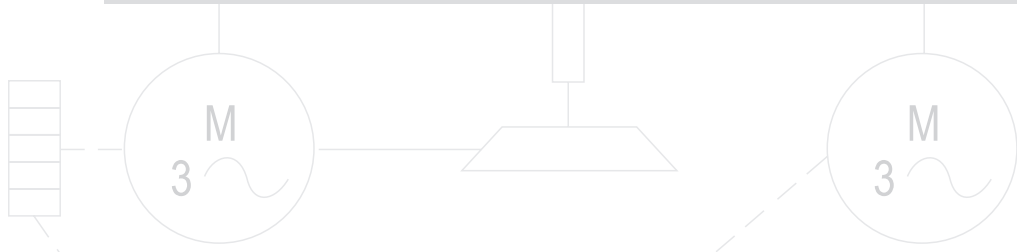
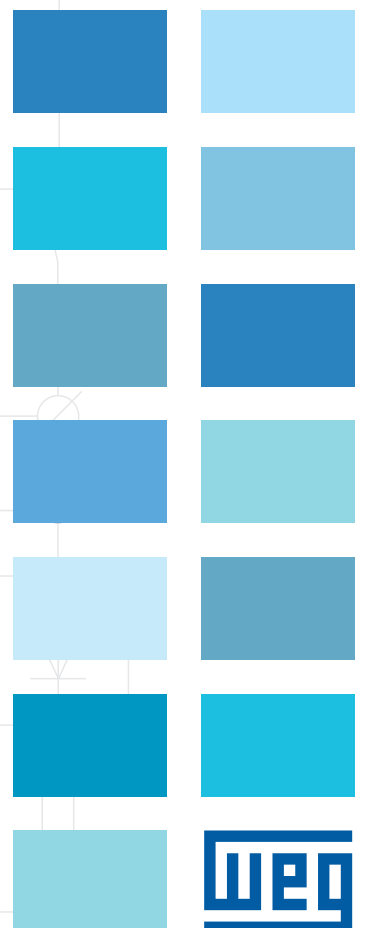


SSW06

Soft Starter





Soft Starters- SSW06



WEG Motors and Drives, the proven leader in AC motor control, maintains their leadership role in Soft Starter technology with the release of the 3rd generation SSW06 Soft Starter Product Line. Many of the advantages that have been proven successful in WEG's CFW09 Variable Frequency Drive are now integrated into the SSW06 Soft Starter.

ADVANTAGES – A Dual Readout Digital Copy Keypad allows maximum ease of operation by providing a high visibility red LED display and a 2-line by 16-character alpha-numeric display that virtually eliminates the need for an instruction manual during set-up and operation. The alpha-numeric readout can display in English, Spanish, German or Portuguese. The copy keypad function allows the storage of two unique sets of User Parameters for easy recall. This can also be used to download these parameters to other SSW06's for easy set-up and "cloning" of multiple soft starters.

"Oriented Start-Up" is a WEG exclusive advantage that simplifies the initial start-up of the SSW06. The SSW06 asks for operational and motor information via the keypad, thereby assuring correct operation and the motor overload protection is setup accurately.

The **Built-in Bypass Contactor** will automatically put the AC motor "across-the-line" once the SSW06 has smoothly accelerated the motor up-to-speed. The bypass contactor will minimize power losses and heat dissipation by removing the SCR's from the motor control and also provide energy savings and a smaller overall soft starter package. The user can mount the SSW06 inside of a more protective enclosure, NEMA1, NEMA3R, NEMA12, NEMA4 and NEMA4X with minimal cooling requirements.

Universal Source Voltage allows a single unit to be used in applications with voltages ranging from 220 to 575V AC three phase, 50/60Hz. The appropriate soft starter would be selected by the full load Amps of the AC motor.



Soft Starters SSW06

The SSW06 is WEG's third generation Soft Starter line. The keypad, with dual display, has red LED digits which provide visibility and make programming easier. Integral bypass contacts eliminate heat dissipation once the motor is at full voltage, which makes it extremely compact and allows for simple integration into non ventilated enclosures and replacement of electro-mechanical starters in Motor Control Centers.



