

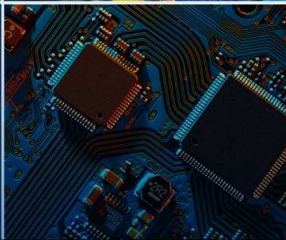
SSW07 Overview



Driving efficiency and sustainability



Class: SSW071
Version: 01.2025



Automation
Training

SSW07



SSW07 – REDUCED VOLTAGE SOFT STARTER

- Soft Starters are static starting devices, designed for the acceleration, deceleration, and protection of the three phase, electric induction motors through the control of the voltage applied to the motor. The WEG SSW07, with DSP control (Digital Signal Processor), was designed to provide great performance on motor starts and stops with an excellent cost-benefit relation. Easy to set up, it simplifies start-up activities and daily operations.
- The SSW07 is compact, optimizing space in electric panels. The SSW07 incorporates all electric motor protections and adapts to customer needs through its easy-to-install optional accessories. Optionally, a keypad, a communication interface, or a motor PTC input can be added to the product.



The WEG SSW07 Reduced Voltage Soft Starter is a highly efficient and compact device designed to optimize the starting, acceleration, deceleration, and protection of three-phase electric induction motors. By controlling the voltage applied to the motor, the SSW07 ensures smooth and reliable motor starts and stops, enhancing overall performance. Equipped with a Digital Signal Processor, this soft starter offers an excellent cost-benefit ratio, making it an ideal choice for various industrial applications. Its user-friendly setup simplifies start-up activities and daily operations, ensuring seamless integration into electric panels.

The SSW07's compact design optimizes space within electric panels, making it a practical solution for environments with limited space. It incorporates comprehensive electric motor protections and can be easily adapted to meet specific customer needs through its optional accessories. These accessories include a keypad, a communication interface, and a motor PTC input, providing flexibility and customization options for diverse applications.

SSW07



MAIN FEATURES



- Universal voltage (220 to 575 Vac)
- Built-in run rated (AC1) By-pass contactor
- Easy operation, setup, maintenance & installation.
- Simple setpoint programming through trim pots.
- Operates in environments up to 55°C without current reduction.
- Integral electronic motor protection.
- Built-in electronic thermal relay
- Conformal coated circuit boards.

The SSW07 operates on a universal voltage range of 220 to 575 Volt ac, ensuring compatibility with various power systems. It features a built-in run-rated by-pass contactor, which enhances its operational efficiency and reliability. The SSW07 is engineered for easy operation, setup, maintenance, and installation, making it user-friendly and convenient for technicians and engineers.

One of the standout features of the SSW07 is its simple setpoint programming through trim pots, allowing for precise adjustments and customization. This soft starter can operate in environments with temperatures up to 55 degrees Celsius without any reduction in current, ensuring consistent performance even in challenging conditions. Additionally, it includes integral electronic motor protection and a built-in electronic thermal relay, providing robust protection for motors and preventing potential damage.

The SSW07 also boasts conformal-coated circuit boards, which offer enhanced durability and protection against environmental factors such as moisture and dust. This makes the SSW07 a reliable and long-lasting solution for various industrial applications.

SSW07



- **Main Power Supply**

- 220 to 575 Vac

- **Control Power Supply**

- Size 1 to 3: 110 to 240 Vac
- Size 4: 110 to 130 Vac

- **Current Rating**

- Size 1: 17A, 24A, and 30A
- Size 2: 45A, 61A, and 85A
- Size 3: 130A, 171A, and 200A
- Size 4: 255A, 312A, 365A, and 412A



The SSW07's main power supply ranges from 220 to 575 volts, ensuring compatibility with various electrical systems. Additionally, the control power supply operates between 110 and 240 volts for frame sizes 1 to 3, and for frame size 4, the control voltage is 110 to 140 volts AC, providing flexibility in control options.

The current rating of the SSW07 series is categorized into four distinct sizes to accommodate different application requirements. Size 1 units are rated at 17A, 24A, and 30A, making them suitable for smaller loads. Size 2 units, with ratings of 45A, 61A, and 85A, are ideal for medium-sized applications. For larger loads, Size 3 units offer ratings of 130A, 171A, and 200A. The largest units, Size 4, are rated at 255A, 312A, 365A, and 412A.

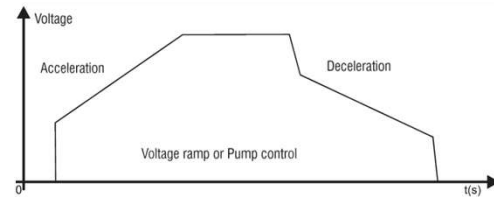
SSW07 PROGRAMMING FEATURES



All programming necessary for starting any load is available through trim pots and dip-switch.

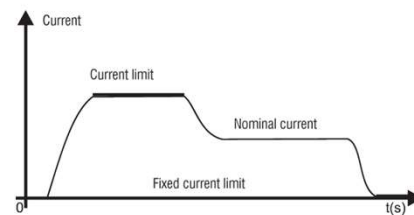
Voltage Ramp

It permits smooth acceleration and/or deceleration through voltage ramps.



