

S300

High Performance Drive



- 3Ø 200V 0.4kW~75kW
- 3Ø 400V 0.4kW~220kW
- 3Ø 400V 250kW~400kW
(Coming soon)



GOOD DESIGN
산업통상자원부선정



Expect more with even stronger performance S300

Experience the incomparable, high-quality performance of the LS high-performance S300 series



Strong Performance

- Improved V/F and sensorless control performance
- Enhanced motor control performance



Space Efficient Design

- 10-40% reduction in size by capacity
- Built-in DC Reactor and EMC Filter for all capacities



Predictive Maintenance

- Predicts and assesses lifespan for the main cap, fan, and relay
- Gold plate PCB and hole-plugging applied



Suitable for Users

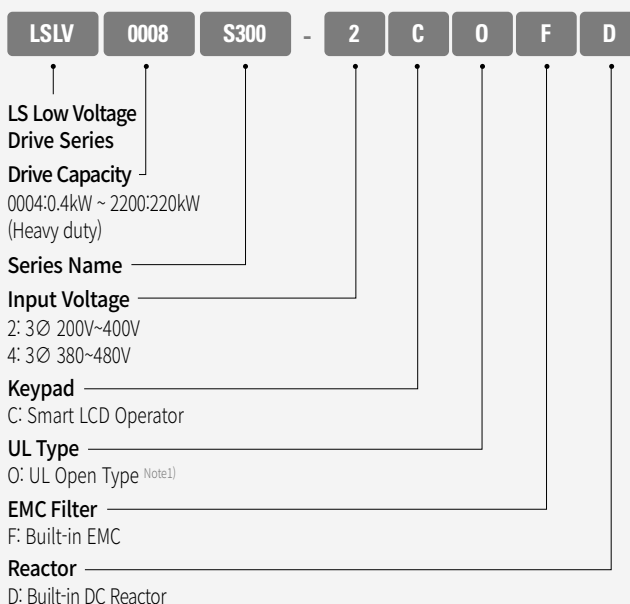
- Smart LCD Operator
- Easy user sequence creation



Intended Use

- Press
- Freshener
- Lift
- Parking facility
- Warehouse/Bumping machine
- Metalworking machine
- Extruder
- Automatic warehouse
- Crane/hoist
- Compressor
- Stirrer

Product Type & Model



Note1) Installing Conduit option fulfills UL Enclosed Type 1

Main Function

Features	Description	Benefits
Strong Performance	Improved V/F and sensorless control performance	Enhanced motor control performance
Suitable for Users	- Smart LCD Operator - Easy user sequence creation	- Multilingual - USB support (Up to 20 SLO parameters read & write) -RTC (Real Time Clock) Function
Predictive Maintenance	Provides state diagnostics for main capacitors, fans, and relays (with warning alarm settings)	Enhanced diagnostic and predictive maintenance
Built-in safety torque off (STO)	2-channel STO (Safety Torque Off)	Compliance with safety standards (Built-in safe torque off feature)
Built-in DC reactor	Built-in DC Reactor for all capacities	effective for improving the power factor and reducing the total harmonic distortion (THD)
Built-in EMC filter	Built-in EMC Filter for all capacities	2nd Environment(EN61800-3)/Category C3 (Class A)

Control

Control method	V/F control, slip compensation, V/F PG, sensorless vector, sensed vector	
Frequency settings power resolution	Digital command: 0.01Hz	
Frequency accuracy	Analog command: 0.06 Hz(60 Hz standard)	
V/F pattern	1% of maximum output frequency	
	Linear, square reduction, user V/F	
Overload capacity	Normal duty (ND)	200V: 45 kW or less 120%, 1 minute / 55 kW or more 110%, 1 minute 400V: 75 kW or less 120%, 1 minute / 90 kW or more 110%, 1 minute
	Heavy duty (HD)	150%/minute compared to CT rated current
Torque Boost	Manual torque boost, automatic torque boost	