Applications

- Pumps
- Fans
- Blowers
- Compressors
- Crushers
- Saws
- Grinders
- Mixers

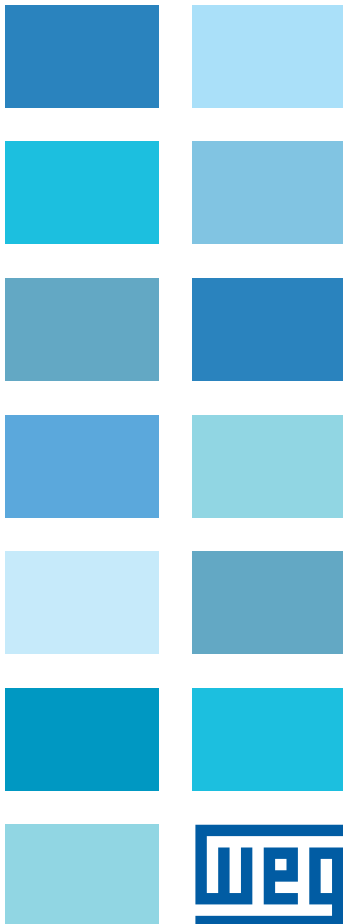
Standard Features

- 200 - 600V, 50/60Hz input power supply
- Built-in run rated (AC1) bypass contactor
- Duty cycle: 300% full load amps for 30 seconds, 10 starts per hour
- Voltage ramp or current limit start modes
- Detachable keypad with dual display (LCD and LED) and copy function
- 90 - 250Vac auxiliary control voltage
- Single 32 bit RISC processor based control board
- IP00 protected chassis enclosure
- Six isolated 24Vdc programmable digital inputs
- Three programmable relay outputs (2 Amp - 250V)
- One 0 - 10Vdc programmable analog output
- One 4 - 20mA programmable analog output
- Motor PTC thermistor input
- RS-232 serial interface
- Adjustable acceleration and deceleration ramps (1 - 299 seconds)
- Adjustable pedestal voltage (25 - 90% of line voltage)
- Diagnostic features: Motor overload, over current and phase loss, motor immediate over and under current, SCR over temperature and fault, line phase loss and phase sequence, line over and under voltage
- Display readings: Motor current, voltage, kW and power factor, line voltage and frequency, four last fault trips, run and power-up timers
- Ambient: 32°F (0°C) to 131°F (55°C), 3300 ft (1000m) altitude, 90% non-condensing humidity

Optional Features

- RS-485 serial interface
- Remote keypad cables and mounting frame
- PC programming software

