup>2</sup>	mm <sup>2</sup>	AWG	Nm	d						

### Three-phase infeed terminals



3RV2925-5AB

2.5 ... 25	2.5 ... 16	10 ... 4	3 ... 4	S00 (3RW301.), S0 (3RW302.)	▶	<b>3RV2925-5AB</b>		1	1 unit	41E
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For soft starters Type	Size	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
		d					

### Auxiliary terminals



3RT2946-4F

Auxiliary terminals, 3-pole			SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
3RW304.	Size							
			d					

3RW304.	<b>S3</b>	5	<b>3RT2946-4F</b>		1	1 unit	41B
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### Covers for soft starters



3RT2936-4EA2

Terminal covers for box terminals			SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
3RW303.	Size							
Additional touch protection to be fitted at the box terminals (2 units required per device)								
			d					

3RW303.	<b>S2</b>	▶	<b>3RT2936-4EA2</b>		1	1 unit	41B
3RW304.	<b>S3</b>	▶	<b>3RT2946-4EA2</b>		1	1 unit	41B



3RT1946-4EA1

Terminal covers for cable lugs and busbar connections			SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
3RW304.	Size							
For complying with the voltage clearances and as touch protection if box terminal is removed (2 units required per device)								
			d					

3RW304.	<b>S3</b>	5	<b>3RT1946-4EA1</b>		1	1 unit	41B
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For motor starter protectors	For soft starters	Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Size	Size		d					

### Mounting rails for mounting contactors for the customer assembly of 3RA21 load feeders with busbar adapters for 60 mm systems



8US1998-7CB45

--	<b>S0</b>	For the discrete configuration of direct-on-line starters, an additional mounting rail is needed for the contactor in addition to the existing mounting rail on the busbar adapter for the motor starter protector.	2	<b>8US1998-7CB45</b>		1	10 units	140
		For pushing onto the device adapter, including fixing screws						

### Standard mounting rail adapters



3RA2932-1CA00

<b>S2</b>	<b>S2</b>	For mechanical fixing of motor starter protector and soft starter; for snapping onto standard mounting rail or for screw fixing	2	<b>3RA2932-1CA00</b>		1	1 unit	41B
		<b>Single-unit packaging</b>						

# SIRIUS 3RW Soft Starters

## Basic Performance Soft Starters

### 3RW30 Soft Starters

#### Accessories

For soft starters Type	Size	Motor starter protectors Size	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
			d					

#### Link modules to motor starter protectors<sup>1)</sup>



3RA2921-1BA00

3RW301.	<b>S00</b>	<b>S00</b>	2			1	1 unit	41B
3RW302.	<b>S0</b>	<b>S00/S0</b>	2			1	1 unit	41B
3RW3036.	<b>S2</b>	<b>S2</b>	▶			1	1 unit	41B
3RW3046., 3RW3047.	<b>S3</b>	<b>S3</b>	▶			1	1 unit	41B



3RA2921-2GA00

3RW301.	<b>S00</b>	<b>S00</b>	2			1	1 unit	41B
3RW302.	<b>S0</b>	<b>S0</b>	2			1	1 unit	41B

#### Screw terminals



<b>3RA2921-1BA00</b>						1	1 unit	41B
<b>3RA2921-1BA00</b>						1	1 unit	41B
<b>3RA2931-1AA00</b>						1	1 unit	41B
<b>3RA1941-1AA00</b>						1	1 unit	41B

#### Spring-type terminals



<b>3RA2911-2GA00</b>						1	1 unit	41B
<b>3RA2921-2GA00</b>						1	1 unit	41B

<sup>1)</sup> Can be used in size S0 up to maximum 32 A. Can be used in size S2 up to maximum 65 A in combination with 3RA2932-1CA00 standard mounting rail adapter (specially for soft starters). Can be used in size S3 only on mounting plate.

Version	Functionality Functions	Use	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
			d					

#### Covers and push-in lugs (only for 3RW3003)



3RP1902

<b>Sealable covers</b>	For securing against unauthorized adjustment of setting knobs	For devices with 1 or 2 CO contacts	5	<b>3RP1902</b>		1	5 units	41H
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3RP1903

<b>Push-in lugs for screw fixing</b>	--	For devices with 1 or 2 CO contacts	5	<b>3RP1903</b>		1	10 units	41H
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Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
	d					

#### Tools for opening spring-type terminals in sizes S00 and S0



3RA2908-1A

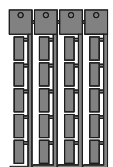
<b>Screwdrivers</b>	For all SIRIUS devices with spring-type terminals Length approx. 200 mm, 3.0 mm x 0.5 mm, titanium gray/black, partially insulated		2	<b>3RA2908-1A</b>		1	1 unit	41B
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#### Spring-type terminals



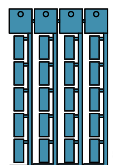
<b>3RA2908-1A</b>						1	1 unit	41B
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#### Blank labels



3RT2900-1SB20

<b>Unit labeling plates<sup>1)</sup></b>	For SIRIUS devices		20	<b>3RT2900-1SB20</b>		100	340 units	41B
	• 20 mm x 7 mm, titanium gray							



3RT1900-1SB20

	• 20 mm x 7 mm, pastel turquoise		20	<b>3RT1900-1SB20</b>		100	340 units	41B
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<sup>1)</sup> PC labeling systems for individual inscription of unit labeling plates are available from: murrplastik Systemtechnik GmbH, see page 16/16.

