SSW07

Soft Starter

- Tough
- Reliable
- Durable
- Quality

USASSW0709

Soft Starters

SSW07

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

Applications

- Chemical and Petrochemical
- Plastic and Rubber
- Pulp and Paper
- Sugar and Alcohol
- Beverages
- Cement and Mining
- Food and Ration
- Textile
- Metallurgy
- Ceramics
- Glass
- Refrigeration
- Wood
- Sanitation
- Conveyors

Standard Features

- Significant reduction in mechanical stresses of the coupling and transmission devices (gearboxes, pulleys, gears, conveyors, etc.) during start
- Increases motor and equipment lifetime due to the elimination of mechanical shock
- Easy operation, setup, maintenance & installation
- Operates in environments up to 55ºC (without derate for all models)
- Integral, electronic motor protection
- Built-in electronic thermal relay
- Avoids the “Water Hammer” in pumps
- Limitation of voltage drop during start
- Universal voltage (220 to 575 Vac)
- Switched type power supply with EMC filter for the control electronics (110 to 240 Vac)
- Thermal monitoring of both motor and soft starter

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IP20 Frame Size 1 and 2, IP00 Frame Size 3

Motor Volts	Motor HP	Soft Starter AMPS	Catalog Number	Frame Size	Dimensions (in.) H x W x D	App. Shpg. Wt. (lbs.)
220V / 230V	INPUT POWER SUPPLY: THREE PHASE - 220V / 230V					
	6	17	SSW070017T5SZ	1	6.38 x 3.74 x 6.18	2.9
	7.5	24	SSW070024T5SZ	1	6.38 x 3.74 x 6.18	2.9
	10	30	SSW070030T5SZ	1	6.38 x 3.74 x 6.18	2.9
	15	45	SSW070045T5SZ	2	8.2 x 5.57 x 7.94	7.28
	20	61	SSW070061T5SZ	2	8.2 x 5.57 x 7.94	7.28
	30	85	SSW070085T5SZ	2	8.2 x 5.57 x 7.94	7.28
	50	130	SSW070130T5SZ	3	10.9 x 8.6 x 8.66	16.8
	60	171	SSW070171T5SZ	3	10.9 x 8.6 x 8.66	16.8
	75	200	SSW070200T5SZ	3	10.9 x 8.6 x 8.66	16.8
440V / 460V	INPUT POWER SUPPLY: THREE PHASE - 440V / 460V					
	12.5	17	SSW070017T5SZ	1	6.38 x 3.74 x 6.18	2.9
	15	24	SSW070024T5SZ	1	6.38 x 3.74 x 6.18	2.9
	20	30	SSW070030T5SZ	1	6.38 x 3.74 x 6.18	2.9
	30	45	SSW070045T5SZ	2	8.2 x 5.57 x 7.94	7.28
	50	61	SSW070061T5SZ	2	8.2 x 5.57 x 7.94	7.28
	60	85	SSW070085T5SZ	2	8.2 x 5.57 x 7.94	7.28
	100	130	SSW070130T5SZ	3	10.9 x 8.6 x 8.66	16.8
	125	171	SSW070171T5SZ	3	10.9 x 8.6 x 8.66	16.8
	150	200	SSW070200T5SZ	3	10.9 x 8.6 x 8.66	16.8
575V	INPUT POWER SUPPLY: THREE PHASE - 575V					
	15	17	SSW070017T5SZ	1	6.38 x 3.74 x 6.18	2.9
	20	24	SSW070024T5SZ	1	6.38 x 3.74 x 6.18	2.9
	30	30	SSW070030T5SZ	1	6.38 x 3.74 x 6.18	2.9
	40	45	SSW070045T5SZ	2	8.2 x 5.57 x 7.94	7.28
	60	61	SSW070061T5SZ	2	8.2 x 5.57 x 7.94	7.28
	75	85	SSW070085T5SZ	2	8.2 x 5.57 x 7.94	7.28
	125	130	SSW070130T5SZ	3	10.9 x 8.6 x 8.66	16.8
	175	171	SSW070171T5SZ	3	10.9 x 8.6 x 8.66	16.8
	200	200	SSW070200T5SZ	3	10.9 x 8.6 x 8.66	16.8