Run

Operation type		Select among Smart Operator, terminal block, and communication operation		
Frequency Settings		Analog type: -10-10 V, 0-10 V, 0-20 mA Digital type: smart Operator, pulse train input		
Operation function		PID Control, Up-down operation, 3-Wire Operation, DC braking, Frequency (speed) limit, Frequency Jump, Second function, Slip compensation, Anti-forward and reverse direction rotation, Automatic restart, Commercial transition, Kinetic energy buffering operation, Speed search, Flux Braking, Power braking, Energy Saving Operation, Leakage reduction operation		
Input	Multifunction Terminal (8ea) DI1-DI8	Select between PNP (Source) and NPN (Sink) modes Functions can be set according to parameter settings at DIN-01, 03, 05, 07, 09, 11, 13, and 15 as follows: forward operation, reverse operation Reset, Emergency stop, External trip 1, 2, 3, 4, Jog operation, Multi-stage frequency: L/M/H/X Multi-stage acceleration and deceleration: high/medium/, low, Acceleration or deceleration stop Safe operation (Run Enable), 3-wire, Second operation (2nd Source), Switching to commercial power (Exchange), Increase/reduce/delete/save up-down operation, frequency, Fix command frequency Second motor selection, DC braking during stop, Timer settings (Timer Input), Deactivate auxiliary speed, FWD jog, REV jog, PID Enable, Open Loop, PID Ref, Gain Change, PID I-Term Clear, PID Output Hold, PID Sleep On/Change, PID Step Ref L/M/H		
		Pulse Train	0~32kHz	Low Level High Level
	Output	Multifunction Open Collector Terminal	Trip output and inverter operation status output	Less than DC 26V, 50mA
Trip Relay Terminal		N.O.		Less than AC 250 V, 2 A, less than DC 30 V, 3 A
		N.C.		Less than AC 250 V, 1 A, less than DC 30 V, 1 A
Multi function relay terminal		Less than AC 250 V, 5 A		
		Less than DC 30 V, 5A		
Analog Output		0 - 10 Vdc (0-20 mA): frequency, output current, output voltage, DC voltage, and more are selectable		
Pulse Train	Maximum of 32 kHz, 0-10 V			

Input/Output Specifications (200 V Class 0.4-18.5 kW)

Model: LSLV□□□□S300-2			0004	0008	0015	0022	0040	0055	0075	0110	0150	0185
Applied Motor Note 1)	Heavy Duty (HD)	[HP]	0.5	1	2	3	5	7.5	10	15	20	25
		[kW]	0.4	0.75	1.5	2.2	4	5.5	7.5	11	15	18.5
	Normal Duty (ND)	[HP]	1	2	3	5	7.5	10	15	20	25	30
		[kW]	0.75	1.5	2.2	4	5.5	7.5	11	15	18.5	22
Output Rating	Rated capacity	HD [kVA]	1.2	1.9	3.0	4.2	6.7	9.5	12.6	17.9	22.9	28.6
		ND [kVA]	1.9	3.0	4.6	6.1	8.4	11.4	16.0	21.3	26.7	31.2
	Rated current Note 2)	HD [A]	3.2	5	8	11	17.5	25	33	47	60	75
		ND [A]	5	8	12	16	22	30	42	56	70	82
	Output frequency	[Hz]	V/F, V/F-SC Note 3) : 0.01~590									
			V/F-PG Note 4) : 0~400									
			SLVC-IM Note 5) , SLVC-PM Note 6) , SVC-IM Note 7) , SVC-PM Note 8) : 0~400									
	Output voltage	[V]	3-phase 200~240									
Input Rating	Input Voltage	[V]	3-phase 200~240, -15%~+10%									
	Input frequency	[Hz]	50/60 ±5%									
	Rated Current	HD [A]	2.5	4.0	6.8	9.6	15.5	22.1	29.6	42.6	54.8	68.4
		ND [A]	4.0	6.8	10.5	14.1	19.5	26.9	38.1	51.1	63.9	75.8
Weight (kg)			3.2	3.3	3.5	3.7	3.8	5.5	5.6	7.2	12.9	13.2

Input/Output Specifications (200 V Class 22-75 kW)

