

# Variable Frequency Drive LS Inverter Series

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



Automation Equipment



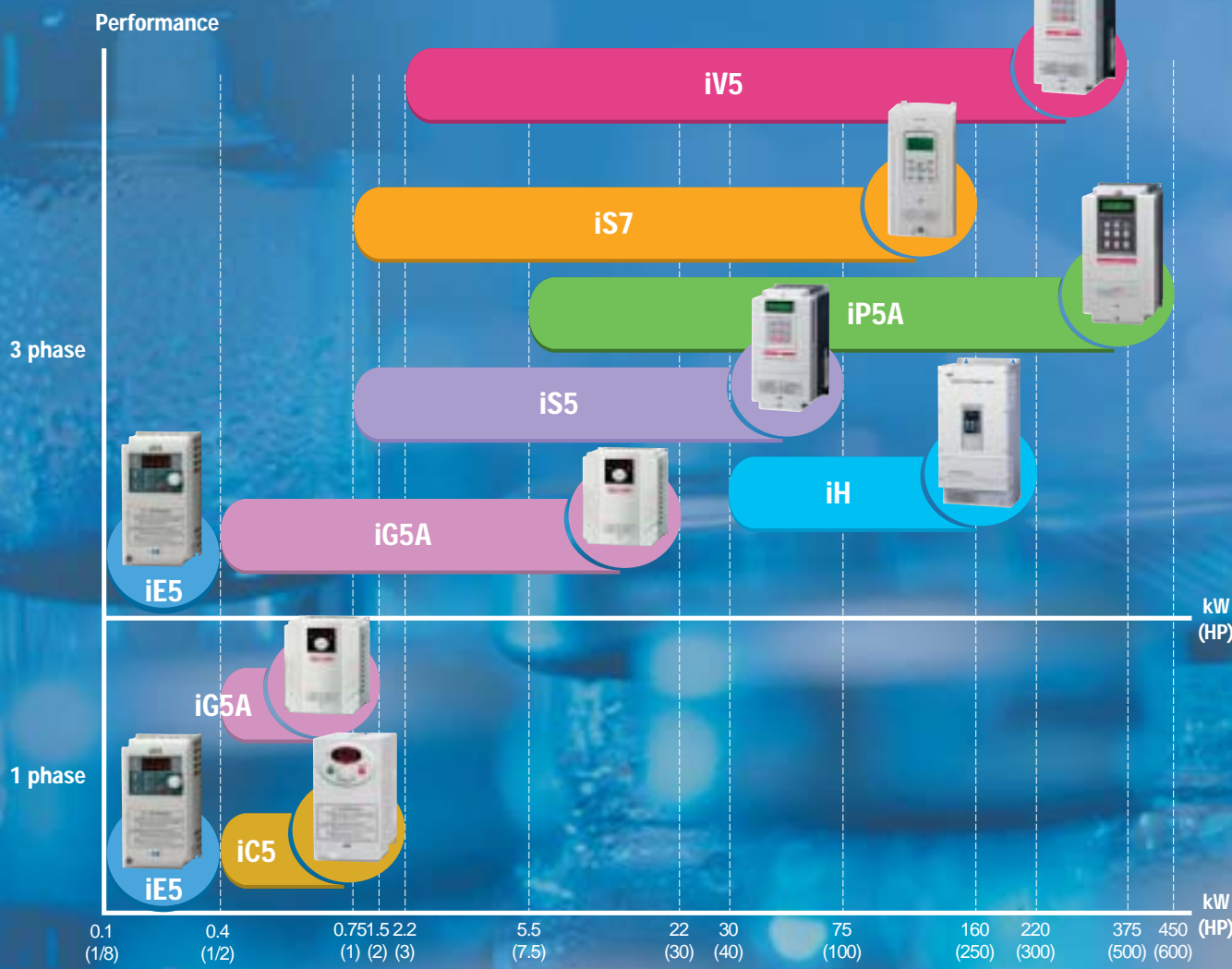


# Take another look!

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.





