Green Innovators of Innovation

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Variable Frequency Drive

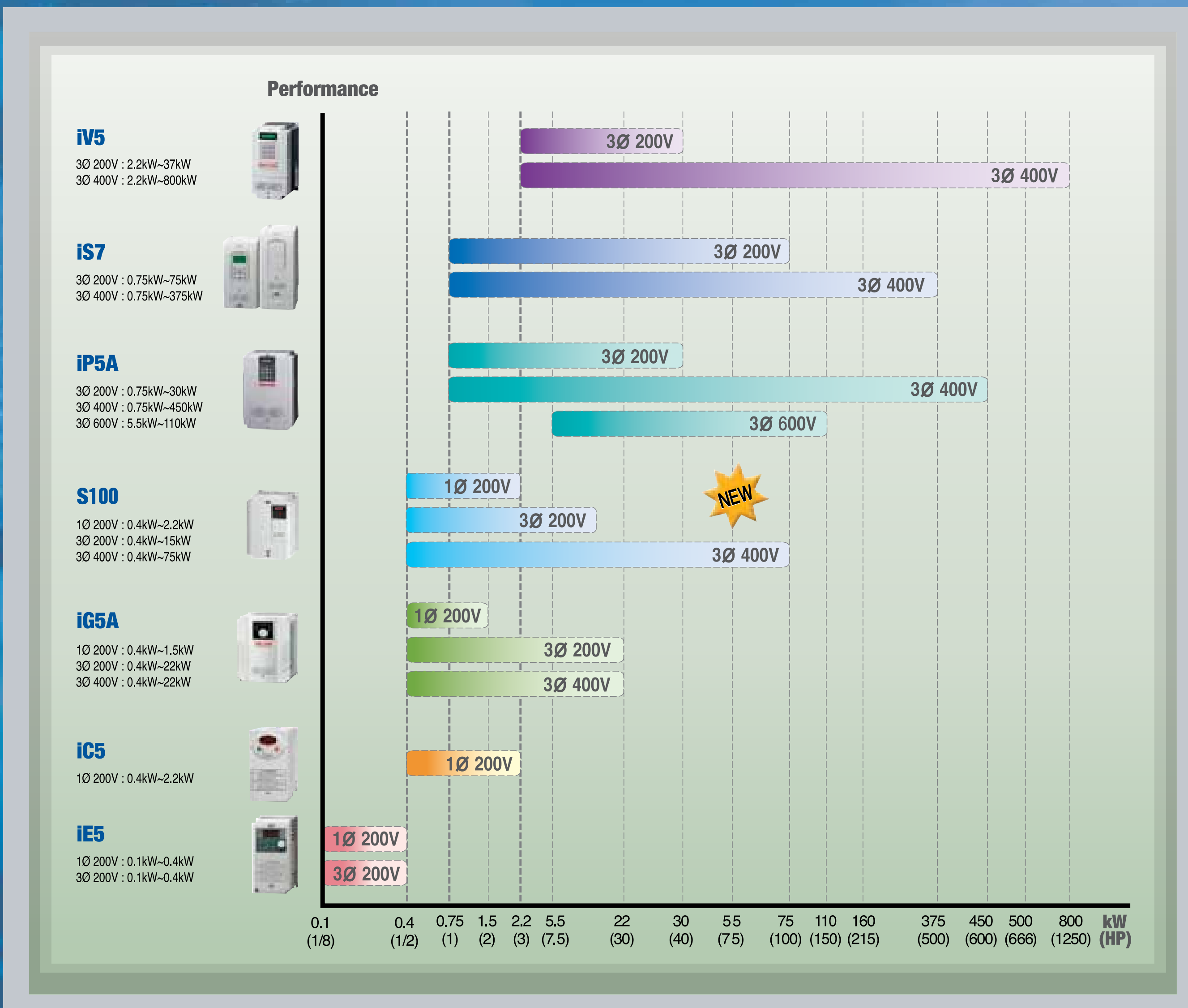
LS Drive Series

iE5 / iC5 / iG5A / S100 / iS7 / iP5A / iV5

Take another look!