Current Limit

The current limit during the start is according to the application requirements.



The SSW07 series offers comprehensive programming options for starting any type of load, utilizing trim pots and dip-switches. This ensures that the soft starter can be tailored to meet specific application requirements with ease.

One of the key features is the voltage ramp, which allows for smooth acceleration and deceleration through controlled voltage ramps. This not only enhances the performance of the motor but also reduces mechanical stress and wear.

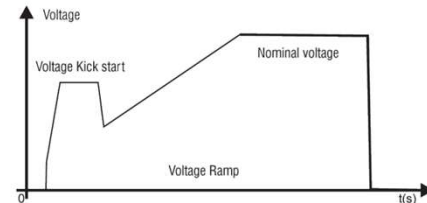
Additionally, the current limit feature provides precise control over the current during startup, ensuring that the motor operates within safe parameters. This is particularly beneficial for applications with varying load conditions, as it helps to prevent overloading and potential damage to the motor.

SSW07 PROGRAMMING FEATURES



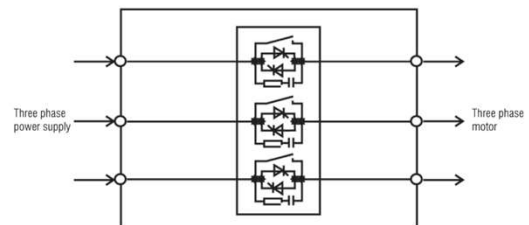
Voltage Kick Start

Enables an initial voltage boost, which provides initial starting torque. This is necessary for starting high breakaway torque loads.



Built-in By-Pass

Built-in by-pass minimizes power loss and heat dissipation in the thyristors, reducing size and saving energy. This is available in all models.



The Voltage Kick Start function, which provides an initial voltage boost to deliver the necessary starting torque for high breakaway torque loads. This ensures that even the most demanding applications can be started smoothly and efficiently.

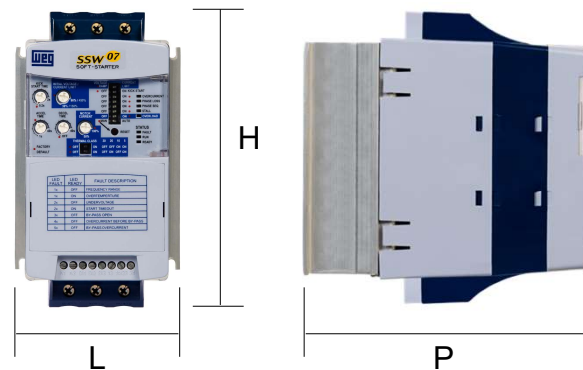
The built-in by-pass feature is designed to minimize power loss and heat dissipation in the thyristors. This not only reduces the overall size of the unit but also contributes to significant energy savings. This feature is available across all models in the SSW07 series, making it a versatile and efficient choice for various industrial applications.

SSW07 DIMENSIONS



Frame Size	IP Rating	Height 'H' In. (mm)	Width 'L' In. (mm)	Depth 'P' In. (mm)
1	IP20	6.4 (162)	3.8 (95)	6.2 (157)
2	IP20	8.3 (208)	5.6 (141)	8.0 (202)
3	IP20	10.9 (276)	8.6 (218)	8.7 (220)
4	IP00	13.1 (331)	9.0 (227)	9.6 (242)

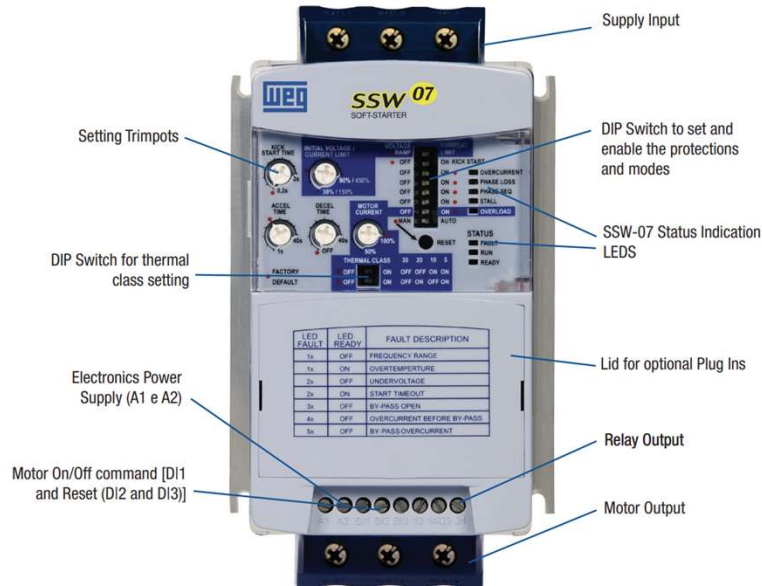
Frame Size 4 can be IP 20 with an optional kit.



Each frame size has specific dimensions and are shown here.