Model: LSLV□□□□S300-2			0220	0300	0370	0450	0550	0750
Applied Motor Note 1)	Heavy Duty (HD)	[HP]	30	40	50	60	75	100
		[kW]	22	30	37	45	55	75
	Normal Duty (ND)	[HP]	40	50	60	75	100	125
		[kW]	30	37	45	55	75	90
Output Rating	Rated capacity	HD [kVA]	33.5	43.8	55.3	68.6	83.8	109.7
		ND [kVA]	41.9	52.6	64.4	80.4	109.7	131.5
	Rated current Note 2)	HD [A]	88	115	145	180	220	288
		ND [A]	110	138	169	211	288	345
	Output frequency	[Hz]	V/F, V/F-SC Note 3) : 0.01~590					
			V/F-PG Note 4) : 0~400					
			SLVC-IM Note 5) , SLVC-PM Note 6) , SVC-IM Note 7) , SVC-PM Note 8) : 0~400					
	Output voltage	[V]	3-phase 200~240					
Input Rating	Input Voltage	[V]	3-phase 200~240, -15%~+10%					
	Input frequency	[Hz]	50/60 ±5%					
	Rated Current	HD [A]	81.3	106.9	135.6	168.4	212.0	277.5
		ND [A]	102.3	129.1	158.1	198.5	277.5	332.5
Weight (kg)			19.1	26.7	38.8	39.1	54	73

Note 1) The motor capacity is based on a standard 4-pole motor.

Note 2) The rated output current is limited based on the carrier frequency (DRV-27 Carrier Frequency) settings.

Note 3) V/F slip compensation control mode

Note 4) V/F sensed (encoder) control(only available when the induction motor type is selected)

Note 5) Sensorless vector-induction motor control

Note 6) Sensorless vector-permanent magnet motor control

Note 7) Sensed vector-induction motor control

Note 8) Sensed vector-permanent magnet motor control

Input/Output Specifications (400 V Class 0.4-22 kW)

Model: LSLV□□□□S300-4			0004	0008	0015	0022	0040	0055	0075	0110	0150	0185	0220	
Applied Motor Note 1)	Heavy Duty (HD)	[HP]	0.5	1	2	3	5	7.5	10	15	20	25	30	
		[kW]	0.4	0.75	1.5	2.2	4	5.5	7.5	11	15	18.5	22	
	Normal Duty (ND)	[HP]	1	2	3	5	7.5	10	15	20	25	30	40	
		[kW]	0.75	1.5	2.2	4	5.5	7.5	11	15	18.5	22	30	
Output Rating	Rated capacity	HD [kVA]	1.4	2.6	3.7	4.2	7.0	11.3	12.6	18.3	23.6	29.7	34.3	
		ND [kVA]	1.9	3.1	4.6	6.1	9.2	13.3	18.3	23.6	29.0	34.3	46.5	
	Rated Current Note 2) (380 - 460 V)	HD [A]	1.8	3.4	4.8	5.5	9.2	14.8	16.5	24	31	39	45	
		ND [A]	2.5	4.1	6	8	12.1	17.5	24	31	38	45	61	
	Rated Current Note 2) (460~480V)	HD [A]	1.7	3.1	4.4	5	8.3	13.4	14.9	21.6	27.9	35.1	40.5	
		ND [A]	2.3	3.7	5.4	7.6	11	15.8	21.6	27.9	34.2	40.5	54.9	
	Output frequency	[Hz]	V/F, V/F-SC Note 3) : 0.01~590											
			V/F-PG Note 4) : 0~400											
			SLVC-IM Note 5) , SLVC-PM Note 6) , SVC-IM Note 7) , SVC-PM Note 8) : 0~400											
	Output voltage	[V]	3-phase 380~480											
Input Rating	Input Voltage	[V]	3-phase 380~480, -15%~+10%											
	Input frequency	[Hz]	50/60 ±5%											
	Rated Current	HD [A]	1.4	2.7	4.1	4.8	8.1	13.1	14.8	21.8	28.3	35.6	41.6	
		ND [A]	2.0	3.5	5.2	7.1	10.7	15.7	21.8	28.3	34.7	41.6	56.7	
Weight (kg)			3.3	3.5	3.5	3.6	3.7	5.3	5.6	7.6	7.7	13.6	14	

Input/Output Specifications (400 V Class 30-75 kW)

Model: LSLV□□□□S300-4			0300	0370	0450	0550	0750
Applied Motor Note 1)	Heavy Duty (HD)	[HP]	40	50	60	75	100
		[kW]	30	37	45	55	75
	Normal Duty (ND)	[HP]	50	60	75	100	125
		[kW]	37	45	55	75	90
Output Rating	Rated capacity	HD [kVA]	46.5	57.2	69.4	83.8	115.8
		ND [kVA]	57.2	69.4	81.5	108.2	128.8
	Rated Current Note 2) (380 - 460 V)	HD [A]	61	75	91	110	152
		ND [A]	75	91	107	142	169
	Rated Current Note 2) (460~480V)	HD [A]	54.9	67.5	81.9	99	136.8
		ND [A]	67.5	81.9	96.3	127.8	156
	Output frequency	[Hz]	V/F, V/F-SC Note 3) : 0.01~590				
			V/F-PG Note 4) : 0~400				
			SLVC-IM Note 5) , SLVC-PM Note 6) , SVC-IM Note 7) , SVC-PM Note 8) : 0~400				
	Output voltage	[V]	3-phase 380~480				
Input Rating	Input Voltage	[V]	3-phase 380~480, -15%~+10%				
	Input frequency	[Hz]	50/60 ±5%				
	Rated Current	HD [A]	56.7	70.1	85.1	103.5	146.5
		ND [A]	70.1	85.1	100.7	136.8	162.9
Weight (kg)			18.6	18.7	28.3	41.2	41.9

Note 1) The motor capacity is based on a standard 4-pole motor.

Note 2) The rated output current is limited based on the carrier frequency (DRV-27 Carrier Frequency) settings.

Note 3) V/F slip compensation control mode

Note 4) V/F sensed (encoder) control(only available when the induction motor type is selected)

Note 5) Sensorless vector-induction motor control

Note 6) Sensorless vector-permanent magnet motor control

Note 7) Sensored vector-induction motor control

Note 8) Sensored vector-permanent magnet motor control

Input/Output Specifications (400 V Class 90-220 kW)

Model: LSLV□□□□S300-4			0900	1100	1320	1600	1850	2200
Applied Motor ^{Note 1)}	Heavy Duty (HD)	[HP]	125	150	200	250	300	350
		[kW]	90	110	132	160	185	220
	Normal Duty (ND)	[HP]	150	200	250	300	350	400
		[kW]	110	132	160	185	220	250
Output Rating	Rated capacity	HD [kVA]	139	170	201	248	282	324
		ND [kVA]	170	201	248	282	329	367
	Rated Current ^{Note 2)} (380 - 460 V)	HD [A]	183	223	264	325	370	425
		ND [A]	223	264	325	370	432	481
	Rated Current ^{Note 2)} (460~480V)	HD [A]	164.7	200.7	237.6	292.5	333	382.5
		ND [A]	200.7	237.6	292.5	333	388.8	432.9
	Output frequency	[Hz]	V/F, V/F-SC ^{Note 3)} : 0.01~590					
			V/F-PG ^{Note 4)} : 0~400					
			SLVC-IM ^{Note 5)} , SLVC-PM ^{Note 6)} , SVC-IM ^{Note 7)} , SVC-PM ^{Note 8)} : 0~400					
	Output voltage	[V]	3-phase 380~480					
Input Rating	Input Voltage	[V]	3-phase 380~480, -15%~+10%					
	Input frequency	[Hz]	50/60 ±5%					
	Rated Current	HD [A]	178.4	217.4	258.9	318.7	367.0	428.8
		ND [A]	217.4	257.4	318.7	362.8	428.5	485.3
Weight (kg)			58	58	77	78	120.5	121.5

Note 1) The motor capacity is based on a standard 4-pole motor.

Note 2) The rated output current is limited based on the carrier frequency (DRV-27 Carrier Frequency) settings.

Note 3) V/F slip compensation control mode

Note 4) V/F sensed (encoder) control(only available when the induction motor type is selected)

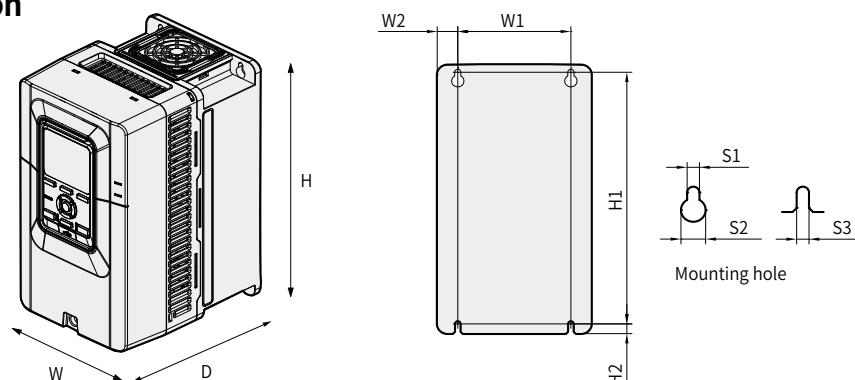
Note 5) Sensorless vector-induction motor control

Note 6) Sensorless vector-permanent magnet motor control

Note 7) Sensored vector-induction motor control

Note 8) Sensored vector-permanent magnet motor control

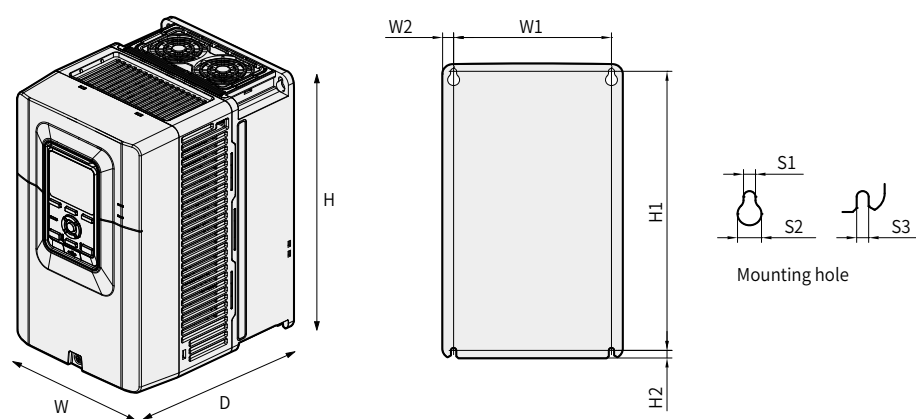
Product Dimension



200V 0.4 ~ 4kW / 400V 0.4 ~ 4kW

Unit: mm (inches)

Model	W	H	D	W1	W2	H1	H2	S1	S2	S3
LSLV0004S300-2										
LSLV0008S300-2										
LSLV0015S300-2										
LSLV0022S300-2										
LSLV0040S300-2	150.0	276.0	192.0	110.0	20.0	258.0	10.0	6.0	12.0	6.0
LSLV0004S300-4	(5.91)	(10.87)	(7.56)	(4.33)	(0.79)	(10.16)	(0.39)	(0.24)	(0.47)	(0.24)
LSLV0008S300-4										
LSLV0015S300-4										
LSLV0022S300-4										
LSLV0040S300-4										



200V 5.5 ~ 7.5kW / 400V 5.5 ~ 7.5kW

Unit: mm (inches)

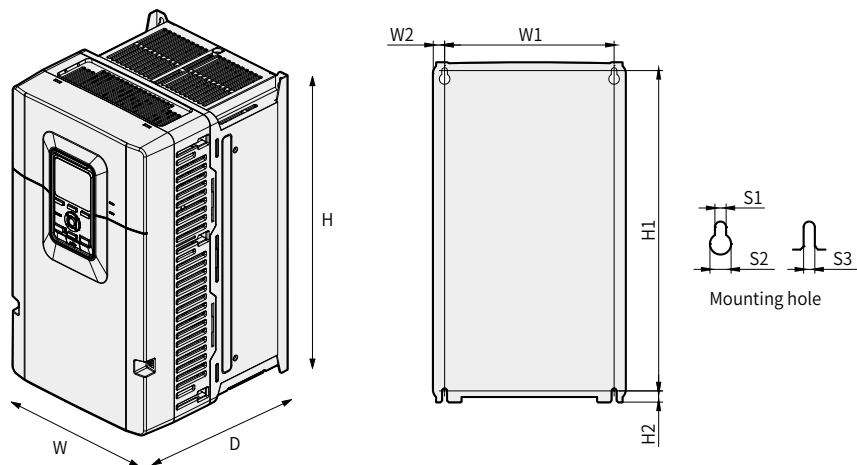
Model	W	H	D	W1	W2	H1	H2	S1	S2	S3
LSLV0055S300-2										
LSLV0075S300-2	180.0	310.0	225.0	158.0	11.0	294.0	8.0	6.0	12.0	6.0
LSLV0055S300-4	(7.09)	(12.20)	(8.86)	(6.22)	(0.43)	(11.57)	(0.31)	(0.24)	(0.47)	(0.24)
LSLV0075S300-4										

High Performance Drive

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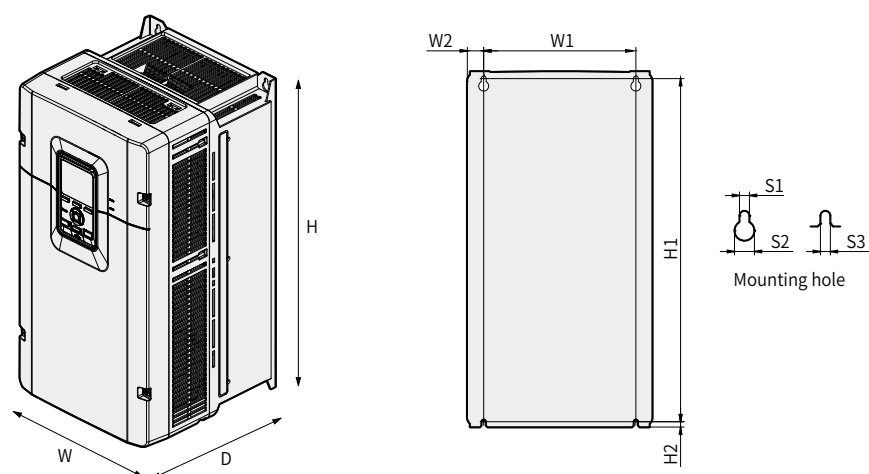
Unit: mm (inches)

Model	W	H	D	W1	W2	H1	H2	S1	S2	S3
LSLV0110S300-2	200.0 (7.87)	355.0 (13.98)	225.0 (8.86)	178.0 (7.01)	11.0 (0.43)	339.0 (13.35)	8.0 (0.31)	6.0 (0.24)	12.0 (0.47)	6.0 (0.24)
LSLV0110S300-4										
LSLV0150S300-4										



Unit: mm (inches)

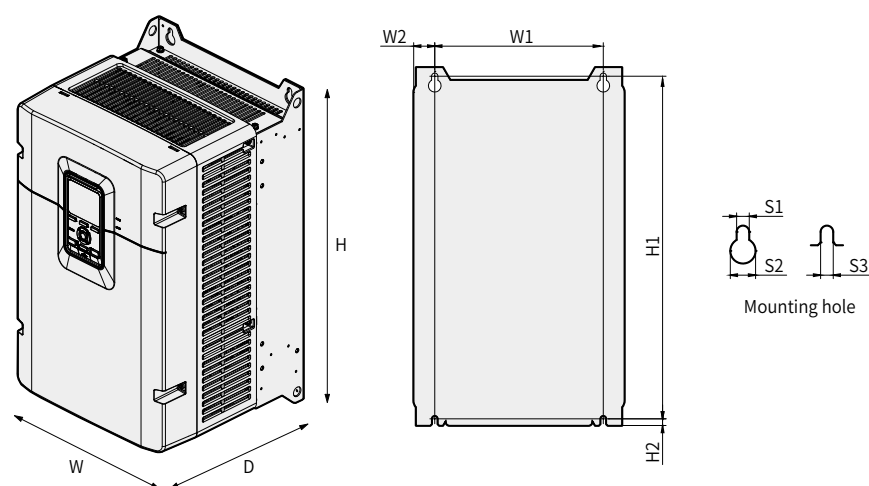
Model	W	H	D	W1	W2	H1	H2	S1	S2	S3
LSLV0150S300-2 LSLV0185S300-2 LSLV0185S300-4 LSLV0220S300-4	240.0 (9.45)	424.0 (16.69)	265.0 (10.43)	211.6 (8.33)	14.2 (0.56)	400.0 (15.75)	14.0 (0.55)	7.0 (0.28)	13.2 (0.52)	7.0 (0.28)



200V 22kW / 400V 30~37kW

Unit: mm (inches)

Model	W	H	D	W1	W2	H1	H2	S1	S2	S3
LSLV0220S300-2 LSLV0300S300-4 LSLV0370S300-4	260.0 (10.24)	500.0 (19.69)	271.0 (10.67)	214.0 (8.43)	23.0 (0.91)	482.5 (19.00)	7.5 (0.30)	7.0 (0.28)	14.0 (0.55)	7.0 (0.28)