SOFT STARTERS



Soft Starters

SSW06

IP00 Protected Chassis Enclosure



Motor Volts	Motor HP	Soft Starter AMPS	Catalog Number	Frame Size	Dimensions (in.) H x W x D	App. Shpg. Wt. (lbs.)	List Price	Multiplier Symbol
230V	INPUT POWER SUPPLY: THREE-PHASE - 230V							
	3	10	SSW060010T2257ESZ	1	10 x 5 x 7	7	\$1,386	E1
	5	17	SSW060017T2257ESZ	1	10 x 5 x 7	7	\$1,429	E1
	7.5	23	SSW060023T2257ESZ	1	10 x 5 x 7	7	\$1,572	E1
	10	30	SSW060030T2257ESZ	1	10 x 5 x 7	7	\$1,703	E1
	15	45	SSW060045T2257ESZ	2	14.6 x 5.2 x 9.6	19	\$1,976	E1
	20	60	SSW060060T2257ESZ	2	14.6 x 5.2 x 9.6	19	\$2,181	E1
	25 / 30	85	SSW060085T2257ESZ	2	14.6 x 5.2 x 9.6	19	\$2,771	E1
	50	130	SSW060130T2257ESZ	2	14.6 x 5.2 x 9.6	19	\$3,547	E1
	60	170	SSW060170T2257ESZ	3	17.3 x 8.8 x 11	41	\$4,270	E1
	75	205	SSW060205T2257ESZ	3	17.3 x 8.8 x 11	41	\$5,354	E1
	100	255	SSW060255T2257ESZ	4	21.6 x 14.6 x 12.3	87	\$7,188	E1
	125	312	SSW060312T2257ESZ	4	21.6 x 14.6 x 12.3	87	\$7,896	E1
	150	365	SSW060365T2257ESZ	4	21.6 x 14.6 x 12.3	87	\$8,721	E1
	150	412	SSW060412T2257ESZ	5	26 x 15 x 14	122	\$9,465	E1
	200	480	SSW060480T2257ESZ	5	26 x 15 x 14	122	\$11,730	E1
	250	604	SSW060604T2257ESZ	6	32 x 22 x 15	122	\$13,082	E1
	250	670	SSW060670T2257ESZ	6	32 x 22 x 15	265	\$14,878	E1
	350	820	SSW060820T2257ESZ	6	32 x 22 x 15	265	\$17,573	E1
	400	950	SSW060950T2257ESH1Z	7	36 x 23 x 14	336	\$26,592	E1
400	950	SSW060950T2257ESH2Z	7	36 x 23 x 14	336	\$26,592	E1	
450	1100	SSW061100T2257ESH2Z	8	49 x 27 x 18	480	\$33,351	E1	
550	1400	SSW061400T2257ESH2Z	8	49 x 27 x 18	480	\$42,863	E1	
480V	INPUT POWER SUPPLY: THREE-PHASE - 460V							
	5	10	SSW060010T2257ESZ	1	10 x 5 x 7	7	\$1,386	E1
	10	17	SSW060017T2257ESZ	1	10 x 5 x 7	7	\$1,429	E1
	15	23	SSW060023T2257ESZ	1	10 x 5 x 7	7	\$1,572	E1
	20	30	SSW060030T2257ESZ	1	10 x 5 x 7	7	\$1,703	E1
	30	45	SSW060045T2257ESZ	2	14.6 x 5.2 x 9.6	19	\$1,976	E1
	40	60	SSW060060T2257ESZ	2	14.6 x 5.2 x 9.6	19	\$2,181	E1
	50 / 60	85	SSW060085T2257ESZ	2	14.6 x 5.2 x 9.6	19	\$2,771	E1
	75 / 100	130	SSW060130T2257ESZ	2	14.6 x 5.2 x 9.6	19	\$3,547	E1
	125	170	SSW060170T2257ESZ	3	17.3 x 8.8 x 11	41	\$4,270	E1
	150	205	SSW060205T2257ESZ	3	17.3 x 8.8 x 11	41	\$5,354	E1
	200	255	SSW060255T2257ESZ	4	21.6 x 14.6 x 12.3	87	\$7,188	E1
	250	312	SSW060312T2257ESZ	4	21.6 x 14.6 x 12.3	87	\$7,896	E1
	300	365	SSW060365T2257ESZ	4	21.6 x 14.6 x 12.3	87	\$8,721	E1
	350	412	SSW060412T2257ESZ	5	26 x 15 x 14	122	\$9,465	E1
	400	480	SSW060480T2257ESZ	5	26 x 15 x 14	122	\$11,730	E1
	500	604	SSW060604T2257ESZ	6	32 x 22 x 15	122	\$13,082	E1
	550	670	SSW060670T2257ESZ	6	32 x 22 x 15	265	\$14,878	E1
	700	820	SSW060820T2257ESZ	6	32 x 22 x 15	265	\$17,573	E1
	800	950	SSW060950T2257ESH1Z	7	36 x 23 x 14	336	\$26,592	E1
800	950	SSW060950T2257ESH2Z	7	36 x 23 x 14	336	\$26,592	E1	
900	1100	SSW061100T2257ESH2Z	8	49 x 27 x 18	480	\$33,351	E1	
1200	1400	SSW061400T2257ESH2Z	8	49 x 27 x 18	480	\$42,863	E1	
575V	INPUT POWER SUPPLY: THREE-PHASE - 575V							
	7.5	10	SSW060010T2257ESZ	1	10 x 5 x 7	7	\$1,386	E1
	15	17	SSW060017T2257ESZ	1	10 x 5 x 7	7	\$1,429	E1
	20	23	SSW060023T2257ESZ	1	10 x 5 x 7	7	\$1,572	E1
	30	30	SSW060030T2257ESZ	1	10 x 5 x 7	7	\$1,703	E1
	40	45	SSW060045T2257ESZ	2	14.6 x 5.2 x 9.6	19	\$1,976	E1
	60	60	SSW060060T2257ESZ	2	14.6 x 5.2 x 9.6	19	\$2,181	E1
	75	85	SSW060085T2257ESZ	2	14.6 x 5.2 x 9.6	19	\$2,771	E1
	125	130	SSW060130T2257ESZ	2	14.6 x 5.2 x 9.6	19	\$3,547	E1
	150	170	SSW060170T2257ESZ	3	17.3 x 8.8 x 11	41	\$4,270	E1
	200	205	SSW060205T2257ESZ	3	17.3 x 8.8 x 11	41	\$5,354	E1
	250	255	SSW060255T2257ESZ	4	21.6 x 14.6 x 12.3	87	\$7,188	E1
	300	312	SSW060312T2257ESZ	4	21.6 x 14.6 x 12.3	87	\$7,896	E1
	350	365	SSW060365T2257ESZ	4	21.6 x 14.6 x 12.3	87	\$8,721	E1
	450	412	SSW060412T2257ESZ	5	26 x 15 x 14	122	\$9,465	E1
	500	480	SSW060480T2257ESZ	5	26 x 15 x 14	122	\$11,730	E1
	650	604	SSW060604T2257ESZ	6	32 x 22 x 15	122	\$13,082	E1
	750	670	SSW060670T2257ESZ	6	32 x 22 x 15	265	\$14,878	E1
	850	820	SSW060820T2257ESZ	6	32 x 22 x 15	265	\$17,573	E1
	1050	950	SSW060950T2257ESH1Z	7	36 x 23 x 14	336	\$26,592	E1
1050	950	SSW060950T2257ESH2Z	7	36 x 23 x 14	336	\$26,592	E1	
1200	1100	SSW061100T2257ESH2Z	8	49 x 27 x 18	480	\$33,351	E1	
1500	1400	SSW061400T2257ESH2Z	8	49 x 27 x 18	480	\$42,863	E1	

