A new star is born.
The extended generation of soft starters.

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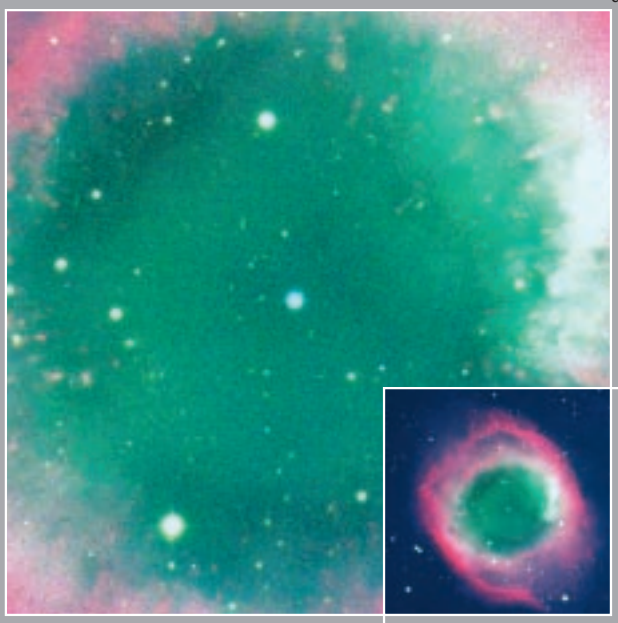
sirius
SOFTSTARTER

SIEMENS

Planetary nebulae – as shown here in the well-known Helix nebula in the Aquarius galaxy – are symbolic of the continuous cycle of matter: Created from the remainders of heavenly bodies from the distant past they are also the birthplaces for new stars.



Everything. Simple. SIRIUS.

For more than 110 years, we have been developing and manufacturing industrial switchgear and controlgear products. And always with the claim: To provide you with reliable as well as innovative switchgear technology – whether in the control cabinet, in the field or directly at the machine. This is the reason that we are completely combining our industrial controlgear technology under one single star – SIRIUS.

And this makes it simple for you: SIRIUS Industrial Controls not only offers you the complete range – whether switching devices for load feeders, power distribution components, command and signaling devices or complete cabinet systems. With SIRIUS, the subject of industrial controls takes on a new dimension when it comes to simplicity. For example, we ensure that our products are simple and quick to install by using innovative connection systems or by continually reducing sizes. Later – in operation – our products operate with absolute reliability. We can offer you reliable products with an especially long lifetime thanks to the consequential standardization. Our portfolio can be combined to create optimized systems using our highlevel, seamless concepts such as Totally Integrated Power, Safety Integrated and ECOFAST. And if a problem does arise, we can resolve this with extremely fast logistics and global support. With SIRIUS Industrial Controls, you can relax and look towards the future.

Our solar system is a unique constellation – **flexible and at the same time stable ...**

Our SIRIUS star has become even brighter and is radiating the complete portfolio of Siemens industrial controls. The modular SIRIUS system is, just like before, at the center of this unique universe. With its sustainable power of innovation and everything you require to switch, protect and start load feeders, it comprises modular standard components that are optimally harmonized and easily combined as required.

SIRIUS 3RW30: Conveyor belts are started without any torque surge, wear is minimized, maintenance intervals are extended.

The advantages of the SIRIUS system at a glance	
Load feeders	Up to 250 kW / 350 HP can be simply realized using standard devices
Modular design	Everything fits together and can be combined as required
Versions and sizes	Cost-effective and flexible using 7 compact sizes
Assembly	Fast commissioning, short equipping times, simple wiring
Communications	Open for SIRIUS NET; can be connected to AS-Interface and PROFIBUS DP
Service	Extremely long service life, low maintenance and reliable
Design	Space-saving as a result of the low device width and side-by-side mounting up to 60 °C
Approvals	Approved and certified worldwide, UL, CSA, marine engineering
Optical design	Simple, ergonomic, award-winning design
Mounting and installing	Screwed or snapped-on for safe, reliable mounting over its service life
Service	Short delivery times also for spare parts through a global logistics network
Environmental issues	Environmentally friendly production and materials, recyclable, low power-loss devices
Accessories	Low variance with an integrated range of accessories
Spring-loaded technology	Fast, safe, reliable connections that are vibration-proof and maintenance-free

The standard components of our SIRIUS modular system open up almost endless possibilities when it comes to switching, protecting and starting.

A worthwhile encounter with another type of star: The SIRIUS system

Our modular SIRIUS system is being continually extended and offers you everything that you require to switch, protect and start motors and other loads. Modular standard components match and can be simply combined – that makes working with SIRIUS so pleasant. With SIRIUS, all of the requirements from the field can be individually and cost-effectively fulfilled. The individual components distinguish themselves thanks to their space-saving design and high degree of flexibility. Further, engineering, installation, wiring and maintenance are extremely simple saving valuable time. Technically, the SIRIUS system fulfills the highest standards and is being continually innovated – for instance compact soft starter solutions, solid-state switching devices and many more. It doesn't make any difference as to whether a load feeder is configured using a circuit-breaker or overload relay, contactor or soft starter – SIRIUS offers the optimum solution for every application.

Technology perfected: The SIRIUS design

It goes without saying that the technology of our modular SIRIUS system attracts a lot of acclaim. However, just taking a look inside the cabinet is also very easy on the eyes. Outstanding ergonomics, excellent optical design and finish result in an open overall image – clearly reflected in the fact that the SIRIUS series received the iF Product Design Award.

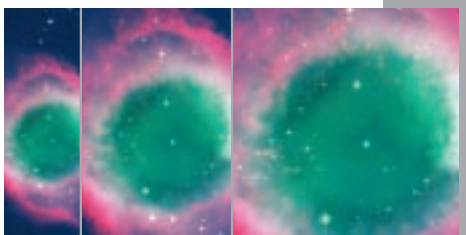
Convincing flexibility: The combination possibilities

Circuit-breakers (MSPs), contactors, soft starters and overload relays can be effortlessly assembled using the SIRIUS system. The complete power range up to 250 kW is covered by just seven sizes. You only have to dock together, screw and the load feeder is ready.

PRODUCT
DESIGN AWARD

With SIRIUS you are never left alone: The global service network

No matter where you are in the world – whether in Oslo, Nuremberg or Capetown, you can always enjoy the advantages of our unique modular SIRIUS system. SIRIUS has all of the relevant approvals worldwide and is available everywhere. Not only this, but the SIRIUS team, is always there for you in over 190 countries.



... just like our
modular SIRIUS system.

Dynamics re-interpreted ...

Planetary nebulae embody dynamic and energy-laden processes. Continually increasing densities of matter and soaring temperatures cause atoms to fuse and new stars to be born.

... the extended **SIRIUS soft starter family.**


3RW30 size 22.5 mm


3RW30 size S00


3RW30 size S0

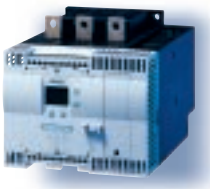

3RW30 size S2


3RW30 size S3


3RW40 size S6


3RW40 size S12


3RW44 size up to 90 kW


3RW44 size up to 250 kW


3RW44 size up to 560 kW

Just as dynamic and energy-laden as the life cycle of the stars, our family of SIRIUS soft starters has taken-off back here on earth, with a seamless range that covers all standard and high-feature motor starting applications. Today, the advantages of soft starting and stopping can be utilized in the widest range of applications to more simply and cost-effectively implement optimum machine concepts.


For example, SIRIUS soft starters can ensure that cooling water pumps in power stations accelerate in an optimized fashion and water hammer is avoided using a special pump run-down function.

The smoother the better

Today, the three-phase motor is the drive concept most often used. In many cases, direct starting or star-delta starting is not the best solution. This is because unpleasant secondary effects are often encountered in day-to-day operation – for example, mechanical jolts in the machine or voltage dips in the line supply.

Soft starters can help. While the motor is starting, soft starters continuously control the power supply to the motor – adapted to the characteristics of the driven machine. Mechanical equipment is accelerated with low associated stress levels; this has a positive effect on the operating characteristics and the lifetime of the machine is extended.