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# iE5

Variable Frequency Drive / Inverter

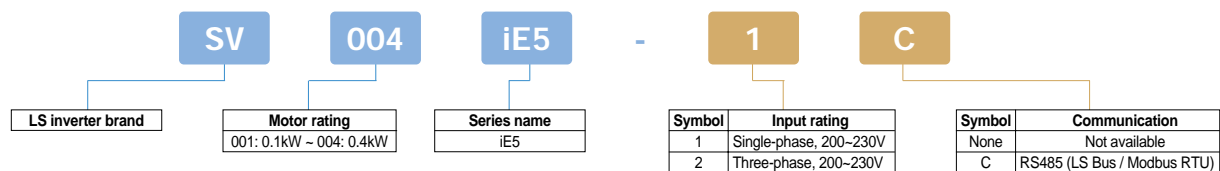
## User friendly micro size slim VFD

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



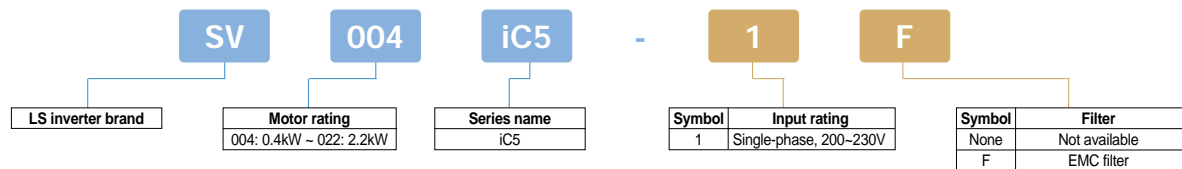
## General specification

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
Input rating	Voltage [V]	Three-phase 200 ~ 230V			Three-phase 200 ~ 230V (± 10%)		
	Frequency [Hz]	0.1 ~ 200Hz			0.1 ~ 200Hz		
	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					
Input signal	Operation function	PI control / Up-Down operation / 3-Wire operation					
	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					
	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					



- 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



## 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	(N.O., N.C.) Less than AC 250V, 0.3A / Less than DC 30V 1A			
	Multi-function open collector	Fault output & inverter status output 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

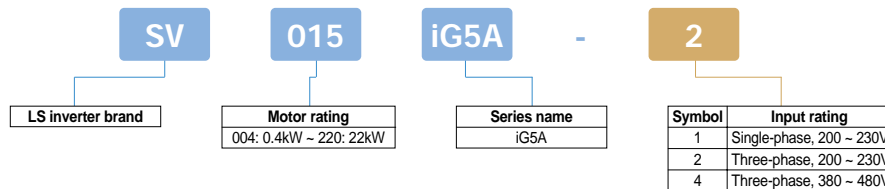
1 phase 0.4~1.5kW(0.5~2HP), 200~230V  
 3 phase 0.4~22kW(0.5~30HP), 200~230V  
 3 phase 0.4~22kW(0.5~30HP), 380~480V

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 algorithm  
 Monitoring & commissioning PC based software tool (Drive View)



## Model Number



## 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
Input rating	Voltage [V]	Three-phase 200 ~ 230V		
	Frequency [Hz]	0.1 ~ 400Hz		
	Voltage [V]	Single-phase 200 ~ 230V (+10%, -15%)		
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
Input rating	Voltage [V]	Three-phase 200 ~ 230V											
	Frequency [Hz]	0.1 ~ 400Hz											
	Voltage [V]	Three-phase 200 ~ 230V (+10%, -15%)											
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
Input rating	Voltage [V]	Three-phase 380 ~ 480V											
	Frequency [Hz]	0.1 ~ 400Hz											
	Voltage [V]	Three-phase 380 ~ 480V (+10%, -15%)											
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 / Inverter 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