Notes: 1) "HP" rating based on Table 430-150 of the NEC. Use as a guide only. Motor FLA may vary with speed and manufacturer. ALWAYS compare motor FLA to Nominal AMPS of starter.
2) 120V or 240V Control Power Supply required 3) For other technical data please refer to WEG product manual.

SSW06 – Accessories



	Description	Catalog Number	List Price	Multiplier Symbol
Keypads & Keypad Cables	Standard Keypad with LED & LCD	HMI-SSW06-LCD	\$202	E1
	Remote Keypad FRAME KIT	KMR-SSW06	\$63	E1
	3.3 ft. Remote Keypad Cable	CAB-HMI-SSW06-1	\$33	E1
	6.6 ft. Remote Keypad Cable	CAB-HMI-SSW06-2	\$39	E1
	10 ft. Remote Keypad Cable	CAB-HMI-SSW06-3	\$44	E1
	16 ft. Remote Keypad Cable	CAB-HMI-SSW06-5	\$68	E1
Communication	Profibus DP Communication Kit	KFD-PD-SSW06	\$1,120	E1
	Profibus DP-PV1 Communication Kit	KFD-PDPV1-SSW06	\$1,194	E1
	DeviceNet Communication Kit	KFB-DN-SSW06	\$1,009	E1
	SuperDrive Kit	KSDG2-SSW06	\$62	E1
IP20 Kits	Interface for RS-485 Communication	KRS-485-SSW06	\$189	E1
	SSW06 IP20 Kit - Size 2 (85-130A)	KIT IP20 SSW06 M2	\$210	E1
	SSW06 IP20 Kit - Size 3 (170-205A)	KIT IP20 SSW06 M3	\$236	E1
	SSW06 IP20 Kit - Size 4 & 5 (255-604A)	KIT IP20 SSW06 M4	\$254	E1
	SSW06 IP20 Kit - Size6 (670-820A)	KIT IP20 SSW06 M6	\$536	E1
	Lug Kits	SSW06 Lug Kit - Size 2 (85-130A)	SSW06-LK085-130	\$99
SSW06 Lug Kit - Size 3 (170-205A)		SSW06-LK170-205	\$162	E1
SSW06 Lug Kit - Size 4 (255-365A)		SSW06-LK255-365	\$293	E1