Whether you wish to avoid pressure surges when using centrifugal or reciprocating pumps, ensure that conveyor systems start smoothly or you want to reduce the starting current of your saws or of a mixer – SIRIUS soft starters offer, for almost every application, the soft alternative to ensure that motors start smoothly.

Some basic information.

What is the basic principle of a soft starter?

Soft starters limit the starting current and starting torque. Mechanical stress, as well as line supply voltage dips, are reliably avoided. The motor voltage is reduced using phase control and is increased up to the line supply voltage within a selectable starting time. Soft starting and stopping guarantee minimum stress on the connected devices and ensure smooth production operations.

Can I assemble load feeders using soft starters?

Absolutely. Small fuseless load feeders can be easily assembled using motor starter protectors - e.g. SIRUIS 3RV. Fused load feeders can be quickly implemented in a space-saving fashion in conjunction with thermal or electronic overload relays.

Some detailed information.

How are the parameters of a soft starter set?

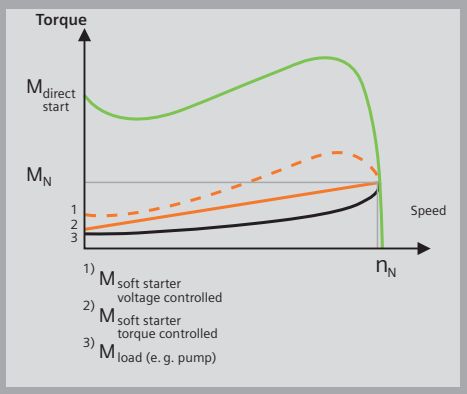
For our standard soft starters, the starting time, starting voltage and stopping time are easily selected using potentiometers. The values can be finely adjusted within the usual setting ranges.

This also applies to soft starters with motor overload protection: the rated motor current, trip class, and current limit can be adjusted via potentiometers.
The wide range of functions of our high-feature soft starters is quickly set in a user-friendly fashion using the integrated keypad with a menu-prompted graphic display; this means that it is extremely simple to commission and troubleshoot the devices.

And even more benefits.

Why is closed-loop torque control the better solution?

Current and voltage fluctuations when powering up: These are problems that the public utility companies have. Their equipment is stressed by the abrupt current demand. Minimize the maintenance costs of their equipment and your power bill, use the soft torque control of our high-feature soft starter.



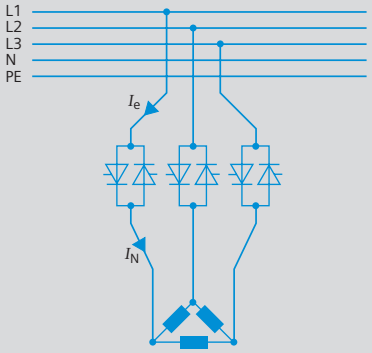
And what about motor overload protection?

Straightforward: For many applications, we have simply integrated the motor overload protection function into our soft starter. This means that the time and costs associated with additional wiring are eliminated and the soft starter itself is protected against overload. In all of the other cases, utilize the advantages of our modular SIRIUS system and use our circuit-breaker or overload relay. Everything simply fits together.

What are the advantages of the inside-delta circuit?

With the inside-delta circuit, the phases of the soft starter are connected in series to the individual motor windings. This means that the soft starter only has to conduct the phase current, i. e. approx. 58 % of the rated motor current (line current). Our soft starters automatically detect the circuit configuration which means that, in some cases, significantly smaller devices can be used.

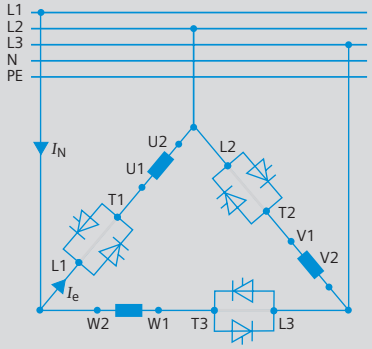
Standard circuit



Rated current I_e of the starter corresponds to the rated motor current I_N

3 cables to the motor

Inside-delta circuit



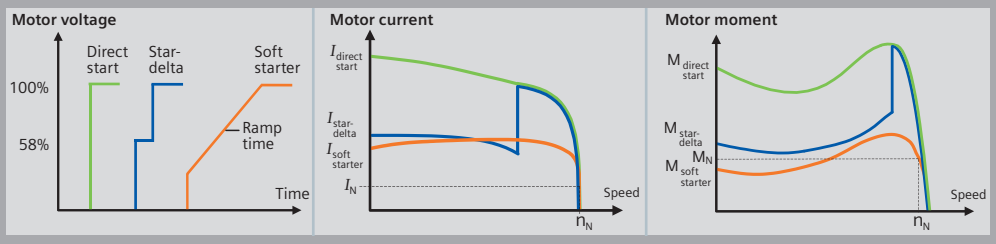
Rated current I_e of the starter corresponds to 58 % of the rated motor current I_N

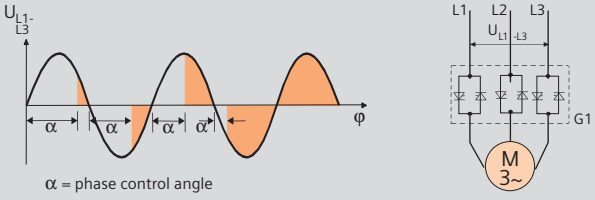
6 cables (the same as for star-delta starters) to the motor

Starts softly but has a powerful effect – the advantages of SIRIUS soft starters at a glance

- Soft starting and stopping
- Smooth starting
- Current peaks are reduced
- Line voltage fluctuations are avoided when starting
- The line supply is relieved
- The mechanical stress on the drive is reduced
- Significant amount of space and wiring is saved when compared to conventional starters
- Maintenance-free switching
- Extremely simple to handle
- Fits seamlessly into the modular SIRIUS system

Technology in detail:
Soft starting with SIRIUS.

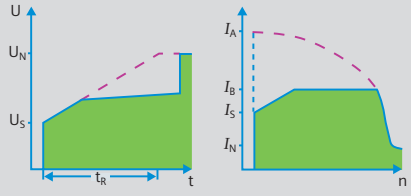




Principle of the line supply phase control using semiconductor elements for soft starters

What are the benefits of the selectable current limiting?

Increasingly more power utility companies are demanding that certain current limits are maintained when starting. This keeps the stress on the line supplies low by reducing the starting currents. The selectable current limiting of our soft starters is precisely the solution to achieve this.



Soft start with voltage ramp and current limiting

Do all of the three phases have to be controlled?

No. When operationally switching, this is not necessary for smooth motor starting with our soft alternative, two controlled phases are sufficient for the standard soft starters. But that isn't all – our solution not only considerably reduces the cost, but also the space taken up in the cabinet. However, if the inside-delta circuit configuration is to be used, then the third phase must also be controlled.

Is an external bypass contactor required?

No. Thanks to the integrated bypass contact system, a bypass contactor can be completely eliminated and the power loss of the power semiconductors can be sustainably minimized.

How are the connections made?

All of the devices belonging to our modular SIRIUS system are connected using standard techniques. Both screw and spring-loaded terminals are standard options – other connection systems are used where available.

And, when it comes to communications?

Of course our soft starters can communicate with the outside world. For our high-feature soft starters we use a communications module for PROFIBUS DP.

Are there other ways of softly starting a motor?

A frequency converter can also be used to softly start a motor. However, frequency converters only make sense if, in addition to starting, the motor speed is also to be varied in operation – and this has its price.

DETAIL

It is soothing when softness always returns ...

With a recurrent quality, the stars revolve around the Polar star – the celestial pole in the heavens.

... SIRIUS soft starters **for standard applications.**

Our well-proven stars are used to start motors in standard applications almost as long as the stars remain in the heavens. Just like up there, it also pays to take a closer look down here. New stars are being continually born. Just like our extended family of SIRIUS soft starters. And why does it make sense to look there? Because it is the ideal starter solution for standard applications thanks to the compact design, integrated current limiting and additional features.