200V 30kW / 400V 45kW

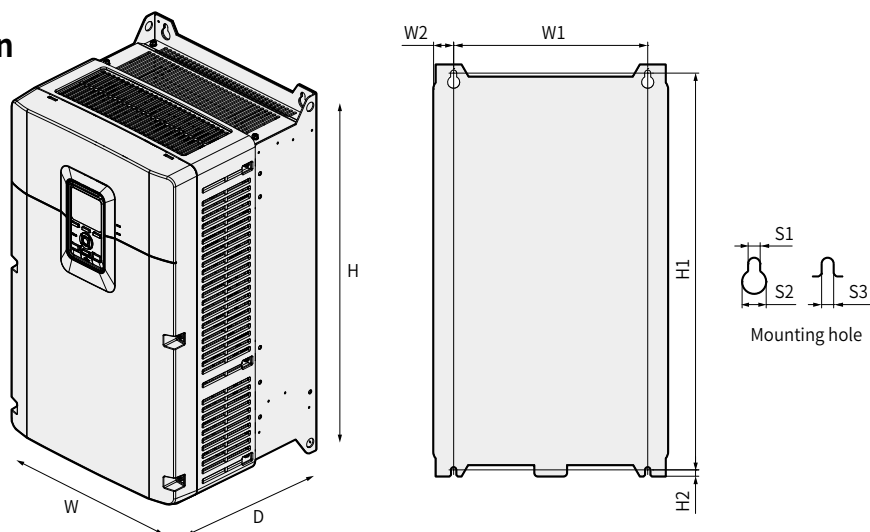
Unit: mm (inches)

Model	W	H	D	W1	W2	H1	H2	S1	S2	S3
LSLV0300S300-2 LSLV0450S300-4	300.0 (11.81)	510.0 (20.08)	298.2 (11.74)	240.0 (9.45)	30.0 (1.18)	488.0 (19.21)	9.5 (0.37)	9.0 (0.35)	18.0 (0.71)	9.0 (0.35)

S300

High Performance Drive

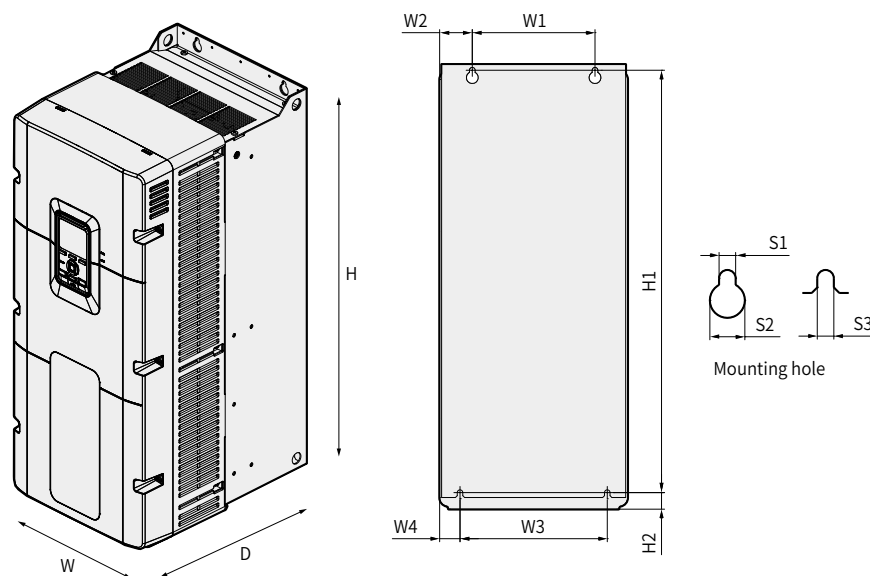
Product Dimension



200V 37 ~ 45kW / 400V 55 ~ 75kW

Unit: mm (inches)