The IP rating for Frame 1, 2, and 3 is IP20. Frame size 4, however, has an IP00 rating. Frame size 4 can be made IP20, with an optional kit installed.

SSW07



Let's take a closer look at the various components of the SSW07.

At the top of the device, we have the supply input, which is the main power source for the soft-starter. Below this, you will find the setting trim pots, which allow for precise adjustments to the motor's start-up parameters. These trim pots are crucial for fine-tuning the performance of the motor to match specific application requirements.

Next, we have the DIP switch for the thermal class setting. This switch enables users to set the thermal protection class. Adjacent to this is another DIP switch that sets and enables various protections and modes.

The SSW07 also features status indication LEDs, which provide real-time feedback on the device's operational status.

The lid for optional plug-ins is located in the center of the device, allowing for easy expansion and customization of the soft starter.

Moving down, we see the control power terminals, labeled as A1 and A2. Next to this, we have the motor on/off command and reset inputs, labeled DI1, DI2, and DI3. To the right, we have the relay output, which can be used to interface with other control systems or devices.

Finally, at the bottom of the device, we have the motor output, which connects directly to the motor being controlled.

ACCESSORIES: KEYPADS



Local



Remote



Not included with the SSW07.

The HMI for the SSW07 is a 7-segment LED display enables operators to monitor the SSW07 from a distance, ensuring efficient oversight. The keypad features a "Copy" function, allowing users to transfer parameters from one SSW07 to another, which facilitates rapid programming, enhances reliability, and ensures repeatability in serial manufacturing machinery.

The SSW07 offers two keypad options: a local keypad that fits into the expansion slot, and a remote keypad that also utilizes the expansion slot but can be mounted on the front of a panel for easier access and operation. Both options are designed to provide seamless integration and an enhanced user experience.

ACCESSORIES: COMMUNICATION



RS-232 Communication Kit



RS-485 Communication Kit



DeviceNet Communication Kit plus Remote HMI Connection



The SSW07 is specifically engineered to seamlessly integrate into large industrial automation plants. The Fieldbus communication networks offer significant benefits, enabling comprehensive, real-time supervision, monitoring, and control of the SSW07. This results in high performance and exceptional operational flexibility, which are essential for applications in complex and integrated systems.

The SSW07 provides three communication card options: RS485, RS232, and DeviceNet.

ACCESSORIES: FAN KIT



FAN KIT FOR SIZE 2 AND 3

Starting Cycle without Fan:

3 x In for 30s; **3 times** / hour @ 55°C

Starting Cycle with Fan:

3 x In for 30s; **10 times** / hour @ 55°C

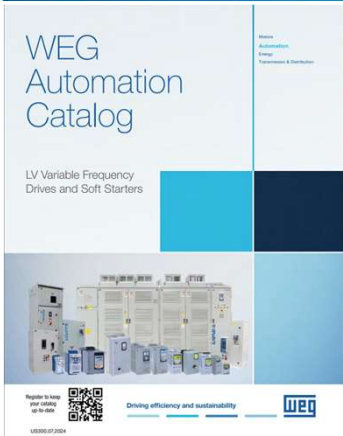


Let's touch on starting cycles and our fan kit accessory, designed specifically for size 2 and 3 models ranging from 45 A to 200 A. This essential addition is crucial for heavy-duty starting cycles.

Without the fan kit, the starting cycle is limited to three times per hour at a temperature of 55°C. However, with the fan kit installed, the starting cycle frequency significantly increases to ten times per hour at the same temperature.

The fan kit is easy to install and seamlessly integrates with your existing setup. It provides the necessary ventilation to maintain optimal operating conditions, preventing overheating and ensuring consistent performance even under demanding conditions.

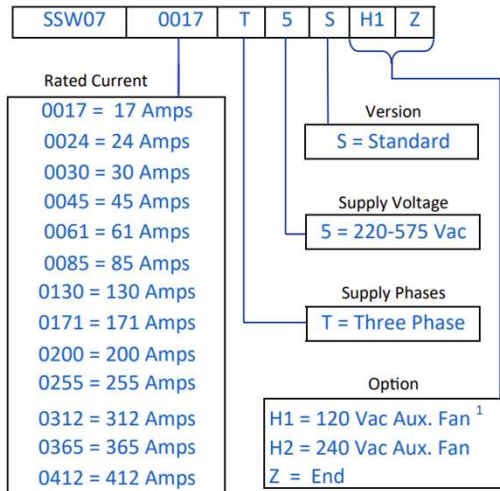
Sizing and Selecting



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SSW07 Catalog Number Sequence



The SSW07 part number is structured into five distinct components, each serving a critical role in identifying the specific characteristics of the product. These components are the Rated Current, which indicates the maximum current the device can handle; the Supply Phases, specifying the device operates on three-phase power; the Supply Voltage, denoting the voltage range the device is designed to work within; the version, and the options.

For a comprehensive list of all available SSW07 part numbers, please refer to the WEG Automation Catalog.



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**Thank you for your
time and attention.**



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Thank you for attending our training for the SSW07. Please make sure you complete the test before moving on.