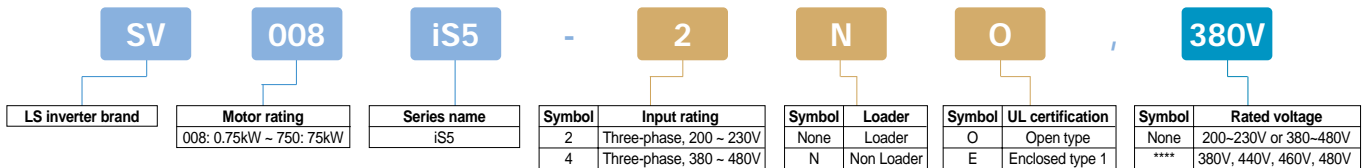
## Precise vector control standard VFD

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



### 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

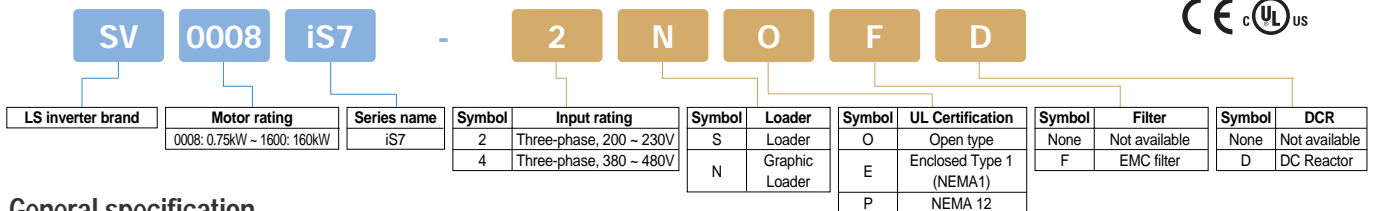
Control Spec	Control method	Sensorless vector, Sensored vector, V/f													
	Speed reference resolution	Digital command: 0.01Hz (less than 100Hz), 0.1Hz (greater than 100Hz) / Analog reference: 0.03Hz (Max freq., 60Hz)													
	Frequency accuracy	Digital command: 0.01% of Max output freq. / 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)													
	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	Output 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])													

Constant torque / Variable torque dual rating  
Selectable V/f, V/f PG, sensorless vector, sensed 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

2<sup>nd</sup> 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



## 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										
Input rating	Frequency [Hz]	0.01 ~ 400Hz (Sensorless-1 control: 0.01~300Hz, Sensorless-2 or Sensored control: 0.01~120Hz)										
	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																				
Input rating	Frequency [Hz]	0.01 ~ 400Hz (Sensorless-1 control: 0.01~300Hz, Sensorless-2 or Sensored control: 0.01~120Hz)																				
	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
Operation	Overload capacity	CT(Heavy duty): 150% for 1 minute, VT(Normal duty): 110% for 1 minute
	Torque boost	Auto & Manual torque boost
	Keypad Display	Wide graphic LCD keypad (available 6 languages*)
Input signal	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
Output signal	Multi-function terminal (P1 ~ P8)	PNP / NPN selectable 8 points (programmable)
	Multi-function relay	Fault output & inverter status output (N.O., N.C.) Less than AC250V, 1A / Less than DC 30V 1A
Protection	Multi-function open collector	DC24V (less than 50mA)
	Analog output	0 to 10Vdc (less than 10mA): frequency / current / voltage / DC voltage selectable
Enclosure	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
Option	Board, Cable, Keypad	IP21(0.75~75kW[1~100HP]), IP20(90~160kW[125~215HP]), IP54(0.75~22kW[1~30HP])* , UL Type 1(Optional)*
Others	Communication	Graphic LCD keypad(IP21), Extension I/O, Isolation I/O, Encoder board, PLC board, Remote cable(2W/3M) Profibus-DP, DeviceNet, Modbus TCP, Rnet, LonWorks, CANopen, EtherNet/IP* Built-in Dynamic braking transistor (0.75~22kW[1~30HP]), Built-in RS485(LS Bus / Modbus RTU)