The new standard is called softness

In the past, the direct and the star-delta start were typical starting solutions for standard applications. Today, the advantages that a soft starter offers are being increasingly utilitzed. SIRIUS soft starters, can improve the starting characteristics of escalators, elevators, conveyor belts and pumps – this is because soft starters simply start more softly than an electromechanical starter. Not only is the stress on the drive system especially reduced but also the stress on the line supply. This, therefore, plays a role in reducing the costs of plants and systems – and that from various perspectives.

We have a complete range of soft starters in various sizes for almost every application. This means that you can optimally adapt your drive to the application. For instance, the SIRIUS 3RW30/31 – which controls two phases – is especially suitable for standard applications up to 55 kW. Our new SIRIUS 3RW40 with a power range from 75 kW to 250 kW can also handle sophisticated tasks the soft way. And by the way – the family of soft starters has been complemented by the smallest soft starter in the world which controls two phases – the SIRIUS 3RW3003.

Belt slippage on heating systems (HVAC) blowers or water pressure surges in industrial washing systems are just two of many potential problems that can occur if motors output too much power when starting. Such problems can be reliably tackled using our SIRIUS 3RW30/31 up to 55 kW (at 400 V). But the best is yet to come – the SIRIUS 3RW30/31 is the only soft starter in the world that offers the identical sizes within a family of devices. This makes it possible to easily change-over from direct to soft starting.

Some basic information.

Just what are the advantages of soft starting and stopping?

There are many, many advantages. The SIRIUS 3RW30/31 reduces the stress on the motor by reducing the starting torque. It also provides protection against hazardous voltage spikes as less current is drawn from the line supply. This means that line voltage dips can be reliably avoided.

With a size of only 22.5 mm, the 3RW3003 is the smallest soft starter in the world. At the same time, it offers all of the advantages and possibilities the "big brother" SIRIUS 3RW30 has.

What can the SIRIUS 3RW30/31 offer?

Our SIRIUS 3RW30/31 is especially compact because we have consequentially optimized its power modules utilizing hybrid technology. This allows for side-by-side mounting up to 60 °C. It can be quickly engineered and is simply installed as it only has 3 motor feeder cables. Narrow, fuseless load feeders can be assembled using just one single device – e. g. using the SIRIUS 3RV motor starter protector. Fused load feeders can also be implemented quickly in a space-saving fashion in conjunction with thermal or electronic SIRIUS 3RV overload relays.

How safe and reliable is it?

Thanks to its phase control technology, the SIRIUS 3RW30/31 is a dependable partner that guarantees safe and reliable operation.

Where can I use it?

It still cannot be used in space – but down here on earth it can be utilized almost everywhere. It can be used in about every standard application up to a motor power rating of 55 kW at 400 V (60HP/460V). For example, to drive conveyor belts, compressors, grinding machines, saws, mixers, to name but a few. The SIRIUS 3RW30/31 is also available in size S0 for pole-changing motors.

Let's talk about the functionality.

How is the SIRIUS 3RW30/31 set?

Starting time, starting voltage and the stopping time can be easily and simply set using 3 potentiometers. This is the reason that the soft starter always does an optimum job each and every time.

Changeover made easy:
SIRIUS 3RW30/31 up to 100 A.

How do I control the soft starter?

SIRIUS 3RW30/31 can be directly controlled from the PLC without having to use any interface relays – or directly via the control input. From size S0 onwards, the operating state is signaled using 2 relay outputs.

And even more value added.

What do I save?

In the control cabinet, up to 70 % when compared to star-delta starters (example 22 kW: 55 mm wide instead of 178 mm). And it also pays to use SIRIUS 3RW30/31 when it comes to installation: It only has 3 instead of 6 motor feeder cables.

Does SIRIUS 3RW30/31 make economic sense?

Every time – thanks to the standardized production, SIRIUS 3RW30/31 not only guarantees reliable operation, but it does so at an especially attractive price.

What accessories are available?

We have an extensive range of accessories for our soft starters. For example, fans (from size S0) that can be simply snapped on ensure that you can use SIRIUS 3RW30/31 in almost any mounting position or even at higher operating frequencies. We also have terminal covers that can be simply mounted (sizes S2, S3) for optimum shock hazard protection.

3RW30/31

SIRIUS 3RW40 is not only a new member of our SIRIUS family of soft starters – it is the shining star among the soft starters. It has an innovative control technique that up until now makes it the only soft starter in the world that controls two phases in the power range up to 250 kW / 400 V (400HP/460V). However, as a result of its especially compact design, it is also the smallest – therefore ensuring a space-saving and transparent control cabinet layout. It is more than just a supplement to our SIRIUS 3RW30/31 series of soft starters that control two phases.

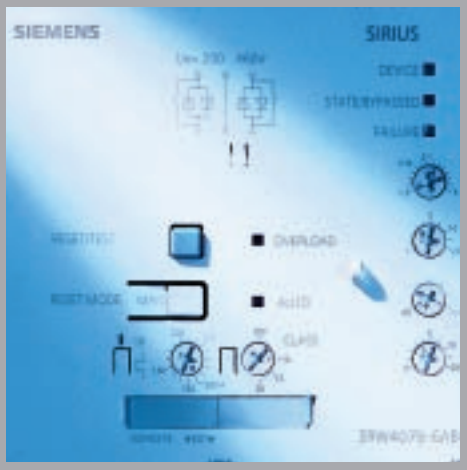
Some basic information.

Just what does the SIRIUS 3RW40 offer?

Just like all of our soft starters, SIRIUS 3RW40 is integrated into the modular SIRIUS system. This means that you can enjoy the benefits you perhaps already know from the other SIRIUS switching devices – such as identical sizes and standard connection systems. By the way, when it comes to size: The especially compact design of the SIRIUS 3RW40 means that it is only half the size of a comparable star-delta starter. Space problems in control cabinets are now a thing of the past. Thanks to the 3-conductor connection, the devices can be quickly and simply engineered and installed.

What is different in comparison to SIRIUS 3RW30/31?

SIRIUS 3RW40 has all of the advantages of the 3RW30/31. It also offers more functions and has a unique feature in this power range – it controls two phases. Test it – we are sure that you will be convinced.



Let's talk about the functionality.

How is the SIRIUS 3RW40 set?

The starting voltage, starting and stopping times of the voltage ramp, and the current limit can be continuously set in a user-friendly fashion using rotary potentiometers. Just like the SIRIUS 3RW30/31. The rated motor current, the release time, and the motor overload function reset are handled, just like the SIRIUS overload relays, using potentiometers and buttons. In this case, you don't have to learn anything new.

What are its distinguishing features?

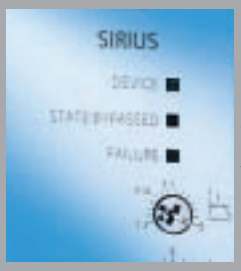
SIRIUS 3RW40 has the new patented control technique – "Polarity Balancing". This technique avoids DC current components in soft starters that control two phases. For soft starters that control two phases, the current resulting from the superimposition of the two control phases flows in the uncontrolled phase. Therefore, from the pure physics, the three phase currents are not symmetrically distributed while the motor is starting. This cannot be influenced, but in most applications not uncritical. In addition to this dissymmetry, when the power semiconductors are controlled in both of the controlled phases, then the DC current components can occur. For starting voltages of less than 50 %, this can result in a significant amount of noise at the motor. "Polarity Balancing" reliably eliminates these DC components while the motor starts. It generates uniform motor starting characteristics regarding speed, torque and current increase. In this case, the acoustic quality of the starting operation has almost the same quality as that of a starting device that controls all three phases.

High functionality for a low price – **SIRIUS 3RW40.**

This is all made possible by continuously and dynamically aligning and balancing the current half waves of different polarities while the motor is accelerating.

Does it have other integrated protective functions?