SSW07 – Accessories

Description		Catalog Number
Keypads	Keypad	HMI-LOCAL-SSW07
	Remote Keypad Kit	HMI-REMOTE-SSW07
Keypad Cables	3.3 ft Remote Keypad Cable	CAB-RS-1
	6.6 ft Remote Keypad Cable	CAB-RS-2
	10 ft Remote Keypad Cable	CAB-RS-3
	16 ft Remote Keypad Cable	CAB-RS-5
	25 ft Remote Keypad Cable	CAB-RS-7.5
	33 ft Remote Keypad Cable	CAB-RS-10
Communication	RS-232 Communication Kit	KRS-232-SSW07
	RS-485 Communication Kit	KRS-485-SSW07
	Cable for Communication RS232 (DB9-DB9) - 3m	CAB-COMM-3
	Cable for Communication RS232 (DB9-DB9) - 10m	CAB-COMM-10
KITS	Ventilation Kit M2 (Frame Size 2, 45 to 85A)	SSW07-VENT KIT-M2
	Ventilation Kit M3 (Frame Size 3, 130 o 200A)	SSW07-VENT KIT-M3
	PTC Kit for motor	KIT-PTC-SSW07-MOTOR
	IP20 Kit for M3 (Frame Size 3, 130 o 200A)	KIT-IP20-SSW07
	Superdrive G2 Kit (KRS-232-SSW07+CAB-COMM-3+CD Software)	KSDG2-SSW07
Lugs	SSW07 Lug Kit - Size 3 (130-200A)	SSW07-LK130-200

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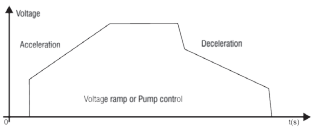
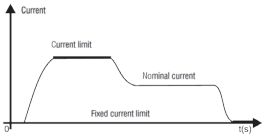
SSW07 – Programming Features

All programming necessary for starting any type of load is available through trimpots and dip-switch.



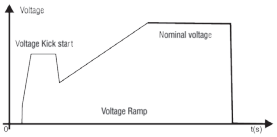
Voltage Ramp

Permits smooth acceleration and/or deceleration, through voltage ramps.



Current Limit

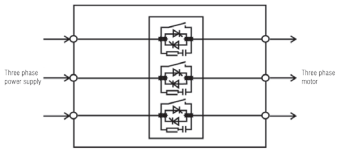
Current limit during the start according to the application requiriments.



Voltage Kick Start

Enables an initial voltage boost which, provides initial starting torque.

This is necessary for starting high breakway torque loads.



Built in By Pass

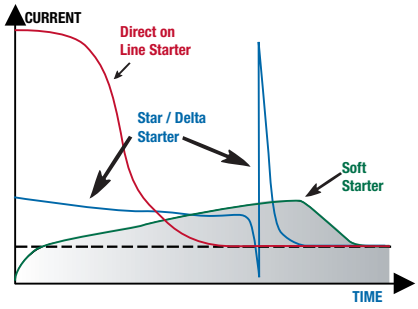
Built-in by-pass minimizes power loss and heat dissipation in the thyristors, providing size reduction and contributing to energy saving. This is available in all models.