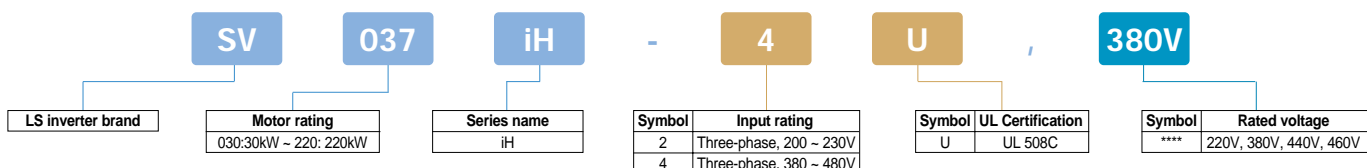
\*Available soon





- 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



## 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 (380V based)	Constant Torque FLA	[A]	122	146	180	220	61	75	91	110	152	183	223	264	325	432
	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
Input ratings	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 terminal			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

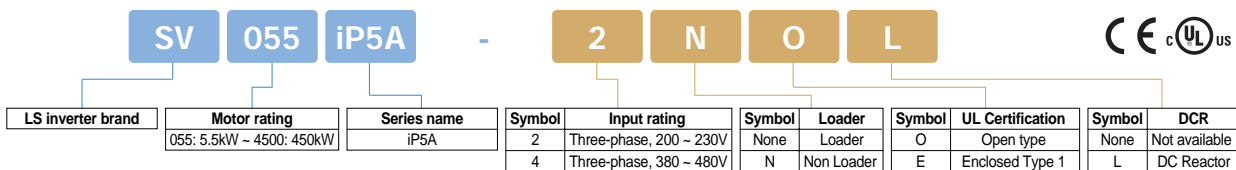
3 phase 5.5~30kW(7.5~40HP), 200~230V  
3 phase 5.5~450kW(7.5~600HP), 380~480V

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



## 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
	[A]	24	32	46	60	74	88	115
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
	[A]	17	23	33	44	54	68	84
Output rating	[kVA]	9.1	12.2	17.5	22.9	28.2	33.5	43.8
	[V]	Three-phase 200 ~ 230V						
	[Hz]	0.01 ~ 120Hz						
Input rating	[V]	Three-phase 200 ~ 230V (-15% ~ +10%)						
	[Hz]	50 ~ 60Hz (±5%)						
	[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	
	[A]	12	16	24	30	39	45	61	75	91	110	152	183	223	264	325	432	547	613	731	877	
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	
	[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	
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	
	[V]	Three-phase 380 ~ 480V																				
	[Hz]	0.01 ~ 120Hz																				
Input rating	[V]	Three-phase 380 ~ 480V (-15% ~ +10%)																				
	[Hz]	50 ~ 60Hz (±5%)																				
	[kg]	4.9	6	6	12.5	13	20	20	27	27	29	42	43							243	280	380

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.
Operation	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
Input signal	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
Output signal	Operating status	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
	Fault output	Forward / Reverse
	Indicator	Up to 8 speeds can be set including JOG (Use Programmable Digital Input terminal)
Protection	Inverter trip	0.1~6,000 sec, Up to 4 types can be set (Use Multi-function terminal)
	Inverter alarm	Accel/Decel curve : Linear, U curve, S curve
		Interrupts the Output from Inverter
Enclosure	Option	JOG operation
		Trip status is removed when Protection function is active
		Frequency detection level / Overload alarm / Stalling / Over voltage / Low voltage / Inverter overheating / Run / Stop / Constant speed / Inverter By-pass / Speed search
Option	Board, cable, keypad	Contact output (3A, 3C, 3B) - AC250V 1A, DC30V 1A
	Communication	Output frequency / Output current / Output voltage / DC Link voltage(Output voltage:0~10V)
		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
		Stall prevention / Overload / Temperature sensor fault
		IP20/UL type 1(5.5~11kW[7.5~15HP]), IP00/UL open type(15~450kW[20~600HP])
		LCD Keypad, Remote cable(2M/3M/5M), Sub-E board(Current output)
		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

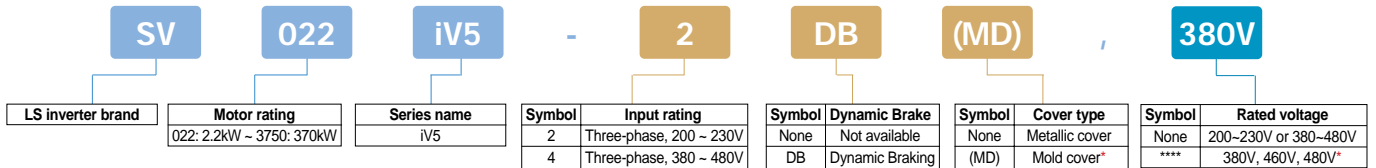
3 phase 2.2~37kW(3~50HP), 200~230V  
3 phase 2.2~375kW(3~500HP), 380~480V



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 encoder  
Communication boards (Optional)  
RS485(LS Bus / Modbus RTU)  
Profibus-DP  
DeviceNet  
Monitoring & commissioning PC based software tool  
(Drive View)

### Model Number



### 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	4.5	6.1	9.1	12.2	17.5	22.5	28.2	33.1	46	55
	Current	12	16	24	32	46	59	74	88	122	146
	Voltage	Three-phase 200 ~ 230V									
	RPM	0 ~ 3600 [RPM]									
Input rating	Voltage	Three-phase 200 ~ 230V (+10%, -10%)									
	Frequency	50 ~ 60Hz (± 5%)									
Weight	Mold cover type	6	6	7.7	7.7	13.7	13.7	20.3	20.3		
	Metallic cover type			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	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	6	8	12	16	24	30	39	45	61	75	91	110	152	183	223	264	325	432	546	614	731
	Voltage	Three-phase 380 ~ 480V																				
	RPM	0 ~ 3600 [RPM]																				
Input rating	Voltage	Three-phase 380 ~ 480V (+10%, -10%)																				
	Frequency	50 ~ 60Hz (± 5%)																				
Weight	Mold cover type	6	6	7.7	7.7	13.7	13.7	20.3	20.3													
	Metallic cover type			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 accuracy	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
	Accel/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); Extension I/O 2 channels (AI4, AI5) -10 to 10V / 0 to 10V / 10 to 0V / 4 to 20mA / 20 to 4mA / (AI3, AI5) Extension I/O: Motor NTC/PTC selectable Selectable among 15 different Multi-function analog inputs
	Contact input	AI3, AI5: NTC is available only with LG-OTIS motors (both of NTC and PTC are available in case of SV2800iV5-SV3750iV5) FX, RX, BX, RST, P1-P7 Selectable among 40 different Multi-function analog inputs
Output signal	Analog output	2 channels (AO1, AO2) -10 to 10V / 10 to -10V / 0 to 10V / 10 to 0V Selectable among 40 different 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), Encoder division (open collector), Synchronization option (Speed/Position control), Sincos encoder
	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		0.75~22kW		
				0.13~0.5HP	0.5~3HP	0.5~30HP		1~30HP		
		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(Multi 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	Standard		5.5~11kW	
			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			30~220kW		5.5~30kW		2.2~370kW	
				40~300HP		7.5~40HP		3~500HP	
Option	0.75~160kW				37~450kW				
	1~215HP				50~600HP				
Remote cable	2 meters	Option		Option		Option			
	3 meters	Option		Option		Option			
	5 meters	Option		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(Mult 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
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
SV-iP5A LCD KEYPAD		LCD display keypad for iP5A
iP5A	SV-iP5A LonWorks 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
<b>Dynamic Braking Unit</b>	<b>: Based on 150% torque for 100 seconds</b>
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
<b>External brake resistors</b>	<b>: Based on 5% ED (Enable duty)</b>
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



**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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





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