Green Innovators of Innovation

www.lsis.com



High Torque Performance and Precise Control

Standard Drive iS7

0.75~75kW 3Phase 200 ~ 230Volts
0.75~375kW 3Phase 380 ~ 480Volts

LS IS



User-Friendly Options

Diverse communication options, expansion I/O options,
PLC options, encoder options, IP54 enclosure options

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iS7 generates a more powerful performance through its superior V/F control, V/F PG, slip compensation, and sensorless vector control. The iS7 focuses on a user-friendly interface and environment-friendly features including a wide graphic LCD keypad, user & macro group support, electro-thermal functions for motor protection, and protection for input/ output phase loss.



The iS7 sets the world standard for drives (VFDs) because of its features that meet all of your needs in AC drives.
The iS7 offers powerful performance, flexibility through diverse options, and a more convenient and user-friendly interface.
The iS7 offers more than you can imagine.

ISO14001, ISO9001

※ ABS Standard - In Progress
※ DNV Standard - Acquired (up to 160kW) / In Progress (above 160kW)



iS7 is dependable because it has high performance and reliability.



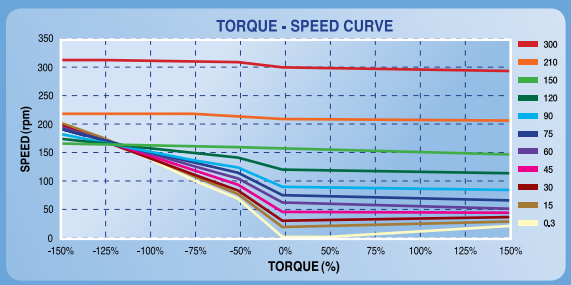
iS7 Feature | **Reliability & High Performance**

Reliability

Powerful electric current type sensorless vector control

Our iS7 technology includes a competitive and strong low-speed torque control and a speed-precision-driven vector algorithm.

- Speed control range 100:1
- Extremely low torque control capability: 0.1Hz/150% real torque
- Max. torque control capability within the restoration range

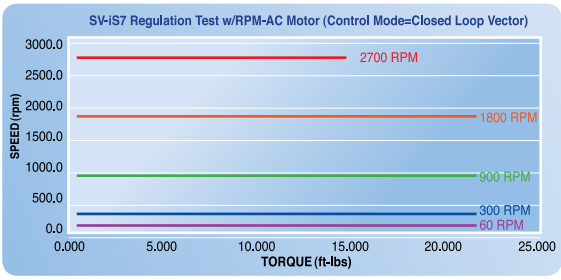


High Performance

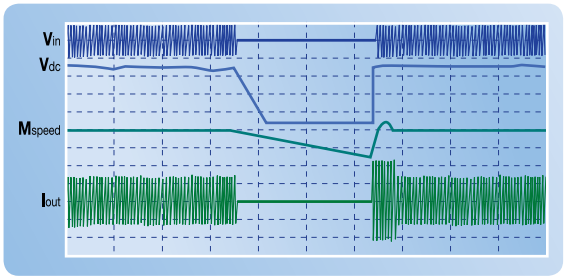
Sensored vector realizing precise speed/torque control

In the entire speed range including zero speed, powerful torque (more than 250%) performance is materialized through receiving Max. 200kHz frequency pulse via encoder-dedicated board.

- Speed control range 1000:1
- Instant Max. torque control capability 250%
- 50Hz speed control response



Ride-through (LV trip delay) for sudden power loss

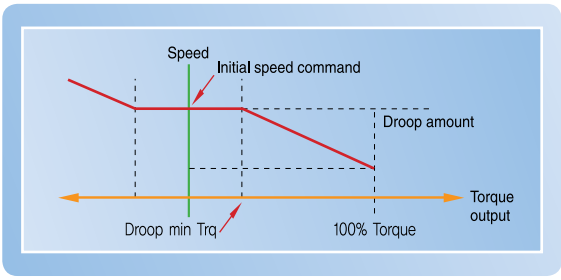


Powerful Performance

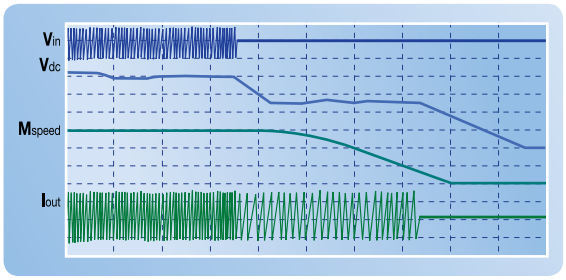
V/F control, V/F PG, slip compensation, sensorless vector control

Automatic torque balance droop control

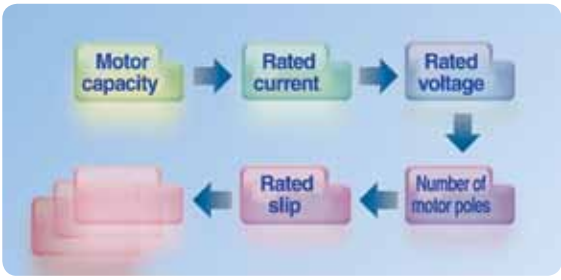
Droop control algorithm adjusts changeable torque driven by speed. This algorithm is easily applicable to open loop linking driving and load sharing driving.



Kinetic Energy Buffering (KEB) for a stable system stop in case of power loss or failure



Easy start parameter setting



Power and flux braking for maximum deceleration

iS7 is flexible because it is easily expandable.

User-Friendly Options

Diverse communication options, expansion I/O options, PLC options, encoder options, IP54 enclosure options

Flexibility

iS7 offers options with flexibility and expendability.

- Built-in Built in RS485 & Modbus-RTU communication
- Profibus-DP, DeviceNet, LonWorks options
- Expandable I/O options: Max. input 11 points, Max. output 6 points
- PLC options: Max. input 14 points, Max. output 7 points for Master-K platform
- Encoder options
- IP54 enclosure options

PLC Card

- Master-K 120S platform
- Normal input 6 points (Sink/ Source selectable), Max. input 14 points when expanded
- Normal output 4 points (N.O. Relay), Max. output 7 points when expanded
- RTC (Real Time Clock)
- KGL WIN operating system



Encoder Card

- Closed loop control
- Pulse train reference
- 5/12/15 V insulated power supply
- Line driver or open collector
- 200kHz Max. input frequency
- Signal loss detection



Profibus-DP Card

- Profibus dedicated connector
- Max. 12Mbps communication speed
- Max. 32 stations per segment
- Bus topology
- Enhanced on-line diagnosis



Safety Card

- 2-Channel STO function (STO : Safety Torque Off)
- Safety standard certified



Ethernet Card
- Modbus TCP, Ethernet IP Protocol support
- 10Mbps, 100Mbps communication speed
- Half duplex, full duplex support
- Auto negotiation
- Max. 100m(328ft.) transmission distance
- CSMA/CD communication access method



LonWorks
- 78kbps communication speed
- Free/bus topology
- Resistance built-in per topology
- Max. 2700m (8858 ft.) connection distance (bus topology)



DeviceNet
- Communication speed: 125kbps, 250kbps, 500kbps
- Free/Bus topology
- Max. 64 node connection points
- Max. 500m (1640 ft.) transmission distance (125kbps)





I/O Expansion Card
- Insulated I/O 3 points each
- Ext-1
  Analog voltage (-10~10V) I/O 1 point
  Analog current (0~20mV) I/O 1 point
- Ext-2
  Analog voltage (-10~10V) I/O 2 points
  Analog current (0~20mV) I/O 2 points



Built-in RS485 & Modbus-RTU
- Multi drop link focused RS485, Modbus built-in
- Connecting up to 16 AC drives
- Max. 1200m (3937 ft.) communication distance (valid distance: 700m (2297 ft.))
- Protection algorithm under command lost
- Real time running and monitoring with drive view software

Drive Copy Unit (UX-07V1)
- Support products: iS7, iE5
- Support function:
  Parameter copy, RS485 converter
- Copy speed: 9,600bps (iE5) / 19,200bps (iS7)
- Max. save paramete: 5 Sets
- Converter support speed:
  1,200 / 2,400 / 9,600 / 19,200 / 38,400 bps

R-Net Card
- 1Mbps Communication speed
- Manchester Biphase-L Frame synchronization
- Max. 64 node connection points
- Max. 750m transmission distance (segment each)



CC-Link Card
- 10Mbps communication speed
- Connecting up to 42 AC drives
- Station type: Remote device station
- 1 connection point for 1 AC drive

Synchronization Option Card
- Closed loop control
- 100kHz Max. input frequency
- Position/Speed synchronization
- Synchronization hold (only slave)
- 15 slaves per master(3 serial - 5 parallel max)
- Open collector output : 26V/100mA (2 points)

Position Control Option Card
- Closed loop control
- Pulse train reference
- 5/12/15V insulated power supply
- Line driver or open collector
- 200kHz Max. input frequency
- Signal loss detection
- External brake control

CanOpen Card
- 1Mbps communication speed
- Bus Topology
- Max. 64 node connection points (include master)
- PDO, SDO, Sync, NMC communication support
- Support profile:
  PDO1 (CiA402 drive & motion control device profile)
  PDO3 (LS Profile)



RAPIEnet Card
- RAPIEnet Protocol support
- 100Mbps communication speed
- Full Duplex support
- High speed link(8 WORD), P2P(2 WORD) support
- Max. 64 connection points
- Topology: Line/Ring topology



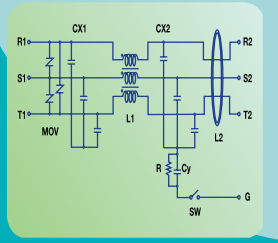
iS7 is convenient because it has a user friendly interface.