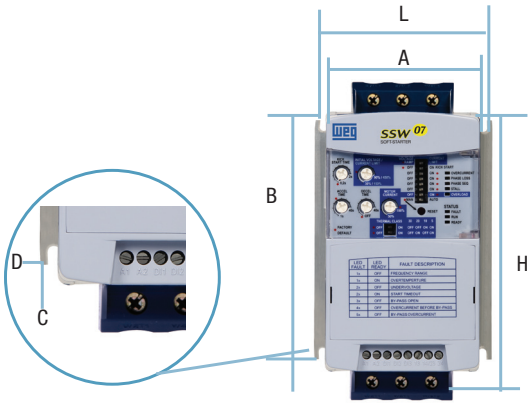
Dimensions and Weights

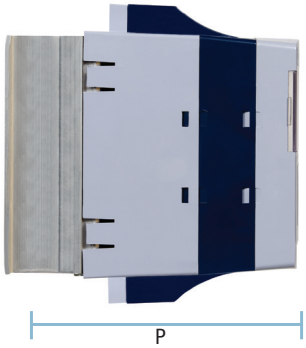
SSW-07 Model	Height H mm(In)	Width L mm(In)	Depth. P mm(In)	A mm(In)	B mm(In)	C mm(In)	D mm(In)	Fixing screw	Weight kg (lb)	Enclosure
SSW070017 SSW070024 SSW070030	162 (6.38)	95 (3.74)	157 (6.18)	85 (3.35)	120 (4.72)	5 (0.20)	4 (0.16)	M4	1.3 (2.9)	IP20
SSW070045 SSW070061 SSW070085	208 (8.19)	144 (5.67)	203 (7.99)	132 (5.2)	148 (5.83)	6 (0.24)	3.4 (0.13)	M4	3.3 (7.28)	IP20
SSW070130 SSW070171 SSW070200	276 (10.9)	223 (8.78)	220 (8.66)	208 (8.19)	210 (8.27)	7.5 (0.3)	5 (0.2)	M5	7.6 16.8)	IP00*

Table 3.1 Data for installation with dimensions in mm (in)
*Option for IP20 Kit

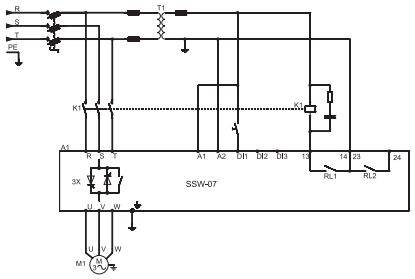
Starting Method Comparison







Typical Starters



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Accessories and Options

The SSW07 Soft Starters can be interconnected to "FieldBus" communication networks, through Modbus RTU protocol. Designed to integrate large industrial automation plants, the communication networks provide advantages in supervision, monitoring and control, over the Soft Starters. This provides high performance and great operating flexibility, which is demanded for complex or integrated system applications. For connection to modbus type communication networks, the SSW07 has an optional connector on the front of the product.

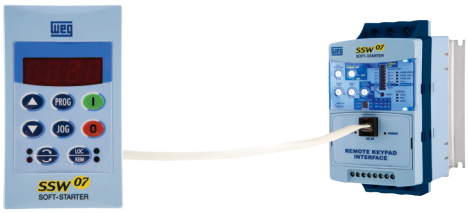
HMI-LOCAL-SSW07

The MMI with 7-segment LED display allows the operator to monitor the SSW07 from a distance. The keypad includes a "Copy" function, which permits the user to copy the parameters from one SSW07 to another, providing fast programming, reliability and repeatability in serial manufacturing machinery.

Plug-in type MMI in front of product.

HMI-REMOTE SW07

Remote HMI for placing in panel door or machinery console.



Cable for connecting MMI to SSW07.
Cable length: 1, 2, 3, 5, 7.5 and 10m.

KSDG2-SSW07

Software in Windows platform, for SSW07 parameterization, command and monitoring.

- SSW07 automatic identification
- Reads SSW07 parameters
- Writes parameters in SSW07
- Edits online parameters in SSW07
- Edits offline parameters in PC
- Enables creation of all application documentation
- Easily accessible
- Enables programming, command and monitoring of the SSW07
- Supplied with a 10 ft RS-232 serial cable when the Superdrive G2 software is acquired
- Free version available at WEG's website www.weg.net

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SSW07 – Accessories and Options

CAB-COMM-3 OR CAB-COMM-10

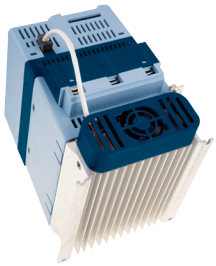
Cable for connecting RS-232. Cable length in 3 and 10m.