**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)

Industry Online Support (SIOS), see  
<https://support.industry.siemens.com/cs/ww/en/view/109747404>


**Selection and ordering data**

Product designation	Manufacturer's Article No. of the soft starter	Type of product	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	
<b>Power semiconductor modules</b>									
	<b>Power semiconductor module</b>	3RW5524-.HA.4 (3x)	480 V, 47 A	1	<b>3RW5952-0SF04</b>		1	1 unit 42S	
		3RW5525-.HA.4, 3RW5526-.HA.4 (3x)	480 V, 77 A	1	<b>3RW5952-0SH04</b>		1	1 unit 42S	
		3RW5527-.HA.4 (3x)	480 V, 93 A	1	<b>3RW5952-0SJ04</b>		1	1 unit 42S	
		3RW5534-.HA.4, 3RW5535-.HA.4 (3x)	480 V, 143 A	1	<b>3RW5953-0SL04</b>		1	1 unit 42S	
		3RW5536-.HA.4 (3x)	480 V, 171 A	1	<b>3RW5953-0SM04</b>		1	1 unit 42S	
		3RW5543-.HA.4 (3x)	480 V, 210 A	1	<b>3RW5954-0SN04</b>		1	1 unit 42S	
		3RW5544-.HA.4 (3x)	480 V, 250 A	1	<b>3RW5954-0SP04</b>		1	1 unit 42S	
		3RW5545-.HA.4, 3RW5546-.HA.4 (3x)	480 V, 370 A	1	<b>3RW5954-0SR04</b>		1	1 unit 42S	
		3RW5547-.HA.4, 3RW5548-.HA.4 (3x)	480 V, 570 A	1	<b>3RW5954-0ST04</b>		1	1 unit 42S	
		3RW5521-.HA.6, 3RW5524-.HA.6 (3x)	690 V, 47 A	1	<b>3RW5952-0SF06</b>		1	1 unit 42S	
		3RW5525-.HA.6, 3RW5526-.HA.6 (3x)	690 V, 77 A	1	<b>3RW5952-0SH06</b>		1	1 unit 42S	
		3RW5527-.HA.6 (3x)	690 V, 93 A	1	<b>3RW5952-0SJ06</b>		1	1 unit 42S	
		3RW5534-.HA.6, 3RW5535-.HA.6 (3x)	690 V, 143 A	1	<b>3RW5953-0SL06</b>		1	1 unit 42S	
		3RW5536-.HA.6 (3x)	690 V, 171 A	1	<b>3RW5953-0SM06</b>		1	1 unit 42S	
		3RW5543-.HA.6 (3x)	690 V, 210 A	1	<b>3RW5954-0SN06</b>		1	1 unit 42S	
		3RW5544-.HA.6 (3x)	690 V, 250 A	1	<b>3RW5954-0SP06</b>		1	1 unit 42S	
		3RW5545-.HA.6, 3RW5546-.HA.6 (3x)	690 V, 370 A	1	<b>3RW5954-0SR06</b>		1	1 unit 42S	
		3RW5547-.HA.6, 3RW5548-.HA.6 (3x)	690 V, 570 A	1	<b>3RW5954-0ST06</b>		1	1 unit 42S	
			3RW5521-.HA.6, 3RW5524-.HA.6 (3x)	690 V, 47 A	1	<b>3RW5952-0SF06</b>		1	1 unit 42S
			3RW5525-.HA.6, 3RW5526-.HA.6 (3x)	690 V, 77 A	1	<b>3RW5952-0SH06</b>		1	1 unit 42S
		3RW5527-.HA.6 (3x)	690 V, 93 A	1	<b>3RW5952-0SJ06</b>		1	1 unit 42S	
		3RW5534-.HA.6, 3RW5535-.HA.6 (3x)	690 V, 143 A	1	<b>3RW5953-0SL06</b>		1	1 unit 42S	
		3RW5536-.HA.6 (3x)	690 V, 171 A	1	<b>3RW5953-0SM06</b>		1	1 unit 42S	
		3RW5543-.HA.6 (3x)	690 V, 210 A	1	<b>3RW5954-0SN06</b>		1	1 unit 42S	
		3RW5544-.HA.6 (3x)	690 V, 250 A	1	<b>3RW5954-0SP06</b>		1	1 unit 42S	
		3RW5545-.HA.6, 3RW5546-.HA.6 (3x)	690 V, 370 A	1	<b>3RW5954-0SR06</b>		1	1 unit 42S	
		3RW5547-.HA.6, 3RW5548-.HA.6 (3x)	690 V, 570 A	1	<b>3RW5954-0ST06</b>		1	1 unit 42S	
		3RW5521-.HA.6, 3RW5524-.HA.6 (3x)	690 V, 47 A	1	<b>3RW5952-0SF06</b>		1	1 unit 42S	
<b>Bypass units</b>									
	<b>Bypass unit</b>	3RW552, 3RW553	--	1	<b>3RW5953-0BY00</b>		1	1 unit 42S	
		3RW5543, 3RW5544, 3RW5545	210 A to 315 A	1	<b>3RW5954-0BP00</b>		1	1 unit 42S	
		3RW5546, 3RW5547, 3RW5548	370 A to 570 A	1	<b>3RW5954-0BT00</b>		1	1 unit 42S	
<b>Control units</b>									
	<b>Control unit</b>	3RW55...-HA0.	24 V	1	<b>3RW5950-1UY00</b>		1	1 unit 42S	
		3RW55...-HA1.	110 - 250 V	1	<b>3RW5950-1UY10</b>		1	1 unit 42S	

