

S100

STANDARD DRIVE

3-ph/400Vac - 0.4kW ~ 75kW



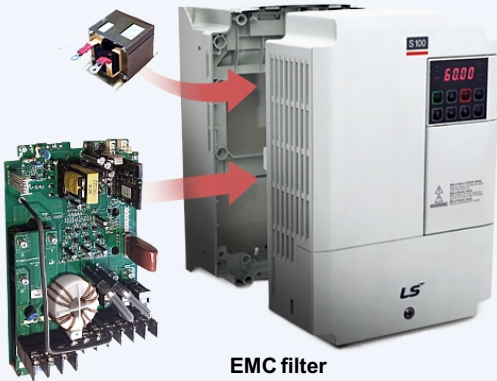
HmT

LS ELECTRIC



DC reactor

3-Phase 400V (30 ~ 75kW)



EMC filter

1-Phase 200V (0.4 ~ 2.2kW)
3-Phase 400V (0.4 ~ 4.0kW)

LS Electric S100

Introducing the LS Electric S100 drive – an advanced sensorless control solution enriched with a versatile array of user-centric features. Elevate your control experience with the innovative LV-S100 drive. Engineered with utmost consideration for installers and end-users alike, the S100 drive guarantees effortless installation and intuitive operation. It comes equipped with a user-friendly 7-segment LED programmer, along with integrated RF filters that ensure adherence to European EMC regulations.

Powerful Sensorless Control

Starting torque of 200%/0.5Hz is produced and provides robust power in the low speed region. The motor auto-tuning function is optimized to maximize motor performance.

Flying Start Function

Capable of quick, reliable and smooth restarts into bi-directional rotating loads.

P2P Function Embedded

I/O input and output can be shared among master and slave drives (R485 wiring required).

Multi-Keypad Function

Multiple drives can be controlled and monitored with a single keypad. (RS485 wiring required.) LCD keypad, same as the iS7 model) enables handy parameter set up. Multi language support will be available.

User Sequence Function

Simple PLC sequences can be operated with various function block combinations.

Built-in DC Reactor & EMC Filter

Effectively improves the power factor and decreases THD. (3 phase 400V 30-75kW). The S100 also adheres to the electrical noise reduction regulation. Related standards: 2nd Environment/Category C3 (Class A) - CE Standard is certified. (1 phase 200V 0.4~2.2kW C2 / 3 phase 400V 0.4~45kW C3).

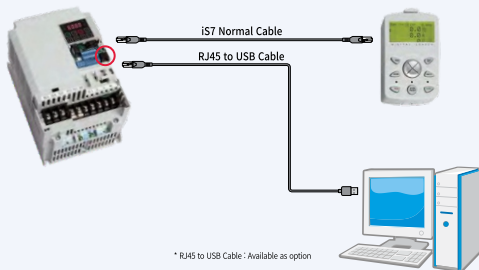
Dual Rating Operation

Designed to be used for heavy and normal duty applications. Overload capacity:

- Heavy duty operation: 150% of rated current, 60 seconds
- Normal duty operation: 120% of rated current, 60 seconds

Selectable Rotary/Standstill Auto-tuning

Standstill or rotary auto-tuning options are available as standard to find motor constants with or without rotating the motor for optimized motor performance.



DriveView9 Connection with Rj45 Port



Parameters change with keypad



Control

Control Method	V/F, Slip compensation, sensorless vector
Frequency Setting Resolution	Digital command: 0.01Hz / Analog command: 0.06Hz (maximum frequency: 60Hz)
Frequency Accuracy	1% of the maximum output frequency
V/F Pattern	Linear, Squared, User V/F
Overload Capacity	HD: 150% 1 minute, ND: 20% 1 minute
Torque Boost	Manual/Automatic torque boost