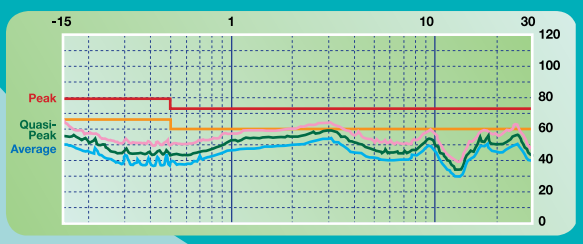


Convenience Environment

EMC filter (in conformity with EN61800-3) built-in for protection from excessive electronic distortion







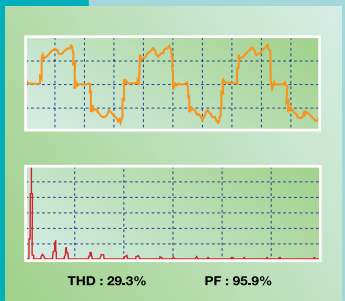
DC reactor built-in for harmonic reduction and power factor improvement



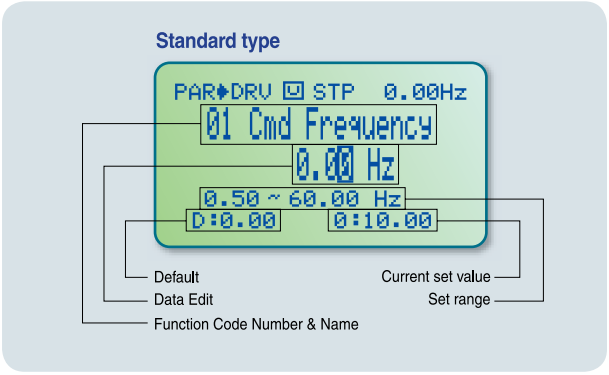


Overloading rate	110% (VT rated standard)
THD	18 ~ 37%
power factor	94 ~ 96%
IP Level	IP21
Insulation Class	155℃ (300℉)

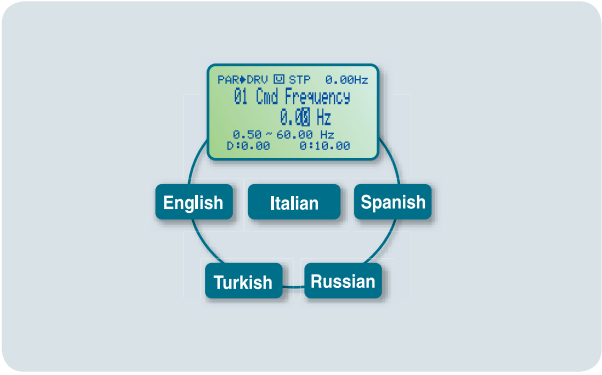
Input current and THD analysis



Widened graphic LCD keypad

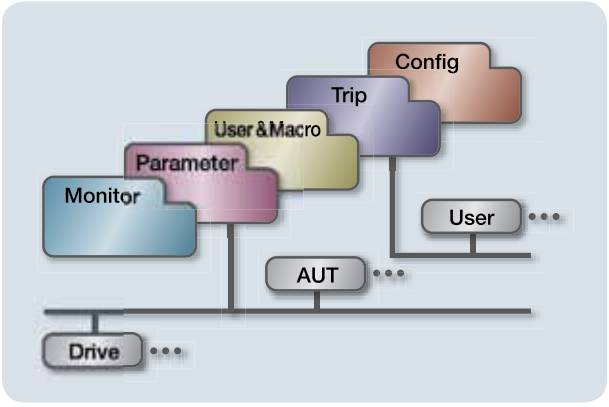


Multi-language support (5 languages)

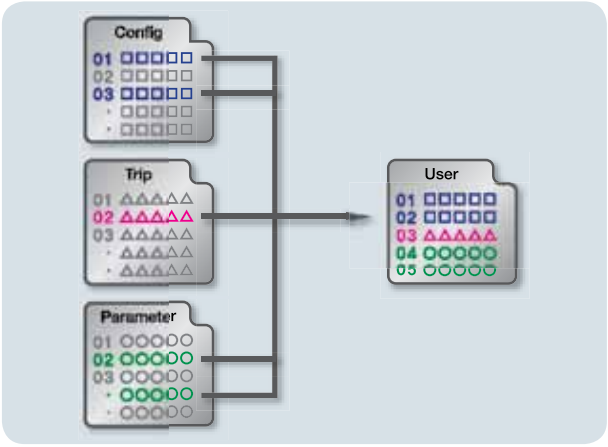


Convenience through User-friendly Interface

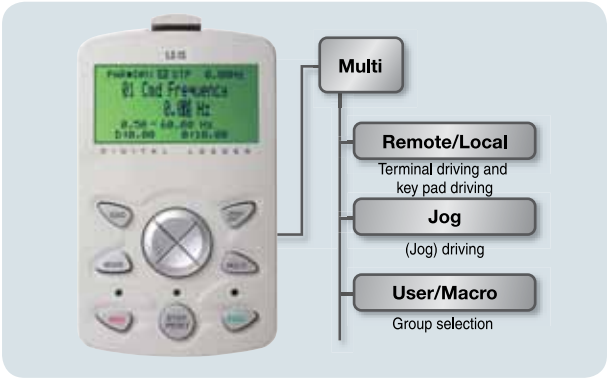
Efficient architecture of 5-mode 15-parameter groups

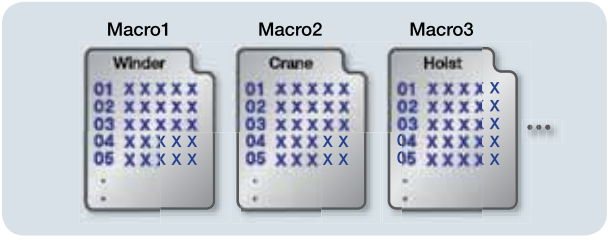


User & macro group support



Multi-function key





Protective functions dedicated motor control



Model and Type

Motor Rating	3-Phase 200V	3-Phase 400V
0.75kW	SV0008 iS7-2NO(F)(D)	SV0008 iS7-4NO(F)(D)
1.5kW	SV0015 iS7-2NO(F)(D)	SV0015 iS7-4NO(F)(D)
2.2kW	SV0022 iS7-2NO(F)(D)	SV0022 iS7-4NO(F)(D)
3.7kW	SV0037 iS7-2NO(F)(D)	SV0037 iS7-4NO(F)(D)
5.5kW	SV0055 iS7-2NO(F)(D)	SV0055 iS7-4NO(F)(D)
7.5kW	SV0075 iS7-2NO(F)(D)	SV0075 iS7-4NO(F)(D)
11kW	SV0110 iS7-2NO(F)(D)	SV0110 iS7-4NO(F)(D)
15kW	SV0150 iS7-2NO(F)(D)	SV0150 iS7-4NO(F)(D)
18.5kW	SV0185 iS7-2NO(F)(D)	SV0185 iS7-4NO(F)(D)
22kW	SV0220 iS7-2NO(F)(D)	SV0220 iS7-4NO(F)(D)
30kW	SV0300 iS7-2SO	SV0300 iS7-4NO(D)
37kW	SV0370 iS7-2SO	SV0370 iS7-4NO(D)
45kW	SV0450 iS7-2SO	SV0450 iS7-4NO(D)
55kW	SV0550 iS7-2SO	SV0550 iS7-4NO(D)
75kW	SV0750 iS7-2SO	SV0750 iS7-4NO(D)
90kW		SV0900 iS7-4SOD
110kW		SV1100 iS7-4SOD
132kW		SV1320 iS7-4SOD
160kW		SV1600 iS7-4SOD
185kW		SV1850iS7-4SOD
220kW		SV2200iS7-4SOD
280kW		SV2800iS7-4SO
315kW		SV3150iS7-4SO
375kW		SV3750iS7-4SO

※ (F) : Built-in EMC(F) or Non-EMC(Blank) selectable
※ (D) : Built-in DCR(F) or Non-Reactor(Blank) selectable
※ Non DCR products are provided warranty service when used in CT (Heavy Duty) load rating only.
※ Please request LSIS sale person for UL Type12(IP54) / Web customized product,

SV	0008	iS7	-	2	N	O	F	D	W

SV — LS Drive Starvert Series

0008 — Capacity of Applied Motor

0008	0.75 [kW]
0015	1.5 [kW]
0022	2.2 [kW]
0037	3.7 [kW]
0055	5.5 [kW]
0075	7.5 [kW]
0110	11 [kW]
0150	15 [kW]
0185	18.5 [kW]
0220	22 [kW]
0300	30 [kW]
0370	37 [kW]
0450	45 [kW]
0550	55 [kW]
0750	75 [kW]
0900	90[kW]
1100	110[kW]
1320	132[kW]
1600	160[kW]
1850	185kW
2200	220kW
2800	280kW
3150	315kW
3750	375kW

iS7 — Series Name

2 — Input Voltage

2	3-Phase 200~230[V]
4	3-Phase 380~480[V]

N — Keypad

N	NON
S	GLCD (Graphic Loader)

O — UL

O	Open
P	Enclosed UL Type12

F — Filter

Blank	NON
F	EMC Filter

D — DCR

Blank	NON
D	DC Reactor

W — Web version

Blank	Normal Type
W	Web Customized

Specification

■ Rated Input and Output: Input voltage of 200V class (0.75~22kW)

Type: SV □□□□ iS7-2 □			0008	0015	0022	0037	0055	0075	0110	0150	0185	0220
Motor Applied *1)		[HP]	1	2	3	5	7.5	10	15	20	25	30
		[kW]	0.75	1.5	2.2	3.7	5.5	7.5	11	15	18.5	22
Rated Output	Rated Capacity [kVA] *2)		1.9	3.0	4.5	6.1	9.1	12.2	17.5	22.9	28.2	33.5
	Rated Current [A] *3)	CT	5	8	12	16	24	32	46	60	74	88
		VT	8	12	16	24	32	46	60	74	88	124
	Output Frequency [Hz]		0 ~ 400 [Hz] *4)									
	Output Voltage [V]		3-phase 200 ~ 230V *5)									
Rated Input	Available Voltage [V]		3-phase 200 ~ 230 VAC (-15% ~ +10%)									
	Frequency [Hz]		50 ~ 60 [Hz] (±5%)									
	Rated Current [A]	CT	4.3	6.9	11.2	14.9	22.1	28.6	44.3	55.9	70.8	85.3
		VT	6.8	10.6	14.9	21.3	28.6	41.2	54.7	69.7	82.9	116.1

■ 2.1.2 Rated Input and Output: Input voltage of 200V class (30~75kw)

Type: SV □□□□ iS7-2□			0300	0370	0450	0550	0750	-	-	-	-	-
Motor Applied *1)		[HP]	40	50	60	75	100	-	-	-	-	-
		[kW]	30	37	45	55	75	-	-	-	-	-
Rated Output	Rated Capacity [kVA] *2)		46	57	69	84	116	-	-	-	-	-
	Rated Current [A] *3)	CT	116	146	180	220	288	-	-	-	-	-
		VT	146	180	220	288	345	-	-	-	-	-
	Output Frequency [Hz]		0 ~ 400 [Hz] *4) (Sensorless -1: 0 ~ 300Hz, Sensorless -2, Vector. 0 ~ 120Hz)									
	Output Voltage [V]		3-phase 200 ~ 230V *5)									
Rated Input	Available Voltage [V]		3-phase 200 ~ 230 VAC (-15% ~ +10%)									
	Input Frequency		50 ~ 60 [Hz] (±5%)									
	Rated Current [A]	CT	121	154	191	233	305	-	-	-	-	-
		VT	152	190	231	302	362	-	-	-	-	-

■ Rated Input and Output: Input voltage of 400V class (0.75~22kW)

Type: SV □□□□ iS7-4□			0008	0015	0022	0037	0055	0075	0110	0150	0185	0220
Motor Applied *1)		[HP]	1	2	3	5	7.5	10	15	20	25	30
		[kW]	0.75	1.5	2.2	3.7	5.5	7.5	11	15	18.5	22
Rated Output	Rated Capacity [kVA] *2)		1.9	3.0	4.5	6.1	9.1	12.2	18.3	22.9	29.7	34.3
	Rated Current [A] *3)	CT	2.5	4	6	8	12	16	24	30	39	45
		VT	4	6	8	12	16	24	30	39	45	61
	Output Frequency [Hz]		0 ~ 400 [Hz] *4)									
	Output Voltage [V]		3-phase 380 ~ 480V *5)									
Rated Input	Available Voltage [V]		3-phase 380 ~ 480 VAC (-15% ~ +10%)									
	Frequency		50 ~ 60 [Hz] (±5%)									
	Rated Current [A]	CT	2.2	3.6	5.5	7.5	11.0	14.4	22.0	26.6	35.6	41.6
		VT	3.7	5.7	7.7	11.1	14.7	21.9	26.4	35.5	41.1	55.7

*1) Motor Applied indicates the maximum capacity of a standard 4 pole OTIS-LG motor.
*2) Rated Capacity: the input capacity of a 200V class is based on 220V and that of a 400V class is based on 440V. The current rating is based on CT current.
*3) The output of rated current is limited according to the setting of the carrier frequency (CON-04).
*4) You can set the frequency at up to 300Hz by selecting 3, 4 Sensorless-1, Sensorless-2 as the control mode (DRV-09 Control Mode).
*5) The maximum output voltage does not go over the supplied power voltage. You can select the output voltage as you want below the supplied power voltage.