# SIRIUS 3RW Soft Starters

## Spare Parts

for 3RW55 **NEW**

Product designation	Manufacturer's Article No. of the soft starter	Type of product	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	
<b>Printed circuit boards</b>									
 3RW5951-0PA04   3RW5954-0PY06	<b>Printed circuit board</b>	3RW5513-.HA.4	480 V, 13 A	1	<b>3RW5951-0PA04</b>		1	1 unit	42S
		3RW5514-.HA.4	480 V, 18 A	1	<b>3RW5951-0PB04</b>		1	1 unit	42S
		3RW5515-.HA.4	480 V, 25 A	1	<b>3RW5951-0PC04</b>		1	1 unit	42S
		3RW5516-.HA.4	480 V, 32 A	1	<b>3RW5951-0PD04</b>		1	1 unit	42S
		3RW5517-.HA.4	480 V, 38 A	1	<b>3RW5951-0PE04</b>		1	1 unit	42S
		3RW552-.HA.4, 3RW553-.HA.4	480 V	1	<b>3RW5953-0PY04</b>		1	1 unit	42S
		3RW554-.HA.4	480 V	1	<b>3RW5954-0PY04</b>		1	1 unit	42S
		3RW5513-.HA.5	600 V, 13 A	1	<b>3RW5951-0PA05</b>		1	1 unit	42S
		3RW5514-.HA.5	600 V, 18 A	1	<b>3RW5951-0PB05</b>		1	1 unit	42S
		3RW5515-.HA.5	600 V, 25 A	1	<b>3RW5951-0PC05</b>		1	1 unit	42S
		3RW5516-.HA.5	600 V, 32 A	1	<b>3RW5951-0PD05</b>		1	1 unit	42S
		3RW5517-.HA.5	600 V, 38 A	1	<b>3RW5951-0PE05</b>		1	1 unit	42S
		3RW552-.HA.6, 3RW553-.HA.6	690 V	1	<b>3RW5953-0PY06</b>		1	1 unit	42S
		3RW554-.HA.6	690 V	1	<b>3RW5954-0PY06</b>		1	1 unit	42S
	<b>Fans</b>								
	 3RW5983-0FF00	<b>Fan</b>	3RW551 (1x), 3RW552, 3RW553 (2x)	--	1	<b>3RW5983-0FF00</b>		1	1 unit
		3RW554	--	1	<b>3RW5984-0FF00</b>		1	1 unit	42S
<b>Terminals</b>									
 3RW5982-0TB00	<b>Box terminal block</b>	3RW552 (2x)	--	1	<b>3RW5982-0TB00</b>		1	1 unit	42S
	 3RW5980-1TR00	<b>Removable control terminals</b>	3RW551.-1HA..., 3RW552.-1HA..., 3RW553.-6HA..., 3RW554.-6HA... (2x)	contains 2 blocks each with 6 terminals	1	<b>Screw terminals</b>  <b>3RW5980-1TR00</b>		1	1 unit
		3RW551.-3HA..., 3RW552.-3HA..., 3RW553.-2HA..., 3RW554.-2HA... (2x)	contains 2 blocks each with 6 terminals	1	<b>Spring-type terminals</b>  <b>3RW5980-2TR00</b>		1	1 unit	42S
<b>Enclosure components</b>									
 3RW5953-0GB00	<b>Enclosure base</b>	3RW552, 3RW553 3RW554	--	1	<b>3RW5953-0GB00</b>		1	1 unit	42S
				1	<b>3RW5954-0GB00</b>		1	1 unit	42S
 3RW5950-0GD20	<b>Cover for control cable duct</b>	3RW55	Titanium gray	1	<b>3RW5950-0GD20</b>		1	1 unit	42S