SIRIUS 3RW40 is, as standard, equipped with an optimum level of functionality. An **integrated bypass contact system** reduces the power loss of the soft starter in operation. It reliably ensures that the ambient temperature of the switching devices does not increase. The overload release times can be variably set using a 4-stage, rotary potentiometer. Thanks to the **integrated motor overload protection**, according to IEC 60 9474-2, you do not require an additional overload relay – therefore saving space in the control cabinet and wiring in the load feeder. An intrinsic **device protection** prevents the thyristors from being thermally overloaded avoiding damage to the power module. The thyristors can be optionally protected against short circuits using SITOR semiconductor protection fuses. Current spikes at power-on are also reliably avoided thanks to the **adjustable current limiting.**



Does the SIRIUS 3RW40 have diagnostic functions?

Yes – thanks to the integrated status and fault monitoring. Three LEDs keep you up to date about the operating state and possible faults – e. g. inadmissible release time (CLASS setting), line supply or phase failure, disconnected load, thermal overload or device faults, and errors.

And even more value added.

What accessories are available?

We offer an extensive range of accessories for our soft starters. For instance, frame terminal blocks, accessories for mechanical reset, a module for a remote reset, a sealed cover, or terminal covers that can be simply mounted to provide optimum shock hazard protection.

3RW40

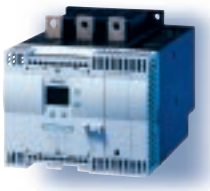
For a soft but powerful start …

When a Supernova explodes, things get pretty hot up there with several million degrees Celsius – as was the case back in 1987.

… our
high-feature soft starter.

Thank heavens things down here on earth don't get quite so hot as when a Supernova explodes. But down here, from time to time, things can get hot for motor starters. It is good to know that for applications with higher requirements, we have our extended family of high-feature soft starters with a compact design, closed-loop torque control, graphic display, communications link via PROFIBUS and many more powerful features fully integrated into the modular SIRIUS system.

SIRIUS 3RW44 size up to 250 kW



SIRIUS 3RW44 size up to 560 kW

Our family of soft starters has been expanded by the SIRIUS 3RW44 series – thus making soft starting and stopping also attractive for difficult starting operations. The highest degree of functionality in conjunction with the simplest operator control and extensive diagnostics functionality packaged in a sophisticated design are only just some of the reasons why the SIRIUS 3RW44 is a valuable alternative to starting and stopping motors using a frequency converter.

Packed with the highest degree of functionality, the SIRIUS 3RW44 also handles difficult starting operations simply but softly. Thanks to its innovative closed-loop torque control, it can be used to start drives up to a power rating of 710 kW at 400 V in a standard circuit configuration or up to 1200 kW at 400 V in an inside-delta circuit configuration. The functionality designed for simple handling promises to offer the non plus ultra when it comes to operator-friendliness.

Some basic information.

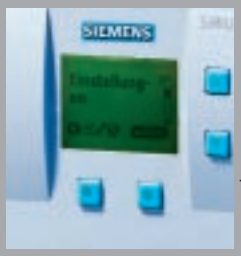
What can the SIRIUS 3RW44 offer?

Due its extremely compact design, the SIRIUS 3RW44 is completely in-line with the long family tradition of SIRIUS soft starters. It is the ideal device when a space-saving transparent control cabinet layout is required. Our innovative SIRIUS 3RW44 soft starters offer an attractive alternative for optimized motor starting and stopping with a high cost-saving potential when compared to using a frequency converter. The new closed-loop torque control and a selectable current limiting ensure that you can use our high-feature soft starters for almost every conceivable application. SIRIUS 3RW44 guarantee that torque surges and current spikes are reliably avoided when starting and stopping motors. This allows costs to be saved when dimensioning the switchboards and when it comes to servicing and maintaining your range of machinery. With our SIRIUS 3RW44, you save, especially when it comes to size and device costs – whether for a standard circuit (in-line) or inside-delta circuit.

Let's talk about the functionality.

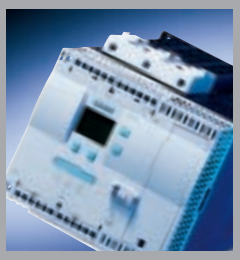
How is the SIRIUS 3RW44 commissioned and operated?

With its state-of-the-art ergonomic operator prompting, the commissioning of a SIRIUS 3RW44 is almost child's play – meaning it can be quickly brought up to speed. This is all made possible using a keypad with a menu-prompted, multi-line graphic display with background lighting. Optimized motor starting and stopping can be selected with just a few settings – quickly, simply and reliably. Transparency regarding the parameterization and handling in operation is always ensured using 4-key operator control and plain text displays for every menu item. During operation and when the control voltage is connected, measuring and operating values are continuously indicated on the display field. Alarm and fault messages are also output. You can connect an external display and operator module to the soft starter using a connecting cable. This means that, for instance, the actual messages can be directly read at the door of the control cabinet.



High-feature, highest degree of user-friendliness – **SIRIUS 3RW44.**

Does the SIRIUS 3RW44 have other integrated protective functions?



Our SIRIUS 3RW44 is equipped, as standard, with an optimum degree of functionality. An integrated bypass contact system reduces the heat loss of the soft starter in operation. This reliably prevents the ambient temperature around the switching devices from increasing. The SIRIUS 3RW44 has an internal device overload protection. This prevents the thyristors in the power module from being thermally overloaded, e. g. as a result of inadmissibly high power-on operations. The wiring time and costs to mount an additional motor overload relay are eliminated as the SIRIUS 3RW44 also handles this function. It doesn't make any difference as to whether selectable release times or thermistor motor protection functions are required: You are always on the safe side with SIRIUS 3RW44! The thyristors can be optionally protected against short circuit using SITOR semiconductor protection fuses. And thanks to the selectable current limiting, current spikes at power-on are reliably avoided.

Is SIRIUS 3RW44 communications-capable?

Yes – our SIRIUS 3RW44 can be optionally retrofitted with a PROFIBUS DP module. SIRIUS 3RW44 can be easily and quickly integrated into higher-level controls thanks to its communications capability, its control inputs and its programmable relay outputs.

And additional value added.

And if things have to move slower?

A crawl function is available for positioning and setting up tasks. The motor can be controlled in both directions of rotation with a reduced torque and adjustable low speed.

And if things have to move faster?

In order to quickly stop driving loads, for the SIRIUS 3RW44, we can offer a combined DC braking function.

And the accessories?

We offer an extensive range of accessories for our range of soft starters. For instance, a display and operator module that can be mounted in the cabinet door or the plug-in PROFIBUS DP module. Other available accessories include: Box terminal blocks that can be easily mounted and terminal covers from the modular SIRIUS system to provide optimum shock hazard protection.

3RW44

SIRIUS 3RW30 – when the conveyor belt must move softly in reversing operation.

Roller conveyors are used, for example, in package distribution centers to transport packets to and from the various stations. In order for this to function, the direction of rotation of the 11-kW motor must be able to be changed so that both transport directions can be implemented.

A roller conveyor belt places some high demands:

- The roller conveyor belt must start smoothly so that the conveyed product doesn't slide or topple over – which could cause damage.

  The wear and the maintenance intervals at the machine should be kept as low as possible. This is the reason that when starting, the drive belt should not slip.

  A voltage ramp should reduce the high starting current when the motor starts.

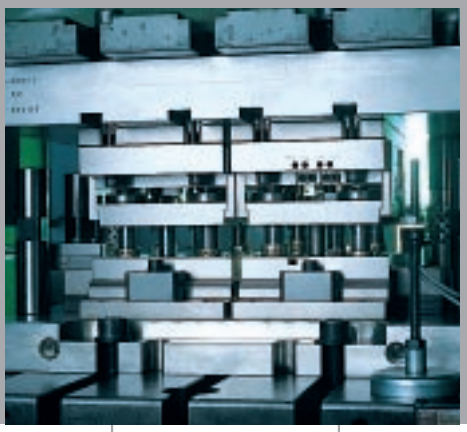
  The load feeder should be kept as small as possible in order not to overcrowd the control cabinet.

Optimum performance using SIRIUS 3RW30:

- The roller conveyor is accelerated quickly to the rated speed and stopped without any torque surges by optimally setting the voltage ramps used for starting and stopping.
- The motor starting current is reduced.
- A contactor circuit is used to allow the conveyor belt to move in both directions. SIRIUS 3RA3 reversing contactor combinations are used.
- SIRIUS 3RV circuit-breakers (MSPs) are used for the load feeder and motor protection.
- Maximum savings regarding wiring and space requirement are guaranteed by using SIRIUS system components.

SIRIUS 3RW40 – when hydraulic pumps have to start softly.

In addition to many other applications, the SIRIUS 3RW40 is optimally suited for ensuring that hydraulic pumps start and stop softly. Hydraulic pumps are, for example, used up to a power of 200 kW in the production of sheet metal parts to drive the necessary presses.



Driving hydraulic pumps is a sensitive issue:

- The motor starting current must be reduced in order to avoid overloading the higher-level line transformer.
- Generally, integrated motor protection is required in order to reduce wiring costs and save space in the electrical enclosures.
- Hydraulic pumps should start and stop softly in order to reduce the mechanical stress on the drive and pump to a minimum due to the torque surge when starting and stopping.

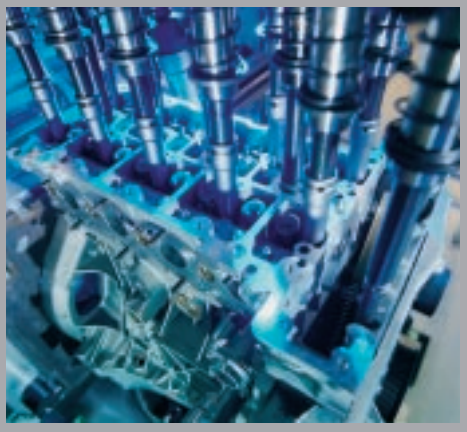
A sensitivity that SIRIUS 3RW40 inherently has:

- The selectable current limit of the SIRIUS 3RW40 device limits the load on the line transformer when the motor starts.
- Motor protection is guaranteed using a motor overload relay integrated into the soft starter with selectable release times.
- Using the selectable voltage ramp, the hydraulic pump is started and stopped without any torque surge.

Best Practice:
SIRIUS soft starters in use.

SIRIUS 3RW44 – if milling machines with DC current braking want to experience a soft start.

In the production of engines, a milling head is used to machine the necessary bores in the aluminum engine block. When the 15-kW motor is powered down, long stopping times occur due to the high moment of inertia of the milling head. This results in high idle times when changing tools and setting up the machine.



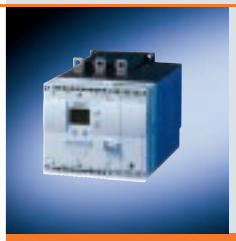
The starting behavior of milling machines requires the highest degree of functionality:

- Milling machines require an optimized torque-controlled starting behavior so that the drive belts do not slip – which would result in faster wear.
- The motor starting current must be reduced in order to keep the stressing on the line supply as low as possible.
- The motor must be braked using DC current in order to reduce the long stopping times of the machine.

The optimum solution using SIRIUS 3RW44

- SIRIUS 3RW44 with closed-loop torque control and a dynamic DC braking function is used to optimally handle this difficult application.
- Belt slippage when starting prevented using the closed-loop torque control with set torque limit function. This brings the milling head is quickly up to the rated speed without drive belt slippage.
- The motor starting current is limited to a set maximum value using a higher-level current limiting function.
- The optimum setting of the dynamic DC current braking function stops the milling head in a short time.
- Our high-feature SIRIUS 3RW44 soft starter also optimally handles motor and device overload protection.

Overview of SIRIUS soft starters

		SIRIUS 3RW30/31	SIRIUS 3RW40	SIRIUS 3RW44
[1] for 3RW31 and 3RW30..-1AA12 only soft starting [2] not for 3RW3003 [3] not possible in an inside-delta circuit [4] for 3RW3003 up to 230 V X = function available – = function not available				
		Standard applications		High-feature applications
Rated current at 40 °C	A	3 ... 100	132 ... 432	29 ... 1214
Rated voltage	V	200 ... 575	200 ... 600	200 ... 690
Motor power at 400 V (standard circuit)	kW	1.1 ... 55	75 ... 250	15 ... 710
Motor power at 400 V (inside-delta circuit)	kW	–	–	22 ... 1200
Ambient temperature (in operation)	°C	–25 ... 60	–25 ... 60	0 ... 60
Soft starting/stopping		x[1]	x	x
Voltage ramp		x	x	x
Starting/stopping voltage	%	40 ... 100	40 ... 100	20 ... 100
Ramp time	s	0 ... 20	0 ... 20	1 ... 360
Closed-loop torque control		–	–	x
Starting/stopping torque	%	–	–	20 ... 100
Torque limiting	%	–	–	20 ... 100
Ramp time	s	–	–	1 ... 360
Integrated bypass contact system		x[2]	x	x
Intrinsic device protection		–	x	x
Motor overload protection		–	x	x
Selectable current limiting		–	x	x
Inside-delta circuit configuration		–	–	x
Breakaway pulse		–	–	x
Crawl in both directions		–	–	x
Pump stopping		–	–	x
Combined DC braking function		–	–	x[3]
Motor heating		–	–	x
Communications		–	–	With PROFIBUS DP (option)
External display and operator module		–	–	(option)
Operating measured value display		–	–	x
Fault logbook		–	–	x
Event list		–	–	x
Non-return pointer		–	–	x
Trace function		–	–	x
Programmable control inputs and outputs		–	–	x
Number of parameter sets		1 (2 for 3RW31)	1	3
Parameterizing software		–	–	x
Power semiconductors (thyristors)		2 controlled phases	2 controlled phases	3 controlled phases
Screw terminals		x	x	x
Spring-loaded terminals		(x) only 3RW3003	x	x
UL/CSA		x[4]	x	x
CE marking		x	x	x
Soft starting under heavy-duty starting conditions		–	–	x
Engineering support		Win-Soft Starters, electronic selection tool, Technical Assistance +49 911 895 5900		

We have the optimum soft starter for every application: **You have the choice.**

Typical application examples	
Standard applications	**High-feature applications**
• Construction/construction material machines	• Pumps (also in the oil industry)
• Presses	• Fans and blowers
• Escalators	• Compressors
• Transport systems	• Cooling systems
• Pumps	• Industrial refrigeration systems
• Fans	• Water pumping
• Climate control systems	• Pumping systems and elevators
• Blowers	• Hydraulics
• Conveyor belts	• Machine tools
• Compressors and cooling systems	• Mills
• Drives	

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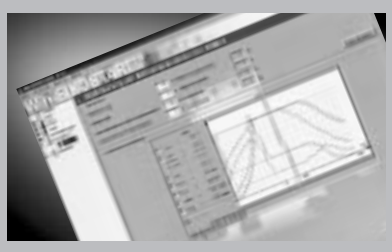
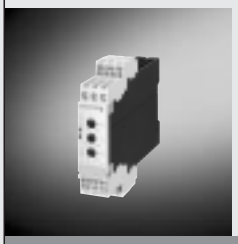


SIEMENS

The range at a glance

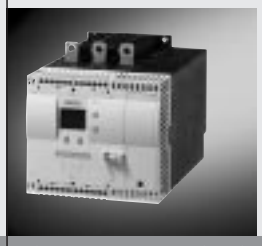
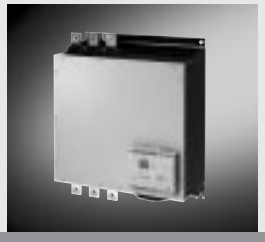
Overview, SIRIUS soft starters