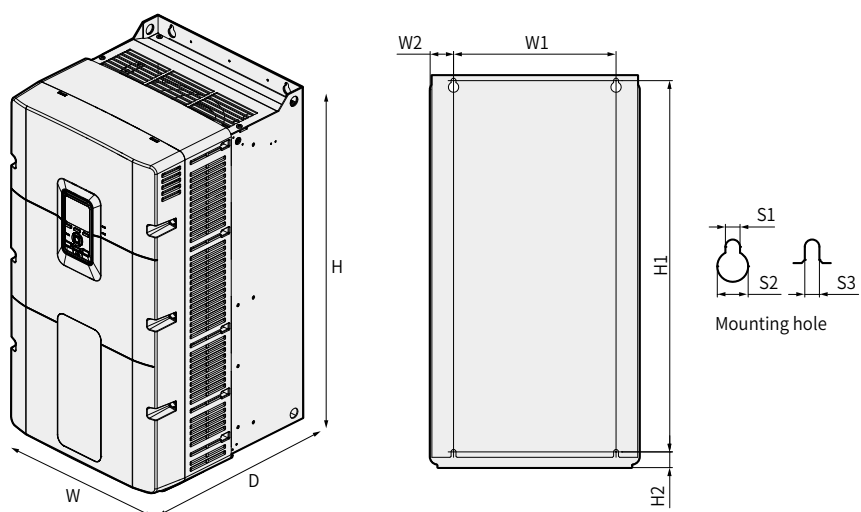
Model	W	H	D	W1	W2	H1	H2	S1	S2	S3
LSLV0370S300-2										
LSLV0450S300-2	350.0	615.0	318.3	290.0	30.0	593.0	9.5	9.0	18.0	9.0
LSLV0550S300-4	(13.78)	(24.21)	(12.53)	(11.42)	(1.18)	(23.35)	(0.37)	(0.35)	(0.71)	(0.35)
LSLV0750S300-4										



400V 90 ~ 110kW

Unit: mm (inches)

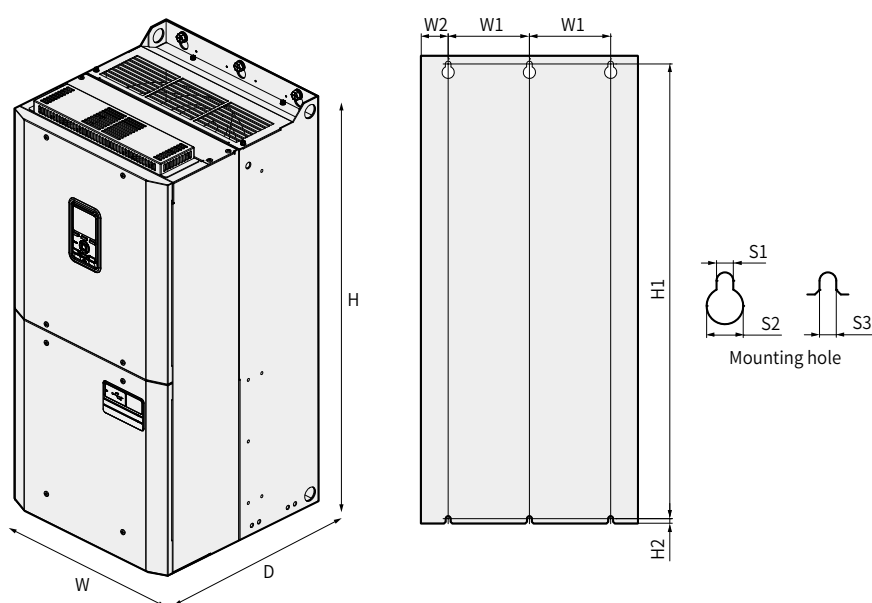
Model	W	H	D	W1	W2	W3	W4	H1	H2	S1	S2	S3
LSLV0900S300-4	306.4	725.0	391.0	200.0	53.2	240.0	33.2	688.5	27.0	9.0	19.0	9.0
LSLV1100S300-4	(12.06)	(28.54)	(15.39)	(7.87)	(2.09)	(9.45)	(1.31)	(27.11)	(1.06)	(0.35)	(0.75)	(0.35)



200V 55 ~ 75kW / 400V 132 ~ 160kW

Unit: mm (inches)

Model	W	H	D	W1	W2	H1	H2	S1	S2	S3
LSLV0550S300-2 LSLV0750S300-2 LSLV1320S300-4 LSLV1600S300-4	386.4 (15.21)	724.0 (28.50)	401.0 (15.79)	300.0 (11.81)	43.2 (1.70)	685.5 (26.99)	29.0 (1.14)	9.0 (0.35)	19.0 (0.75)	9.0 (0.35)



400V 185 ~ 220kW

Unit: mm (inches)

Model	W	H	D	W1	W2	H1	H2	S1	S2	S3
LSLV1850S300-4 LSLV2200S300-4	426.0 (16.77)	920.0 (36.22)	440.9 (17.36)	160.0 (6.30)	53.0 (2.09)	895.5 (35.26)	9.0 (0.35)	11.0 (0.43)	24.0 (0.94)	11.0 (0.43)