# SIRIUS 3RW Soft Starters

## Spare Parts

**NEW** for 3RW55





Product designation	Manufacturer's Article No. of the soft starter	Type of product	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
<b>Enclosure components (continued)</b>								
	<b>Front cover</b>	3RW554	--	1	<b>3RW5954-0GF00</b>		1	1 unit 42S
3RW5954-0GF00								
	<b>Hinged cover</b>	3RW55	With cutout for HMI module High Feature	1	<b>3RW5950-0GL30</b>		1	1 unit 42S
3RW5950-0GL30								
<b>HMI modules</b>								
	<b>HMI module</b>	3RW55	High Feature	1	<b>3RW5980-0HF00</b>		1	1 unit 42S
3RW5980-0HF00								
	<b>Interface cover</b>	3RW55	--	1	<b>3RW5980-0HL00</b>		1	1 unit 42S
3RW5980-0HL00								
<b>Connection cables for HMI</b>								
	<b>Connection cables</b>	--	0.1 m, flat	▶	<b>3UF7931-0AA00-0</b>		1	1 unit 42J
3UF7931-0AA00-0								
<b>Transport packaging</b>								
	<b>Transport packaging</b>	3RW551	--	1	<b>3RW5951-0VY00</b>		1	1 unit 42S
		3RW552, 3RW553	--	1	<b>3RW5953-0VY00</b>		1	1 unit 42S
		3RW554	--	1	<b>3RW5954-0VY00</b>		1	1 unit 42S
3RW5953-0VY00								

# SIRIUS 3RW Soft Starters

## Spare Parts

for 3RW44




### Selection and ordering data

	For soft starters	Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
	Type		d					
<b>Power semiconductor modules</b>								
	3RW4443	690 V, 203 A (2 units required per device)	1	<b>3RW4743-0LC00</b>		1	1 unit	42H
	3RW4444, 3RW4445	690 V, 313 A (2 units required per device)	1	<b>3RW4745-0LC00</b>		1	1 unit	42H
	3RW4446	690 V, 356 A (2 units required per device)	1	<b>3RW4746-0LC00</b>		1	1 unit	42H
	3RW4447	690 V, 432 A (2 units required per device)	1	<b>3RW4747-0LC00</b>		1	1 unit	42H
	3RW4453, 3RW4454, 3RW4455	690 V, 693 A (2 units required per device)	3	<b>3RW4755-0LC00</b>		1	1 unit	42H
	3RW4456, 3RW4457, 3RW4458	690 V, 970 A (2 units required per device)	3	<b>3RW4758-0LC00</b>		1	1 unit	42H
	3RW4465, 3RW4466	690 V, 1 214 A (2 units required per device)	3	<b>3RW4766-0LC00</b>		1	1 unit	42H
<b>NTC power semiconductor modules</b>								
	3RW4443	690 V, 203 A	1	<b>3RW4743-0NC00</b>		1	1 unit	42H
	3RW4444, 3RW4445	690 V, 313 A	1	<b>3RW4745-0NC00</b>		1	1 unit	42H
	3RW4446	690 V, 356 A	1	<b>3RW4746-0NC00</b>		1	1 unit	42H
	3RW4447	690 V, 432 A	1	<b>3RW4747-0NC00</b>		1	1 unit	42H
	3RW4453, 3RW4454, 3RW4455	690 V, 693 A	3	<b>3RW4755-0NC00</b>		1	1 unit	42H
	3RW4456, 3RW4457, 3RW4458	690 V, 970 A	3	<b>3RW4758-0NC00</b>		1	1 unit	42H
	3RW4465, 3RW4466	690 V, 1 214 A	3	<b>3RW4766-0NC00</b>		1	1 unit	42H
<b>Bypass units</b>								
	3RW4453, 3RW4454, 3RW4455	--	2	<b>3RW4755-0KC00</b>		1	1 unit	42H
	3RW4456, 3RW4457	--	2	<b>3RW4766-0KC00</b>		1	1 unit	42H
	3RW4458, 3RW4465, 3RW4466	--	2	<b>3RW4766-0KC01</b>		1	1 unit	42H
<b>Control units with screw terminals</b>								
	3RW4422-.BC4.	230 V	1	<b>3RW4722-1SC44</b>		1	1 unit	42H
	3RW4423-.BC4.	230 V	1	<b>3RW4723-1SC44</b>		1	1 unit	42H
	3RW4424-.BC4.	230 V	1	<b>3RW4724-1SC44</b>		1	1 unit	42H
	3RW4425-.BC4.	230 V	1	<b>3RW4725-1SC44</b>		1	1 unit	42H
	3RW4426-.BC4.	230 V	1	<b>3RW4726-1SC44</b>		1	1 unit	42H
	3RW4427-.BC4.	230 V	1	<b>3RW4727-1SC44</b>		1	1 unit	42H
	3RW4434-.BC4.	230 V	1	<b>3RW4734-6SC44</b>		1	1 unit	42H
	3RW4435-.BC4.	230 V	1	<b>3RW4735-6SC44</b>		1	1 unit	42H
	3RW4436-.BC4.	230 V	1	<b>3RW4736-6SC44</b>		1	1 unit	42H
	3RW4443-.BC4.	230 V	1	<b>3RW4743-6SC44</b>		1	1 unit	42H
	3RW4444-.BC4.	230 V	1	<b>3RW4744-6SC44</b>		1	1 unit	42H
	3RW4445-.BC4.	230 V	1	<b>3RW4745-6SC44</b>		1	1 unit	42H
	3RW4446-.BC4.	230 V	1	<b>3RW4746-6SC44</b>		1	1 unit	42H
	3RW4447-.BC4.	230 V	1	<b>3RW4747-6SC44</b>		1	1 unit	42H
	3RW4453-.BC4.	230 V	1	<b>3RW4753-6SC44</b>		1	1 unit	42H
	3RW4454-.BC4.	230 V	1	<b>3RW4754-6SC44</b>		1	1 unit	42H
	3RW4455-.BC4.	230 V	1	<b>3RW4755-6SC44</b>		1	1 unit	42H
	3RW4456-.BC4.	230 V	1	<b>3RW4756-6SC44</b>		1	1 unit	42H
	3RW4457-.BC4.	230 V	1	<b>3RW4757-6SC44</b>		1	1 unit	42H
	3RW4458-.BC4.	230 V	1	<b>3RW4758-6SC44</b>		1	1 unit	42H
	3RW4465-.BC4.	230 V	1	<b>3RW4765-6SC44</b>		1	1 unit	42H
	3RW4466-.BC4.	230 V	1	<b>3RW4766-6SC44</b>		1	1 unit	42H

