

SSM Series

LS Electric Opens a New Paradigm of Soft Starters

SSM series sets new standards for soft starter technology.

We are proud to be the representative of products with stable control and various motor protection functions. SSM is not only more compact, but it offers tremendous power.

By using smart card, system can be purpose-built around one central point of intelligent control and communications.



Reliability

Smart Card

Smart cards deliver industry or application specific functionality. SSM is able to operate as an entire system controller.

Zero Harmonics

SSM produces Zero Harmonics during run, improving overall power quality and eliminating systems losses resulting from harmonics.

System Protection

Continued operation in emergency situations and Minimal downtime on-site with Power Through. Both retain most control and protection capabilities.



Efficiency

Design in Consideration of the System's Entire Efficiency

Using energy efficient components is important but selection of the correct motor control mode is also critical. When it's operated at a fixed speed, using a Soft Starter instead of VFD is more efficient.

Efficient Operation

Internal bypass makes SSM Soft Starters 99.5% efficient when running.



Convenience

Graphic Display

Easy commissioning via Quick Application setup

Multi-language Support

8 different languages including English, Portuguese, Chinese, French, Spanish, Italian, German and Russian

Strong Network Connection

6 network connections: Modbus RTU/Profibus/Device Net/Modbus TCP/PROFINET/Ethernet IP

Automatic Timers and Schedulers

Fast and easy automation

No need for external logic or timers

Simulation Mode

Easy and fast testing during installation and commissioning

No need to connect main power supply and motor

Model Name



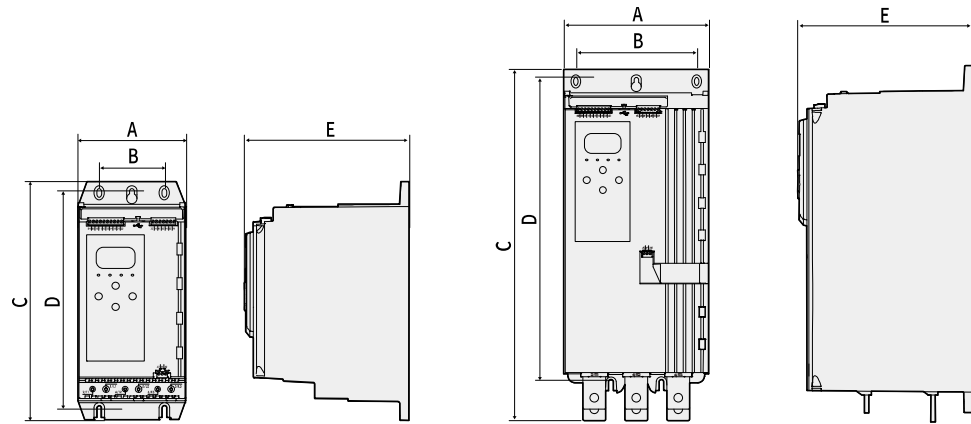
1 LS Soft Starter Standard Series	5 Input Voltage
2 Motor Protection	V5 200 ~ 525 VAC
e Without Motor Protection	V7 380 ~ 690 VAC
i With Motor Protection	6 Control Voltage
3 Nominal Current Rating [A]	C1 110~120VAC or 220~240VAC
4 Bypass	C2 24 VAC/VDC
B Built-in Bypass Circuit	

Current Rating

Model Name	AC53b 3.0 - 10:350 40°C < 1000m	AC53b 3.0 - 15:345 40°C < 1000m	AC53b 4.0 - 10:350 40°C < 1000m	AC53b 4.0 - 20:340 40°C < 1000m
SSM□-0024B	24A	20A	19A	16A
SSM□-0042B	42A	34A	34A	27A
SSM□-0052B	52A	42A	39A	35A

Model Name	AC53b 3.0 - 10:590 40°C < 1000m	AC53b 3.5 - 15:585 40°C < 1000m	AC53b 4.0 - 10:590 40°C < 1000m	AC53b 4.0 - 20:580 40°C < 1000m
SSM□-0064B	64A	63A	60A	51A
SSM□-0069B	69A	69A	69A	62A
SSM□-0105B	105A	86A	84A	69A
SSM□-0115B	115A	108A	105A	86A
SSM□-0135B	135A	129A	126A	103A
SSM□-0184B	184A	144A	139A	116A
SSM□-0200B	200A	171A	165A	138A
SSM□-0229B	229A	194A	187A	157A
SSM□-0250B	250A	244A	230A	200A
SSM□-0352B	352A	287A	277A	234A
SSM□-0397B	397A	323A	311A	263A
SSM□-0410B	410A	410A	410A	380A
SSM□-0550B	550A	527A	506A	427A
SSM□-0580B	580A	579A	555A	470A
SSM□-0835B	835A	654A	631A	535A
SSM□-0940B	940A	736A	708A	603A
SSM□-1070B	1070A	950A	905A	785A
SSM□-1230B	1230A	1154A	1090A	959A
SSM□-1250B	1250A	1250A	1250A	1156A

Dimensions



Model Name	Width mm (Inch)		Height mm (Inch)		Depth mm (Inch)	Weight kg (lb)
	A	B	C	D	E	
SSM□-0024B	152(6.0)	92(3.6)	336(13.2)	307(12.1)	231(9.1)	4.8(10.7)
SSM□-0042B						
SSM□-0052B						
SSM□-0064B						
SSM□-0069B						
SSM□-0105B	216(8.5)	180(7.1)	495(19.5)	450(17.7)	243(9.6)	5.5(12.1)
SSM□-0115B						
SSM□-0135B						
SSM□-0184B						
SSM□-0200B						
SSMx□-0229B	216(8.5)	180(7.1)	523(20.6)	450(17.7)	243(9.6)	12.7(28.0)
SSM□-0250B						
SSM□-0352B						
SSM□-0397B						
SSM□-0410B						
SSM□-0550B	446(17.6)	287(11.3)	618(24.3)	540(21.3)	310(12.2)	15.5(34.2)
SSM□-0580B						
SSM□-0835B						
SSM□-0940B						
SSM□-1070B						
SSM□-1230B						
SSM□-1250B						
SSM□-0735C						
SSM□-0830C						
SSM□-1025C						
SSM□-1170C						
SSM□-1220C						
SSM□-1220C						19.0(41.9)
						51(112.4)
						62(136.7)
						63(138.9)
						65(143.3)
						47(103.6)
						58(127.9)
						59(130.1)
						61(134.5)

Solutions

LS Electric provides a wide range of Soft Starters.

Whether you need a simple product for starting only, or a comprehensive motor controls, you may choose a device that suits your requirements.

Model Name	Soft Start	Motor Protection	Advanced Interface	Internal Bypass	Current Range	Voltage Range
SSCe	●			●	~200 A	~575 VAC
SSCi	●	●		●	~200 A	~575 VAC
SSM□	●	●	●	●	~1250 A	~690 VAC
SSH	●	●	●	●	~1700 A	~15kV

Specifications

Item	Specifications	
Supply	Main Voltage (L1, L2, L3) - SSM□-□□□B-V5 - SSM□-□□□B-V7	200~525VAC (±10%) 380~690VAC (±10%)
	Control Voltage (A1, A2, A3) - SSM□-□□□B-□□-C1 (A1, A2) - SSM□-□□□B-□□-C1 (A2, A3) - SSM□-□□□B-□□-C2 (A1, A2)	110~120VAC (+10%/-15%), 600mA 220~240VAC (+10%/-15%), 600mA 24VAC/VDC(±20%), 2.8A
	Main Frequency	50~60Hz (±5Hz)
	Rated Insulation Voltage to Earth	600VAC
	Rated Impulse Withstand Voltage	6KV
	Form Designation	Bypassed or Continuous, Semiconductor Motor Starter form 1
	Short Circuit Capability	Coordination with Semiconductor Fuses
Coordination with HRC Fuses		Type 1
Electromagnetic Capability (Compliant with EU Directive 2014/35/EU)	EMC Immunity	IEC 60947-4-2
	EMC Emissions	NIEC 60947-4-2 Class B
Inputs	Input Rating	Active 24VDC, 8mA Approx.
	Motor Thermistor (B4, B5)	Trip>3.6kΩ, reset<1.6kΩ
Outputs	Relay Outputs - Main Contactor (33, 34) - Relay Output A (41, 42, 44) - Relay Output B (53, 54)	10A@250VAC Resistive, 5A@250VAC AC15 pf 0.3 Normally Open Changeover Normally Open
	Analog Output (21, 22) - Maximum Load - Accuracy	600Ω (12VDC@20mA) ±5%

Item	Specifications	
Environmental	Operating Temperature	-10°C~60°C, Above 40°C with Derating
	Storage Temperature	-25~+60°C
	Operating Altitude	0~1000m, Above 1000m with Derating
	Humidity	5%~95% Relative Humidity
	Pollution Degree	Pollution Degree 3
	Vibration	IEC 60068-2-6
	Protection	- SSM□-0024B ~ 0135B - SSM□-0184B ~ 1250B
Heat Dissipation	During Start	4.5 Watts per Ampere
	During Run	
	- SSM□-0024B ~ 0052B	≤ 35 Watts Approx
	- SSM□-0064B ~ 0135B	≤ 50 Watts Approx
	- SSM□-0184B ~ 0250B	≤ 120 Watts Approx
- SSM□-0352B ~ 0580B	≤ 140 Watts Approx	
- SSM□-0835B ~ 1250B	≤ 180 Watts Approx	
Motor Overload Protection	Default	The Default Settings of Parameters 1D, 1E and 1F Provide Motor Overload
	Protection	Class 10, Trip Current 105% of FLA (Full Load Amperage) or Equivalent.
Operational Life	Operational Life	100,000 Operations