		SIRIUS 3RW3003 and 3RW30/31				
						
		Standard applications				
Control electronics		**3RW3003-.CB54**	**3RW3...-1.B0.**		**3RW3...-1.B1.**	
Rated control supply voltage	V	AC/DC 24 ... 230 (±10%)	AC/DC 24 (–15 %/+10%)		AC/DC 110 ... 230 (–15%/+10%)	
Rated control supply current	mA	approx. 25 ... 4	approx. 50		approx. 25 ... 20	
Rated frequency	Hz	50/60 (±10%)	50/60 (±10%)		50/60 (±10%)	
Power electronics		**3RW3003-.CB54**	**3RW3...-1.B.4**		**3RW3...-1.B.5**	
Rated operating voltage	V	AC 200 ... 400 (±10%)	AC 200 ... 460 (±10%)		AC 460 ... 575 (±10%)	
Rated frequency	Hz	50/60 (±10%)	50/60 (±10%)		50/60 (±10%)	
Rated operating current I_e (53 A AC)			**3RW301.**	**3RW302.**	**3RW303.**	**3RW304.**
at 40 °C	A	3	6/9	12.5/16/25	32/38/45	63/75/100
at 50 °C	A	2.6	5/8	11/14/21	27/32/38	54/64/85
at 60 °C	A	2.2	4/7	9/12/18	23/27/32	46/54/72
Permissible ambient temperature	°C	–25 ... +60	–25 ... +60	–25 ... +60	–25 ... +60	–25 ... +60
Starting current/max. starting time	% I_e / s	300/0.2	250/2	300/2	300/3	300/4
Size		22.5 mm	S00	S0	S2	S3

Overview, accessories and spare parts for SIRIUS soft starters

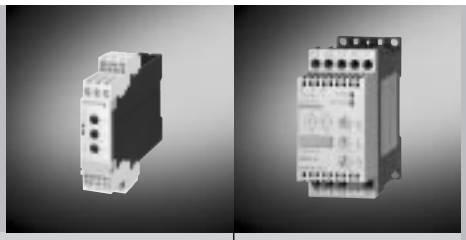
	SIRIUS 3RW3003 and 3RW30/31				
Accessories	3RW3003	3RW301.	3RW302.	3RW303.	3RW304.
Box terminal block					Included in the scope of supply
Terminal covers for the box terminals				3RT1936-4EA2	3RT1946-4EA2
Connection cover for cable lug and busbar connection					3RT1946-4EA1
Seal cover	3RP1902				
Soft Starter ES 2006 Smart PC communication program **Soft Starter ES 2006 Professional PC communication program** **Parameterizing and service software for SIRIUS 3RW44**					
PC-cable for PC-3RW44					
Communication modul PROFIBUS DP					
External display and operator module					
Connection cable (e.g. 2.5 m) 3RW44 - External display					
Fan			3RW3926-8A	3RW3936-8A	3RW3936-8A
Spare parts					
Fan			3RW3926-8A	3RW3936-8A	3RW3936-8A

Please observe the information on the last page

SIRIUS 3RW40		SIRIUS 3RW44			
					
		High feature applications			
3RW40..-.BB3.	**3RW40..-.BB4.**	**3RW44..-.BC3.**	**3RW44..-.BC4.**		
AC 115 (–15%/+10%)	AC 230 (–15%/+10%)	AC 115 (–15%/+10%)	AC 230 (–15%/+10%)		
–	–	–	–		
50/60 (±10%)	50/60 (±10%)	50 ... 60 (±10%)	50 ... 60 (±10%)		
3RW40..-.BB.4	**3RW40..-.BB.5**	**3RW44..-.BC.4**	**3RW44..-.BC.5**	**3RW44..-.BC.6**	
AC 200 ... 460 (–15 %/+10%)	AC 400 ... 600 (–15%/+10%)	AC 200 ... 460 (–15 %/+10%)	AC 400 ... 600 (–15%/+10%)	AC 400 ... 690 (–15%/+10%)	
50/60 (±10%)	50/60 (±10%)	50/60 (±10%)	50/60 (±10%)	50/60 (±10%)	
3RW405.	**3RW407.**	22 versions	22 versions	22 versions	
134/162	230/280/356/432	29 ... 1214	29 ... 1214	29 ... 1214	
117/145	205/248/315/385	26 ... 1051	26 ... 1051	26 ... 1051	
–	–	–	–	–	
–25 ... +60	–25 ... +60	0 ... +60	0 ... +60	0 ... +60	
–	–	–	–	–	
S6	S12	–	–	–	

SIRIUS 3RW40		SIRIUS 3RW44			
3RW405.	3RW407.	3RW442.	3RW443.	3RW444.	3RW445.
3RT1955-4G to 70 mm^2	3RT1966-4G to 240 mm^2	Included in the scope of supply	3RT1955-4G to 70 mm^2	3RT1966-4G to 240 mm^2	
3RT1956-4G to 120 mm^2			3RT1956-4G to 120 mm^2		
3RT1956-4EA2	3RT1966-4EA2	3RT1956-4EA2	3RT1956-4EA2	3RT1966-4EA2	
3RT1956-4EA1	3RT1966-4EA1	3RT1956-4EA1	3RT1956-4EA1	3RT1966-4EA1	
3RW4900-0PB00	3RW4900-0PB00				
		3ZS1313-1CC10-0YA0 3ZS1313-2CC10-0YA0	3ZS1313-1CC10-0YA0 3ZS1313-2CC10-0YA0	3ZS1313-1CC10-0YA0 3ZS1313-2CC10-0YA0	3ZS1313-1CC10-0YA0 3ZS1313-2CC10-0YA0
		3UF7940-0AA00-0	3UF7940-0AA00-0	3UF7940-0AA00-0	3UF7940-0AA00-0
		3RW4900-0KC00	3RW4900-0KC00	3RW4900-0KC00	3RW4900-0KC00
		3RW4900-0AC00	3RW4900-0AC00	3RW4900-0AC00	3RW4900-0AC00
		3UF7933-0BA00-0	3UF7933-0BA00-0	3UF7933-0BA00-0	3UF7933-0BA00-0
3RW4936-8VX30 AC 115 V	3RW4947-8VX30 AC 115 V	3RW4936-8VX30 AC 115 V	3RW4936-8VX30 AC 115 V	3RW4947-8VX30 AC 115 V	3RW4957-8VX30 AC 115 V
3RW4936-8VX40 AC 230 V	3RW4947-8VX40 AC 230 V	3RW4936-8VX40 AC 230 V	3RW4936-8VX40 AC 230 V	3RW4947-8VX40 AC 230 V	3RW4957-8VX40 AC 230 V

SIRIUS 3RW3003 and 3RW30/31



	40 °C ambient temperature					50 °C ambient temperature						
Rated operating voltage U_e	Rated operating current I_e	Rated power of three-phase motors at the rated operating voltage U_e				Rated operating current I_e	Rated power of three-phase motors at the rated operating voltage U_e					Order No.
		115 V	230 V	400 V	500 V		115 V	200 V	230 V	460 V	575 V	
V	A	kW	kW	kW	kW	A	HP	HP	HP	HP	HP	
Soft starters for simple staring applications and high switching frequency [1]												
200 ... 400	3	–	0.55	1.1	–	2.6	–	0.5	0.5	–	–	**3RW30 03-□CB54**
	Order No. supplement for the connection type											↑
										screw terminals		**1**
										spring-loaded terminals		**2**
Soft starters for three-phase induction motors												
200 ... 460	6	–	1.5	3	–	4.8	–	1	1	3	–	**3RW30 14-1CB□4**
	9	–	2.2	4	–	7.8	–	2	2	5	–	**3RW30 16-1CB□4**
	12.5	–	3	5.5	–	11	–	3	3	7.5	–	**3RW30 24-1AB□4**
	16	–	4	7.5	–	14	–	3	3	10	–	**3RW30 25-1AB□4**
	25	–	5.5	11	–	21	–	5	5	15	–	**3RW30 26-1AB□4**
	32	–	7.5	15	–	27	–	7.5	7.5	20	–	**3RW30 34-1AB□4**
	38	–	11	18.5	–	32	–	10	10	25	–	**3RW30 35-1AB□4**
	45	–	11	22	–	38	–	10	15	30	–	**3RW30 36-1AB□4**
	63	–	18.5	30	–	54	–	15	20	40	–	**3RW30 44-1AB□4**
	75	–	22	37	–	64	–	20	25	50	–	**3RW30 45-1AB□4**
	100	–	30	55	–	85	–	25	30	60	–	**3RW30 46-1AB□4**
460 ... 575	12.5	–	–	–	7.5	11	–	–	–	7.5	10	**3RW30 24-1AB□5**
	16	–	–	–	11	14	–	–	–	10	10	**3RW30 25-1AB□5**
	25	–	–	–	15	21	–	–	–	15	20	**3RW30 26-1AB□5**
	32	–	–	–	18.5	27	–	–	–	20	25	**3RW30 34-1AB□5**
	38	–	–	–	22	32	–	–	–	25	30	**3RW30 35-1AB□5**
	45	–	–	–	30	38	–	–	–	30	40	**3RW30 36-1AB□5**
	63	–	–	–	37	54	–	–	–	40	50	**3RW30 44-1AB□5**
	75	–	–	–	55	64	–	–	–	50	60	**3RW30 45-1AB□5**
	100	–	–	–	70	85	–	–	–	60	75	**3RW30 46-1AB□5**
	Order No. supplement for the rated control supply voltage U_s											↑
											24 V AC/DC	**0**
											110 ... 230 V AC/DC	**1**
Soft starters with two-ramp control for three-phase motors with two speeds (2x pole-changing)												
200 ... 460	12.5	–	3	5.5	–	11	–	3	3	7.5	–	**3RW31 24-1CB14**
	16	–	4	7.5	–	14	–	3	3	10	–	**3RW31 25-1CB14**
	25	–	5.5	11	–	21	–	5	5	15	–	**3RW31 26-1CB14**
460 ... 575	12.5	–	–	–	7.5	11	–	–	–	7.5	10	**3RW31 24-1CB15**
	16	–	–	–	7.5	14	–	–	–	10	10	**3RW31 25-1CB15**
	25	–	–	–	15	21	–	–	–	15	20	**3RW31 26-1CB15**
Soft starters for single-phase motors												
115 ... 240	25	2.2	4	–	–	21	1.5	3	3	–	–	**3RW30 26-1AA12**
	38	3	5.5	–	–	32	2	5	5	–	–	**3RW30 35-1AA12**
	75	5.5	11	–	–	64	5	10	10	–	–	**3RW30 45-1AA12**

[1] Rated control supply voltage U_s 24 ... 230 V AC/DC

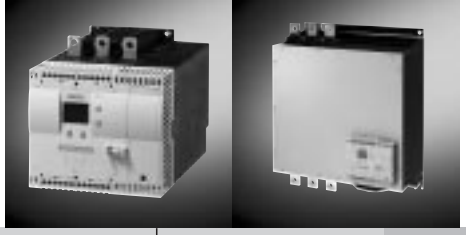
SIRIUS 3RW40

	40 °C ambient temperature				50 °C ambient temperature					
Rated operating voltage U_e	Rated operating current I_e	Rated power of three-phase motors at the rated operating voltage U_e			Rated operating current I_e	Rated power of three-phase motors at the rated operating voltage U_e				Order No.
		230 V	400 V	500 V		200 V	230 V	460 V	575 V	
V	A	kW	kW	kW	A	HP	HP	HP	HP	
200 ... 460	134	37	75	–	117	30	40	75	–	3RW40 55-□BB□4
	162	45	90	–	145	40	50	100	–	3RW40 56-□BB□4
	230	75	132	–	205	60	75	150	–	3RW40 73-□BB□4
	280	90	160	–	248	75	100	200	–	3RW40 74-□BB□4
	356	110	200	–	315	100	125	250	–	3RW40 75-□BB□4
	432	132	250	–	385	125	150	300	–	3RW40 76-□BB□4
400 ... 600	134	–	75	90	117	–	–	75	100	3RW40 55-□BB□5
	162	–	90	110	145	–	–	100	150	3RW40 56-□BB□5
	230	–	132	160	205	–	–	150	200	3RW40 73-□BB□5
	280	–	160	200	248	–	–	200	250	3RW40 74-□BB□5
	356	–	200	250	315	–	–	250	300	3RW40 75-□BB□5
	432	–	250	315	385	–	–	300	400	3RW40 76-□BB□5

Order No. supplement for the connection type	spring-loaded terminals	**2**	
	screw terminals	**6**	
Order No. supplement for the rated control supply voltage U_s	115 V AC		**3**
	230 V AC		**4**

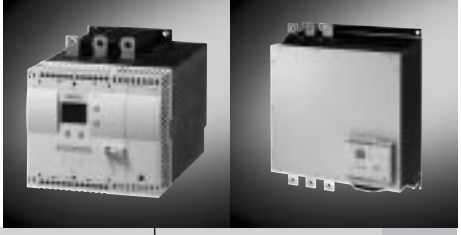
Please observe the information on the last page

SIRIUS 3RW44



	Standard circuit					Standard circuit					
	40 °C ambient temperature					50 °C ambient temperature					
Rated operating voltage U_e	Rated operating current I_e	Rated power of three-phase motors at the rated operating voltage U_e				Rated operating current I_e	Rated power of three-phase motors at the rated operating voltage U_e				Order No.
		230 V	400 V	500 V	690 V		200 V	230 V	460 V	575 V	
V	A	kW	kW	kW	kW	A	HP	HP	HP	HP	
200 ... 460	29	5.5	15	–	–	26	7.5	7.5	15	–	3RW44 22-□BC□4
	36	7.5	18.5	–	–	32	10	10	20	–	3RW44 23-□BC□4
	47	11	22	–	–	42	10	15	25	–	3RW44 24-□BC□4
	57	15	30	–	–	51	15	15	30	–	3RW44 25-□BC□4
	77	18.5	37	–	–	68	20	20	50	–	3RW44 26-□BC□4
	93	22	45	–	–	82	25	25	60	–	3RW44 27-□BC□4
400 ... 600	29	–	15	18.5	–	26	–	–	15	20	3RW44 22-□BC□5
	36	–	18.5	22	–	32	–	–	20	25	3RW44 23-□BC□5
	47	–	22	30	–	42	–	–	25	30	3RW44 24-□BC□5
	57	–	30	37	–	51	–	–	30	40	3RW44 25-□BC□5
	77	–	37	45	–	68	–	–	50	50	3RW44 26-□BC□5
	93	–	45	55	–	82	–	–	60	75	3RW44 27-□BC□5
400 ... 690	29	–	15	18.5	30	26	–	–	15	20	3RW44 22-□BC□6
	36	–	18.5	22	37	32	–	–	20	25	3RW44 23-□BC□6
	47	–	22	30	45	42	–	–	25	30	3RW44 24-□BC□6
	57	–	30	37	55	51	–	–	30	40	3RW44 25-□BC□6
	77	–	37	45	75	68	–	–	50	50	3RW44 26-□BC□6
	93	–	45	55	90	82	–	–	60	75	3RW44 27-□BC□6
	Order No. supplement for the connection type									screw terminals spring-loaded terminals	1 3
200 ... 460	113	30	55	–	–	100	30	30	75	–	3RW44 34-□BC□4
	134	37	75	–	–	117	30	40	75	–	3RW44 35-□BC□4
	162	45	90	–	–	145	40	50	100	–	3RW44 36-□BC□4
	203	55	110	–	–	180	50	60	125	–	3RW44 43-□BC□4
	250	75	132	–	–	215	60	75	150	–	3RW44 44-□BC□4
	313	90	160	–	–	280	75	100	200	–	3RW44 45-□BC□4
	356	110	200	–	–	315	100	125	250	–	3RW44 46-□BC□4
	432	132	250	–	–	385	125	150	300	–	3RW44 47-□BC□4
	551	160	315	–	–	494	150	200	400	–	3RW44 53-□BC□4
	615	200	355	–	–	551	150	200	450	–	3RW44 54-□BC□4
	693	200	400	–	–	615	200	250	500	–	3RW44 55-□BC□4
	780	250	450	–	–	693	200	250	600	–	3RW44 56-□BC□4
	880	250	500	–	–	780	250	300	700	–	3RW44 57-□BC□4
	970	315	560	–	–	850	300	350	750	–	3RW44 58-□BC□4
400 ... 600	113	–	55	75	–	100	–	–	75	75	3RW44 34-□BC□5
	134	–	75	90	–	117	–	–	75	100	3RW44 35-□BC□5
	162	–	90	110	–	145	–	–	100	125	3RW44 36-□BC□5
	203	–	110	132	–	180	–	–	125	150	3RW44 43-□BC□5
	250	–	132	160	–	215	–	–	150	200	3RW44 44-□BC□5
	313	–	160	200	–	280	–	–	200	250	3RW44 45-□BC□5
	356	–	200	250	–	315	–	–	250	300	3RW44 46-□BC□5
	432	–	250	315	–	385	–	–	300	400	3RW44 47-□BC□5
	551	–	315	355	–	494	–	–	400	500	3RW44 53-□BC□5
	615	–	355	400	–	551	–	–	450	600	3RW44 54-□BC□5
	693	–	400	500	–	615	–	–	500	700	3RW44 55-□BC□5
	780	–	450	560	–	693	–	–	600	750	3RW44 56-□BC□5
	880	–	500	630	–	780	–	–	700	850	3RW44 57-□BC□5
	970	–	560	710	–	850	–	–	750	950	3RW44 58-□BC□5
400 ... 690	113	–	55	75	110	100	–	–	75	75	3RW44 34-□BC□6
	134	–	75	90	132	117	–	–	75	100	3RW44 35-□BC□6
	162	–	90	110	160	145	–	–	100	125	3RW44 36-□BC□6
	203	–	110	132	200	180	–	–	125	150	3RW44 43-□BC□6
	250	–	132	160	250	215	–	–	150	200	3RW44 44-□BC□6
	313	–	160	200	315	280	–	–	200	250	3RW44 45-□BC□6
	356	–	200	250	355	315	–	–	250	300	3RW44 46-□BC□6
	432	–	250	315	400	385	–	–	300	400	3RW44 47-□BC□6
	551	–	315	355	560	494	–	–	400	500	3RW44 53-□BC□6
	615	–	355	400	630	551	–	–	450	600	3RW44 54-□BC□6
	693	–	400	500	710	615	–	–	500	700	3RW44 55-□BC□6
	780	–	450	560	800	693	–	–	600	750	3RW44 56-□BC□6
	880	–	500	630	900	780	–	–	700	850	3RW44 57-□BC□6
	970	–	560	710	1000	850	–	–	750	950	3RW44 58-□BC□6
	Order No. supplement for the connection type									spring-loaded terminals screw terminals	2 6
	Order No. supplement for the rated control supply voltage U_S									AC 115 V AC 230 V	3 4

SIRIUS 3RW44



	Inside delta circuit					Inside delta circuit					
	40 °C ambient temperature					50 °C ambient temperature					
Rated operating voltage U_e	Rated operating current I_e	Rated power of three-phase motors at the rated operating voltage U_e				Rated operating current I_e	Rated power of three-phase motors at the rated operating voltage U_e				Order No.
		230 V	400 V	500 V	690 V		200 V	230 V	460 V	575 V	
V	A	kW	kW	kW	kW	A	HP	HP	HP	HP	
200 ... 460	50	15	22	–	–	45	10	15	30	–	3RW44 22-□BC□4
	62	18.5	30	–	–	55	15	20	40	–	3RW44 23-□BC□4
	81	22	45	–	–	73	20	25	50	–	3RW44 24-□BC□4
	99	30	55	–	–	88	25	30	60	–	3RW44 25-□BC□4
	133	37	75	–	–	118	30	40	75	–	3RW44 26-□BC□4
	161	45	90	–	–	142	40	50	100	–	3RW44 27-□BC□4
400 ... 600	50	–	22	30	–	45	–	–	30	40	3RW44 22-□BC□5
	62	–	30	37	–	55	–	–	40	50	3RW44 23-□BC□5
	81	–	45	45	–	73	–	–	50	60	3RW44 24-□BC□5
	99	–	55	55	–	88	–	–	60	75	3RW44 25-□BC□5
	133	–	75	90	–	118	–	–	75	100	3RW44 26-□BC□5
	161	–	90	110	–	142	–	–	100	125	3RW44 27-□BC□5
	Order No. supplement for the connection type									screw terminals spring-loaded terminals	1 3
200 ... 460	196	55	110	–	–	173	50	60	125	–	3RW44 34-□BC□4
	232	75	132	–	–	203	60	75	150	–	3RW44 35-□BC□4
	281	90	160	–	–	251	75	100	200	–	3RW44 36-□BC□4
	352	110	200	–	–	312	100	125	250	–	3RW44 43-□BC□4
	433	132	250	–	–	372	125	150	300	–	3RW44 44-□BC□4
	542	160	315	–	–	485	150	200	400	–	3RW44 45-□BC□4
	617	200	355	–	–	546	150	200	450	–	3RW44 46-□BC□4
	748	250	400	–	–	667	200	250	600	–	3RW44 47-□BC□4
	954	315	560	–	–	856	300	350	750	–	3RW44 53-□BC□4
	1065	355	630	–	–	954	350	400	850	–	3RW44 54-□BC□4
	1200	400	710	–	–	1065	350	450	950	–	3RW44 55-□BC□4
	1351	450	800	–	–	1200	450	500	1050	–	3RW44 56-□BC□4
	1524	500	900	–	–	1351	450	600	1200	–	3RW44 57-□BC□4
	1680	560	1000	–	–	1472	550	650	1300	–	3RW44 58-□BC□4
400 ... 600	196	–	110	132	–	173	–	–	125	150	3RW44 34-□BC□5
	232	–	132	160	–	203	–	–	150	200	3RW44 35-□BC□5
	281	–	160	200	–	251	–	–	200	250	3RW44 36-□BC□5
	352	–	200	250	–	312	–	–	250	300	3RW44 43-□BC□5
	433	–	250	315	–	372	–	–	300	350	3RW44 44-□BC□5
	542	–	315	355	–	485	–	–	400	500	3RW44 45-□BC□5
	617	–	355	450	–	546	–	–	450	600	3RW44 46-□BC□5
	748	–	400	500	–	667	–	–	600	750	3RW44 47-□BC□5
	954	–	560	630	–	856	–	–	750	950	3RW44 53-□BC□5
	1065	–	630	710	–	954	–	–	850	1050	3RW44 54-□BC□5
	1200	–	710	800	–	1065	–	–	950	1200	3RW44 55-□BC□5
	1351	–	800	900	–	1200	–	–	1050	1350	3RW44 56-□BC□5
	1524	–	900	1000	–	1351	–	–	1200	1500	3RW44 57-□BC□5
	1680	–	1000	1200	–	1472	–	–	1300	1650	3RW44 58-□BC□5
	Order No. supplement for the connection type									spring-loaded terminals screw terminals	2 6
	Order No. supplement for the rated control supply voltage U_S									115 V AC 230 V AC	3 4

Please observe the information on the last page

More details and information (for example on the accessories and spare parts) are provided in Catalog LV 1 and LV 1 T "Low-Voltage Controls and Distribution" or in the Internet under www.siemens.com/softstarter

The specified motor power ratings are only approximate values. Soft starters should always be selected and dimensioned using the rated motor current as criterion (rated operating current). All Siemens soft starters are designed for normal starting conditions (moment of inertia of the total drive $J_{Load} < 10 \cdot J_{Motor}$). If required, a larger device must be selected for conditions that deviate from this or for increased switching frequency.

We recommend that the "Win-Soft Starters" selection and simulation program is used.

Motor power data based on DIN 42973 (kW) and NEC 96/UL508 (hp).

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