# SIRIUS 3RW Soft Starters

## Spare Parts

for 3RW44

	For soft starters	Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	
	Type		d						
<b>TSE printed circuit boards</b>									
 3RW4756-0WC70	3RW4453.-BC.4, 3RW4454.-BC.4, 3RW4455.-BC.4, 3RW4456.-BC.4	460 V	2	<b>3RW4756-0WC70</b>		1	1 unit	42H	
	3RW4457.-BC.4, 3RW4458.-BC.4, 3RW4465.-BC.4, 3RW4466.-BC.4	460 V	2	<b>3RW4766-0WC70</b>		1	1 unit	42H	
	3RW4453.-BC.5, 3RW4453.-BC.6, 3RW4454.-BC.5, 3RW4454.-BC.6, 3RW4455.-BC.5, 3RW4455.-BC.6, 3RW4456.-BC.5, 3RW4456.-BC.6	690 V	2	<b>3RW4756-0WC50</b>		1	1 unit	42H	
	3RW4457.-BC.5, 3RW4457.-BC.6, 3RW4458.-BC.5, 3RW4458.-BC.6, 3RW4465.-BC.5, 3RW4465.-BC.6, 3RW4466.-BC.5, 3RW4466.-BC.6	690 V	2	<b>3RW4766-0WC50</b>		1	1 unit	42H	
	<b>Firing printed circuit boards</b>								
	 3RW4727-0VC70	3RW442.-BC.4	460 V	2	<b>3RW4727-0VC70</b>		1	1 unit	42H
		3RW443.-BC.4, 3RW4443.-BC.4	460 V	2	<b>3RW4743-0VC70</b>		1	1 unit	42H
		3RW4444.-BC.4, 3RW4445.-BC.4	460 V	2	<b>3RW4745-0VC70</b>		1	1 unit	42H
		3RW4446.-BC.4, 3RW4447.-BC.4	460 V	2	<b>3RW4747-0VC70</b>		1	1 unit	42H
		3RW445.-BC.4, 3RW446.-BC.4	460 V	2	<b>3RW4766-0VC70</b>		1	1 unit	42H
		3RW442.-BC.5	600 V	2	<b>3RW4727-0VC80</b>		1	1 unit	42H
		3RW443.-BC.5, 3RW4443.-BC.5	600 V	2	<b>3RW4743-0VC80</b>		1	1 unit	42H
3RW442.-BC.6		690 V	2	<b>3RW4727-0VC50</b>		1	1 unit	42H	
3RW443.-BC.6, 3RW4444.-BC.5, 3RW4445.-BC.5		690 V	2	<b>3RW4745-0VC50</b>		1	1 unit	42H	
3RW4443.-BC.6, 3RW4446.-BC.5, 3RW4447.-BC.5, 3RW4447.-BC.6		690 V	2	<b>3RW4746-0VC50</b>		1	1 unit	42H	
3RW4444.-BC.6, 3RW4445.-BC.6, 3RW4446.-BC.6		690 V	2	<b>3RW4747-0VC50</b>		1	1 unit	42H	
3RW445.-BC.5, 3RW445.-BC.6, 3RW446.-BC.5, 3RW446.-BC.6		690 V	2	<b>3RW4766-0VC50</b>		1	1 unit	42H	
<b>Fans</b>									
 3RW4957-8VX.0, 3RW4966-8VX.0		3RW442.-BC3. <sup>1)</sup> , 3RW443.-BC3.	115 V	▶	<b>3RW4936-8VX30</b>		1	1 unit	42G
		3RW442.-BC4. <sup>1)</sup> , 3RW443.-BC4.	230 V	▶	<b>3RW4936-8VX40</b>		1	1 unit	42G
		3RW444.-BC3.	115 V	▶	<b>3RW4947-8VX30</b>		1	1 unit	42G
		3RW444.-BC4.	230 V	▶	<b>3RW4947-8VX40</b>		1	1 unit	42G
		3RW445.-BC3., 3RW446.-BC3. <sup>2)</sup>	115 V	▶	<b>3RW4957-8VX30</b>		1	1 unit	42H
		3RW445.-BC4., 3RW446.-BC4. <sup>2)</sup>	230 V	▶	<b>3RW4957-8VX40</b>		1	1 unit	42H
		3RW446.-BC3. <sup>3)</sup>	115 V	▶	<b>3RW4966-8VX30</b>		1	1 unit	42H
	3RW446.-BC4. <sup>3)</sup>	230 V	▶	<b>3RW4966-8VX40</b>		1	1 unit	42H	