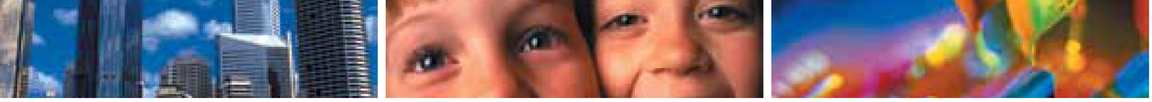
Simplicity-Precision, Flexibility-Standardization and Easy to use-Diversity are the inherent qualities of LS Variable Frequency Drives.

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



Performance
iV5
3Ø 200V : 2.2kW~37kW
3Ø 400V : 2.2kW~800kW
iS7
3Ø 200V : 0.75kW~75kW
3Ø 400V : 0.75kW~375kW
iP5A
3Ø 200V : 0.75kW~30kW
3Ø 400V : 0.75kW~450kW
3Ø 600V : 5.5kW~110kW
S100
1Ø 200V : 0.4kW~2.2kW
3Ø 200V : 0.4kW~15kW
3Ø 400V : 0.4kW~75kW
iG5A
1Ø 200V : 0.4kW~1.5kW
3Ø 200V : 0.4kW~22kW
3Ø 400V : 0.4kW~22kW
iC5
1Ø 200V : 0.4kW~2.2kW
iE5
1Ø 200V : 0.1kW~0.4kW
3Ø 200V : 0.1kW~0.4kW
3Ø 200V
3Ø 400V
3Ø 200V
3Ø 400V
3Ø 200V
3Ø 400V
3Ø 600V
1Ø 200V
3Ø 200V
3Ø 400V
NEW
1Ø 200V
3Ø 200V
3Ø 400V
1Ø 200V
1Ø 200V
3Ø 200V
0.1 (1/8)
0.4 (1/2)
0.75 (1)
1.5 (2)
2.2 (3)
5.5 (7.5)
22 (30)
30 (40)
55 (75)
75 (100)
110 (150)
160 (215)
375 (500)
450 (600)
500 (666)
800 (1250)
kW (HP)

Contents



S100

Variable Frequency Drive

High Performance Standard VFD
1 phase 0.4~2.2kW(0.5~3HP), 200~240V
3 phase 0.4~15kW(0.5~20HP), 200~240V
3 phase 0.4~75kW(0.5~100HP), 380~480V

- Selectable V/f, Sensorless vector control
- Built-in EMC Filter
- Side by Side Installation
- Enhanced Size Competitiveness
- PLC Function(Simple Sequence Operation)
- Compliance with Open Field Networks
  - Profibus-DP, CANopen, EtherNet
- IP66 Enclosure (0.4~22kW)
- PM Sensorless Control
- P2P I/O Share Function
- Capacitor/Fan Life Cycle Management Function
- Smart Copier Option
  (Flash Drop, Able to copy parameter and download drive main OS)

Model Number

LSLV 0008 S100 - 2 S O F D

Code	Meaning
LSLV	LS Low Voltage Drive Series
0008	Motor rating(kW): 0004: 0.4kW ~ 0750: 75kW
S100	Series name: S100
2	Input Voltage: 1 : 1-phase 200 ~ 240[V]; 2 : 3-phase 200 ~ 240[V]; 4 : 3-phase 380 ~ 480[V]
S	I/O Type: S : Standad I/O; E : Extension I/O
O	UL Type: O : UL Open & Endosed type1; X : IP66
F	EMC Filter: Blank : Non EMC Filter; F : Built-in EMC Filter
D	DC Reactor: Blank : Non DC Reactor; D : Built-in DC Reactor

General specification

Model number: SV □□□□ S100-1 □			0004	0008	0015	0022
Motor rating		[HP]	0.5	1	2	3
		[kW]	0.4	0.75	1.5	2.2
Output rating	Capacity	[kVA]	1.0	1.9	3.0	4.2
	Current [A]	HD	2.5	5.0	8.0	11.0
		ND	3.1	6	9.6	12
	Frequency	[Hz]	0~400Hz (IM Sensorless:0~120[Hz])			
	Voltage	[V]	3-phase 200~240V			
Input rating	Voltage	[V]	1-phase 200 ~ 240VAC (–15%~+10%)			
	Frequency	[Hz]	50 ~ 60Hz (±5%)			
	Current [A]	HD	2.0	5.8	7.5	11.0
		ND	3.9	7.3	10.8	13.9
Weight		[kg]	0.9	1.3	1.5	2.0

Model number: SV □□□□ S100-2 □			0004	0008	0015	0022	0037	0040	0055	0075	0110	0150
Motor rating		[HP]	0.5	1	2	3	5	5.5	7.5	10	15	20
		[kW]	0.4	0.75	1.5	2.2	3.7	4	5.5	7.5	11	15
Output rating	Capacity	[kVA]	1.0	1.9	3	4.2	6.1	6.5	9.1	12.2	17.5	22.9
	Current [A]	HD	2.5	5	8	11	16	17	24	32	46	60
		ND	3.1	6	9.6	12	18	18	30	40	56	69
	Frequency	[Hz]	0~400Hz (IM Sensorless:0~120[Hz])									
	Voltage	[V]	3-phase 200~240V									
Input rating	Voltage	[V]	3-phase 200 ~ 240VAC (–15%~+10%)									
	Frequency	[Hz]	50 ~ 60Hz (±5%)									
	Current [A]	HD	2.0	5.8	7.5	11.0	18.9	21.0	22.1	28.6	44.3	55.9
		ND	3.9	7.3	10.8	13.9	24.0	24.0	28.6	41.2	54.7	69.7
Weight		[kg]	0.9	0.9	1.3	1.5	2.0	2.0	3.3	3.3	4.6	7.1

Model number: SV □□□□ S100-4 □			0004	0008	0015	0022	0037	0040	0055	0075	0110	0150	0185	0220	0300	0370	0450	0550	0750
Motor rating		[HP]	0.5	1	2	3	5	5.5	7.5	10	15	20	25	30	40	50	60	75	100
		[kW]	0.4	0.75	1.5	2.2	3.7	4.0	5.5	7.5	11	15	18.5	22	30	37	45	55	75
Output rating	Capacity	[kVA]	1.0	1.9	3.0	4.2	6.1	6.5	9.1	12.2	17.5	22.9	28.2	33.5	46	57	69	84	116
	Current [A]	HD	1.25	2.5	4.0	5.5	8.0	9.0	12	16	24	30	39	45	61	75	91	110	152
		ND	1.56	3.1	5.0	6.9	10.0	10.0	16	23	30	38	44	58	75	91	107	142	469
	Frequency	[Hz]	0~400Hz (IM Sensorless:0~120[Hz])																
	Voltage	[V]	3-phase 380 ~ 480V																
Input rating	Voltage	[V]	3-phase 380 ~ 480VAC (–15%~+10%)																
	Frequency	[Hz]	50 ~ 60Hz (±5%)																
	Current [A]	HD	1.8	3.2	4.4	6.0	10.4	11.0	11.0	14.4	22.0	26.6	35.6	41.6	56	69	85	103	143
		ND	2.1	4.3	5.9	8.1	14.0	14.0	14.7	21.9	26.4	35.5	41.1	55.7	69	105	100	134	160
Weight		[kg]	0.9	0.9	1.3	1.5	2.0	2.0	3.3	3.3	4.6	4.8	7.5	7.5	26	35	35	43	43