Specifications

■ Rated Input and Output: Input voltage of 400V class (30~375kW)

Type: SV □□□□ iS7-4 □			0300	0370	0450	0550	0750	0900	1100	1320	1600	1850	2200	2850	3150	3750
Motor Applied *1)		[HP]	40	50	60	75	100	120	150	180	225	250	300	375	420	500
		[kW]	30	37	45	55	75	90	110	132	160	185	220	285	315	375
Rated Output	Rated Capacity [kVA] *2)		46	57	69	84	116	139	170	201	248	286	329	416	467	557
	Rated Current [A] *3)	CT	61	75	91	110	152	183	223	264	325	370	432	547	613	731
		VT	75	91	110	152	183	223	264	325	370	432	547	613	731	877
	Output Frequency [Hz]		0 ~ 400 [Hz] (Sensorless-1: 0 ~ 300Hz, Sensorless-2, Vector: 0 ~ 120Hz) *4)													
	Output Voltage [V]		3-phase 380 ~ 480V *5)													
Rated Input	Available Voltage [V]		3-phase 380 ~ 480 VAC (-15% ~ +10%)													
	Frequency [Hz]		50 ~ 60 [Hz] (±5%)													
	Rated Current [A]	CT	55.5	67.9	82.4	102.6	143.4	174.7	213.5	255.6	316.3	404	466	605	674	798
		VT	67.5	81.7	101.8	143.6	173.4	212.9	254.2	315.3	359,3	463	590	673	796	948

*1) Motor Applied indicates the maximum capacity of a standard 4 pole OTIS-LG motor.

*2) Rated Capacity: the input capacity of a 200V class is based on 220V and that of a 400V class is based on 440V. The current rating is based on CT current.

*3) The output of rated current is limited according to the setting of the carrier frequency (CON-04).

*4) You can set the frequency at up to 300Hz by selecting 3, 4 Sensorless-1, Sensorless-2 as the control mode (DRV-09 Control Mode).

*5) The maximum output voltage does not go over the supplied power voltage. You can select the output voltage as you want below the supplied power voltage.

■ Control

Control Method	V/F control, V/F PG, slip compensation, sensorless vector control, vector control
Frequency Setting Resolution	Digital command: 0.01Hz Analog command: 0.06Hz (maximum frequency: 60Hz)
Frequency Tolerance	Digital command operation: 0.01% of the maximum frequency Analog command operation: 0.1% of the maximum frequency
V/F Pattern	Linear, double reduction, user V/F
Overload Capacity	CT current rating :150% for 1 minute, 200% for 22 seconds, VT current rating :110% for 1 minute
Torque Boost	Manual torque boost, automatic torque boost

Specifications

Specifications

Operating Method		Selectable among keypad/terminal block/communication operation	
Frequency Setting		Analog: 0 ~ 10[V], -10 ~ 10[V], 0 ~ 20[mA] Digital: keypad	
Operating Function		PID control, up-down operation, 3-wire operation, DC brake, frequency limit, frequency jump, second function, slip compensation, reverse rotation prevention, auto restart, drive by-pass, auto tune flying start, energy buffering, power braking, flux braking, leakage current reduction, MMC, easy start	
Input	Multi-function terminal (8 points) P1 ~ P81 *1)	NPN / PNP selectable	
		Function: forward operation; reverse operation; reset; external trip; emergency stop; jog operation; sequential frequency-high; medium and low; multi-level acceleration and deceleration-high; medium and low; D.C. control during stop; selection of a second motor; frequency increase; frequency decrease; 3-wire operation; change to general operation during PID operation; main body operation during option operation; analog command frequency fixation; acceleration and deceleration stop selectable	
Output	Multi-function open collector terminal	Drive fault output	Below DC 24V 50mA
	Multi-function relay terminal		Below (N.O., N.C.) AC250V 1A, Below DC 30V 1A
	Analog output	0 ~ 10 Vdc (below 10mA): selectable from frequency, current, voltage, direct current voltage	

*1) The Functions for Multi-function terminal available according to IN-65~72 parameter setting of IN Group.

Protective Functions

Trip	Over voltage, low voltage, over current, over current detection, drive overheat, motor thermal protection, phase loss protection, overload protection, communication error, frequency command loss, hardware failure, cooling fan failure, pre-PID failure, no motor trip, external brake trip. etc
Alarm	Stall prevention, overload, diminished load, encoder error, fan failure, keypad command loss, speed command loss.
Instantaneous Interruption *2)	Below CT class 15 msec (VT class 8 msec): operation continues (within rated input voltage, rated output) Over CT class 15 msec (VT class 8 msec): automatic restart

*2) Operation at the CT (Heavy Duty) current rating

Structure and Use Environment

Cooling Method	Forced air blast cooling: 0.75 ~ 15kW (200/400V class), 22kW (400V class) Inhalation cooling: 22 ~ 75kW (200V class), 30 ~ 160kW (400V class)
Protection Structure	Below 75kW: Open Type(IP21), UL enclosed type 1(Option) *3) 30 ~ 75kW 200V, Above 90kW: Open type(IP00) The others (Below 22kW): Enclosed IP54 type, UL enclosed type 12
Surrounding Temperature	CT (Heavy Duty) load: -10 ~ 50℃, (14 ~ 122℉) without ice or frost VT (Normal Duty) load: -10~ 40℃ (14 ~ 122℉) without ice or frost (It is recommended that you use less than 80% load when you use VT load at 50°C (122°F)) IP54 product: -10~40℃ (14~122℉) without ice or frost
Preservation Temperature	-20 ~ 65℃ (-4 ~ 149℉)
Surrounding Humidity	Below 90% RH of relative humidity (with no dew formation)
Altitude, Vibration	Below 1,000m (3280 ft), below 5.9m/sec 2 (19.36 ft/sec 2, 0.6G)
Environment	There should be no corrosive gas, flammable gas, oil mist or dust. Pollution Degree 2 Environment

*3) UL Enclosed type 1 with conduit box installed



Peripheral Devices

MCCB (Molded Case Circuit Breaker) and MC (Magnetic Contactor)

Voltage	Capacity [kW]	Circuit Breaker (MCCB)				Leakage Breaker (ELCB)		Magnetic Contactor (MC)	
		Model	Rated Current [A]	Model	Rated Current [A]	Model	Rated Current [A]	Model	Rated Current [A]
3-Phase 200V	0.8	ABS33c	15	UTE100	15	EBS33c	15	MC-9b	11
	1.5		15		15		15	MC-12b	13
	2.2		30		30		30	MC-18b	18
	3.7		30		30		30	MC-32a	32
	5.5	ABS53c	50	UTS150	50	EBS53c	50	MC-40a	40
	7.5	ABS63c	60		60	EBS63c	60	MC-50a	55
	11	ABS103c	100		100	EBS103c	100	MC-65a	65
	15		125		125	EBS203c	125	MC-100a	105
	18.5	ABS203c	150		150		150	MC-130a	130
	22		175	UTS250	175		175	MC-150a	150
	30		225		225		225		150
	37	ABS403c	300	UTS400	300	EBS403c	300	MC-225a	225
	45		350		350		350	MC-330a	330
	55	ABS603c	500	UTS600	500	EBS603c	500	MC-400a	400
	75		630		600		630	MC-630a	630
3-Phase 400V	0.8	ABS33c	15	UTE100	15	EBS33c	15	MC-9b	9
	1.5		15		15		15		9
	2.2		15		15		15	MC-12b	12
	3.7		15		15		15	MC-18b	18
	5.5		30		30		30	MC-22b	22
	7.5		30		30		30	MC-32a	32
	11	ABS53c	50	UTS150	50	EBS53c	50	MC-40a	40
	15	ABS63c	60		60	EBS63c	60	MC-50a	50
	18.5	ABS103c	80		80	EBS103c	75	MC-65a	65
	22		100		100		100		65
	30		125		125	EBS203c	125	MC-100a	105
	37	ABS203c	150		150		150	MC-130a	130
	45		175	UTS250	175		175	MC-150a	150
	55		225		225		225	MC-185a	185
	75	ABS403c	300	UTS400	300	EBS403c	300	MC-225a	225
	90		400		400		400	MC-330a	330
	110	ABS603c	500	UTS600	500	EBS603c	500	MC-400a	400
	132		630		600		630		400
	160		630		600		630	MC-630a	630
	185	ABS803c	800	UTS800	800	EBS803c	800		630
	220		800		800		800	MC-800a	800
	280	ABS1003b	1000	UTS1200	1000	EBS1003c	1000	1000A	1000
	315	ABS1203b	1200		1200	EBS1203c	1200	1200A	1200
	375	1400A	1400	1400A	1400	1400A	1400	1400A	1400

Peripheral Devices

AC Reactor Specifications

Capacity of Drive	Specifications of the AC reactor			
	Heavey Duty		Normal Duty	
	mH	A	mH	A
0008iS7-2	2.13	5.7	1.20	10
0015iS7-2	1.20	10	0.88	14
0022iS7-2	1.88	14	0.56	20
0037iS7-2	0.56	20	0.39	30
0055iS7-2	0.39	30	0.28	40
0075iS7-2	0.28	40	0.20	59
0110iS7-2	0.20	59	0.15	75
0150iS7-2	0.15	75	0.12	96
0185iS7-2	0.12	96	0.10	112
0220iS7-2	0.10	112	0.07	160
0300iS7-2	0.07	160	0.05	200
0370iS7-2	0.05	200	0.044	240
0450iS7-2	0.044	240	0.038	280
0550iS7-2	0.038	280	0.026	360
0750iS7-2	0.026	360	0.02	500
0008iS7-4	8.63	2.8	4.81	4.8
0015iS7-4	4.81	4.8	3.23	7.5
0022iS7-4	3.23	7.5	2.34	10
0037iS7-4	2.34	10	1.22	15
0055iS7-4	1.22	15	1.14	20
0075iS7-4	1.14	20	0.81	30
0110iS7-4	0.81	30	0.61	38
0150iS7-4	0.61	38	0.45	50
0185iS7-4	0.45	50	0.39	58
0220iS7-4	0.39	58	0.287	80
0300iS7-4	0.287	80	0.232	98
0370iS7-4	0.232	98	0.195	118
0450iS7-4	0.195	118	0.157	142
0550iS7-4	0.157	142	0.122	196
0750iS7-4	0.122	196	0.096	237
0900iS7-4	0.096	237	0.081	289
1100iS7-4	0.081	289	0.069	341
1320iS7-4	0.069	341	0.057	420
1600iS7-4	0.057	420	0.042	558
1850iS7-4	0.042	558	0.042	558
2200iS7-4	0.042	558	0.029	799
2800iS7-4	0.029	799	0.029	799
3150iS7-4	0.029	799	0.024	952
3750iS7-4	0.024	952	0.024	952

DC Reactor Specifications

Capacity of Drive	Specifications of the DC reactor	
	mH	A
0300iS7-2	0.24	200
0370iS7-2	0.2	240
0450iS7-2	0.17	280
0550iS7-2	0.12	360
0750iS7-2	0.1	500

Capacity of Drive	Specifications of the DC reactor	
	mH	A
2800iS7-4	0.09	836
3150iS7-4	0.076	996
3750iS7-4	0.64	1195



Peripheral Devices

Dynamic Braking Unit

Voltage	UL fom	Applied Motor	DBU	Dimensions
200V	UL type	30 ~ 37 kW	SV370DBU-2U	Refer to the appearance of Group 2.
		45 ~ 55 kW	SV550DBU-2U	
		75 kW	SV370DBU-2U, 2 sets	
400V	Non UL type	30 ~ 37 kW	SV370DBH-4	Refer to the appearance of Group 1.
		45 ~ 55 kW	SV075DBH-4	
		75 kW		
	UL type	30 ~ 37 kW	SV370DBU-4U	Refer to the appearance of Group 2.
		45 ~ 55 kW	SV550DBU-4U	
		75 kW	SV750DBU-4U	
		90 kW	SV550DBU-4U, 2 sets	
		110 ~ 132 kW	SV750DBU-4U, 2 sets	
		160 kW	SV750DBU-4U, 3 sets	
		185 ~ 220 kW	SV2200DBU-4U Note1)	
		280 ~ 375 kW	SV2200DBU-4U, 2 Set	

*Note1): Contact LSIS sales person for 185kW and above.

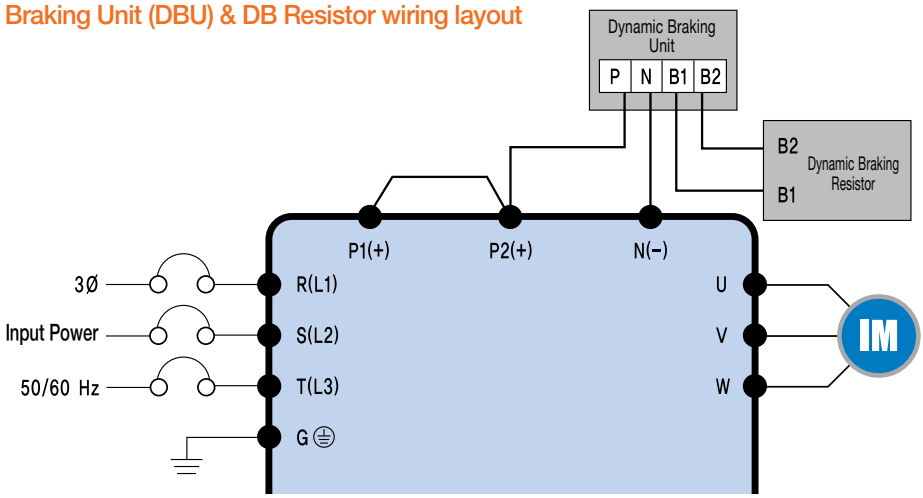
Terminal arrangement



Terminals	Functions
G	Ground Terminal
B2	Terminal for connection with B2 of DBU
B1	Terminal for connection with B1 of DBU
N	Terminal for connection with N of Drive
P	Terminal for connection with P1 of Drive

*Note: READ DBU User manual certainly when selecting DB resistors.

Dynamic Braking Unit (DBU) & DB Resistor wiring layout

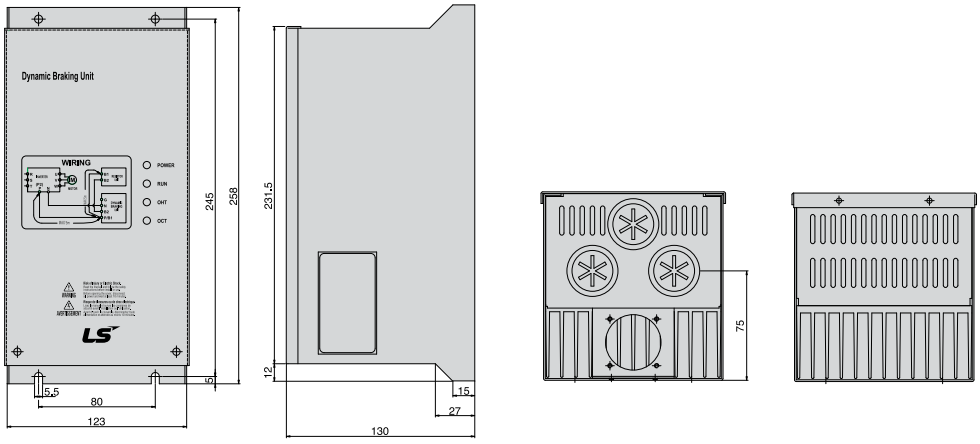


DBU Terminals	Description
B1, B2	Wire correctly refering to diagram. DB Resistors connect with B1,B2 of DB Unit

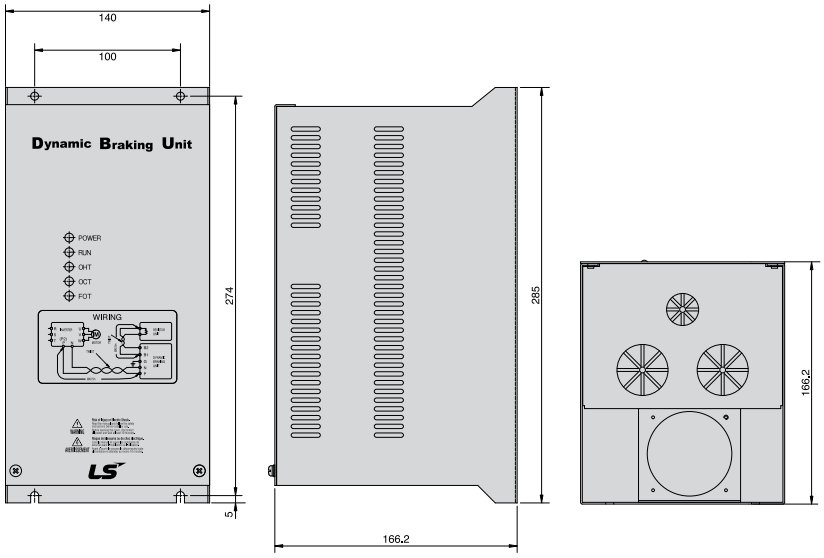
Peripheral Devices

Dimension: Dynamic Braking Unit (DBU)

Group 1



Group 2



Display Functions

DB Resistors connect with B1, B2 of DB Unit, DBU has 3 LEDs. Red LED which is located in middle displays supplying main power, one Green LED which is right side displays under braking and another green LED which is left side displays Over Heat Trip(OHT).

Displays	Function description
POWER (Red LED)	POWER LED is turned On when main power is supplied. Generally, POWER LED is tum On while main power supplied because DBU is connected with drive
RUN (Green LED)	RUN LED is turned off while DBU is ON by regenerative energy of Motor.
OHT (Green LED)	Under Braking, if the temperature is exceeded over setting value due to overheat of Heatsink, Cut the TURN ON signal of DBU and LED is turned on by working overheat protection function.



Peripheral Devices

Dynamic Braking Resistor (Option)

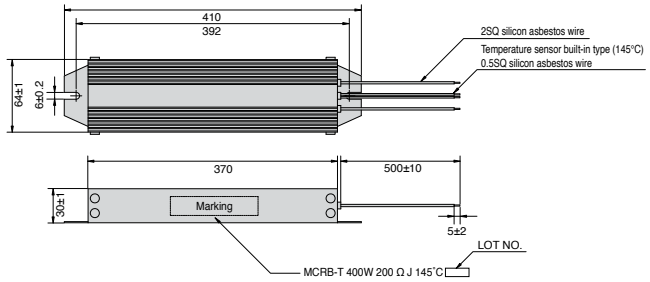
Following table has reference that DC braking torque: 150%, %ED: 5%, Rating Watt of DBU has to be doubled when %ED is 10%

Voltage Class	Drive Capacity (kW)	Type	150% Braking Torque, 5%ED		
			Resistor [ohm]	Watt [W]	Appearance
200V Class	0.75	-	150	150	-
	1.5	-	60	300	-
	2.2	MCRB400W50	50	400	TYPE 1
	3.7	MCRB600W33	33	600	TYPE 2
	5.5	MCRM800W20	20	800	TYPE 3
	7.5	MCRM1200W15	15	1,200	TYPE 3
	11	MCRM2400W10	10	2,400	TYPE 4
	15	MCRM2400W8	8	2,400	TYPE 4
	18.5	MCRM3600W5	5	3,600	TYPE 5
	22	MCRM3600W5	5	3,600	TYPE 5
	30	-	5	5,000	-
	37	-	4.5	7,000	-
	45	-	3.5	10,000	-
	55	-	3.0	15,000	-
	75	-	2.5	20,000	-
400V Class	0.75	-	600	150	-
	1.5	-	300	300	-
	2.2	MCRB400W200	200	400	TYPE 1
	3.7	MCRB600W130	130	600	TYPE 2
	5.5	MCRM1000W85	85	1,000	TYPE 3
	7.5	MCRM1200W60	60	1,200	TYPE 3
	11	MCRM2000W40	40	2,400	TYPE 4
	15	MCRM2400W30	30	2,400	TYPE 4
	18.5	MCRM3600W20	20	3,600	TYPE 5
	22	MCRM3600W20	20	3,600	TYPE 5
	30	-	12	5,000	-
	37	-	12	5,000	-
	45	-	6	10,000	-
	55	-	6	10,000	-
	75	-	6	10,000	-
	90	-	4.5	15,000	-
	110	-	3.5	17,000	-
	132	-	3.0	20,000	-
	160	-	2.5	25,000	-
	185	-	2	30,000	-
	220	-	2	30,000	-
	280	-	1.5	40,000	-
	315	-	1	60,000	-
	375	-	1	60,000	-

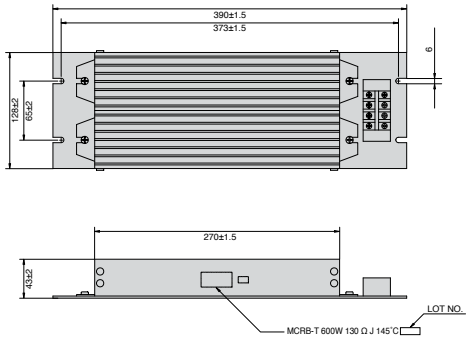
In case of iS7 90~160kW, Dynamic braking unit for 220kW (SV2200DB-4) needs above listed DB resistor. If Dynamic braking unit (SV075DBH-4) is connected in parallel, use above listed DB resistor in parallel.

Dimensions : Dynamic Braking Resistor

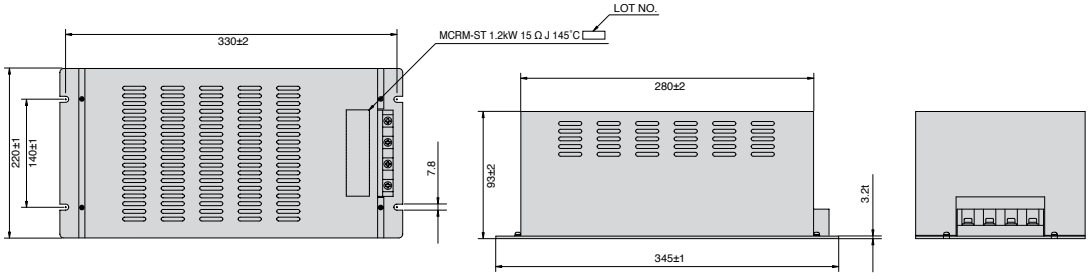
TYPE 1 (Max. 400 Watt)



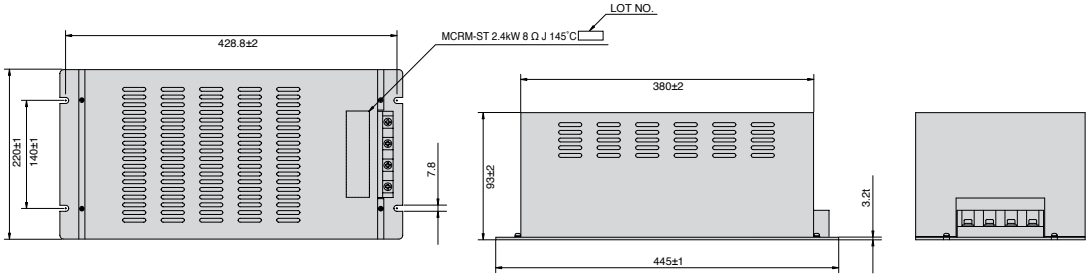
TYPE 2 (Max. 600 Watt)



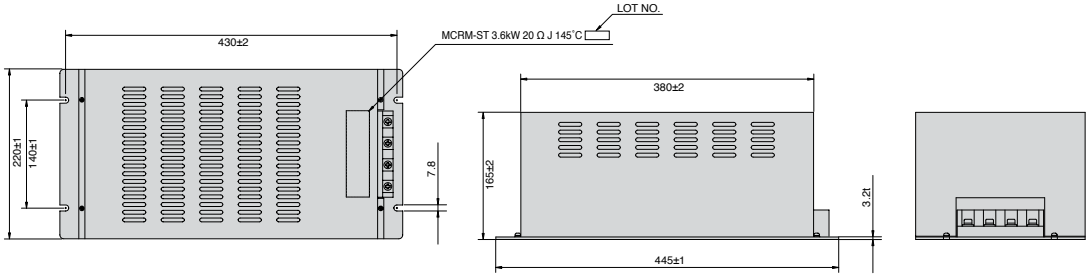
TYPE 3 (Max. 800 ~ 1,200 Watt)



TYPE 4 (Max. 2,000 ~ 2,400 Watt)



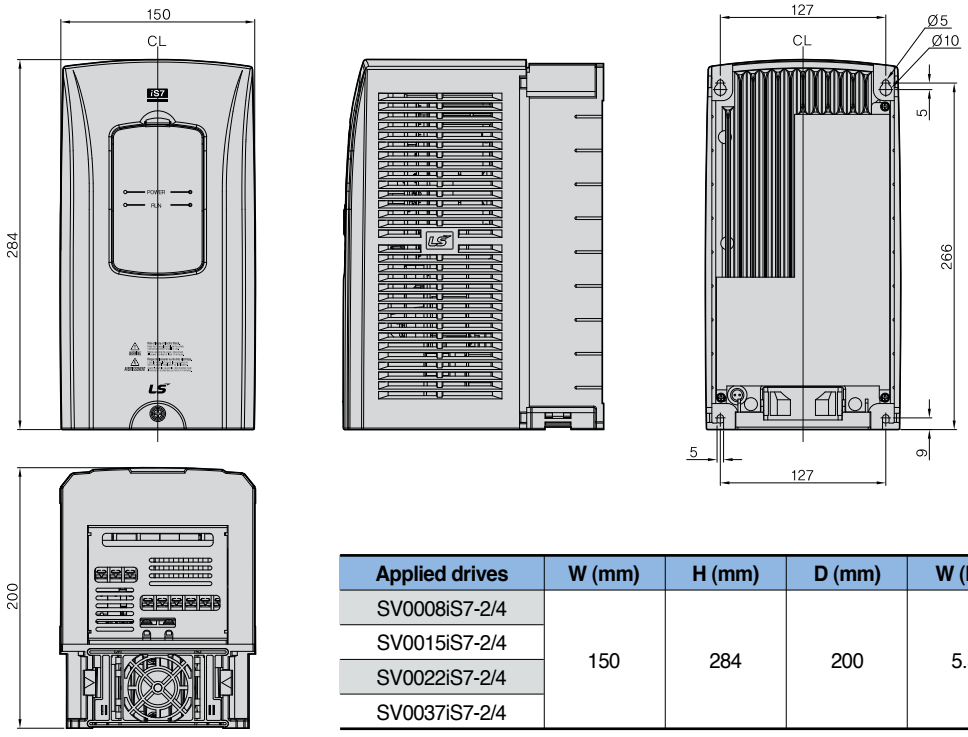
TYPE 5 (Max. 3,600 Watt)





Dimensions

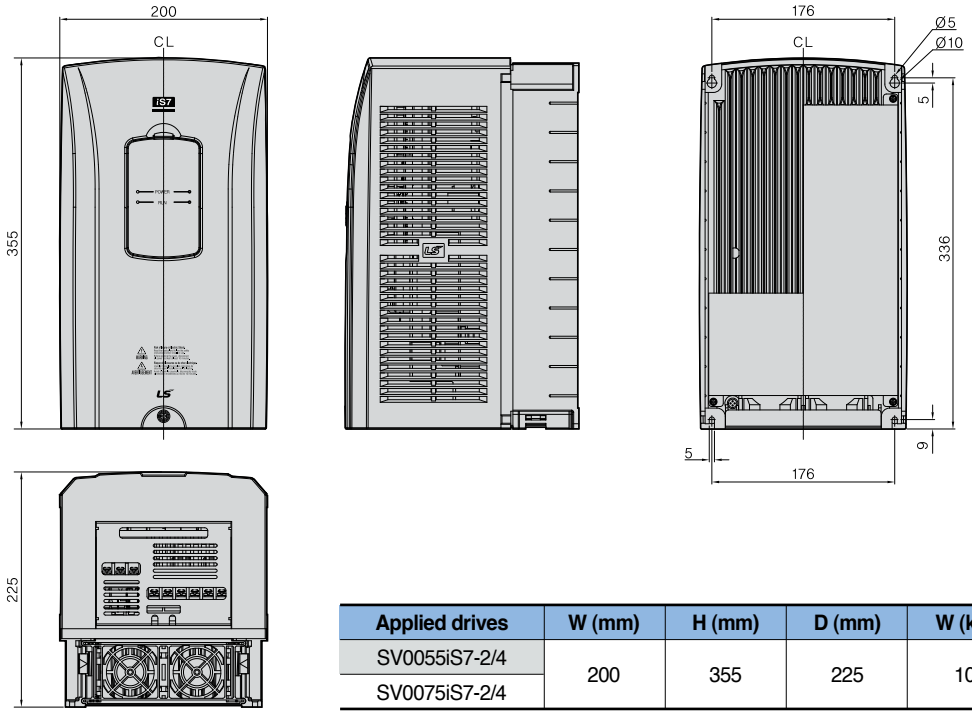
SV0008 ~ 0037iS7 (200V/400V)



Applied drives	W (mm)	H (mm)	D (mm)	W (kg)
SV0008iS7-2/4	150	284	200	5.5
SV0015iS7-2/4				
SV0022iS7-2/4				
SV0037iS7-2/4				

* The weight above represents the total weight including EMC filter and DCL.

SV0055 ~ 0075iS7 (200V/400V)

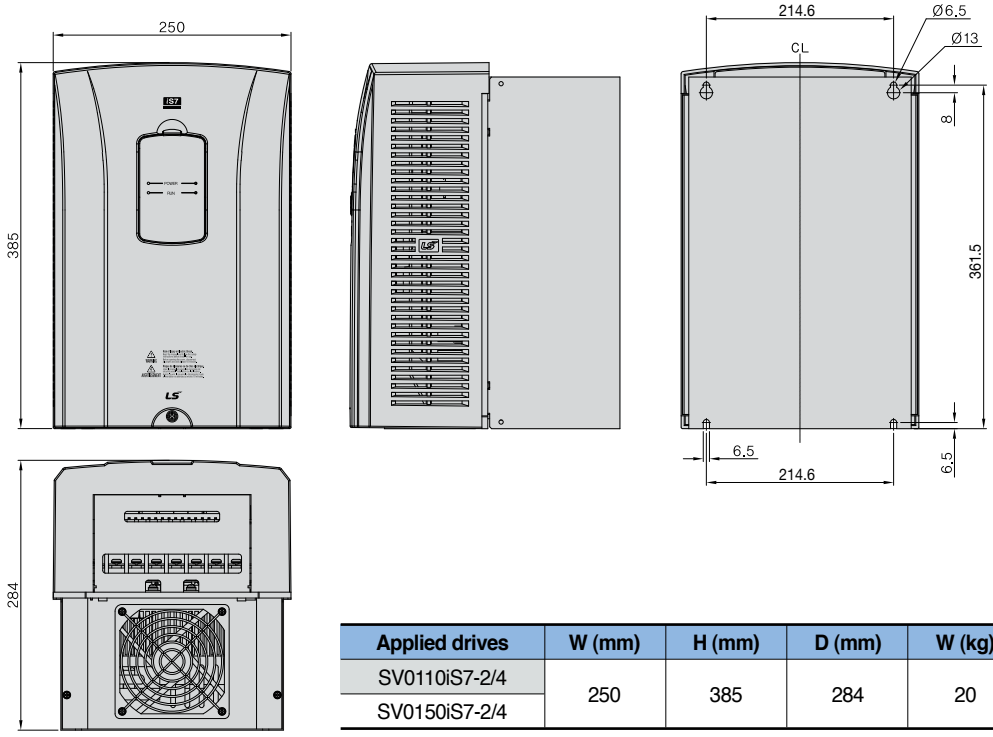


Applied drives	W (mm)	H (mm)	D (mm)	W (kg)
SV0055iS7-2/4	200	355	225	10
SV0075iS7-2/4				

* The weight above represents the total weight including EMC filter and DCL.

Dimensions

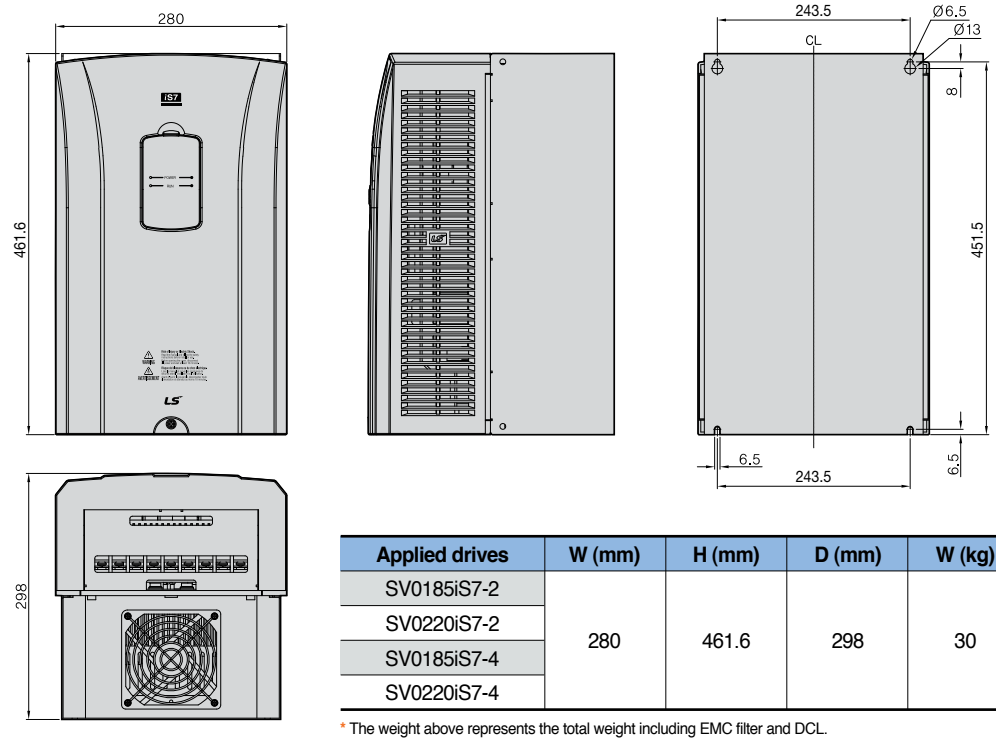
SV0110 ~ 0150iS7 (200V/400V)



Applied drives	W (mm)	H (mm)	D (mm)	W (kg)
SV0110iS7-2/4	250	385	284	20
SV0150iS7-2/4				

* The weight above represents the total weight including EMC filter and DCL.

SV0185 ~ 0220iS7 (200V/400V)



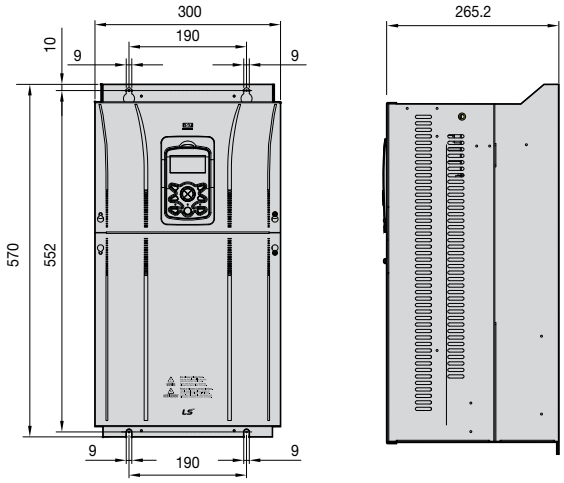
Applied drives	W (mm)	H (mm)	D (mm)	W (kg)
SV0185iS7-2	280	461.6	298	30
SV0220iS7-2				
SV0185iS7-4				
SV0220iS7-4				

* The weight above represents the total weight including EMC filter and DCL.

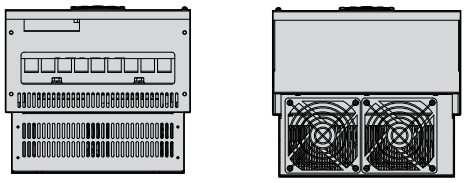


Dimensions

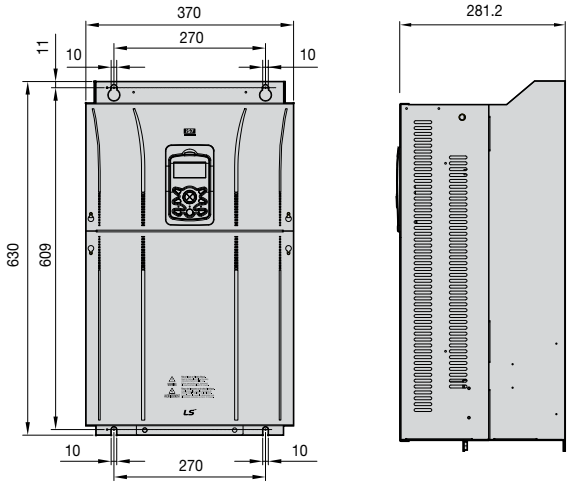
SV0300iS7 (200V)



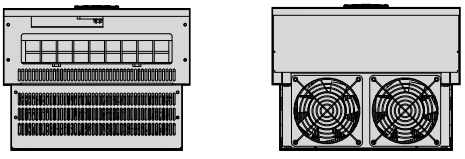
Applied drives	W (mm)	H (mm)	D (mm)	W (kg)
SV0300iS7-2	300	570	265.2	29.5



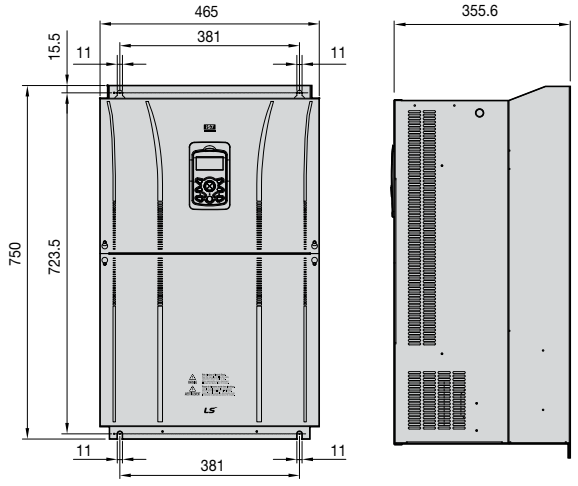
SV0370 ~ 0450iS7 (200V)



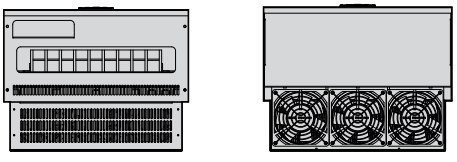
Applied drives	W (mm)	H (mm)	D (mm)	W (kg)
SV0370iS7-2	370	630	281.2	44
SV0450iS7-2				



SV0550 ~ 0750iS7 (200V)

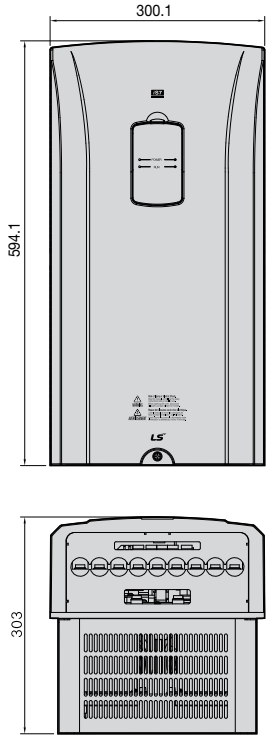


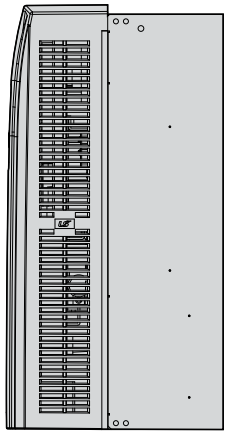
Applied drives	W (mm)	H (mm)	D (mm)	W (kg)
SV0550iS7-2	465	750	355.6	72.5
SV0750iS7-2				

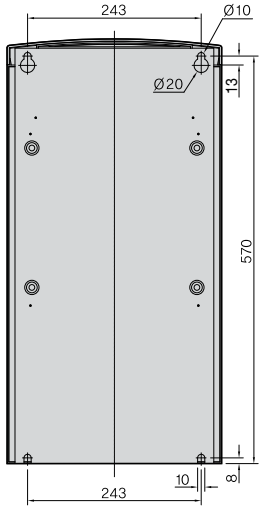


Dimensions

SV0300 ~ 0450iS7 (400V)

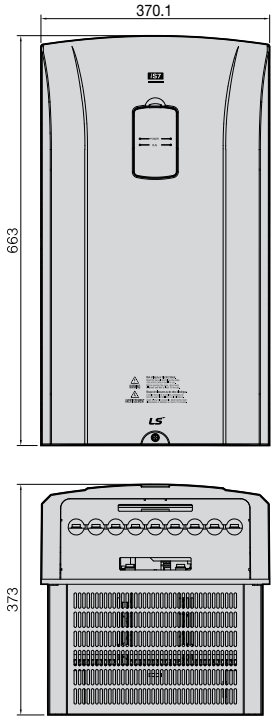


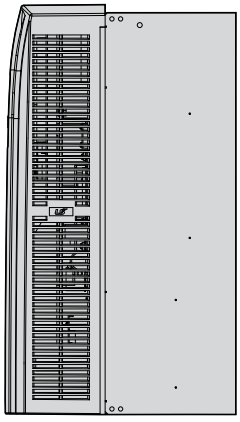


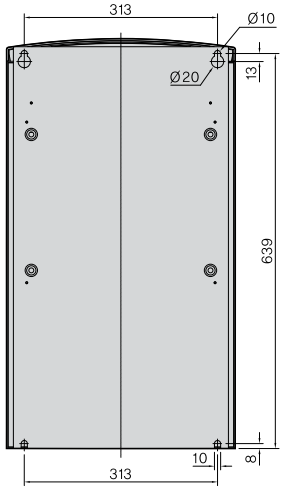


Applied drives	W (mm)	H (mm)	D (mm)	W (kg)
SV0300iS7-4	300.1	594.1	303	41
SV0370iS7-4				
SV0450iS7-4				

SV0550 ~ 0750iS7 (400V)





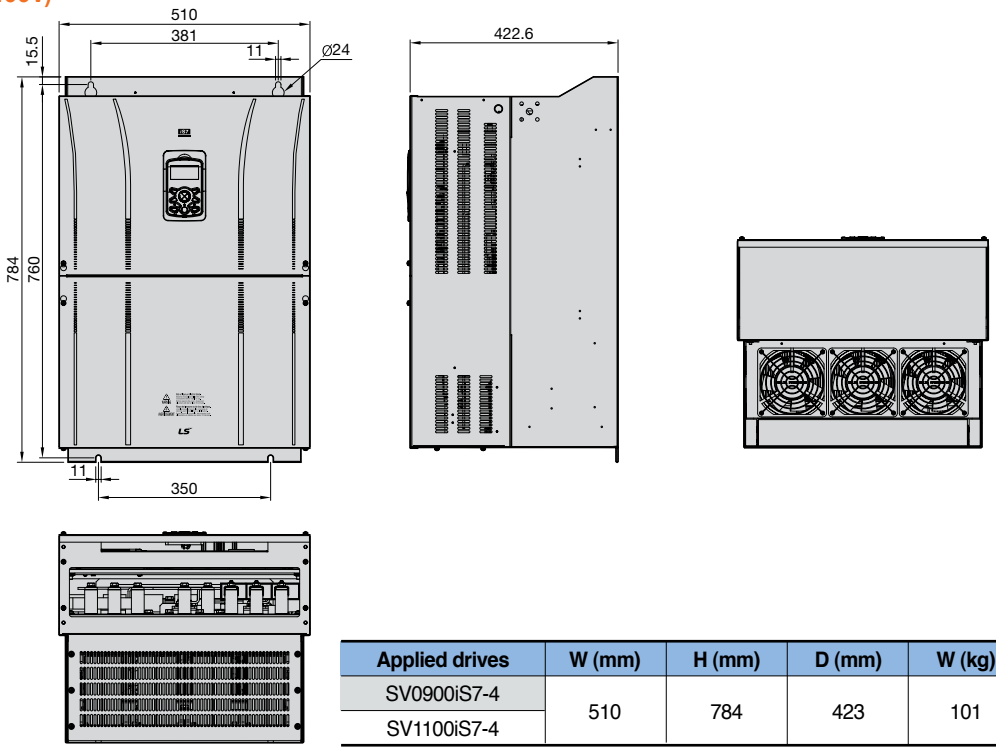


Applied drives	W (mm)	H (mm)	D (mm)	W (kg)
SV0550iS7-4	370.1	663	373	63
SV0750iS7-4				



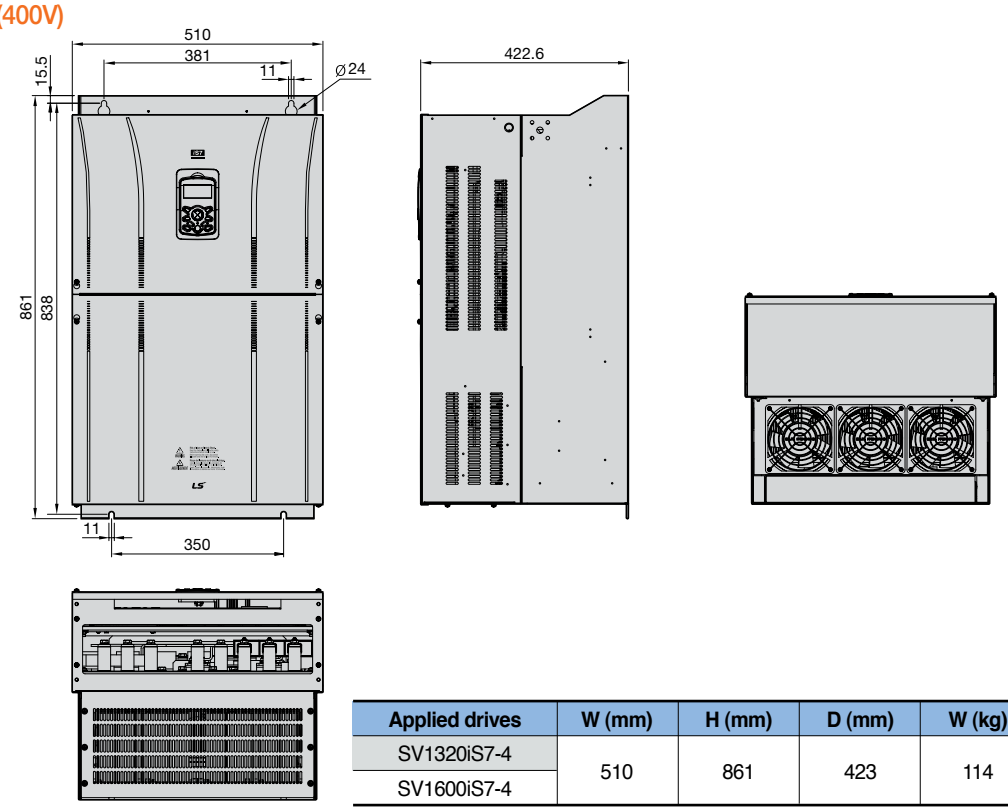
Dimensions

SV0900 ~ 1100iS7 (400V)



Applied drives	W (mm)	H (mm)	D (mm)	W (kg)
SV0900iS7-4	510	784	423	101
SV1100iS7-4				

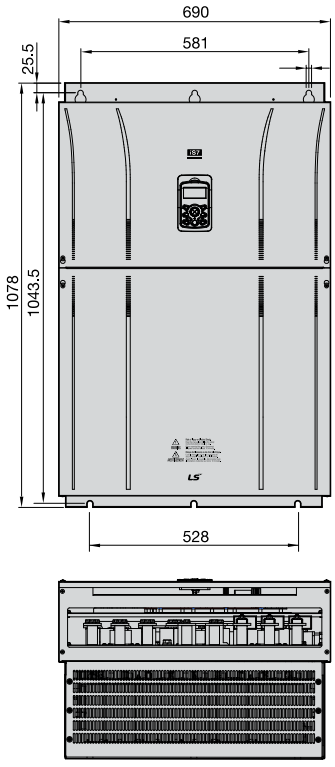
SV1320 ~ 1600iS7 (400V)

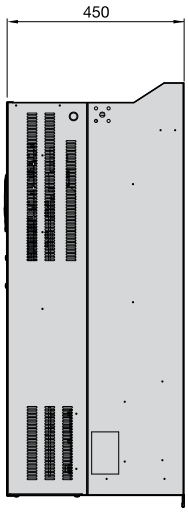


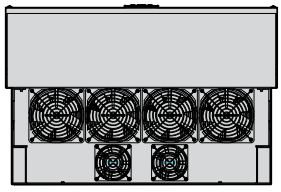
Applied drives	W (mm)	H (mm)	D (mm)	W (kg)
SV1320iS7-4	510	861	423	114
SV1600iS7-4				

Dimensions

SV1850 ~ SV2200iS7 (400V)

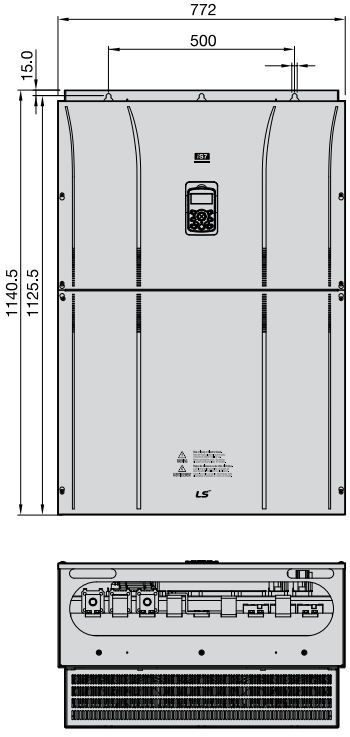


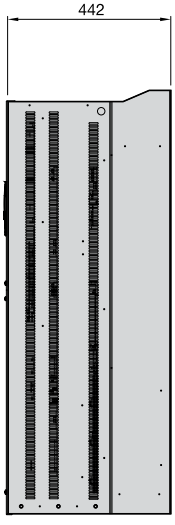


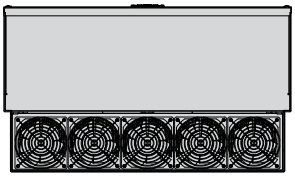


Applied drives	W (mm)	H (mm)	D (mm)	W (kg)
SV1850iS7-4	690	1078	450	200
SV2200iS7-4				

SV2800iS7 (400V)





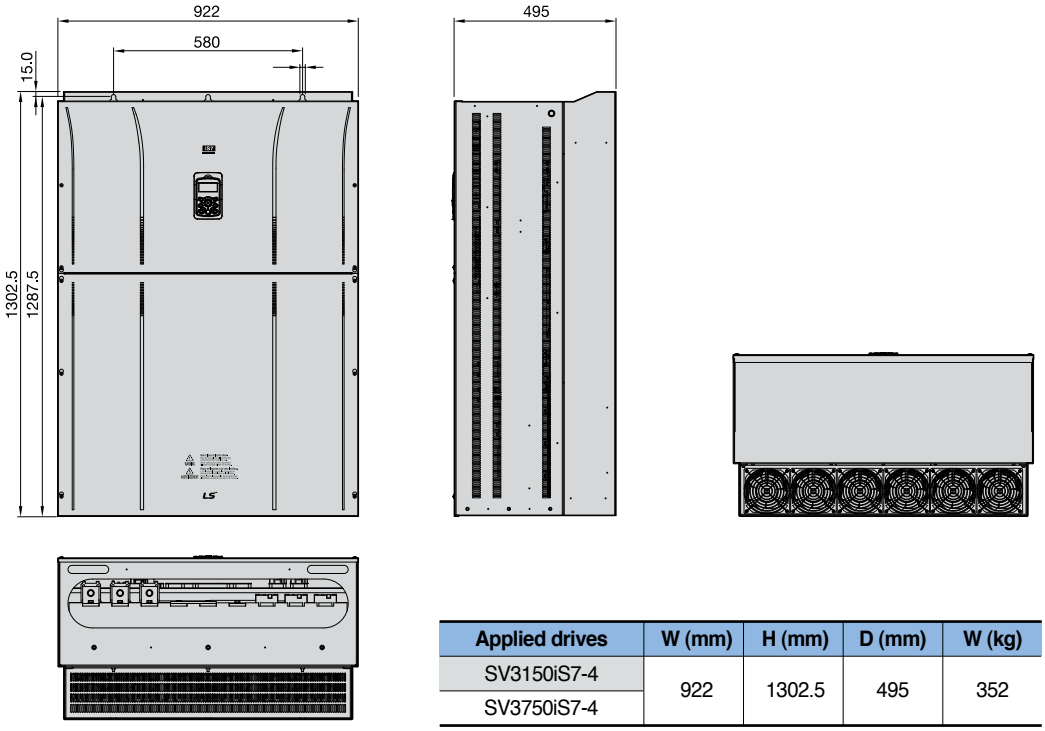


Applied drives	W (mm)	H (mm)	D (mm)	W (kg)
SV2800iS7-4	771	1138	440	252



Dimensions

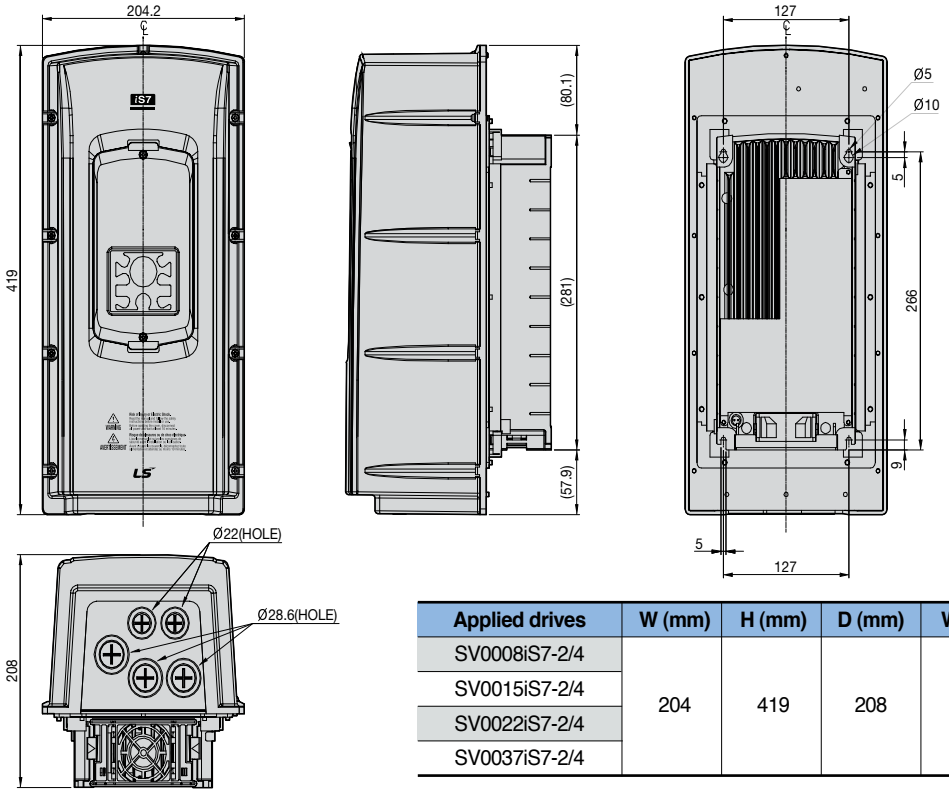
SV3150 ~ 3750iS7 (400V)



Applied drives	W (mm)	H (mm)	D (mm)	W (kg)
SV3150iS7-4	922	1302.5	495	352
SV3750iS7-4				

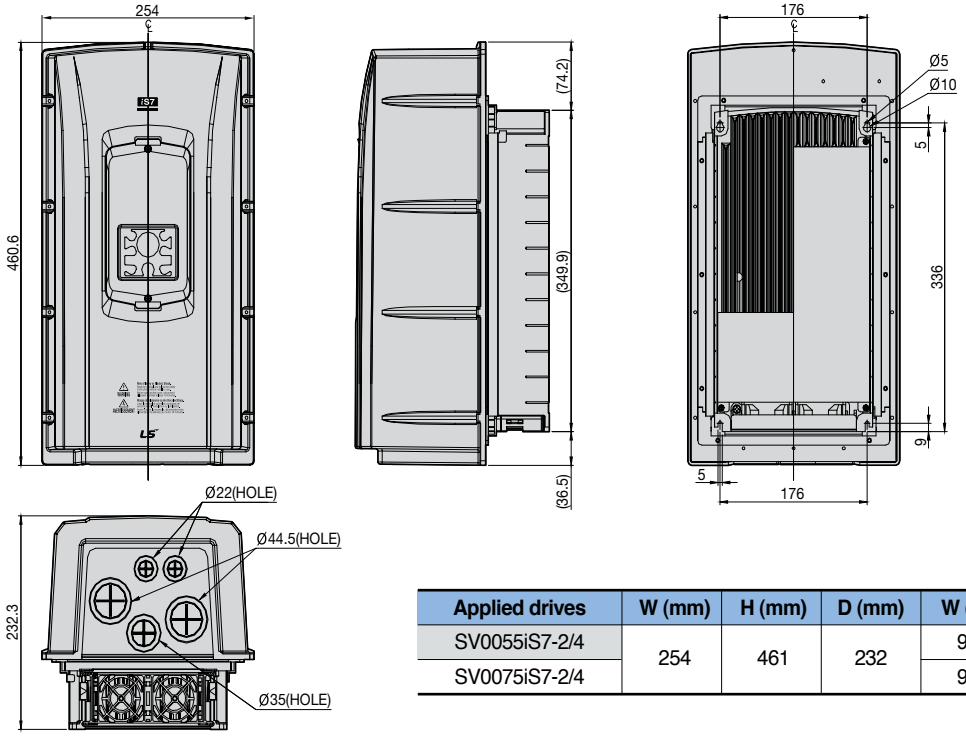
Dimensions (IP54)

SV0008 ~ 0037iS7 (200V/400V)



Applied drives	W (mm)	H (mm)	D (mm)	W (kg)
SV0008iS7-2/4	204	419	208	6.7
SV0015iS7-2/4				
SV0022iS7-2/4				
SV0037iS7-2/4				

SV0055 ~ 0075iS7 (200V/400V)

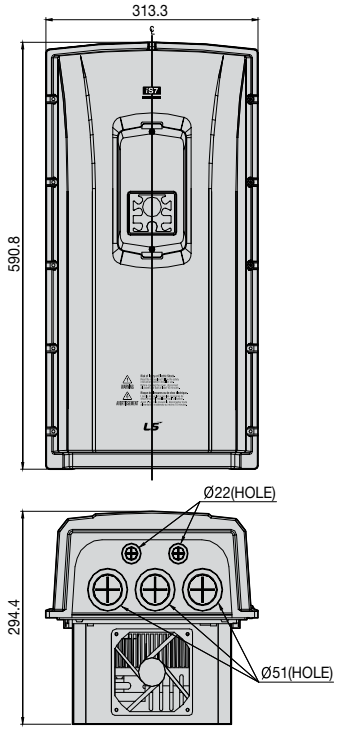


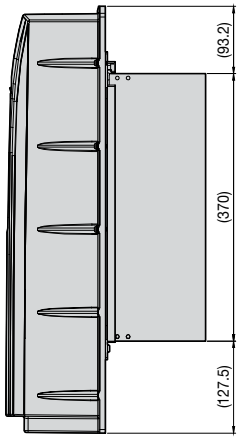
Applied drives	W (mm)	H (mm)	D (mm)	W (kg)
SV0055iS7-2/4	254	461	232	9.5
SV0075iS7-2/4				9.6

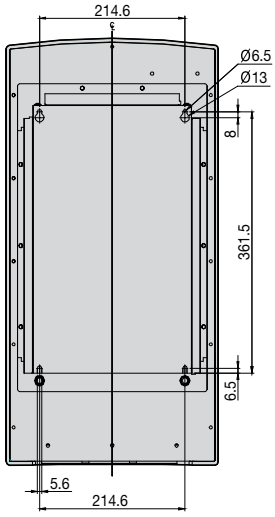


Dimensions (IP54)

SV0110 ~ 0150iS7 (200V/400V)

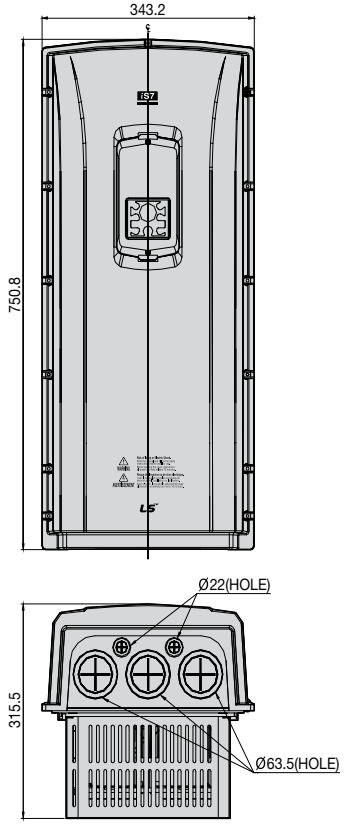


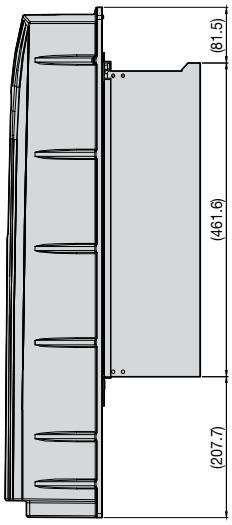


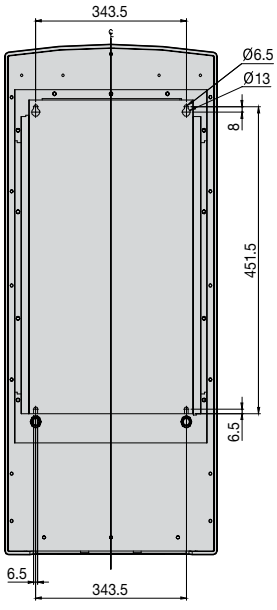


Applied drives	W (mm)	H (mm)	D (mm)	W (kg)
SV0110iS7-2/4	313	591	294	19.6
SV0150iS7-2/4				19.9

SV0185 ~ 0220iS7 (200V/400V)







Applied drives	W (mm)	H (mm)	D (mm)	W (kg)
SV0185iS7-2	343	571	316	29.9
SV0220iS7-2				
SV0185iS7-4				27.1
SV0220iS7-4				

Memo



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Safety Instructions

- For your safety, please read user's manual thoroughly before operating.
- Contact the nearest authorized service facility for examination, repair, or adjustment.
- Please contact a qualified service technician when you need maintenance.
  Do not disassemble or repair by yourself!
- Any maintenance and inspection shall be performed by the personnel having expertise concerned.

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■ HEAD OFFICE

LS Tower, 127, LS-ro, Dongan-gu, Anyang-si, Gyeonggi-do, Korea

- **Europe & Middle East** +82-2-2034-4901 / bonseongk@lsis.com
- **Africa** +82-2-2034-4967 / sjleeq@lsis.com
- **Asia Pacific** +82-2-2034-4620 / mswoo@lsis.com

Overseas Subsidiaries

- **LSIS(Dalian) Co., Ltd._Dalian, China**
  No. 15, Liaohexi 3-Road, Economic and Technical Development Zone, Dalian 116600, China
  Tel : 86-411-8730-7510 / Fax : 86-411-8730-7560
- **LSIS(Wuxi) Co., Ltd._Wuxi, China**
  No. 1, Lexing Road, Wuxi National High &New Tech Industrial Development Area, Wuxi214028, Jiangsu, P.T.China
  Tel : 86-510-8534-6666-8005 / Fax : 86-510-8534-4078
- **LS Hukai Electric(Hubei) Co., Ltd._ Hubei, China**
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  1st. Floor, Tupolevlaan 48, 1119NZ,Schiphol-Rijk, The Netherlands
  Tel : 31-20-654-1420 / Fax : 31-20-654-1429
- **LSIS Japan Co., Ltd._Tokyo, Japan**
  Tokyo Club Building 13F, 2-6, Kasumigaseki 3-chome, Chiyoda-ku, Tokyo, 100-0013
  Tel : 81-3-6268-8241 / Fax : 81-3-6268-8240
- **LSIS USA Inc._ Chicago, U.S.A.**
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  Tel : 847-941-8240 / Fax : 847-941-8259

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Overseas Branches

- **LSIS Shanghai Office, China**
  32nd Floor, International Corporate City, No.3000 NorthZhongshan Road, Putuo District, Shanghai, China, 200063
  Tel : 86-21-5237-9977 / Fax : 86-21-5237-7189
- **LSIS Beijing Office, China**
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- **LSIS Co., Ltd. Tokyo Office, Japan**
  Tokyo Club Building 13F, 2-6, Kasumigaseki 3-chome, Chiyoda-ku, Tokyo, 100-0013
  Tel : 81-3-6268-8241 / Fax : 81-3-6268-8240
- **LSIS Co., Ltd. Rep. Office, Vietnam**
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