<sup>1)</sup> The 3RW4422 and 3RW4423 soft starters do not need fans.  
These devices are adequately designed for natural convection.






<sup>2)</sup> 3RW446. mounting on output side.

<sup>3)</sup> For mounting on front side.

# SIRIUS 3RW Soft Starters

## Spare Parts

for 3RW44

For soft starters	Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Type		d					
<b>Removable control terminals</b>							
	3RW44	4 blocks each with 6 terminals	1	<b>Screw terminals</b> 			
				<b>3RW4766-6HC00</b>	1	1 unit	42H
				<b>Spring-type terminals</b> 			
				<b>3RW4766-2HC00</b>	1	1 unit	42H
<b>3RW4766-6HC00</b>							
<b>Box terminal block</b>							
	3RW442.	--	5	<b>3RW4727-0RC00</b>	1	10 units	42H
<b>3RW4727-0RC00</b>							
<b>Enclosure base</b>							
	3RW444.	--	2	<b>3RW4747-0UC00</b>	1	1 unit	42H
<b>3RW4747-0UC00</b>							

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## 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)

Industry Online Support (SIOS), see  
<https://support.industry.siemens.com/cs/ww/en/view/109747404>

## Selection and ordering data

Product designation	Manufacturer's Article No. of the soft starter	Type of product	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	
<b>Power semiconductor modules</b>									
	<b>Power semiconductor module</b>	3RW5224-..C.4 (3x)	480 V, 47 A	1	<b>3RW5952-0SF04</b>		1	1 unit 42S	
		3RW5225-..C.4, 3RW5226-..C.4 (3x)	480 V, 77 A	1	<b>3RW5952-0SH04</b>		1	1 unit 42S	
		3RW5227-..C.4 (3x)	480 V, 93 A	1	<b>3RW5952-0SJ04</b>		1	1 unit 42S	
		3RW5234-..C.4, 3RW5235-..C.4 (3x)	480 V, 143 A	1	<b>3RW5953-0SL04</b>		1	1 unit 42S	
		3RW5236-..C.4 (3x)	480 V, 171 A	1	<b>3RW5953-0SM04</b>		1	1 unit 42S	
		3RW5224-..C.5 (3x)	600 V, 47 A	1	<b>3RW5952-0SF05</b>		1	1 unit 42S	
		3RW5225-..C.5, 3RW5226-..C.5 (3x)	600 V, 77 A	1	<b>3RW5952-0SH05</b>		1	1 unit 42S	
		3RW5227-..C.5 (3x)	600 V, 93 A	1	<b>3RW5952-0SJ05</b>		1	1 unit 42S	
		3RW5234-..C.5, 3RW5235-..C.5 (3x)	600 V, 143 A	1	<b>3RW5953-0SL05</b>		1	1 unit 42S	
		3RW5236-..C.5 (3x)	600 V, 171 A	1	<b>3RW5953-0SM05</b>		1	1 unit 42S	
		3RW5243 (3x)	600 V, 210 A	1	<b>3RW5924-0SN05</b>		1	1 unit 42S	
		3RW5244, 3RW5245 (3x)	600 V, 315 A	1	<b>3RW5924-0SQ05</b>		1	1 unit 42S	
		3RW5246, 3RW5247 (3x)	600 V, 470 A	1	<b>3RW5924-0SS05</b>		1	1 unit 42S	
		3RW5248 (3x)	600 V, 570 A	1	<b>3RW5924-0ST05</b>		1	1 unit 42S	
3RW5952-0SF04									
									