COMMUNICATION MODULES

Modbus RTU connection.

KIT-PTC-SSW07 MOTOR

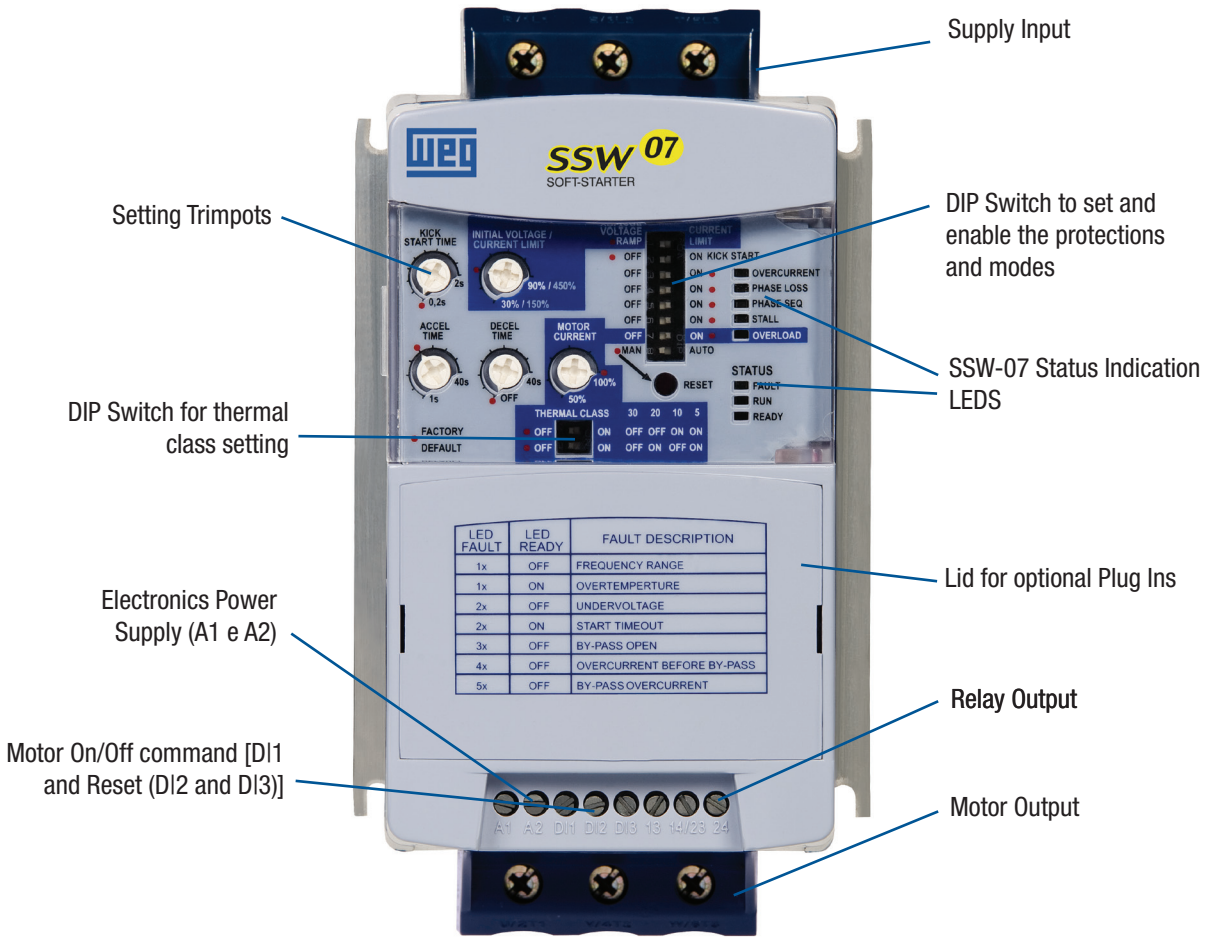
Optional module for motor PTC connection.