Operation

Operation Mode	Keypad/Terminal/Communication option selectable		
Frequency Setting	Analog: -10~10(V), 0~10 (V), 4~20 (mA) / Digital: Keypad, pulse train input		
Operation Function	PID control, 3-wire operation, frequency limit, second function, anti-forward and reverse direction rotation, commercial transition, speed search, power braking, leakage reduction, up-down operation, DC braking, frequency jump, slip compensation, automatic restart, automatic tuning, energy buffering, flux braking, fire mode.		
Input	Multi-functional terminal Standard I/O (5 points) Multiple I/O (7 points)	NPN (Sink) / PNP (Source) Selectable Function: Forward run, reverse run, reset, external trip, emergency stop, jog operation, multi-step frequency-high, middle, low, multi-step acceleration/deceleration-high, middle, low, DC braking at stop, 2nd motor select, frequency up/down, 3-wire operation, change into normal operation during PID operation, change into main body operation during option operation, Analog command frequency fixing, acceleration/deceleration stop etc. Selectable.	
	Analog input	V1: -10~10V, selectable V2: 0~10V/12 4~20mA	
	Pulse train	0~32kHz, Low level: 0~2.5V, High level: 3.5~12V	
Output	Open Collector Terminal	Fault output and drive operation status output	Less than DC 24V 50mA
	Multi-function Relay		(N.O, N.C) less than AC 250V 1A, less than DC 30V 1A
	Analog Output	0~12Vdc/0~24mA frequency, output current, output voltage, DC voltage	
	Pulse Train	Maximum 32kHz, 10~12 (V)	

Environment

Cooling Type	Forced fan cooling structure (0.4~15kW 200V/0.4~75kW 400V)
Protection Degree	IP20/UL Open default, UL Enclosed type 1 (option)
Ambient Temperature	Ambient temperature under the condition of no ice or frost. HD: -10~50°C/ ND: -10~40°C
Storage Temperature	-20~65°C (-4~149°F)
Humidity	Relative humidity below 95% RH (no dew formation)
Altitude, Vibration	Below 1,000m (From 1000 to 4000m, the rated input voltage and rated output current of the drive must be derated by 1% for every 100m). Below 9.8m/sec ² (1G)
Location	No corrosive gas, flammable gas, oil mist/dust (indoors)
Pressure	70~106kPa



Standard I/O

Motor Rating	3-Phase 400V IP66
0.4 kW	LSLV0004S100-4EXFNS
0.75 kW	LSLV0008S100-4EXFNS
1.5 kW	LSLV0015S100-4EXFNS
2.2 kW	LSLV0022S100-4EXFNS
3.7 kW	LSLV0037S100-4EXFNS
4.0 kW	LSLV0040S100-4EXFNS
5.5 kW	LSLV0055S100-4EXFNS
7.5 kW	LSLV0075S100-4EXFNS
11 kW	LSLV0110S100-4EXFNS
15 kW	LSLV0150S100-4EXFNS
18.5 kW	LSLV0185S100-4EXFNS
22 kW	LSLV0220S100-4EXFNS
30 kW	
37 kW	
45 kW	
55 kW	
75 kW	

Multiple I/O

Motor rating	1-Phase 200V IP20	3-Phase 400V IP20
	IP20	IP20
0.4 kW	LSLV0004S100-1EO(F)NM	LSLV0004S100-4EO(F)NM
0.75 kW	LSLV0008S100-1EO(F)NM	LSLV0008S100-4EO(F)NM
1.5 kW	LSLV0015S100-1EO(F)NM	LSLV0015S100-4EO(F)NM
2.2 kW	LSLV0022S100-1EO(F)NM	LSLV0022S100-4EO(F)NM
3.7 kW		LSLV0037S100-4EO(F)NM
4.0 kW		LSLV0040S100-4EO(F)NM
5.5 kW		LSLV0055S100-4EO(F)NM
7.5 kW		LSLV0075S100-4EO(F)NM
11 kW		LSLV0110S100-4EO(F)NM
15 kW		LSLV0150S100-4EO(F)NM
18.5 kW		LSLV0185S100-4EO(F)NM
22 kW		LSLV0220S100-4EO(F)NM

* [F]: Built-in EMC or Non-EMC type selectable

1) Extension I/O option needs to be purchased separately

* [F]: Built-in EMC or Non-EMC type selectable

* 55-75kW satisfies EMC class 3

