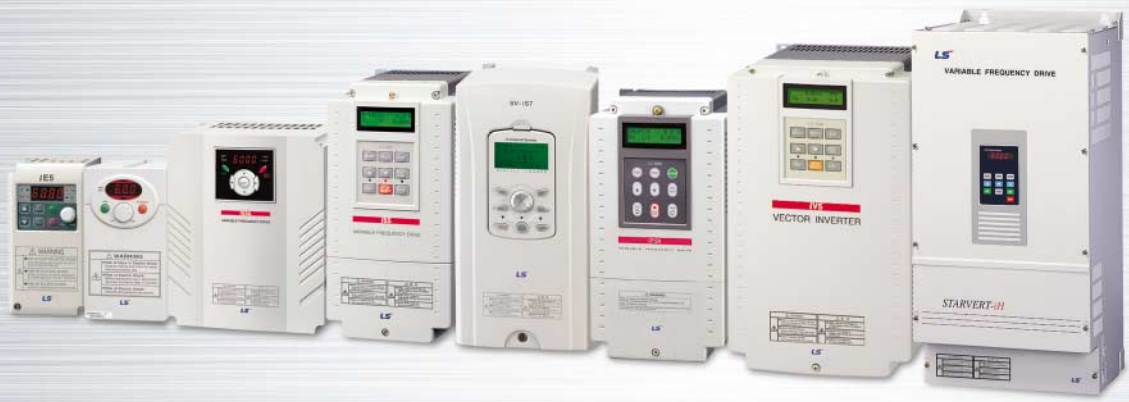
Leading Innovation, Creating Tomorrow

Variable Frequency Drive

LS Inverter Series

iE5 / iC5 / iG5A / iS5 / iS7 / iH / iP5A / iV5



Drive Solution

LS Industrial Systems

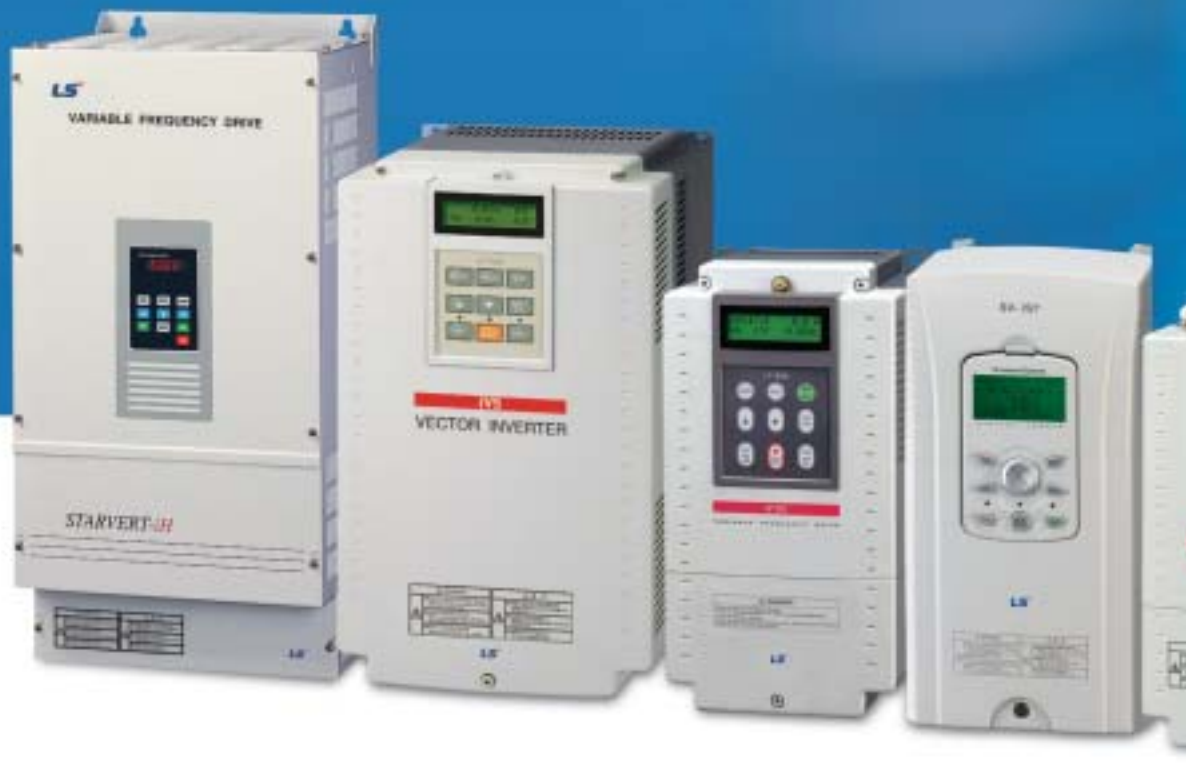
www.lsis.biz

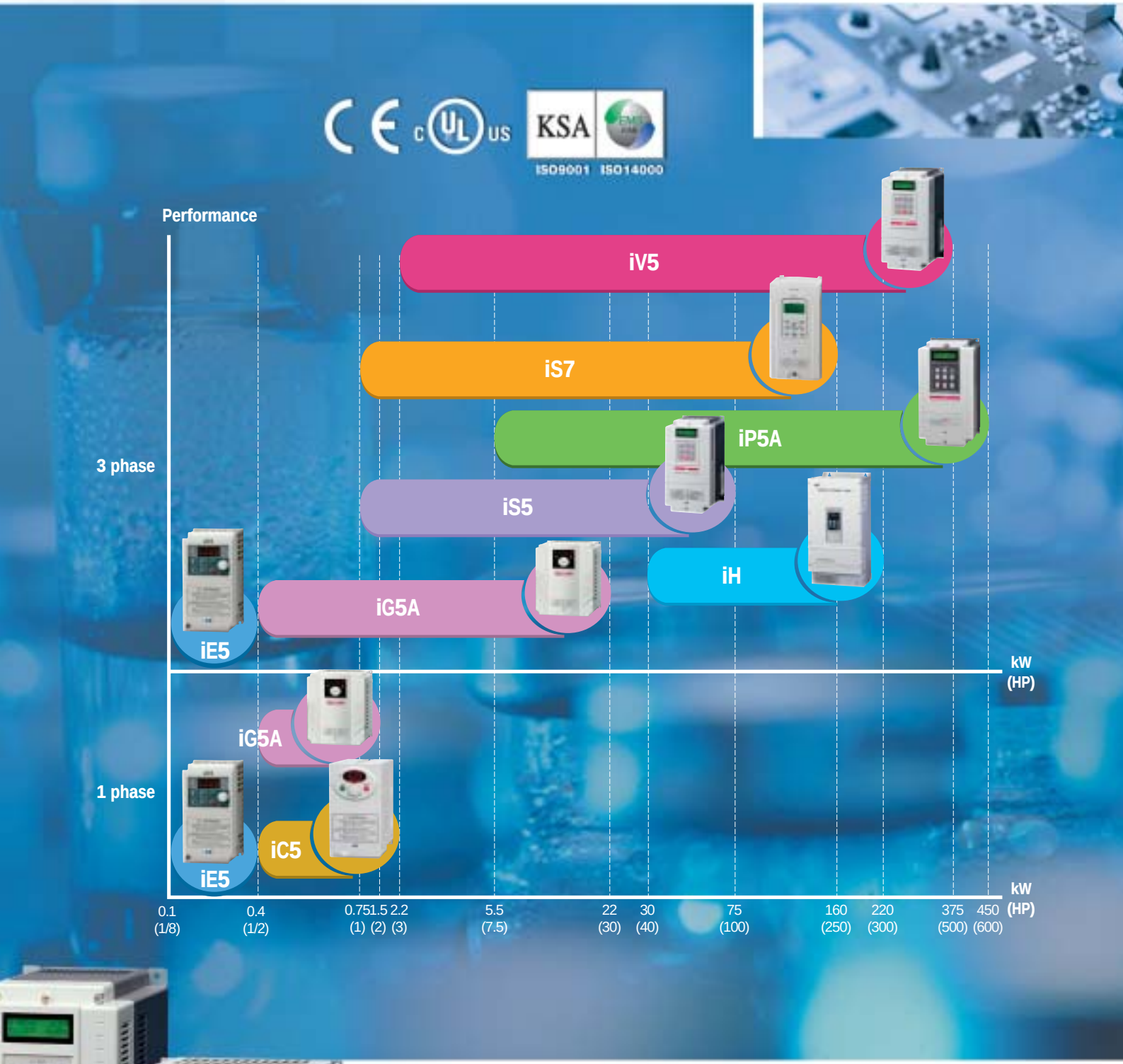


Take another look!

Simplicity-Precision, Flexibility-Standardization and Easy to use-Diversity are the inherent qualities of LS Variable Frequency Drives.

As an one-stop drive solution provider, LS is ready to offer its own competitive solutions into the general power transmission industry.





Contents



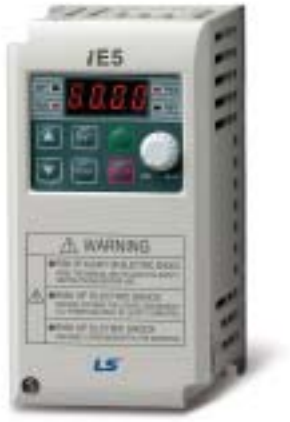
iE5

Variable Frequency Drive / Inverter

User friendly micro size slim VFD

1 phase 0.1~0.4kW(0.1~0.5HP), 200~230V
3 phase 0.1~0.4kW(0.1~0.5HP), 200~230V

- V/f control
- Compact size: 68×128×85mm (2.7×5×3.3 inch)
- 0.1 ~ 200Hz frequency output
- 1 ~ 10kHz carrier frequency
- Fault history: Last 3 faults
- IP20 enclosure
- RS485 (LS Bus / Modbus RTU) communication (Built-in option)
- DC Injection braking
- Selectable manual/automatic torque boost
- Selectable PNP/NPN input signal
- PI control
- Up-Down & 3-Wire operation
- Automatic restart after instantaneous power failure
- Built-in potentiometer
- Monitoring & commissioning PC based software tool (Drive View)
- Parameter copy unit



Model Number

SV 004 iE5 - 1 C

LS inverter brand

Motor rating
001: 0.1kW ~ 004: 0.4kW

Series name
iE5

Symbol	Input rating
1	Single-phase, 200~230V
2	Three-phase, 200~230V

Symbol	Communication
None	Not available
C	RS485 (LS Bus / Modbus RTU)

General specification

Model number: SV ▫ ▫ ▫ iE5- ▫			001-1	002-1	004-1	001-2	002-2	004-2
Motor rating		[HP]	0.13	0.25	0.5	0.13	0.25	0.5
		[kW]	0.1	0.2	0.4	0.1	0.2	0.4
Output rating	Capacity	[kVA]	0.3	0.6	0.95	0.3	0.6	1.14
	Current	[A]	0.8	1.4	2.5	0.8	1.6	3.0
	Voltage	[V]	Three-phase 200 ~ 230V					
	Frequency	[Hz]	0.1 ~ 200Hz					
Input rating	Voltage	[V]	Single-phase 200 ~ 230V (±10%)			Three-phase 200 ~ 230V (±10%)		
	Frequency	[Hz]	50 ~ 60Hz (±5%)					
	Current	[A]	2.0	3.5	5.5	1.2	2.0	3.5
Weight		[kg]	0.44	0.46	1.68	0.43	0.45	0.67

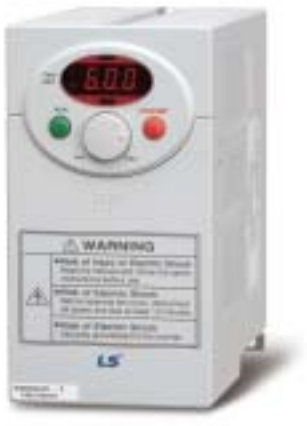
Control Spec	Control method	V/f, Slip compensation
	Speed reference resolution	Digital command: 0.01Hz / Analog reference: 0.1Hz (Max freq., 60Hz)
	Frequency accuracy	Digital command: 0.01% of Max output freq. / Analog signal command of 0.1% of Max output freq.
	V/f curve	Linear, Squared V/f
	Overload capacity	150% for 1 minute
	Torque boost	Auto & manual torque boost
Operation	Keypad Display	4 digit, 7 segment LED
	Operation method	Keypad / Terminal / Communication
	Frequency setting	Analog: 0 to 10V / 0 to 20mA / Potentiometer / Digital: Keypad
	Operation function	PI control / Up-Down operation / 3-Wire operation
Input signal	Multi-function terminal	PNP / NPN selectable
	(P1 ~ P5)	5 points (programmable)
Output signal	Multi-function relay	Fault output & inverter status output (N.O., N.C.) Less than AC 250V, 0.3A / Less than DC 30V 1A
	Analog output	0 to 10Vdc (less than 10mA): frequency / current / voltage / DC voltage selectable
Protection	Inverter trip	Over voltage / Low voltage / Over current / Ground fault / Inverter overload / Overload trip / Inverter overheat / Condenser overload / Output phase open / Frequency command loss / Hardware fault / etc.
	Inverter alarm	Stall prevention
Enclosure		IP20
Option	Communication, copy unit	RS485(LS Bus / Modbus RTU), Parameter copy unit

iC5

Variable Frequency Drive / Inverter

High torque micro VFD

1 phase 0.4~2.2kW(0.5~3HP), 200~230V



- EMC filter - class A (Built-in option)
- Selectable V/f, sensorless vector control
- Motor parameter Auto-tuning
- 150% torque at 0.5Hz
- 0.1 ~ 400Hz frequency output
- 1 ~ 15kHz carrier frequency
- 0 ~ 10Vdc analog input
- IP20 enclosure
- Selectable manual/automatic torque boost
- Built-in potentiometer
- Selectable PNP/NPN Input signal
- Fault history: Last 5 faults
- Enhanced process PID control
- Up-Down & 3-Wire operation
- Modbus RTU communication (optional)
- 8 programmable I/O
- Parameter copy unit
- Monitoring & commissioning PC based software tool (Drive View)

Model Number

SV 004 iC5 - 1 F

LS inverter brand

Motor rating
004: 0.4kW ~ 022: 2.2kW

Series name
iC5

Symbol	Input rating
1	Single-phase, 200~230V

Symbol	Filter
None	Not available
F	EMC filter

General specification

Model number: SV □ □ □ iC5- □			004-1	008-1	015-1	022-1
Motor rating		[HP]	0.5	1	2	3
		[kW]	0.4	0.75	1.5	2.2
Output rating	Capacity	[kVA]	0.95	1.9	3	4.5
	Current	[A]	2.5	5	8	12
	Voltage	[V]	Three-phase 200 ~ 230V			
	Frequency	[Hz]	0.1 ~ 400Hz			
Input rating	Voltage	[V]	Single-phase 200 ~ 230V (±10%)			
	Frequency	[Hz]	50 ~ 60Hz (±5%)			
	Current	[A]	5.5	9.2	16	21.6
Weight		[kg]	0.87	0.89	1.79	1.85

Control Spec	Control method	V/f, Slip compensation, Sensorless vector
	Speed reference resolution	Digital command: 0.01Hz / Analog reference: 0.06Hz (Max freq., 60Hz)
	Frequency accuracy	Digital command: 0.01% of Max output freq. / Analog signal command of 0.1% of Max output freq.
	V/f curve	Linear, Squared, User custom V/f
	Overload capacity	150% for 1 minute, 200% for 30 seconds
	Torque boost	Auto & manual torque boost
Operation	Keypad Display	3 digit, 7 segment LED
	Operation method	Keypad / Terminal / Communication
	Frequency setting	Analog: 0 to 10V / 4 to 20mA / Potentiometer / Digital: Keypad
	Operation function	PID control / Up-Down operation / 3-Wire operation
Input signal	Multi-function terminal (P1 ~ P5)	PNP / NPN selectable 5 points (programmable)
Output signal	Multi-function relay	Fault output & inverter status output (N.O., N.C.) Less than AC 250V, 0.3A / Less than DC 30V 1A
	Multi-function open collector	DC24V (less than 50mA)
	Analog output	0 to 10Vdc (less than 10mA): frequency / current / voltage / DC voltage selectable

Protection	Inverter trip	Over voltage / Low voltage / Over current / Ground fault / Inverter overheat / Output phase open / Inverter overload Overload trip / Communication error / Frequency command loss / Hardware fault / Fan fault / etc.
	Inverter alarm	Stall prevention, Overload

Enclosure		IP20
Option	Communication, copy unit	Modbus RTU, Parameter copy unit



iG5A

Variable Frequency Drive / Inverter

Powerful & compact sensorless vector control VFD

1 phase 0.4~1.5kW(0.5~2HP), 200~230V
3 phase 0.4~22kW(0.5~30HP), 200~230V
3 phase 0.4~22kW(0.5~30HP), 380~480V

- Selectable V/f, sensorless vector control
- Motor parameter Auto-tuning
- Powerful torque at overall speed range
- 0.1 ~ 400Hz frequency output
- 1 ~ 15kHz carrier frequency
- -15% ~ +10% input voltage margin
- Fault history: Last 5 faults
- 0~10Vdc / -10~+10Vdc analog input
- IP20 enclosure, UL Type 1 (Option)
- Selectable manual/automatic torque boost
- Selectable PNP/NPN input signal
- 2nd motor control and parameter setting
- Built-in Dynamic braking transistor as standard
- Enhanced process PID control
- Built-in RS485 (LS Bus / Modbus RTU) communication
- Cooling fan On/Off control & Easy change
- Remote control using external keypad * RJ45 cable(Optional)
- Upgraded functions: Sleep & Wake-up (Energy savings)
  KEB (Kinetic Energy Buffering) protection
  Low leakage PWM algorism
- Monitoring & commissioning PC based software tool (Drive View)

Model Number

SV 015 iG5A - 2

SV	015	iG5A	-	2
LS inverter brand	Motor rating 004: 0.4kW ~ 220: 22kW	Series name iG5A		Symbol / Input rating 1: Single-phase, 200 ~ 230V 2: Three-phase, 200 ~ 230V 4: Three-phase, 380 ~ 480V

General specification

Model number: SV □ □ □ iG5A-1 □			004	008	015
Motor rating		[HP]	0.5	1	2
		[kW]	0.4	0.75	1.5
Output rating	Capacity	[kVA]	0.95	1.9	3.0
	Current	[A]	2.5	5	8
	Voltage	[V]	Three-phase 200 ~ 230V		
	Frequency	[Hz]	0.1 ~ 400Hz		
Input rating	Voltage	[V]	Single-phase 200 ~ 230V (+10%, -15%)		
	Frequency	[Hz]	50 ~ 60Hz (±5%)		
Weight		[kg]	0.77	1.12	1.84

Model number: SV □ □ □ iG5A-2 □			004	008	015	022	037	040	055	075	110	150	185	220
Motor rating		[HP]	0.5	1	2	3	5	5.4	7.5	10	15	20	25	30
		[kW]	0.4	0.75	1.5	2.2	3.7	4.0	5.5	7.5	11	15	18.5	22
Output rating	Capacity	[kVA]	0.95	1.9	3	4.5	6.1	6.5	9.1	12.2	17.5	22.9	28.2	33.5
	Current	[A]	2.5	5	8	12	16	17	24	32	46	60	74	88
	Voltage	[V]	Three-phase 200 ~ 230V											
	Frequency	[Hz]	0.1 ~ 400Hz											
Input rating	Voltage	[V]	Three-phase 200 ~ 230V (+10%, -15%)											
	Frequency	[Hz]	50 ~ 60Hz (±5%)											
Weight		[kg]	0.76	0.77	1.12	1.84	1.89	1.89	3.66	3.66	9.00	9.00	13.3	13.3

Model number: SV □ □ □ iG5A-4 □			004	008	015	022	037	040	055	075	110	150	185	220
Motor rating		[HP]	0.5	1	2	3	5	5.4	7.5	10	15	20	25	30
		[kW]	0.4	0.75	1.5	2.2	3.7	4.0	5.5	7.5	11	15	18.5	22
Output rating	Capacity	[kVA]	0.95	1.9	3	4.5	6.1	6.5	9.1	12.2	18.3	22.9	29.7	34.3
	Current	[A]	1.25	2.5	4	6	8	9	12	16	24	30	39	45
	Voltage	[V]	Three-phase 380 ~ 480V											
	Frequency	[Hz]	0.1 ~ 400Hz											
Input rating	Voltage	[V]	Three-phase 380 ~ 480V (+10%, -15%)											
	Frequency	[Hz]	50 ~ 60Hz (±5%)											
Weight		[kg]	0.76	0.77	1.12	1.84	1.89	1.89	3.66	3.66	9.00	9.00	13.3	13.3

Control Spec	Control method	V/f, Slip compensation, Sensorless vector
	Speed reference resolution	Digital command: 0.01Hz / Analog reference: 0.06Hz (Max freq., 60Hz)
	Frequency accuracy	Digital command: 0.01% of Max output freq. / Analog signal command of 0.1% of Max output freq.
	V/f curve	Linear, Squared, User custom V/f
	Overload capacity	150% for 1 minute
	Torque boost	Auto & manual torque boost
Operation	Keypad Display	4 digit, 7 segment LED
	Operation method	Keypad / Terminal / Communication
	Frequency setting	Analog: 0 to 10V / -10 to 10V / 0 to 20mA / Digital: Keypad
	Operation function	PID control / Up-Down operation / 3-Wire operation
Input signal	Multi-function terminal (P1 ~ P8)	PNP / NPN selectable 8 points (programmable)
Output signal	Multi-function relay	Fault output & inverter status output (N.O., N.C.) Less than AC250V, 0.3A / Less than DC 30V 1A
	Multi-function open collector	DC24V (less than 50mA)
	Analog output	0 to 10Vdc (less than 10mA): frequency / current / voltage / DC voltage selectable
Protection	Inverter trip	Over voltage / Low voltage / Over current / Over Current 2 / Ground fault / Inverter overheat / Output phase open / OInverter overload / Overload trip / Communication error / Frequency command loss / Hardware fault / Fan fault / Brake error / etc.
	Inverter alarm	Stall prevention, Overload
Enclosure		IP20, NEMA1 (Optional)
Option	Cable, conduit kit	Remote cable(2M/3M/5M) plus external keypad, Conduit kit for NEMA 1
Others		Built-in Dynamic braking transistor, Built-in RS485(LS Bus / Modbus RTU)

iS5

Variable Frequency Drive / Inverter

Precise vector control standard VFD

3 phase 0.75~55kW(1~75HP), 200~230V
3 phase 0.75~75kW(1~100HP), 380~480V

- Selectable V/f, Sensorless vector, Sensored vector control (Optional)
- Built-in process PID control
- Optimum acceleration & deceleration for a maximum torque
- APP parameter group for special operations:
  Traverse, Multi Motor Control, DRAW
- Multi-function I/O terminal:
  Input: 27 functions / Output: 21 functions
- Multi Motor Control (Up to 4 motors: Optional)
- Motor parameter Auto-tuning
- Parameter Read/Write function using a detachable LCD Keypad
- 8 Preset speeds
- Extension I/O boards (Optional): Sub-A, Sub-B, Sub-C
- Communication options:
  Modbus RTU, Profibus-DP, DeviceNet, RS485(LS Bus), Fnet(LS PLC link)
- Built-in Dynamic braking transistor (Up to 7.5kW[10HP])
- Monitoring & commissioning PC based software tool (Drive View)

Model Number

SV	008	iS5	-	2	N	O	,	380V

LS inverter brand
SV

Motor rating
008: 0.75kW ~ 750: 75kW

Series name
iS5

Symbol	Input rating
2	Three-phase, 200 ~ 230V
4	Three-phase, 380 ~ 480V

Symbol	Loader
None	Loader
N	Non Loader

Symbol	UL certification
O	Open type
E	Enclosed type 1

Symbol	Rated voltage
None	200~230V or 380~480V
****	380V, 440V, 460V, 480V

General specification

Model number: SV □ □ □ iS5-2 □			008	015	022	037	055	075	110	150	185	220	300	370	450	550
Motor rating		[HP]	1	2	3	5	7.5	10	15	20	25	30	40	50	60	75
		[kW]	0.75	1.5	2.2	3.7	5.5	7.5	11	15	18.5	22	30	37	45	55
Output rating	Capacity	[kVA]	1.9	3	4.5	6.1	9.1	12.2	17.5	22.9	28.5	33.5	46	55	68	84
	Current	[A]	5	8	12	16	24	32	46	60	74	88	122	146	180	220
	Voltage	[V]	Three-phase 200 ~ 230V													
	Frequency	[Hz]	0.1 ~ 400Hz (Sensorless control: 0.1~300Hz, Sensored control: 0.1~120Hz)													
Input rating	Voltage	[V]	Three-phase 200 ~ 230V (±10%)													
	Frequency	[Hz]	50 ~ 60Hz (±5%)													
Weight		[kg]	4.6	4.6	4.8	4.9	7.5	7.7	13.8	14.3	19.4	20.0	42.0	42.0	61	61

Model number: SV □ □ □ iS5-4 □			008	015	022	037	055	075	110	150	185	220	300	370	450	550	750
Motor rating		[HP]	1	2	3	5	7.5	10	15	20	25	30	40	50	60	75	100
		[kW]	0.75	1.5	2.2	3.7	5.5	7.5	11	15	18.5	22	30	37	45	55	75
Output rating	Capacity	[kVA]	1.9	3	4.5	6.1	9.1	12.2	17.5	22.9	29.7	34.3	45	56	68	82	100
	Current	[A]	2.5	4	6	8	12	16	24	30	39	45	61	75	91	110	152
	Voltage	[V]	Three-phase 380 ~ 480V														
	Frequency	[Hz]	0.1 ~ 400Hz (Sensorless control: 0.1~300Hz, Sensored control: 0.1~120Hz)														
Input rating	Voltage	[V]	Three-phase 380 ~ 480V (±10%)														
	Frequency	[Hz]	50 ~ 60Hz (±5%)														
Weight		[kg]	4.7	4.7	4.8	4.9	7.7	7.7	13.9	14.4	20	20	45	45	63	63	68

Control Spec	Control method	Sensorless vector, Sensored vector, V/f
	Speed reference resolution	Digital command: 0.01Hz (less than 100Hz),0.1Hz (greater than 100Hz) / Analog reference: 0.03Hz (Max freq., 60Hz)
	Frequency accuracy	Digital command: 0.01% of Max output freq. / Analog signal command of 0.1% of Max output freq.
	V/f curve	Linear, Squared, User custom V/f
	Overload capacity	150% for 1 minute, 200% for 0.5 second
	Torque boost	Auto & manual(0 ~ 15%) torque boost
Operation	Keypad Display	32 characters LCD keypad / 4 digit, 7 segment LED keypad
	Operation method	Keypad / Terminal / Communication
	Frequency setting	Analog: 0 to 10V / 4 to 20mA / Additional port for Sub-board(0~10V) / Digital: Keypad
	Operation function	DC braking / Frequency limit / Frequency jump / Second function / Second Function / Slip compensation / Reverse rotation prevention / Auto restart / Inverter By-pass / Auto-Tuning / PID control
Input signal	Sart signal	Forward / Reverse
	Multi-step	Up to 8 speeds can be set (Use Multi-function terminal)
	Multi-step Accel/Decel time	0~6,000 sec, Up to 8 types can be set and selected for each setting (Use Multi-function terminal) Accel/Decel curve : Linear, U curve, S curve
	Emergency stop	Interrupts the Output from Inverter
	JOG	JOG operation
	Auto operation	Operates from Internal sequence by setting Multi-function terminal (5 way * 8 Step)
	Fault reset	Trip status is removed when Protection function is active
Output signal	Operating status	Frequency detection level / Overload alarm / Stalling / Over voltage / Low voltage / Inverter overheat / Run / Stop / Constant speed / Inverter By-pass / Speed search / Auto-operation step / Auto-operation sequence
	Fault output	Contact output (30A, 30C, 30B) - AC250V 1A, DC30V 1A
	Indicator	Ouput frequency / Output current / Output voltage(0~10V) / DC voltage / Output torque selectable
Protection	Inverter trip	Over voltage / Low voltage / Over current 1, 2 / Fuse open / Ground fault / Inverter overheat / Electronic thermal / Output phase open / overload / External Fault A, B / Over speed / Communication Error / Frequency command loss / Hardware fault / M/C fail / etc
	Inverter alarm	Stall prevention / Overload / Temperature sensor fault
Enclosure		IP20(0.75~7.5kW[1~10HP]), IP00(11~75kW[15~100HP])
Option	Board, cable, keypad	LCD Keypad, Remote cable(2M/3M/5M), Sub-A board(Extension I/O), Sub-B board(Encoder I/O), Sub-C board(Extension I/O: current input), MMC board
	Communication	RS485(LS Bus), Modbus RTU, DeviceNet, Profibus-DP, Fnet
Others		Built-in Dynamic braking transistor(0.75~7.5kW[1~10HP])



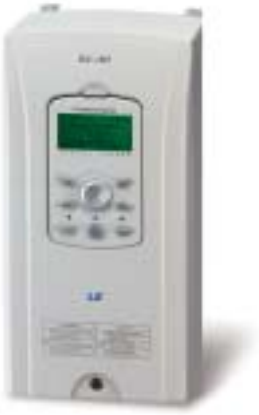
iS7

Variable Frequency Drive / Inverter

High Torque Performance and Precise VFD

3 phase 0.75~22kW(1~30HP), 200~230V
3 phase 0.75~160kW(1~250HP), 380~480V

- Constant torque / Variable torque dual rating
- Selectable V/f, V/f PG, sensorless vector, sensored vector
- 150 MIPS(million instructions per second) high speed DSP
- High performances & functions:
  Droop control (automatic torque balance)
  KEB (Kinetic Energy Buffering) protection
  Ride Through (LV Trip Delay) protection
  Under Load Trip protection
  PMSM sensorless vector function
  Power brake & Flux Brake function
  Static motor parameter Auto-tuning*
- Easy to control: Easy Start Mode, User & Macro group, Multi Function Key
- 2nd motor sensorless control and parameter setting
- Available IP54 enclosure(0.75~22kW[1~30HP]) as built-in option
- Built-in RS485(LS Bus / Modbus RTU) communication
- Built-in Dynamic braking transistor (0.75~22kW[1~30HP])
- Available EMC Filter & DC Reactor as built-in option
  EMC Filter(0.75~22kW[1~30HP]) / DC Reactor(0.75~160kW[1~215HP])
- Wide graphic LCD keypad (6 different languages)
- PLC board (optional):
  Master-K platform: 14 max. inputs & 7 max. outputs
- Extension I/O boards (Optional):
  11 max. inputs & 6 max outputs
- Communication boards (Optional):
  Profibus-DP, DeviceNet, Modbus TCP, Rnet, LonWorks, CANopen
- Monitoring & commissioning PC based software tool (Drive View)



Model Number

SV 0008 iS7 - 2 N O F D

LS inverter brand

Motor rating
0008: 0.75kW ~ 1600: 160kW

Series name
iS7

Symbol	Input rating
2	Three-phase, 200 ~ 230V
4	Three-phase, 380 ~ 480V

Symbol	Loader
S	Loader
N	Graphic Loader

Symbol	UL Certification
O	Open type
E	Enclosed Type 1 (NEMA1)
P	NEMA 12

Symbol	Filter
None	Not available
F	EMC filter

Symbol	DCR
None	Not available
D	DC Reactor

General specification

Model number: SV □ □ □ iS7-2 □			008	015	022	037	055	075	110	150	185	220
Motor rating		[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
Output rating	Capacity	[kVA]	1.9	3	4.5	6.1	9.1	12.2	17.5	22.9	28.5	33.5
	Current (CT)	[A]	5	8	12	16	24	32	46	60	74	88
	Current (VT)	[A]	8	12	16	24	32	46	60	74	88	124
	Voltage	[V]	Three-phase 200 ~ 230V									
	Frequency	[Hz]	0.01 ~ 400Hz (Sensorless-1 control: 0.01~300Hz, Sensorless-2 or Sensored control: 0.01~120Hz)									
Input rating	Voltage	[V]	Three-phase 200 ~ 230V (-15% ~ +10%)									
	Frequency	[Hz]	50 ~ 60Hz (±5%)									
	Current (CT)	[A]	8.3	12.9	18.6	24	32.9	41.4	58	69	88	96
	Current (VT)	[A]	7	10.6	14.8	21.8	28	42	52	60	75	107

Model number: SV □ □ □ iS7-4 □			008	015	022	037	055	075	110	150	185	220	300	370	450	550	750	900	1100	1320	1600
Motor rating		[HP]	1	2	3	5	7.5	10	15	20	25	30	40	50	60	75	100	120	150	180	225
		[kW]	0.75	1.5	2.2	3.7	5.5	7.5	11	15	18.5	22	30	37	45	55	75	90	110	132	160
Output rating	Capacity	[kVA]	1.9	3	4.5	6.1	9.1	12.2	17.5	22.9	29.7	34.3	46	57	69	84	116	139	170	201	248
	Current (CT)	[A]	2.5	4	6	8	12	16	24	30	39	45	61	75	91	110	152	183	223	264	325
	Current (VT)	[A]	4	6	8	12	16	24	30	39	45	61	75	91	110	152	183	223	264	325	370
	Voltage	[V]	Three-phase 380 ~ 480V																		
	Frequency	[Hz]	0.01 ~ 400Hz (Sensorless-1 control: 0.01~300Hz, Sensorless-2 or Sensored control: 0.01~120Hz)																		
Input rating	Voltage	[V]	Three-phase 380 ~ 480V (-15% ~ +10%)																		
	Frequency	[Hz]	50 ~ 60Hz (±5%)																		
	Current (CT)	[A]	4.3	7.2	10.6	15.4	21	25.8	39	44	57	57	57	69	83	113	154	195	239	286	362
	Current (VT)	[A]	3.5	5.3	7.3	10.8	13.8	22.5	26	33	40	52.2	90	109	123	162	195	237	282	350	403

Control Spec	Control method	V/f, V/f PG, Slip compensation, Sensorless-1 vector, Sensorless-2 vector, Sensored vector
	Speed reference resolution	Digital command: 0.01Hz / Analog reference: 0.06Hz (Max freq., 60Hz)
	Frequency accuracy	Digital command: 0.01% of Max output freq. / Analog signal command of 0.1% of Max output freq.
	V/f curve	Linear, Squared, User custom V/f
	Overload capacity	CT(Heavy duty): 150% for 1 minute, VT(Normal duty): 110% for 1 minute
	Torque boost	Auto & Manual torque boost
Operation	Keypad Display	Wide graphic LCD keypad (available 6 languages*)
	Operation method	Keypad / Terminal / Communication
	Frequency setting	Analog: 0 to 10V / -10 to 10V/ 0 to 20mA / Digital: Keypad
	Operation function	PID control / Up-Down operation / 3-Wire operation / DC braking / Frequency limit / Second function / Slip compensation / Reverse rotation prevention / Auto restart / Inverter By-pass / Auto-tuning / Flying star / Energy buffering / Power braking / Flux braking / Low leakage / MMC / Easy start
Input signal	Multi-function terminal (P1 ~ P8)	PNP / NPN selectable 8 points (programmable)
Output signal	Multi-function relay Multi-function open collector	Fault output & inverter status output (N.O., N.C.) Less than AC250V, 1A / Less than DC 30V 1A DC24V (less than 50mA)
	Analog output	0 to 10Vdc (less than 10mA): frequency / current / voltage / DC voltage selectable
Protection	Inverter trip	Over current / Over voltage / Low current / External trip / Ground fault / Inverter overheat / I/O phase open / Overload / Communication error / Frequency command loss / Hardware fault / Fan fault / Pre-PID fault / No motor trip / External brake trip / etc.
	Inverter alarm	Stall prevention / Overload / Light load / Encoder connection error / Keypad command loss / Speed command loss
Enclosure		IP21(0.75~75kW[1~100HP]), IP20(90~160kW[125~215HP]), IP54(0.75~22kW[1~30HP])*, UL Type 1(Optional)*
Option	Board, Cable, Keypad	Graphic LCD keypad(IP21), Extension I/O, Isolation I/O, Encoder board, PLC board, Remote cable(2M/3M)
	Communication	Profibus-DP, DeviceNet, Modbus TCP, Rnet, LonWorks, CANopen, EtherNet/IP*
Others		Built-in Dynamic braking transistor (0.75~22kW[1~30HP]), Built-in RS485(LS Bus / Modbus RTU)

*Available soon

iH

Variable Frequency Drive / Inverter

Robust dual rated high power VFD

3 phase 30~55kW(40~75HP), 200~230V
3 phase 30~220kW(40~300HP), 380~480V

- Space Vector PWM technology
- Constant torque / Variable torque dual rating
- Low noise level (high performance DSP & IGBT)
- Precise torque calculation through current control (high torque performance)
- 4 ~ 20mA Analog output
- 2 line 32 characters LCD display as standard
- Built-in Process PI control
- 150% starting torque
- 2 ~ 10kHz carrier frequency
- Slip compensation
- Recovery from momentary power failure (Flying start)
- Monitoring & commissioning PC based software tool (Drive View)

Model Number

SV 037 iH - 4 U , 380V

LS inverter brand

Motor rating
030:30kW ~ 220: 220kW

Series name
iH

Symbol	Input rating
2	Three-phase, 200 ~ 230V
4	Three-phase, 380 ~ 480V

Symbol	UL Certification
U	UL 508C

Symbol	Rated voltage
****	220V, 380V, 440V, 460V

General specification

Model number: SV □ □ □ iH-□ □			030-2U	037-2U	045-2U	055-2U	030-4U	037-4U	045-4U	055-4U	075-4U	090-4U	110-4U	132-4U	160-4U	220-4U
Motor rating	Constant Torque	[HP]	40	50	60	75	40	50	60	75	100	125	150	175	215	300
	Constant Torque	[kW]	30	37	45	55	30	37	45	55	75	90	110	132	160	220
	Variable Torque	[HP]					50	60	75	100	125	150	175	215	250	350
	Variable Torque	[kW]					37	45	55	75	90	110	132	160	185	280
Output ratings	Constant Torque FLA	[A]	122	146	180	220	61	75	91	110	152	183	223	264	325	432
(380V based)	Constant Torque	[kVA]	46	55	68	83	40	50	60	70	100	120	145	170	200	280
	Variable Torque FLA	[A]					80	96	115	125	160	228	264	330	361	477
	Variable Torque	[kVA]					52	62	74	80	103	147	170	213	233	307
	Voltage	[V]	Three-phase, 200 ~ 230V				Three-phase, 380 ~ 460V									
	Frequency	[Hz]	0.5 ~ 400Hz				0.5 ~ 400Hz									
Input ratings	Voltage	[V]	Three-phase, 200 ~ 230V (±10%)				Three-phase, 380 ~ 460V (±10%)									
	Frequency	[Hz]	50 ~ 60Hz (±5%)				50 ~ 60Hz (±5%)									
Weight		[kg]	42	42	56	56	45	45	63	63	68	98	98	122	122	175

Control method		V/f (Space Vector PWM)
Speed reference resolution		Digital command: 0.01Hz (below 99Hz) & 0.1Hz (100Hz and over) / Analog command: 0.03Hz at 60Hz
Frequency accuracy		Digital: 0.01% of Maximum output frequency / Analog: 0.1 % of Maximum output frequency
V/f curve		Linear / Squared, User custom V/f
Overload capacity	Constant Torque	150% for 1 minute, 200% for 0.5 second
	Variable Torque	110% for 1 minute, 150% for 0.5 second
Torque boost		Auto & Manual(0 ~ 20%) torque boost
Multi-function input termanl		6 points (programmable)
Multi-function output		5 points (Programmable) : 2 form A contact (N.O.) / Fault contact output (A,B,C)-AC 250V 1A, DC 30V 1A / 3 Open collect Output: 24V 25mA
Analog output		4 ~ 20mA

Input signal	Operation method	Keypad / Terminal / Communication
	Frequency setting	Analog: 0 ~ 10V, 4 ~ 20mA / Digital : Keypad
	Start signal	Forward / Reverse
	Multi-step operation	Up to 8 speeds can be set (Use Multi-function terminal)
	Multi-step Accel/Decel time	0.1~6,000 sec, Up to 8 types can be set and selected for each setting (Use Multi-function terminal)
	Operation function	DC braking / Frequency limit / Frequency jump / Slip compensation / PI control / Stall prevention
	Emergency stop	Interrupts the Output from Inverter
	JOG	JOG operation
	Fault reset	Trip status is removed when Protection function is active

Output signal	Operating status	Frequency detection level / Overload alarm / Stalling / Over voltage / Low voltage / Inverter overheat/ Run / Stop / Constant speed / Speed search
	Indicator	RPM, Output frequency / Output current / Output voltage(Voltage: 0~10V, Pulse : 500Hz)

Protection	Inverter trip	Over voltage / Low voltage / Over current / Inverter overheating / Fuse open / Ground fault / Overload / M/C fail / etc.
	Inverter alarm	Stall prevention / Overload
Enclosure		IP00
Option		RS485(LS Bus), Remote cable(2M/3M/4M)



iP5A

Variable Frequency Drive / Inverter

Fan & Pump specialized VFD

3 phase 5.5~30kW(7.5~40HP), 200~230V
3 phase 5.5~450kW(7.5~600HP), 380~480V

- Specialized functions for Fan & Pump:
  Advanced PID control (Pre-PID, Dual PID)
  Multi Motor Control function
  (Up to 4 motors: 5.5 ~ 90kW[7.5~125HP])
- Energy saving & High efficiency:
  Sleep & Wake-up function
  Flying Starting function
  Automatic energy saving function
  Flux Braking Algorithm
- Improved protection functions:
  Pre-heater function
  Low Leakage PWM
  Safety stop function
  Automatic carrier frequency change
- Selectable V/f, Sensorless vector control
- Long-life condenser & Simple framework
- Easy Start function
- Selectable PNP/NPN input signal
- Plug-in type control terminals
- Cooling fan On/Off control
- Built-in RS485(LS Bus) communication
- Communication boards (Optional):
  Modbus RTU, DeviceNet, Profibus-DP, LonWorks,
  BACnet, Modbus TCP*
- Monitoring & commissioning PC based software tool (Drive View)

Model Number

SV 055 iP5A - 2 N O L

LS inverter brand	Motor rating	Series name
	055: 5.5kW ~ 4500: 450kW	iP5A

Symbol	Input rating
2	Three-phase, 200 ~ 230V
4	Three-phase, 380 ~ 480V

Symbol	Loader
None	Loader
N	Non Loader

Symbol	UL Certification
O	Open type
E	Enclosed Type 1

Symbol	DCR
None	Not available
L	DC Reactor

General specification

Model number: SV □ □ □ iP5A-2 □			055	075	110	150	185	220	300
Motor rating (Fan/Pump)		[HP]	7.5	10	15	20	25	30	40
		[kW]	5.5	7.5	11	15	18.5	22	30
	Current (110% overload)	[A]	24	32	46	60	74	88	115
			Normal duty: 110% for 1 minute						
Motor rating (General load)		[HP]	5	7.5	10	15	20	25	30
		[kW]	3.7	5.5	7.5	11	15	18.5	22
	Current (150% overload)	[A]	17	23	33	44	54	68	84
			Heavy duty: 150% for 1 minute						
Output rating		[kVA]	9.1	12.2	17.5	22.9	28.2	33.5	43.8
	Voltage	[V]	Three-phase 200 ~ 230V						
	Frequency	[Hz]	0.01 ~ 120Hz						
Input rating	Voltage	[V]	Three-phase 200 ~ 230V (-15% ~ +10%)						
	Frequency	[Hz]	50 ~ 60Hz (±5%)						
Weight	Non DCR type	[kg]	4.9	6	6	13	13.5	20	20

Model number: SV □ □ □ iP5A-4 □			055	075	110	150	185	220	300	370	450	550	750	900	1100	1320	1600	2200	2800	3150	3750	4500
Motor rating (Fan/Pump)		[HP]	7.5	10	15	20	25	30	40	50	60	75	100	125	150	175	215	300	350	400	500	600
		[kW]	5.5	7.5	11	15	18.5	22	30	37	45	55	75	90	110	132	160	220	280	315	375	450
	Current (110% overload)	[A]	12	16	24	30	39	45	61	75	91	110	152	183	223	264	325	432	547	613	731	877
			Normal duty: 110% for 1 minute																			
Motor rating (General load)		[HP]	5	7.5	10	15	20	25	30	40	50	60	75	100	125	150	175	215	300	350	400	500
		[kW]	3.7	5.5	7.5	11	15	18.5	22	30	37	45	55	75	90	110	132	160	220	280	315	375
	Current (Non DCR / DCR) (150% overload)	[A]	8.8	12	16	22/24	28/30	34/39	44/45	61	75	91	110	152	183	223	264	325	432	547	613	731
			Heavy duty: 150% for 1 minute																			
Output rating		[kVA]	9.6	12.7	19.1	23.9	31.1	35.9	48.6	59.8	72.5	87.6	121.1	145.8	178	210	259	344	436	488	582	699
	Voltage	[V]	Three-phase 380 ~ 480V																			
	Frequency	[Hz]	0.01 ~ 120Hz																			
Input rating	Voltage	[V]	Three-phase 380 ~ 480V (-15% ~ +10%)																			
	Frequency	[Hz]	50 ~ 60Hz (±5%)																			
Weight	Non DCR type	[kg]	4.9	6	6	12.5	13	20	20	27	27	29	42	43						243	280	380
	Built-in DCR type	[kg]				19.5	19.5	26.5	26.5	39	40	42	67	68	101	101	114	200	200			

Control Spec	Control method	V/f, Slip compensation, Sensorless vector
	Speed reference resolution	Digital command: 0.01Hz (below 100Hz), 0.1Hz(over 100Hz) / Analog reference: 0.1Hz/60Hz
	Frequency accuracy	Digital command: 0.01% of Max output freq. / Analog signal command of 0.1% of Max output freq.
	V/f curve	Linear, Squared, User custom V/f
	Overload capacity	110% for 1 minute, 120% for 1 minute(based on ambient 25°C)
	Torque boost	Auto & Manual(0 ~ 15%) torque boost
Operation	Keypad Display	32 characters LCD keypad
	Operation method	Keypad / Terminal / Communication
	Frequency setting	Analog: 0 ~ 12V / -12V ~ 12V / 4 ~ 20mA or 0 ~ 20mA / Pulse / Ext - PID / Digital: Keypad
	Operation function	DC braking / Frequency limit / Frequency jump / Second function / Slip compensation / Reverse rotation prevention / Auto restart / Inverter By-pass / Auto-tuning / PID control / Flying star / Safety stop / Flux braking / Low leakage / Pre-PID / Dual-PID / MMC / Easy start / Pre-heater
Input signal	Sart signal	Forward / Reverse
	Multi-step	Up to 8 speeds can be set including JOG (Use Programmable Digital Input terminal)
	Multi-step Accel/Decel time	0.1~6,000 sec, Up to 4 types can be set (Use Multi-function terminal) Accel/Decel curve : Linear, U curve, S curve
	Emergency stop	Interrupts the Output from Inverter
	JOG	JOG operation
	Fault reset	Trip status is removed when Protection function is active
Output signal	Operating status	Frequency detection level / Overload alarm / Stalling / Over voltage / Low voltage / Inverter overheating / Run / Stop / Constant speed / Inverter By-pass / Speed search
	Fault output	Contact output (3A, 3C, 3B) - AC250V 1A, DC30V 1A
	Indicator	Ouput frequency / Output current / Output voltage / DC Link voltage(Output valtage:0~10V)
Protection	Inverter trip	Over voltage / Low voltage / Over current 1, 2 / Ground fault / Inverter overheating / Electronic thermal / Output phase open / overload / External Fault A, B / Communication Error / Frequency command loss / Hardware fault / Option fault / etc
	Inverter alarm	Stall prevention / Overload / Temperature sensor fault
Enclosure		IP20/UL type 1(5.5~11kW[7.5~15HP]), IP00/UL open type(15~450kW[20~600HP])
Option	Board, cable, keypad	LCD Keypad, Remote cable(2M/3M/5M), Sub-E board(Current output)
	Communication	Built-in RS485(LS Bus / Modbus RTU), DeviceNet, Profibus-DP, LonWorks, BACnet, Modbus TCP*

*Available soon

iV5

Variable Frequency Drive / Inverter

High duty full flux vector control VFD

3 phase 2.2~37kW(3~50HP), 200~230V

3 phase 2.2~375kW(3~500HP), 380~480V

- Ultimate performance solution for System Drive
- Advanced Speed & Torque control
  (200% instantaneous torque: Max. 250%)
- Precious Speed & Position synchronization operation
- Static motor parameter Auto-tuning
- Draw / Droop / Process PID control
- Highly precious control through optional Sincos Encoder
- Synchronous motor sensorless control
  (SPM & IPM motors)
- Specialized functions for various applications
  Load balance function
  Diameter calculation / Taper function
  Splicing / Inertia compensation function
  Quick stop function
- Built-in Dynamic braking transistor (2.2~22kW[3~30HP])
- User-friendly LCD keypad (Detachable)
- Plug-in type control terminals
- Extension I/O boards (Optional):
  EL I/O (for Elevator application)
  Encoder division (open collector)
  Synchronization option (Speed/Position control)
  Sincos encorder
- Communication boards (Optional)
  RS485(LS Bus / Modbus RTU)
  Profibus-DP
  DeviceNet
- Monitoring & commissioning PC based software tool
  (Drive View)

Model Number

SV | 022 | iV5 | - | 2 | DB | (MD) | , | 380V

LS inverter brand

Motor rating
022: 2.2kW ~ 3750: 370kW

Series name
iV5

Symbol	Input rating
2	Three-phase, 200 ~ 230V
4	Three-phase, 380 ~ 480V

Symbol	Dynamic Brake
None	Not available
DB	Dynamic Braking

Symbol	Cover type
None	Metallic cover
(MD)	Mold cover*

Symbol	Rated voltage
None	200~230V or 380~480V
****	380V, 460V, 480V*

General specification

Model number: SV □ □ □ iV5-2 □			022	037	055	075	110	150	185	220	300	370
Motor rating		[HP]	3	5	7.5	10	15	20	25	30	40	50
		[kW]	2.2	3.7	5.5	7.5	11	15	18.5	22	30	37
Output rating	Capacity	[kVA]	4.5	6.1	9.1	12.2	17.5	22.5	28.2	33.1	46	55
	Current	[A]	12	16	24	32	46	59	74	88	122	146
	Voltage	[V]	Three-phase 200 ~ 230V									
	RPM		0 ~ 3600 [RPM]									
Input rating	Voltage	[V]	Three-phase 200 ~ 230V (+10%, -10%)									
	Frequency	[Hz]	50 ~ 60Hz (±5%)									
Weight	Mold cover type	[kg]	6	6	7.7	7.7	13.7	13.7	20.3	20.3		
	Metallic cover type	[kg]			14	14	28	28	28	28	42	42

Model number: SV □ □ □ iV5-4 □			022	037	055	075	110	150	185	220	300	370	450	550	750	900	1100	1320	1600	2200	2800	3150	3750
Motor rating		[HP]	3	5	7.5	10	15	20	25	30	40	50	60	75	100	120	150	175	215	300	373	420	500
		[kW]	2.2	3.7	5.5	7.5	11	15	18.5	22	30	37	45	55	75	90	110	132	160	220	280	315	375
Output rating	Capacity	[kVA]	4.5	6.1	9.1	12.2	18.3	22.9	29.7	34.3	46	57	70	85	116	140	170	200	250	329	416	468	557
	Current	[A]	6	8	12	16	24	30	39	45	61	75	91	110	152	183	223	264	325	432	546	614	731
	Voltage	[V]	Three-phase 380 ~ 480V																				
	RPM		0 ~ 3600 [RPM]																				
Input rating	Voltage	[V]	Three-phase 380 ~ 480V (+10%, -10%)																				
	Frequency	[Hz]	50 ~ 60Hz (±5%)																				
Weight	Mold cover type	[kg]	6	6	7.7	7.7	13.7	13.7	20.3	20.3													
	Metallic cover type	[kg]			14	14	28	28	28	28	42	42	63	63	68	98	98	112	112	175	243	380	380

Control Spec	Control method	Sensored Vector (speed sensor)
	Speed reference resolution	Digital command: 0.1rpm / Analog reference: ±0.0005% of Max output freq.
	Speed accurancy	Digital command: ±0.01(0~40°C) of Max output freq. / Analog signal reference: ±0.02(25±10°C) of Max output freq.
	Cut-off frequency of ASR	50Hz
	Torque control accuracy	3%
	Accel/Decel time	0.00~6000.0 sec
	Accel/Decel combination	4 combinations of Accel/Decel time
	Aceel/Decel curve	Linear / S curve
	Frequency setting	Analog: -10 to 10V / 4 to 20mA / Digital: Keypad
Input signal	Analog input	3 channels (AI1, AI2, AI3): Extention I/O 2 channels (AI4, AI5) -10 to 10V / 0 to 10V / 10 to 0V / 4 to 20mA / 20 to 4mA / (AI3, AI5[Extention I/O]: Motor NTC/PTC selectable) Selectable among 15 diferent Multi-function analog inputs AI3, AI5: NTC is avaliable only with LG-OTIS motors (both of NTC and PTC are available in case of SV2800iV5~SV3750iV5)
	Contact input	FX, RX, BX, RST, P1~P7 Selectable among 40 diferent Multi-function analog inputs
Output signal	Aanalog output	2 channels (AO1, AO2) -10 to 10V / 10 to -10V / 0 to 10V / 10 to 0V Selectable among 40 diferent Multi-function analog outputs
	Contact output	Multi-function contact output: 2 channels (1A-1B, 2A-2B) Fault contact output: 1 channel (30A-30C, 30B-30C)
	Open collector	1 channel (OC1/EG)
Protection		Over voltage / Over current / Low voltage / Inverter overheat / Inverter thermal malfunction / Motor overheat / Motor thermal malfunction / Overspeed / BX(Instantaneous IGBT gate block) / Fuse open / External fault / Encoder error / Electronic thermal / Overload / IGBT short / Communication error / etc.
Enclosure		IP00 (2.2~22kW[3~30HP]: Mold cover* / 30~374kW[40~500HP]: Metallic cover), IP20 (2.2~22kW[3~30HP]: Metallic cover)
Option	Board	EL I/O(for Elevator application), Encorder division(open collector), Synchronization option(Speed/Position control), Sincos encorder
	Communication	RS485(LS Bus / Modbus RTU), Profibus-DP, DeviceNet

*Available soon



Comparison

Variable Frequency Drive / Inverter

Model Series		iE5		iC5	iG5A			iS5	
Input Phase		Single-phase	Three-phase	Single-phase	Single-phase	Three-phase		Three-phase	
Voltage Range		200~230V		200~230V	200~230V		380~480V	200~230V	380~480V
Motor rating		0.1~0.4kW	0.1~0.4kW	0.4~2.2V	0.4~1.5kW	0.4~22kW	0.4~22kW	0.75~55kW	0.75~75kW
		0.13~0.5HP	0.13~0.5HP	0.5~3HP	0.5~2HP	0.5~30HP	0.5~30HP	1~75HP	1~100HP
Constant Torque		Standard		Standard	Standard			Standard	
Variable Torque									
Control method	V/f	Standard		Standard	Standard			Standard	
	Sensorless Vector			Standard	Standard			Standard	
	Sensored Vector							Option	
Enclosure	IP00							Standard	Standard
								11~22kW	11~75kW
								15~30HP	15~100HP
	IP20	Standard		Standard	Standard			Standard	
		0.1~0.4kW		0.4~2.2kW	0.4~22kW			0.75~7.5kW	
		0.13~0.5HP		0.5~3HP	0.5~30HP			1~10HP	
	IP21								
	IP54								
	UL Type 1				Option				
					0.4~22kW				
					0.5~30HP				
Keypad	Type	Fixed type		Fixed type	Fixed type			Detachable type	
	Built-in	0.1~0.4kW		0.4~2.2kW	0.4~22kW			30~55kW	30~75kW
		0.13~0.5HP		0.5~3HP	0.5~30HP			40~75HP	40~100HP
	Option							0.75~22kW	
								1~30HP	
Remote cable	2 meters				Option			Option	
	3 meters				Option			Option	
	5 meters				Option			Option	
Braking transistor					Standard			Standard	
					0.4~22kW			0.75~7.5kW	
					0.5~30HP			1~10HP	
EMC Filter				Built-in Option					
				0.4~2.2kW					
				0.5~3HP					
DC Reactor									
RS485(LS Bus)		Standard			Standard			Option	
Modbus RTU		Standard		Option	Standard			Option	
Modbus TCP									
DeviceNet								Option	
Profibus-DP								Option	
Fnet(LS PLC link)								Option	
Rnet									
LonWorks									
CANopen									
BACnet									
EtherNet/IP									
CC-Link									
MMC(Mulit Motor Control)								Option	
Encoder								Option	
Sincos encoder									
PLC									
Extension I/O								Option	
Elevator I/O									
Synchronization I/O									

Model Series		iS7		iH		iP5A		iV5	
Input Phase		Three-phase		Three-phase		Three-phase		Three-phase	
Voltage Range		200~230V	380~480V	200~230V	380~480V	200~230V	380~480V	200~230V	380~480V
Motor rating		0.75~22kW	0.75~160kW	30~55kW	30~220kW	5.5~30kW	5.5~450kW	2.2~37kW	2.2~375kW
		1~30HP	1~215HP	40~75HP	40~300HP	7.5~40HP	7.5~600HP	3~50HP	3~500HP
Constant Torque		Standard		Standard				Standard	
Variable Torque		Standard		Standard		Standard			
Control method	V/f	Standard		Standard		Standard			
	Sensorless Vector	Standard				Standard			
	Sensored Vector	Option						Standard	
Enclosure	IP00					Standard	Standard	Standard	Standard
						15~30kW	15~450kW	2.2~22kW	2.2~375kW
						20~40HP	20~600HP	3~30HP	3~500HP
	IP20		Standard	Standard	Standard	Standard		Standard	
			90~160kW	30~55kW	30~220kW	5.5~11kW		5.5~22kW	
			125~215HP	40~75HP	40~300HP	7.5~15HP		7.5~30HP	
	IP21	Standard	Standard						
		0.75~22kW	0.75~75kW						
		1~30HP	1~100HP						
	IP54	Built-in Option							
		0.75~22kW							
		1~30HP							
	UL Type 1	Option				Standard	Standard		
		0.75~75kW				5.5~11kW	5.5~11kW		
		1~100HP				7.5~15HP	7.5~15HP		
Keypad	Type	Detachable type		Detachable type		Detachable type		Detachable type	
	Built-in	90~160kW		30~220kW		37~450kW		2.2~370kW	
		125~215HP		40~300HP		50~600HP		3~500HP	
	Option	0.75~75kW				5.5~30kW			
		1~100HP				7.5~40HP			
Remote cable	2 meters	Option		Option		Option			
	3 meters	Option		Option		Option			
	5 meters			Option		Option			
Braking transistor		Standard						Standard	
		0.75~22kW						2.2~22kW	
		1~30HP						3~30HP	
EMC Filter		Built-in Option							
		0.75~22kW							
		1~30HP							
DC Reactor		Built-in Option	Built-in Option				Built-in Option		
		0.75~22kW	0.75~160kW				15~280kW		
		1~30HP	1~215HP				20~350HP		
RS485(LS Bus)		Standard		Option		Standard / Option		Option	
Modbus RTU		Standard				Option		Option	
Modbus TCP		Option				Option*			
DeviceNet		Option				Option		Option	
Profibus-DP		Option				Option		Option	
Fnet(LS PLC link)									
Rnet		Option							
LonWorks		Option				Option			
CANopen		Option							
BACnet						Option			
EtherNet/IP		Option*							
CC-Link		Option*							
MMC(Mulit Motor Control)		Standard				Standard			
Encoder		Option						Standard	
Sincos encoder								Option	
PLC		Option							
Extension I/O		Option							
Elevator I/O								Option	
Synchronization I/O								Option	

* Available soon



Option list

Variable Frequency Drive / Inverter

Series	Option	Description
iC5	SV-iC5 Modbus RTU	iC5 Modbus communication card
	SV-iC5 Copy Unit	iC5 Copy Unit
iG5A	SV-iG5A REMOTE CABLE 2M	2 meter connection cable between inverter and keypad plus fixture
	SV-iG5A REMOTE CABLE 3M	3 meter connection cable between inverter and keypad plus fixture
	SV-iG5A REMOTE CABLE 5M	5 meter connection cable between inverter and keypad plus fixture
	NEMA OPTION 1 (SV004/008iG5A-2/4)	Conduit Kit for NEMA 1 (iG5A 0.4~0.75kW)
	NEMA OPTION 2 (SV015iG5A-2/4)	Conduit Kit for NEMA 1 (iG5A 1.5kW)
	NEMA OPTION 3 (SV022~040iG5A-2/4)	Conduit Kit for NEMA 1 (iG5A 2.2~4kW)
	NEMA OPTION 4 (SV055/075iG5A-2/4)	Conduit Kit for NEMA 1 (iG5A 5.5~7.5kW)
	NEMA OPTION 5 (SV110/150iG5A-2/4)	Conduit Kit for NEMA 1 (iG5A 11~15kW)
	NEMA OPTION 6 (SV185/220iG5A-2/4)	Conduit Kit for NEMA 1 (iG5A 18.5~22kW)
iS5	SV-iS5 LCD KEYPAD	LCD display keypad for iS5
	SV-iS5/iP5A REMOTE CABLE(2M)	2 meter connection cable between inverter and keypad
	SV-iS5/iP5A REMOTE CABLE(3M)	3 meter connection cable between inverter and keypad
	SV-iS5/iP5A REMOTE CABLE(5M)	5 meter connection cable between inverter and keypad
	SV-iS5 SUB BOARD A	Extension I/O module, 3 multi-functional inputs and 3 outputs
	SV-iS5 SUB BOARD B	Encoder pulse input and output module
	SV-iS5 SUB BOARD C	Extension I/O module, 3 inputs, 1 output and 2 analog meter outputs
	SV-iS5/iP5A SUB BOARD E	Current output board (Only available in case that the dedicated O/S is installed)
	SV-iS5 MMC	Multi Motor Control board
	SV-iS5/iH RS485	RS485(LS Bus) communication board
	SV-iS5 MODBUS	Modbus RTU communication board
	SV-iS5/iP5A/iV5 DEVICENET	DeviceNet communication board
	SV-iS5 F-NET	LS PLC link board
	SV-iS5/iP5A/iV5 PROFIBUS	ProfiBus DP communication board
iS7	SV-iS7 LCD KEYPAD	Graphic LCD display keypad for iS7 (128x64 COG, 11 Rubber Key, 3 LED, IP21)- Multi Languages (English, Italian, Spanish, Russian, Turkish, Arabic) *
	SV-iS7 REMOTE CABLE(2M)*	2 meter connection cable between inverter and keypad
	SV-iS7 REMOTE CABLE(3M)*	3 meter connection cable between inverter and keypad
	SV-iS7 ISOLATION I/O	Insulated I/O module, 8 multi-functional inputs and 2 output
	SV-iS7 EXTENSION I/O	Extension I/O module, 3 multi-functional inputs and 3 output
	SV-iS7 ENCODER	Encoder board for closed loop control
	SV-iS7 PROFIBUS-DP	Profibus-DP communication board
	SV-iS7 PLC	PLC card (MK120S Platform)
	SV-iS7 R-net	Rnet communication board
	SV-iS7 Modbus TCP	100M BASE-TX, 10M BASE-T support
	SV-iS7 DEVICENET	DeviceNet Communication board
	SV-iS7 LONWORKS	LonWork Communication board
	SV-iS7 CANopen	CanOpen communication board
iH	SV-iH LOADER CABLE 2M	2 meter connection cable between inverter and keypad
	SV-iH LOADER CABLE 3M	3 meter connection cable between inverter and keypad
	SV-iH LOADER CABLE 5M	5 meter connection cable between inverter and keypad
	SV-iS5/iH RS485	RS485(LS Bus) communication board
iP5A	SV-iP5A LCD KEYPAD	LCD display keypad for iP5A
	SV-iP5A LonWork Extension	LonWorks communication board
	SV-iP5A BACNet	BACnet communication board
	SV-iP5A/iV5 RS485/Modbus-RTU	RS485(LS Bus / Modbus RTU) communication board
	SV-iS5/iP5A/iV5 DEVICENET	DeviceNet communication board
	SV-iS5/iP5A/iV5 PROFIBUS	Profibus-DP communication board
	SV-iS5/iP5A SUB BOARD E	Current output board
	SV-iS5/iP5A REMOTE CABLE(2M)	2 meter connection cable between inverter and keypad
	SV-iS5/iP5A REMOTE CABLE(3M)	3 meter connection cable between inverter and keypad
	SV-iS5/iP5A REMOTE CABLE(5M)	5 meter connection cable between inverter and keypad
	SV-iP5A MODBUS TCP*	Modbus TCP communication card
iV5	SV-iV5 EL I/O	I/O interface board for Elevator application
	SV-iV5 ENC_DIV(OC)	Encoder division board (Open collector)
	SV-iV5 SYNC I/O	Synchronization operation board (Speed/Positioning control)
	SV-iS5/iP5A/iV5 PROFIBUS	Profibus-DP communication board
	SV-iS5/iP5A/iV5 DEVICENET	DeviceNet communication board
	SV-iP5A/iV5 RS485/Modbus-RTU	RS485(LS Bus / Modbus RTU) communication board
	SV-iV5 Sincos Encoder	Sincos encoder signal input board

* Available soon

Dynamic Braking Unit list

Variable Frequency Drive / Inverter

Model name	Specifications
Dynamic Braking Unit	**: Based on 150% torque for 100 seconds**
SV150DBU-2	Brake unit for 11 to 15kW, 230V / 10%ED
SV220DBU-2	Brake unit for 18.5 to 22kW, 230V / 10%ED
SV037DBH-2(NEW)	Brake unit for 30 to 37kW, 230V / 10%ED
SV150DBU-4	Brake unit for 11 to 15kW, 400V / 10%ED
SV220DBU-4	Brake unit for 18.5 to 22kW, 400V / 10%ED
SV037DBH-4(NEW)	Brake unit for 30 to 37kW, 400V / 10%ED
SV075DBH-4(NEW)	Brake unit for 45 to 75kW, 400V / 10%ED
SV150DBU-2U	Brake unit for 11 to 15kW, 230V / 10%ED (UL, cUL listed)
SV220DBU-2U	Brake unit for 18.5 to 22kW, 230V / 10%ED (UL, cUL listed)
SV370DBU-2U	Brake unit for 30 to 37kW, 230V / 10%ED (UL, cUL listed)
SV550DBU-2U	Brake unit for 45 to 55kW, 230V / 10%ED (UL, cUL listed)
SV150DBU-4U	Brake unit for 11 to 15kW, 400V / 10%ED (UL, cUL listed)
SV220DBU-4U	Brake unit for 18.5 to 22kW, 400V / 10%ED (UL, cUL listed)
SV370DBU-4U	Brake unit for 30 to 37kW, 400V / 10%ED (UL, cUL listed)
SV550DBU-4U	Brake unit for 45 to 55kW, 400V / 10%ED (UL, cUL listed)
SV750DBU-4U	Brake unit for 75kW, 400V / 10%ED (UL, cUL listed)
SV750DB-4*	Brake unit for 45 to 75kW, 400V / 100%ED (CE marked)
SV2200DB-4*	Brake unit for 160 to 220kW, 400V / 100%ED (CE marked)

* Available soon

External resistor list

Variable Frequency Drive / Inverter

Model name	Specifications
External brake resistors	**: Based on 5% ED (Enable duty)**
MCRA 120 W 100 OHM J	120 watt, 100 ohm resistor
MCRA 120 W 50 OHM J	120 watt, 50 ohm resistor
MCRA 120 W 40 OHM J	120 watt, 40 ohm resistor
MCRA 200 W 100 OHM J	200 watt, 100 ohm resistor
MCRA 200 W 160 OHM J	200 watt, 160 ohm resistor
MCRA 200 W 200 OHM J	200 watt, 200 ohm resistor
MCRB 300 W 100 OHM J	300 watt, 100 ohm resistor
MCRB 400 W 200 OHM J	400 watt, 200 ohm resistor
MCRB 400 W 160 OHM J	400 watt, 160 ohm resistor
MCRB 400 W 100 OHM J	400 watt, 100 ohm resistor
MCRB 400 W 50 OHM J	400 watt, 50 ohm resistor
MCRB 400 W 40 OHM J	400 watt, 40 ohm resistor
MCRB-ST 0.6 KW 130 OHM J	600 watt, 130 ohm resistor
MCRB-ST 0.6 KW 33 OHM J	600 watt, 33 ohm resistor
MCRM-ST 0.8 KW 20 OHM J	800 watt, 20 ohm resistor
MCRM-ST 1.0 KW 85 OHM J	1 kW, 85 ohm resistor
MCRM-ST 1.2 KW 60 OHM J	1.2 kW, 60 ohm resistor
MCRM-ST 1.2 KW 15 OHM J	1.2 kW, 15 ohm resistor
MCRM-ST 2.0 KW 40 OHM J	2 kW, 40 ohm resistor
MCRM-ST 2.4 KW 30 OHM J	2.4 kW, 30 ohm resistor
MCRM-ST 2.4 KW 10 OHM J	2.4 kW, 10 ohm resistor
MCRM-ST 2.4 KW 8 OHM J	2.4 kW, 8 ohm resistor
MCRM-ST 3.6 KW 20 OHM J	3.6 kW, 30 ohm resistor
MCRM-ST 3.6 KW 5 OHM J	3.6 kW, 5 ohm resistor

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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 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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