SSW07-VENT KIT-M2 OR M3

For models from 45 A to 200 A. A ventilation kit is necessary for heavy duty starting cycle.

Applications and Indications



Soft Starters

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Technical Specifications

Power Supply	Power	220 to 575 Vac	
	Control	110 to 240 Vca (-15% to +10%), or 94 to 264 Vac	
	Frequency	50 to 60 Hz (+/- 10%), or 45 to 66 Hz	
Enclosure	Injected plastic	IP20 in models from 17 to 85 A	
		IP00 in models from 130 to 200 A (IP20 as option)	
Control	Control Method	Voltage variation over the load (three-phase induction motor)	
	CPU	DSP type microcontroller (Digital Signal Processor)	
	Types of Control	Voltage ramp	
		Current limit	
Starting Cycle (1)	Normal	300% for 30 s, 10 starts per hour (every 6 minutes)	
Inputs	Digital	3 isolated programmable inputs	
Outputs	Relay	12 relays with NO contacts, 240Vac, 1A, programmable functions	
Safety	Protections (Standard)	Overcurrent;	Locked Rotor
		Overcurrent before By-pass	Excess starting time
		Phase loss;	Over/Under Frequency
		Inverted phase sequence;	By-pass contact open
		Overtemperature in power heatsink;	Undervoltage in control supply
		Motor Overload (class 5 to 30)	
	Protections (with Accessory)	Undercurrent	Programming error
		Current imbalance	Serial communication error
		Subcurrent before By-pass	MMI communication error
		External defects	Overtemperature in motor PTC
Functions	Standard	Voltage ramp (Initial voltage: 30% to 90%)	
		Current limitation (150% to 450% of SSW-07 rated current)	
		Starting time (1 to 40s)	
		Kick Start (Off - 0,2 to 2s)	
		Deceleration ramp (0 to 40s)	
		Motor and SSW-07 current relation (50% to 100%)	
		Faults auto-reset	
		Thermal memory auto-reset	
		Factory standard reset	
		Soft-starter built-in By-pass	

(1) For the 45 to 200 A currents using the ventilation kit.

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Technical Specifications

Programming	Command	On, Off / Reset and Function Programming
	Additional Functions	Starting time up to 240s
		Deceleration time up to 240s
		Program enabling password
		Selection for Local / Remote operation
		COPY function (SSW-07 >>> MMI and MMI >>> SSW-07)
		Programmable rated voltage
	Supervision (Reading)	Motor current (%Soft-Starter In)
		Motor current (%motor In)
		Motor current (A)
		Current indication in each phase R-S-T
		Supply network frequency
		Apparent power supplied to load (kVA)
		Soft-Starter status
		Digital input and output status
		Back up of 4 last errors
		Soft-Starter Software Version
		Heatsink temperature
		Motor thermal protection status
Accessories and Options	Options	Plug-in type local MMI
		MMI remote Kit
		1,2,3,5,7.5 and 10m for remote MMI interconnection
		RS-232 communication kit
		SSW-07 interconnection cables>>> PC Serial (RS-232) 3 and 10m
		RS-485 communication kit
		Motor PTC kit
		Ventilation kit for size 2 (45 to 85 A)
		Ventilation kit for size 3 (130 to 200 A)
		IP20 kit for size 3 (130 to 200 A)
Finishing	Color	Lid: Gray Ultra Mat
		Cabinet: Blue Ultra Mat
Conformities / Standards	Safety	UL 508 Standard- Industrial Control Equipment
	Low voltage	EN60947-4-2;LVD 2006/95/EC Standard – Low voltage Directive
	EMC	EMC 89/336/EEC Directive – Industrial Environment
	UL (USA) / cUL (Canada)	Underwriters Laboratories Inc. – USA
	CE (Europe)	Conformity test conducted by EPCOS
	C-Tick (Australia)	Australian Communication Authority
	GOST (Russia)	

24/7 Technical Support

for Drives and Soft Starters

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Please contact your authorized distributor: