Leading Innovation, Creating Tomorrow

Variable Frequency Drive

LS Inverter Series

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

Automation Equipment

LS Industrial Systems

www.lsis.biz

Leading Innovation, Creating Tomorrow

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.

LS Industrial Systems Co., Ltd.

www.lsis.biz

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Specifications in this catalog are subject to change without notice due to continuous product development and improvement.

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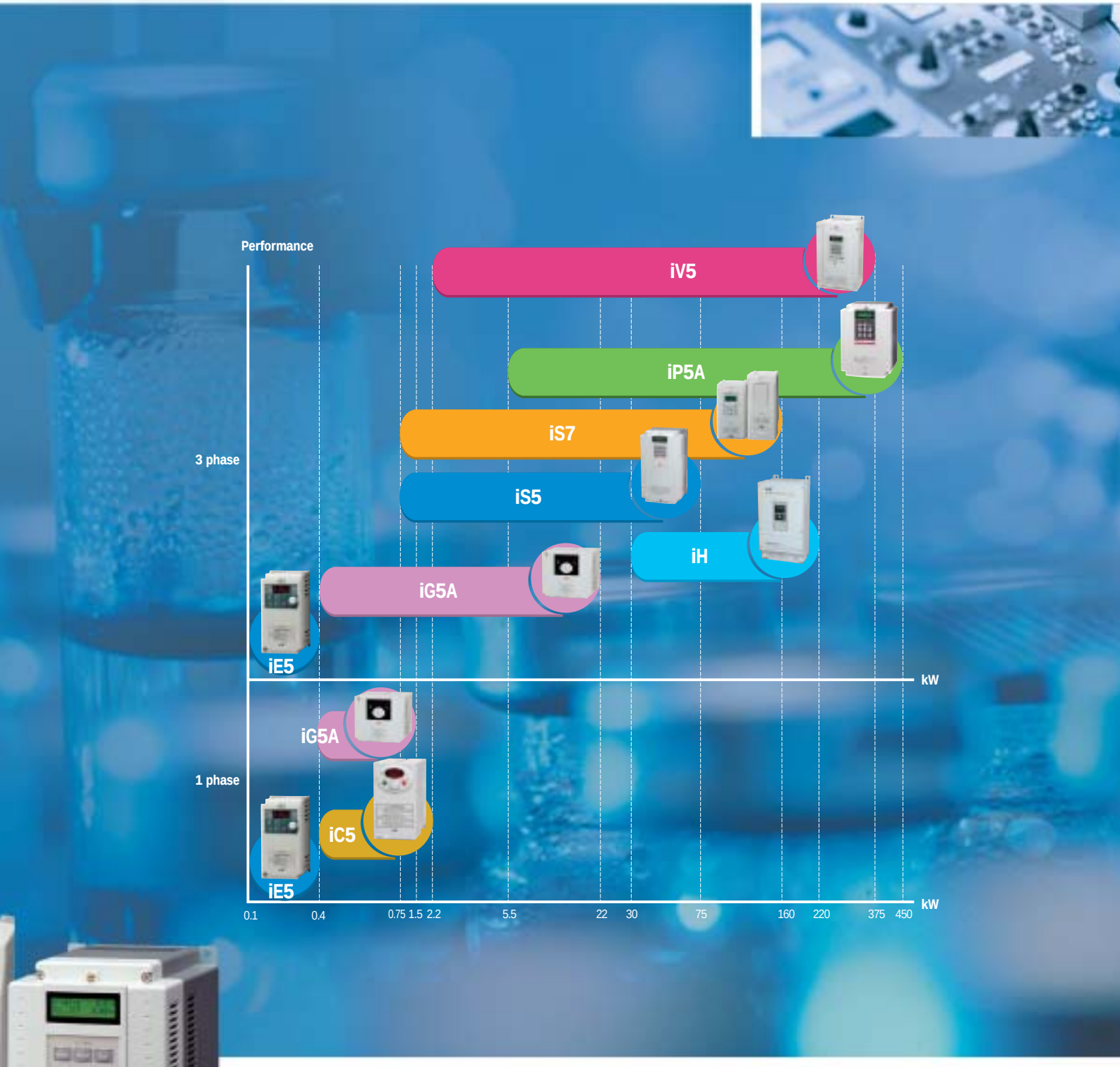


Contents



Take another look!

Simplicity-Precision, Flexibility-Standardization and Easy to use-Diversity are the spiritual foundations of LS Inverter 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.



iE5

Variable Frequency Drive / Inverter

User friendly micro size slim inverter

1 phase 0.1 - 0.4kW, 200V

3 phase 0.1 - 0.4kW, 200V

- V/f control
- Compact size: 68×128×85mm
- 0.1 ~ 200Hz frequency output
- 1 ~ 10kHz carrier frequency
- Fault memory(last three faults)
- IP20 enclosure
- LS Bus / Modbus-RTU communication (Built-in option)
- Ground fault protection during operation and start
- Selectable manual/automatic torque boost
- Selectable PNP/NPN input signal
- PI control
- Stall prevention
- Automatic restart after instantaneous power failure
- Built-in potentiometer
- Monitoring & commissioning software (DriveView)
- Parameter copy unit* (available soon)

Inverter 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, 200V class
2	Three-phase, 200V class

Symbol	Communication
None	Not available
C	RS485/Modbus

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
	Speed reference resolution	Digital command: 0.01Hz / Analog signal command: 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
	Keypad Display	4 digit, 7 segment LED
	Operation method	Keypad / Terminal / Communication operation (Built-in option)
	Frequency setting	Analog: 0 to 10V / 0 to 20mA / Potentiometer / Digital: Keypad/ Modbus
	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 detection / Inverter overload / Overload trip /
		Inverter overheat / Condenser overload / Output phase loss / Overload protection /
		Frequency command loss / Hardware fault
	Inverter alarm	Stall prevention
Enclosure		IP20

iC5

Variable Frequency Drive / Inverter

High torque micro inverter

1 phase 0.4 - 2.2kW, 200V

- RFI filter - class A (Built-in option)
- Selectable V/f, sensorless vector control
- Motor parameter auto-tuning
- 150% torque @ 0.5Hz
- 0.1 - 400Hz frequency output
- 1 - 15kHz carrier frequency
- Ground fault protection
- IP20 enclosure
- Selectable manual/automatic torque boost
- Built-in potentiometer
- Selectable PNP/NPN Input signal
- 0 - 10 volt analog output
- Enhanced process PID control
- Up/Down, 3-wire operations
- Modbus-RTU communication (optional)
- 8 programmable I/O
- Parameter copy unit
- Monitoring & commissioning software (DriveView)

Inverter Model Number

SV 004 iC5 - 1 F

LS inverter brand	Motor rating	Series name	Symbol	Input rating	Symbol	RFI filter
	001: 0.1kW ~ 004: 0.4kW	iC5	1	Single-phase, 200V class	None	Not available
					F	RFI filter (Class A)

General specification

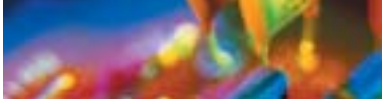
Model number: SV □ □ □ iC5- □			004-1	008-1	015-1	022-1
Motor rating		[HP]	0.5	1	2	3
		[kW]	0.4	0.75	1.5	2.2
Output rating	Capacity	[kVA]	0.95	1.9	3	4.5
	Current	[A]	2.5	5	8	12
	Voltage	[V]	Single-Phase 200 ~ 230V			
	Frequency	[Hz]	0.1 ~ 400Hz			
Input rating	Voltage	[V]	Single-Phase 200 ~ 230V (±10%)			
	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	Sensorless vector, V/f
	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
	Keypad Display	3 digit, 7 segment LED
	Operation method	Keypad / Terminal / Communication operation (Built-in option)
	Frequency setting	Analog: 0 to 10V / 4 to 20mA / Potentiometer / Digital: Keypad/ Modbus
	Operation function	PID 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
	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 detection / Inverter overload / Overload trip / Inverter overheat / Condenser overload / Output phase loss / Overload protection / Frequency command loss / Hardware fault
	Inverter alarm	Stall prevention, Overload

Enclosure		IP20
Option	Communication	Modbus RTU





iG5A

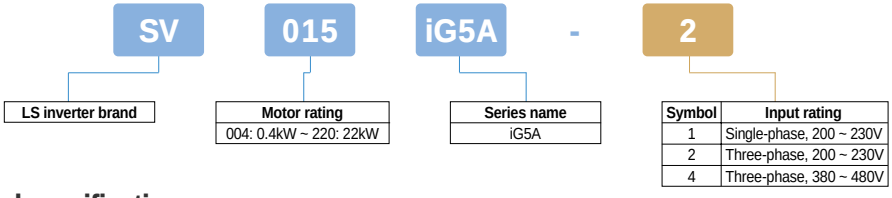
Variable Frequency Drive / Inverter

Powerful & compact sensorless vector control inverter

1 phase 0.4 - 1.5kW, 200V
3 phase 0.4 - 22kW, 200/400V

- 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
- -10 - 50°C Operating temperature
- Ground fault protection during operation
- IP20 enclosure, NEMA1(Optional)
- Selectable manual/automatic torque boost
- Selectable PNP/NPN input signal
- -10 - +10 volt analog input
- Built-in braking circuit
- Enhanced process PID control
- Built-in LS Bus/Modbus-RTU communication
- Cooling fan on/off control
- Remote control using external keypad * RJ45 cable(Optional)
- Upgraded functions : Sleep & Wake-up
  KEB (Kinetic Energy Buffering) protection
  Low leakage PWM
- Monitoring & commissioning software (DriveView)

Inverter 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
	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	Sensorless vector, V/f
	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
	Keypad Display	4 digit, 7 segment LED
	Operation method	Keypad / Terminal / Communication operation
	Frequency setting	Analog: 0 to 10V / -10 to 10V / 0 to 20mA / Potentiometer / Digital: Keypad/ Modbus
	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 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 detection / Inverter overload / Overload trip / Inverter overheat / Output phase loss / Overload protection / Frequency command loss / Hardware fault/ Brake fault
	Inverter alarm	Stall prevention, Overload
Enclosure		IP20, NEMA1 (Optional)
Others		Built-in Dynamic brake circuit, Modbus-RTU, LS Bus, Remote cable(2M/3M/5M) plus external keypad

iS5

Variable Frequency Drive / Inverter

Precise vector control standard inverter

3 phase 0.75 - 55kW, 200V
3 phase 0.75 - 75kW, 400V

- Selectable V/f, sensored vector control(Optional)
- Full vector, 150% torque in overall range (continuous torque & speed control)
- Motor parameter auto-tuning
- 1 ~ 15kHz carrier frequency
- Auto speed search
- Built-in process PID control
- Optional multi-motor control (up to 4)
- 32 characters LCD & 7-segment display keypad
- Parameter upload & download (LCD Loader only)
- Extendable I/O sub-boards(Optional)
- Optional communication boards: LS Bus, ModBus, ProfiBus-DP, DeviceNet, Fnet
- Built-in braking circuit (up to 7.5kW)
- Built-in keypad (over 30kW)
- Monitoring & commissioning software (DriveView)

Inverter Model Number

SV	008	iS5	-	2	N	O	,	380V

SV — LS inverter brand

008 — Motor rating

008: 0.75kW ~ 750: 75kW

iS5 — Series name

iS5

2 — Input rating

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

N — Loader

Symbol	Loader
None	Loader
N	Non Loader

O — UL certification

Symbol	UL certification
O	Open type
E	Enclosed type 1

380V — Rated voltage

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

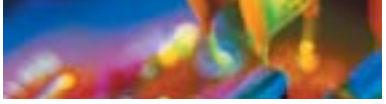
General specification

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 vector control: ~ 300Hz, Sensored vector control: 0 ~ 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										380V, 440V, 460V, 480V				
	Frequency	[Hz]	0.1 ~ 400Hz														
Input rating	Voltage	[V]	Three-Phase 380 ~ 480V (±10%)										380V, 440V, 460V, 480V				
	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
	Keypad Display	LCD keypad / 4 digit, 7 segment LED
	Operation method	Keypad / Terminal / Communication operation
	Frequency setting	Analog: 0 to 10V / 4 to 20mA / Potentiometer / Digital: Keypad/ Modbus-RTU / Fnet / DeviceNet / Profibus
	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 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 detection / Inverter overload / Overload trip / Inverter overheat / Output phase loss / Overload protection / Frequency command loss / Hardware fault/ Brake fault
	Inverter alarm	Stall prevention, Overload, Temperature sensor fault
Enclosure		IP20 (0.75~7.5kW), IP00 (11~75kW)
Option	Board, Cable	LCD KEYPAD, REMOTE CABLE(2M/3M/5M), Expansion I/O, Multi-motor control card, Encoder card
	Communication	LS Bus, Modbus-RTU, DeviceNet, Profibus-DP, Fnet
Others		Built-in Dynamic brake unit (up to 7.5kW)





iS7

Variable Frequency Drive / Inverter

High Torque Performance and Precise Control

3 phase 0.75 - 22kW, 220V

3 phase 0.75 ~ 160kW, 400V

- 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 Bake & Flux Brake function
  Static motor parameter Auto-tuning (available soon)
- Easy to control : Easy Start Mode, User & Macro group, Multi Function Key
- 2nd motor sensorless control and parameter setting- IP21 (0.75~160kW) / IP54 (0.75~22kW - Optional)
- Built-in LS Bus / Modbus-RTU communication
- Built-in Braking circuit (0.75~22kW)
- EMC filter(0.75~22kW) / DC reactor(0.75~160kW) (Built-in option)
- 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, Modbus-TCP, Rnet, DeviceNet, LonWork, CANOpen
- Monitoring & commissioning software (DriveView)

Inverter Model Number

SV	0008	iS7	-	2	N	O	F	D

LS inverter brand	Motor rating	Series name
	0008: 0.75kW ~ 1600: 160kW	iS7

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

Symbol	Loader
S	Loader
N	Non Loader

Symbol	UL Certification
O	Open type
E	Enclosed Type 1

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	[A]: CT	5	8	12	16	24	32	46	60	74	88
	Current	[A]: VT	8	12	16	24	32	46	60	74	88	124
	Voltage	[V]	Three-Phase 200 ~ 230V									
	Frequency	[Hz]	0.01 ~ 400Hz									
Input rating	Voltage	[V]	Three-Phase 200 ~ 230V (-15% ~ +10%)									
	Frequency	[Hz]	50 ~ 60Hz (±5%)									
	Current	[A]: CT	8.3	12.9	18.6	24	32.9	41.4	58	69	88	96
	Current	[A]: VT	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	45	56	68	82	100	139	170	201	248
	Current	[A]: CT	2.5	4	6	8	12	16	24	30	39	45	61	75	91	110	152	183	223	264	325
	Current	[A]: VT	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																		
Input rating	Voltage	[V]	Three-Phase 380 ~ 480V (-15% ~ +10%)																		
	Frequency	[Hz]	50 ~ 60Hz (±5%)																		
	Current	[A]: CT	4.3	7.2	10.6	15.4	21	25.8	39	44	57	57	57	69	83	113	154				
	Current	[A]: VT	3.5	5.3	7.3	10.8	13.8	22.5	26	33	40	52.2	90	109	123	162	195				

Control Spec	Control method	Sensorless vector1, Sensorless vector2, Vector, V/f , V/f PG
	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(0 ~ 15%) torque boost
	Keypad Display	LCD keypad
	Operation method	Keypad / Terminal / Communication operation
	Frequency setting	Analog: 0 to 10V / -10 to 10V/ 0 to 20mA / Digital: Keypad/ Communication
	Operation function	PID control / Up-Down operation / 3-Wire operation / Slip compensation / Reverse rotation prevention / Auto tune flying start / Energy buffering / Power braking / Flux braking / Leakage current reduction / MMC
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 AC 250V, 1A / 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 detection / Inverter overload / Overload trip / Inverter overheat / Output phase loss / Overload protection / Frequency command loss / Hardware fault/ Brake fault /Pre-PID fault
	Inverter alarm	Stall prevention, Overload, Temperature sensor fault , Encoder error , Fan fault , Keypad command loss ,Speed command loss
Enclosure		IP21, IP54 (Optional: available soon), UL type 1(Optional : available soon)
Option	Keypad	Graphic LCD display keypad for iS7 (128x64 COG, 11 Rubber Key, 3 LED, IP21)
	Board, Cable	Expansion I/O, Encoder card, PLC card, Remote cable (2M/3M)
	Communication	Modbus TCP, Profibus-DP, Rnet, BACnet, CANOpen, LorkWork, DeviceNet
Others		Built-in Dynamic brake unit (Up to 22kW), Modbus-RTU, LS Bus

iH

Variable Frequency Drive / Inverter

Robust dual rated high power inverter

3 phase 30 - 55kW, 200V

3 phase 30 - 220kW, 400V

- 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
- Built-in Process PI control
- 150% starting torque
- 2 ~ 10kHz carrier frequency
- Slip compensation
- Recovery from momentary power failure (Flying start)
- Monitoring & commissioning software (DriveView)

Inverter Model Number

SV 037 iH - 4 U , 380V

SV	037	iH	-	4	U	,	380V
LS inverter brand	Motor rating	Series name		Input rating	UL Certification		Rated voltage
	030:30kW ~ 220: 220kW	iH		2: Three-phase, 200 ~ 230V 4: Three-phase, 380 ~ 480V	U: UL 508C		****: 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 (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
	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

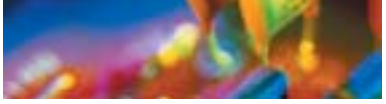
Control method		V/f Control (Space Vector PWM)
Speed reference resolution		Digital command: 0.01Hz (below 99Hz) & 0.1Hz (100Hz and over) / Analog command: 0.03Hz at 60Hz
Frequency accuracy		Digital: 0.01% of Maximum output frequency / Analog: 0.1 % of Maximum output frequency
V/f curve		Linear / Non-linear / User custom V/f
Overload capacity	Constant Torque	1 minute at 150% / 0.5 seconds at 200% (with inverse characteristic proportional to time)
	Variable Torque	1 minute at 110% / 0.5 seconds at 150% (with inverse characteristic proportional to time)
Torque boost		Auto / Manual (0 ~ 20%)
Assigned terminals		FX (forward) / RX (reverse) / BX (inverter gate blocking) / RST (reset)
Multi-function input terminals		Total 6 inputs (programmable)
Analog output		0 ~ 10V pulse / 4 ~ 20mA linear

Input signal	Operation method	32 character LCD keypad / Terminals / Communication (RS-485: LS Bus)
	Frequency setting	Analog: 0 ~ 10V, 4 ~ 20mA, additional port for Sub-Board (0 ~ 10V) / Digital: Keypad / Communication
	Start signal	Forward / Reverse
	Multi-step operation	Setting up to 8 speeds (using multi-function terminal)
	Multi-step Accel./Decel. time	0.1 ~ 6000 seconds. Maximum 8 pre-defined steps using multi-function terminals
	Operation function	DC braking / Frequency limit / Frequency jump / Slip compensation / PI control / Stall prevention
	Emergency stop	Interrupting output from inverter
	JOG	JOG operation
	Fault reset	Resets fault signal when protective function is active

Output signal	Operational status	Frequency detection / Overload alarm / Stall / Overvoltage / Undervoltage / Inverter overheat / Run / Stop Constant speed / Speed search
	Indicator	Output frequency / Output current / Output voltage / rpm

Protective functions	Trip	Overvoltage / Undervoltage / Overcurrent / Inverter overheat / Motor overheat / Fuse open / Ground fault / Overload Main CPU error
	Alarm	Stall / Overload
Others		LS Bus, Remote cable(2M/3M/5M)





iP5A

Variable Frequency Drive / Inverter

Fan & Pump specialized inverter

3 phase 5.5 - 30kW, 200V

3 phase 5.5 - 450kW, 400V

- Specialized functions for Fan & Pump :
  Advanced PID control (Pre-PID, Dual PID)
  MMC (Multi Motor Control) function (5.5~90kW)
- Energy saving & High efficiency :
  Sleep & Wake-up function
  Flying Starting function
  Automatic energy saving function
  Flux Braking Algorithm
- Improved protection functions :
  Pre Heating 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 LS Bus communication
- Communication boards (Optional) :
  Modbus-RTU, DeviceNet, Profibus-DP
  LonWork, BACNet, Modbus-TCP (available soon)
- Monitoring & commissioning software (DriveView)

Inverter 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		[HP]	5	7.5	10	15	20	25	30
	(Normal load)	[kW]	3.7	5.5	7.5	11	15	18.5	22
	Current (110% 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%)						
Enclosure			IP20 / UL type1			IP00 / UL open (IP20 / UL type1 option)			
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 (Normal 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) (110% 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%)																			
Enclosure			IP20 / UL type1			IP00 / UL open (IP20/UL type1 option)									IP00 / UL open							
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, Sensorless Vector, Slip compensation, Easy start
	Speed reference resolution	Digital command: 0.01Hz (less than 100Hz), 0.1Hz (greater than 100Hz) / Analog reference: 0.01Hz (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, 110% for 1 minute
	Torque boost	Auto & manual(0 ~ 15%) torque boost
	Keypad Display	LCD keypad
	Operation method	Keypad / Terminal / Communication operation
	Frequency setting	Analog: 0 to 12V / -12 to 12V/ 0 to 20mA / 4 to 20mA / Digital: Keypad/ Communication
	Operation function	PID control / DC braking / MMC / Easy start / Dual-PID / Safety stop / Flux braking
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 AC 250V, 1A / Less than DC 30V 1A
	Analog output	0 to 12Vdc (less than 1mA)
Protection	Inverter trip	Over voltage / Low voltage / Over current / Ground fault detection / Inverter overload / Overload trip / Inverter overheat / Output phase loss / Overload protection / Frequency command loss / Hardware fault
	Inverter alarm	Stall prevention, Overload, Temperature sensor fault
Option	Keypad	LCD keypad
	Board, Cable	Current output card, REMOTE CABLE(2M/3M/5M)
	Communication	LonWork, BACNet , LS Bus & Modbus RTU, DeviceNet, Profibus-DP
Others		Built-in LS Bus

iV5

Variable Frequency Drive / Inverter

High duty full flux vector control inverter

3 phase 2.2 - 37kW, 200V
3 phase 2.2 - 375kW, 400V

- High duty full flux vector control inverter
- Static motor parameter auto-tuning without disconnecting / motor coupling
- Operating with encoder, line drive/open collector type
- high torque at zero speed
- Position control by encoder feedback
- 1: 1000 speed control range
- 0.01% speed control accuracy
- Maximum 250% instantaneous torque
- Process PI, Draw, Droop control
- Smooth elevator control
- Optional plug-in encoder divider board
- Built-in braking circuit (up to 22kW)
- Plug-in type control terminals
- Extended I/O boards (optional)
  EL I/O (I/O Interface Card for Elevator Application)
  ENC_DIV (Encoder division board :Open Collector)
  SYNC I/O (Speed / positioning board for Synchronization operation)
  Sincos encoder signal input
- Monitoring & commissioning software (DriveView)

Inverter Model Number

SV 015 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	Brake unit

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

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

General specification

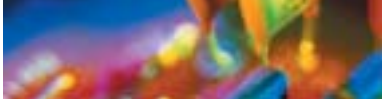
Model number: SV □ □ □ iV5-2 □			022	037	055	075	110	150	185	220	300	370
Motor rating		[HP]	3	5	7.5	10	15	20	25	30	40	50
		[kW]	2.2	3.7	5.5	7.5	11	15	18.5	22	30	37
Output rating	Capacity	[kVA]	4.5	6.1	9.1	12.2	17.5	22.5	28.2	33.1	46	55
	Current	[A]	12	16	24	32	46	59	74	88	122	146
	Voltage	[V]	Three-Phase 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									380V , 460V											
	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	Vector
	Speed reference resolution	Digital command: ±0.2% (25±10°C) / Analog reference: ±0.01 (0 ~ 40°C)
	Frequency accuracy	Digital command: 0.01% of Max output freq. / Analog signal command: ±0.005% of Max output freq.
	Accel/Decel curve	Linear, S-Curve
	Accel/Decel torque accuracy	3%
	Accel/Decel torque time	0.00 ~ 6000.0 (Second)
	Keypad Display	LCD keypad
	Operation method	Keypad / Terminal / Communication operation
	Frequency setting	Analog: 0 to 10V / -10 to 10V / 0 to 20mA / Potentiometer / Digital: Keypad/ Option
	Operation function	PID control / Up-Down operation / 3-Wire operation
Input signal	Multi-function terminal (P1 ~ P7)	PNP / NPN selectable *Note) 7 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	-10 to 10Vdc (less than 10mA): frequency / current / voltage / DC voltage selectable
Protection	Inverter trip	Over voltage / Low voltage / Over current / Ground fault detection / Inverter overload / Overload trip / Inverter overheat / Output phase loss / Overload protection / Frequency command loss / Hardware fault/ Brake fault
	Inverter alarm	Overload
Option	Communication	Profibus, Modbus-RTU, DeviceNet
	Board	Optional I/O Interface Card for Elevator Application, Encoder division card(open collector), Speed / positioning card for Synchronization operation, Sin/Cos Encoder Card

*Note) Available soon





Comparison

Variable Frequency Drive / Inverter

Single Phase

Model Name	Input Power / Motor Rating	Control Method	Protection Degree	Keypad	Dynamic Braking Unit	DC Reactor	EMC Filter	RS485 (LS BUS)	Modbus -RTU	Modbus -TCP	MMC
iE5	(200V / 0.1 ~ 0.4kW) (200V / 0.13 ~ 0.5hp)	V/f	IP20	● All ranges	×	×	×	■ All ranges	■ All ranges	×	×
iC5	(200V / 0.4 ~ 2.2kW) (200V / 0.5 ~ 3hp)	V/f Sensorless Vector	IP20	● All ranges	×	×	■ All ranges	×	○	×	×
iG5A	(200V / 0.4 ~ 1.5kW) (200V / 0.5 ~ 2hp)	V/f Sensorless Vector	IP20	● All ranges	● All ranges	×	×	● All ranges	● All ranges	×	×

Three Phase

iE5	(200V / 0.1 ~ 0.4kW) (200V / 0.13 ~ 0.5hp)	V/f	IP20	● All ranges	×	×	×	■ All ranges	■ All ranges	×	×
iG5A	(200V / 0.4 ~ 22kW) (200V / 0.5 ~ 30hp) (400V / 0.4 ~ 22kW) (400V / 0.5 ~ 30hp)	V/f Sensorless Vector	IP20	● All ranges	● All ranges	×	×	● All ranges	● All ranges	×	×
iS5	(200V / 0.75 ~ 55kW) (200V / 1 ~ 75hp) (400V / 0.75 ~ 75kW) (400V / 1 ~ 100hp)	V/f Sensorless Vector Sensored Vector	0.75~7.5kW: IP20 11~75kW: IP00	○ 0.75 ~ 22kW ● 30 ~ 75kW	● 0.75 ~ 7.5kW	×	×	○	○	×	○
iS7 (Dual Rating)	(200V / 0.75 ~ 22kW) (200V / 1 ~ 30hp) (400V / 0.75 ~ 160kW) (400V / 1 ~ 215hp)	V/f V/f PG Sensorless Vector Sensored Vector	IP20 Built-in Option 0.75~22kW: IP54	○	● 0.75 ~ 22kW	■ All ranges	● 0.75 ~ 22kW	● All ranges	● All ranges	○	●
iP5A (VT)	(200V / 5.5 ~ 30kW) (200V / 7.5 ~ 40hp) (400V / 5.5 ~ 450kW) (400V / 7.5 ~ 600hp)	V/f Sensorless Vector	5.5 ~ 11kW: IP20 15 ~ 450kW: IP00 Built-in Option : 15 ~ 90kW: IP20	○ ● 37 ~ 450kW	×	× ■ 15 ~ 280kW	×	● All ranges	○	○ * Note1)	● 5.5 ~ 90kW
iH (Dual Rating)	(200V / 30 ~ 55kW) (200V / 40 ~ 75hp) (400V / 30 ~ 220kW) (400V / 40 ~ 300hp)	V/f Space Vector	IP00	● All ranges	×	×	×	○		×	×
iV5	(200V / 2.2 ~ 37kW) (200V / 3 ~ 50hp) (400V / 2.2 ~ 375kW) (400V / 3 ~ 500hp)	Flux Vector Closed loop	2.2~22kW (Mold cover): IP00 5.5~22kW (Metalic cover): IP20 30~375kW: IP00	● All ranges	■ 2.2 ~ 22kW	×	×	○	○	×	×

* Note1) available soon

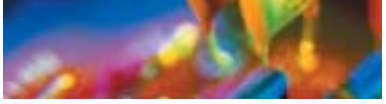
●: Built-in / ■: Built-in Option / ○: Optional Board / ×: No Support)

Encoder	Extended I/O	DeviceNet	Profibus	F-Net	R-Net	LonWork	CanOpen	BACNet	PLC	CC-LINK	ETHERNET IP	ISOLATION I/O	E/L IO	Sync Option	SIN/COS Encoder
×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×

●: Built-in / ■: Built-in Option / ○: Optional Board / ×: No Support)

×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
○	○	○	○	○	×	×	×	×	×	×	×	×	×	×	×
○	○	○	○	×	○	○	○	×	○	○ * Note1)	○ * Note1)	○	×	×	×
×	×	○	○	×	×	○	×	○	×	×	×	×	×	×	×
×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
● All ranges	○ Extended I/O: 5 Ch Analog Input	○	○	×	×	×	×	×	×	×	×	×	○ Elevator Option	○ Sync Operation Option	○





Option list

Variable Frequency Drive / Inverter

Series	Option	Description	Remark
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 (16 characters, 2 lines)	
	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	Extended 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	Extended I/O module, 3 inputs, 1 output and 2 analog meter outputs	
	SV-iS5/iP5A SUB BOARD E	Current output card [Only available in case that the dedicated O/S is installed]	
	SV-iS5 MMC	Multi-motor control card for iS5	
	SV-iS5/iH RS485	RS485 communication card	
	SV-iS5 MODBUS	ModBus RTU communication card	
	SV-iS5/iP5A/iV5 DEVICENET	DeviceNet communication card	
	SV-iS5 F-NET	LS PLC link card	
	SV-iS5/iP5A/iV5 PROFIBUS	ProfiBus DP communication card	
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) : available soon	
	SV-iS7 REMOTE CABLE(2M)	2 meter connection cable between inverter and keypad	available soon
	SV-iS7 REMOTE CABLE(3M)	3 meter connection cable between inverter and keypad	available soon
	SV-iS7 ISOLATION I/O	Insulated I/O module, 8 multi-functional inputs and 2 output	
	SV-iS7 EXTENSION I/O	Insulated I/O module, 3 multi-functional inputs and 3 output	
	SV-iS7 ENCODER	Encoder card for closed loop control	
	SV-iS7 PROFIBUS-DP	ProfiBus dedicated connector	
	SV-iS7 PLC	PLC card (MK120S Platform)	
	SV-iS7 R-net	R-Net communication card	
	SV-iS7 Modbus TCP	100M BASE-TX, 10M BASE-T support	
	SV-iS7 DEVICENET	DeviceNet Communication card	available soon
	SV-iS7 LonWork	LonWork Communication card	available soon
	SV-iS7 CanOpen	CanOpen communication card	available soon
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 communication card	
iP5A	SV-iP5A LCD KEYPAD	LCD display keypad for iP5A	
	SV-iP5A LonWork	LonWork communication card	
	SV-iP5A BACNet	BACNet communication card	
	SV-iP5A/iV5 RS485/Modbus-RTU	RS485 & Modbus-RTU communication card	
	SV-iS5/iP5A/iV5 DEVICENET	DeviceNet communication card	
	SV-iS5/iP5A/iV5 PROFIBUS	ProfiBus DP communication card	
	SV-iS5/iP5A SUB BOARD E	Current output card	
	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	available soon
iV5	SV-iV5 EL I/O	Optional I/O Interface Card for Elevator Application	
	SV-iV5 ENC_DIV(OC)	Encoder division card(open collector)	
	SV-iV5 SYNC I/O	Speed / positioning card for Synchronization operation	
	SV-iS5/iP5A/iV5 PROFIBUS	ProfiBus DP communication card	
	SV-iS5/iP5A/iV5 DEVICENET	DeviceNet communication card	
	SV-iP5A/iV5 RS485/Modbus-RTU	RS485 & Modbus-RTU communication card	
	SV-iV5 Sincos Encoder	Sincos encoder signal input card	available soon

Brake unit list

Variable Frequency Drive / Inverter

Model name	Specifications
Dynamic Braking Unit	**: Brake unit (combination for larger power)**
SV150DBU-2	Brake unit for 11 to 15kW, 230V(Non UL Type)
SV220DBU-2	Brake unit for 18.5 to 22kW, 230V(Non UL Type)
SV150DBU-4	Brake unit for 11 to 15kW, 400V(Non UL Type)
SV220DBU-4	Brake unit for 18.5 to 22kW, 400V(Non UL Type)
SV150DBU-2U	Brake unit for 11 to 15kW, 230V(UL Type)
SV220DBU-2U	Brake unit for 18.5 to 22kW, 230V(UL Type)
SV370DBU-2U	Brake unit for 30 to 37kW, 230V(UL Type)
SV550DBU-2U	Brake unit for 45 to 55kW, 230V(UL Type)
SV150DBU-4U	Brake unit for 11 to 15kW, 400V(UL Type)
SV220DBU-4U	Brake unit for 18.5 to 22kW, 400V(UL Type)
SV370DBU-4U	Brake unit for 30 to 37kW, 400V(UL Type)
SV550DBU-4U	Brake unit for 45 to 55kW, 400V(UL Type)
SV750DBU-4U	Brake unit for 75kW, 400V(UL Type)
SV037DBH-2(NEW)	Brake unit for 30 to 37kW, 230V
SV037DBH-4(NEW)	Brake unit for 30 to 37kW, 400V
SV075DBH-4(NEW)	Brake unit for 45 to 75kW, 400V
SV2200DB-4	Brake unit for 220kW, 400V (available soon)
SV0750DB-4	Brake unit for 75kW, 400V (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 reistor
MCRM-ST 3.6 KW 5 OHM J	3.6 kW, 5 ohm resistor