Soft Starters

SSW06

Technical Data

Power Supply	Main Voltage	Three-phase 220 - 575VAC (+10%, -15%)		
	Control Voltage	Single-phase 110 - 230 VAC (+10%, -15%), Fan: 110 or 230 VAC only for frame size 4		
	Frequency	50 / 60 Hz (+/- 10 %)		
Enclosure	Metallic Cabinet	IP-00 Degree of Protection		
	Color	Cover: Opaque Gray, Cabinet: Opaque Blue		
Control	Method	Voltage ramp, Current Limit and Pump Control		
	Power Supply	Switched mode		
	CPU	32 bit RISC Microprocessor		
Starting Duty Cycle	Normal	300 % (3 x Rated) for 30 seconds, 10 starts per hour		
	Heavy	450 % (4.5 x Rated) for 30 seconds with 33% current derating		
Control Inputs	Digital	5 X 24 VDC programmable isolated inputs 1 X Motor PTC thermistor		
	Relay	2 programmable outputs 250 VAC / 1A Form A Contact (NO) 1 programmable output 250 VAC / 1A Form C Contact (NO+NC)		
Control Outputs	Analog	1 Programmable Output (11 bits): 0 - 10 VDC 1 programmable output (11 bits) 0 - 20mA or 4 - 20mA		
	Safety	Protections	Under voltage, phase fault or phase imbalance	Excess current limit time
Over temperature			Motor locked rotor	
Motor overload – I 2 t			Motor over current and under current	
External Fault			Phase sequence	
Copy function error			Control under voltage	
Motor not connected			Opened bypass contactor	
Over voltage			Over current before bypass	
Programming error			Immediate over current during bypass	
Communication errors			Current imbalance	
Keypad connection error			Power supply frequency out of range	
Motor over current			Under current before bypass	
Motor over temperature (via thermistor Input)			Bypass contacts not opened	
Self Diagnosis error				
Functions / Features			Standard	Built-in operator interface, detachable with dual display LED + LCD
	Programming enabling password			
	LCD display Language selection: English, Spanish, German and Portuguese			
	Local / Remote operation selection			
	PUMP CONTROL function (Water hammer protection for pumps)			
	COPY function (Soft-Starter to Keypad or Keypad to Soft-Starter)			
	Soft starter integral bypass contactor			
	FWD / REV Feature via Digital Input (Needs External Contactor)			
	RS-232 Serial Interface			
	Motor PTC thermistor input			
	Programmable line voltage	220 ... 575 VAC		
	Programmable initial (pedestal) voltage	25 ... 90% of Rated Input Voltage		
	Programmable acceleration ramp	1 ... 999 seconds		
	Programmable deceleration ramp	OFF, 1 ... 299 seconds		
	Programmable step down voltage for deceleration	100 ... 40 % of line voltage		
	Programmable starting current limit	OFF, 150 ... 500 % of motor rated current		
	Programmable immediate motor over current	0 ... 99 % above rated current		
	Programmable immediate over current time	OFF, 1 ... 99 seconds		
	Programmable immediate motor under current	0 ... 99 % below rated current		
	Programmable immediate under current time	OFF, 1 ... 99 seconds		
	Programmable starting torque boost, voltage or current (KICK-START)	Level: 70 ...90% of line voltage		
		Level: 300 ... 700% of soft starter rated current		
		Duration: 0.1 ...2 seconds		
	Programmable fault auto-reset	OFF, 1 ... 600 seconds		
	Programmable motor thermal memory auto-reset	OFF, 1 ... 600 seconds		
	Motor thermal overload protection class	0 (disabled); 5; 10; 15; 20; 25; 30; 35; 40; 45		
	Motor Service Factor	0 (disabled); 0.01 ... 1.50		
	Optional	Cable for remote keypad connection (3 to 15ft)		
		Remote keypad mounting frame		

Soft Starters – SSW06

Technical Data

Keypad	Programming / Commands	Start / Stop, Reset and Programming
		Increase and decrease parameters and their content
	Display readings	Soft-Starter Output current (% of soft starter rated current)
		Motor current (Amps)
		Motor current (% of motor rated current)
		Line frequency (0 ... 99 Hz)
		Line Voltage (0 ... 999VAC)
		Soft starter output voltage (0 - 999VAC)
		Motor active power (kW)
		Motor apparent power (kVA)
		Soft starter status
		Digital and analog I/Os status
		Motor power factor (0.00 - 0.99)
		Time Powered
		Time Enabled
		Four last faults back-up
		Soft starter firmware version
		Motor thermal protection (0 - 250)
		Motor current indication in each phase R-S-T
Line voltage indication R-S / S-T / T-R		
Ambient	Temperature	0...131 °F (0 ... 55°C): standard operation at rated current
	Humidity	20 ... 90%, non condensing
	Altitude	0...3300 ft (0 ... 1000 m): standard operation at rated current Up to 13300 ft (4000 m): with 10% / 1000 m Output Current De-rating
Conformities	Safety	UL 508 Standard - Industrial Control Equipment
	Low Voltage	EN 60947-4-2 Standard; LVD 73/23/EEC – Low Voltage Directive
	EMC	EMC directive 89 / 336 / EEC - Industrial Environment
	UL (USA) / cUL (Canada)	Underwriters Laboratories Inc. - USA
	CE (EUROPE)	Phoenix Test-Lab / Germany
	C-Tick (Australia)	Australian Communications Authority