3RW5953-0SM05									
									
3RW5924-0ST05									
<b>Bypass units</b>									
	<b>Bypass unit</b>	3RW522, 3RW523	--	1	<b>3RW5953-0BY00</b>		1	1 unit 42S	
		3RW5243, 3RW5244, 3RW5245	210 A to 315 A	1	<b>3RW5954-0BP00</b>		1	1 unit 42S	
		3RW5246, 3RW5247, 3RW5248	370 A to 570 A	1	<b>3RW5954-0BT00</b>		1	1 unit 42S	
3RW5953-0BY00									
<b>Control units</b>									
	<b>Control unit</b>	3RW52-..-AC0.	24 V analog output	1	<b>3RW5920-1UA00</b>		1	1 unit 42S	
		3RW52-..-AC1.	110 - 250 V analog output	1	<b>3RW5920-1UA10</b>		1	1 unit 42S	
		3RW52-..-TC0.	24 V thermistor input	1	<b>3RW5920-1UT00</b>		1	1 unit 42S	
		3RW52-..-TC1.	110 - 250 V thermistor input	1	<b>3RW5920-1UT10</b>		1	1 unit 42S	
3RW5920-1UA00									

# SIRIUS 3RW Soft Starters

## Spare Parts




for 3RW52 **NEW**

Product designation	Manufacturer's Article No. of the soft starter	Type of product	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
<b>Printed circuit boards</b>								
 3RW5923-0PY04   3RW5924-0PY05	<b>Printed circuit board</b>	3RW5213-..C.4	480 V, 13 A	1	<b>3RW5921-0PA04</b>	1	1 unit	42S
		3RW5214-..C.4	480 V, 18 A	1	<b>3RW5921-0PB04</b>	1	1 unit	42S
		3RW5215-..C.4	480 V, 25 A	1	<b>3RW5921-0PC04</b>	1	1 unit	42S
		3RW5216-..C.4	480 V, 32 A	1	<b>3RW5921-0PD04</b>	1	1 unit	42S
		3RW5217-..C.4	480 V, 38 A	1	<b>3RW5921-0PE04</b>	1	1 unit	42S
		3RW522-..C.4, 3RW523-..C.4	480 V	1	<b>3RW5923-0PY04</b>	1	1 unit	42S
		3RW524-..C.4	480 V	1	<b>3RW5924-0PY04</b>	1	1 unit	42S
		3RW5213-..C.5	600 V, 13 A	1	<b>3RW5921-0PA05</b>	1	1 unit	42S
		3RW5214-..C.5	600 V, 18 A	1	<b>3RW5921-0PB05</b>	1	1 unit	42S
		3RW5215-..C.5	600 V, 25 A	1	<b>3RW5921-0PC05</b>	1	1 unit	42S
		3RW5216-..C.5	600 V, 32 A	1	<b>3RW5921-0PD05</b>	1	1 unit	42S
		3RW5217-..C.5	600 V, 38 A	1	<b>3RW5921-0PE05</b>	1	1 unit	42S
		3RW522-..C.5, 3RW523-..C.5	600 V	1	<b>3RW5923-0PY05</b>	1	1 unit	42S
		3RW524-..C.5	600 V	1	<b>3RW5924-0PY05</b>	1	1 unit	42S
<b>Fans</b>								
 3RW5983-0FF00	<b>Fans</b>	3RW5216/17 (1x), 3RW5526/27, 3RW553 (2x)	--	1	<b>3RW5983-0FF00</b>	1	1 unit	42S
		3RW524	--	1	<b>3RW5984-0FF00</b>	1	1 unit	42S
<b>Terminals</b>								
 3RW5982-0TB00	<b>Box terminal block</b>	3RW522 (2x)	--	1	<b>3RW5982-0TB00</b>	1	1 unit	42S
 3RW5980-1TR00	<b>Removable control terminals</b>	3RW521-..1.C.., 3RW522-..1.C.., 3RW523-..6.C.., 3RW524-..6.C..	contains 2 blocks each with 6 terminals	1	<b>3RW5980-1TR00</b>	1	1 unit	42S
		3RW521-..3.C.., 3RW522-..3.C.., 3RW523-..2.C.., 3RW524-..2.C..	contains 2 blocks each with 6 terminals	1	<b>3RW5980-2TR00</b>	1	1 unit	42S
<b>Enclosure components</b>								
 3RW5953-0GB00	<b>Enclosure base</b>	3RW552, 3RW553	--	1	<b>3RW5953-0GB00</b>	1	1 unit	42S
		3RW554	--	1	<b>3RW5954-0GB00</b>	1	1 unit	42S
 3RW5950-0GD20	<b>Cover for control cable duct</b>	3RW52	Titanium gray	1	<b>3RW5950-0GD20</b>	1	1 unit	42S

# SIRIUS 3RW Soft Starters

## Spare Parts

**NEW** for 3RW52

Product designation	Manufacturer's Article No. of the soft starter	Type of product	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
<b>Enclosure components</b>								
	<b>Front cover</b>	3RW524	--	1	<b>3RW5954-0GF00</b>		1	1 unit 42S
3RW5954-0GF00								
	<b>Hinged cover</b>	3RW52	Without cutout	1	<b>3RW5950-0GL20</b>		1	1 unit 42S
3RW5950-0GL20								
<b>Transport packaging</b>								
	<b>Transport packaging</b>	3RW521	--	1	<b>3RW5951-0VY00</b>		1	1 unit 42S
		3RW522, 3RW523	--	1	<b>3RW5953-0VY00</b>		1	1 unit 42S
		3RW524	--	1	<b>3RW5954-0VY00</b>		1	1 unit 42S
3RW5953-0VY00								









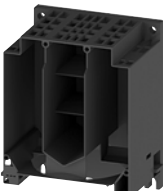
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# SIRIUS 3RW Soft Starters

## Spare Parts

for 3RW40

### Selection and ordering data

	For soft starters Type	Size	Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
<b>Power semiconductor modules</b>									
	3RW4073	S12	600 V, 230 A	1	<b>3RW4773-0LB00</b>		1	1 unit	42G
	3RW4074	S12	600 V, 280 A	1	<b>3RW4774-0LB00</b>		1	1 unit	42G
	3RW4075	S12	600 V, 356 A	1	<b>3RW4775-0LB00</b>		1	1 unit	42G
	3RW4076	S12	600 V, 432 A	1	<b>3RW4776-0LB00</b>		1	1 unit	42G
3RW4773-0LB00									
<b>NTC power semiconductor modules</b>									
	3RW4073	S12	600 V, 230 A	1	<b>3RW4773-0NB00</b>		1	1 unit	42G
	3RW4074	S12	600 V, 280 A	1	<b>3RW4774-0NB00</b>		1	1 unit	42G
	3RW4075	S12	600 V, 356 A	1	<b>3RW4775-0NB00</b>		1	1 unit	42G
	3RW4076	S12	600 V, 432 A	1	<b>3RW4776-0NB00</b>		1	1 unit	42G
3RW4773-0NB00									
<b>Control units with screw terminals</b>									
	3RW4055-.BB3.	S6	115 V	1	<b>3RW4755-6SB30</b>		1	1 unit	42G
	3RW4055-.BB4.	S6	230 V	1	<b>3RW4755-6SB40</b>		1	1 unit	42G
	3RW4056-.BB3.	S6	115 V	1	<b>3RW4756-6SB30</b>		1	1 unit	42G
	3RW4056-.BB4.	S6	230 V	1	<b>3RW4756-6SB40</b>		1	1 unit	42G
	3RW4073-.BB3.	S12	115 V	1	<b>3RW4773-6SB30</b>		1	1 unit	42G
	3RW4073-.BB4.	S12	230 V	1	<b>3RW4773-6SB40</b>		1	1 unit	42G
	3RW4074-.BB3.	S12	115 V	1	<b>3RW4774-6SB30</b>		1	1 unit	42G
	3RW4074-.BB4.	S12	230 V	1	<b>3RW4774-6SB40</b>		1	1 unit	42G
	3RW4075-.BB3.	S12	115 V	1	<b>3RW4775-6SB30</b>		1	1 unit	42G
	3RW4075-.BB4.	S12	230 V	1	<b>3RW4775-6SB40</b>		1	1 unit	42G
	3RW4076-.BB3.	S12	115 V	1	<b>3RW4776-6SB30</b>		1	1 unit	42G
	3RW4076-.BB4.	S12	230 V	1	<b>3RW4776-6SB40</b>		1	1 unit	42G
3RW4755-6SB40									
<b>Firing printed circuit boards</b>									
	3RW405-.BB.4	S6	460 V	2	<b>3RW4756-0VB70</b>		1	1 unit	42G
	3RW405-.BB.5	S6	600 V	2	<b>3RW4756-0VB80</b>		1	1 unit	42G
	3RW407-.BB.4	S12	460 V	2	<b>3RW4776-0VB70</b>		1	1 unit	42G
	3RW407-.BB.5	S12	600 V	2	<b>3RW4776-0VB80</b>		1	1 unit	42G
3RW4756-0VB70									
<b>Fans</b>									
	3RW405-.BB3.	S6	115 V	▶	<b>3RW4936-8VX30</b>		1	1 unit	42G
	3RW405-.BB4.	S6	230 V	▶	<b>3RW4936-8VX40</b>		1	1 unit	42G
	3RW407-.BB3.	S12	115 V	▶	<b>3RW4947-8VX30</b>		1	1 unit	42G
	3RW407-.BB4.	S12	230 V	▶	<b>3RW4947-8VX40</b>		1	1 unit	42G
3RW4936-8VX.0, 3RW4947-8VX.0									
<b>Removable control terminals</b>									
	3RW40	S6/S12	2 blocks each with 6 terminals	1	<b>Spring-type terminals</b> 				
					<b>3RW4776-2HB00</b>		1	1 unit	42G
	3RW4776-6HB00	S6/S12	2 blocks each with 6 terminals	1	<b>Screw terminals</b> 				
					<b>3RW4776-6HB00</b>		1	1 unit	42G
<b>Enclosure base</b>									
	3RW407.	S12	--	3	<b>3RW4776-0UB00</b>		1	1 unit	42G
3RW4776-0UB00									