Control spec	Control method	V/f, Slip compensation, Sensorless vector
	Speed reference resolution	Digital command: 0.01Hz / Analog command: 0.06Hz (Maximum frequency : 60Hz)
	Frequency accuracy	1% of the maximum output frequency
	V/f curve	Linear, Squared, User V/F
	Overload capacity	HD: 150% 1minute, ND: 120% 1minute
	Torque boost	Manual/Automatic torque boost
Operation	Keypad display	4 digit, 7 segment LED keypad
	Operation method	Keypad / Terminal / Communication option selectable
	Frequency setting	Analog: -10 -10[V] / 0 -10[V], 420[mA] / Digital: Keypad, Pulse train input
	Operation function	PID, Up-Down, 3-Wire, DC braking, Frequency limit, Frequency jump, 2nd function, Slip compensation, Anti reverse rotation, Automatic restart, Commercial power change, Auto-tuning, Flying start, Energy buffering operation, Power braking, Flux braking, Leakage reduction operation
Input signal	Multi-function terminal (7points)	NPN(Sink) / PNP(Source) selectable Function: Forward run, Reverse run, Reset, External trip, Emergency stop, Jog operation, Multi-step frequency-high, middle, low, Multi-step acceleration/deceleration-high, middle, low, DC braking at stop, 2nd motor select, Frequency up/down, 3-wire operation, Change into normal operation during PID operation, Change into main body operation during option operation, Analog command frequency fixing, Acceleration/deceleration stop etc. selectable
	Pulse train	0Hz~32Hz, Low level: 0~0.8V, High level: 3.5~12V
Output signal	Open collector terminal	Fault output and drive operation status output
	Multi-function relay	(N.O., N.C.) less than AC 250V 1A, less than DC30V 1A
	Analog output	0 to 10Vdc (4~20mA): Frequency, Output current, Output voltage, DC stage voltage etc. selectable
	Pulse train	Maximum 32kHz, 10~12[V]
Protection	Drive trip	Overcurrent / Overvoltage / Undervoltage / External trip / Ground fault current detection / Drive overheat / Motor overheat / Input-Output phase open / Overload protection / Light load protection / Communication error / Frequency command loss / Hardware fault / Cooling fan fault / Pre-PID motion failure / No motor trip / External brake trip / Option fault / Safety contact fault / Drive temperature sensor fault / Parameter write error / IO board fault
	Drive alarm	Stall prevention / Overload / Light load / Cooling fan fault / Frequency command loss / DB duty cycle / Rotor time constant tuning fault / Capacitor / Fan life time up
Enclosure		IP00 , IP20, UL Type1, IP54, IP66
Option	Keypad	Graphic LCD keypad(iS7)
	Communication	Profibus-DP, EtherNet-IP, Modbus-TCP, CANopen

iE5

Variable Frequency Drive

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 drive brand

Motor rating
001: 0.1kW ~ 004: 0.4kW

Series name
iE5

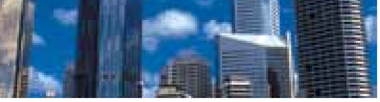
Symbol	Input rating
1	Single-phase, 200~230V
2	Three-phase, 200~230V

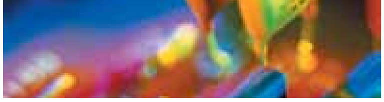
Symbol	Communication
None	Not available
C	RS485 (LS Bus / Modbus RTU)

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 & drive 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	Drive trip	Over voltage / Low voltage / Over current / Ground fault / Drive overload / Overload trip / Drive overheat / Condenser overload / Output phase open / Frequency command loss / Hardware fault / etc.
	Drive alarm	Stall prevention
Enclosure		IP20
Option	Communication, copy unit	RS485(LS Bus / Modbus RTU), Parameter copy unit





iC5

Variable Frequency Drive

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

SV: LS drive brand

004: Motor rating — 004: 0.4kW ~ 022: 2.2kW

iC5: 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	PNP / NPN selectable
	(P1 ~ P5)	5 points (programmable)
Output signal	Multi-function relay	Fault output & drive status output (N.O., N.C.) Less than AC 250V, 0.3A / Less than DC 30V 1A
	Multi-function open collector	Fault output & drive status output DC24V (less than 50mA)
	Analog output	0 to 10Vdc (less than 10mA): frequency / current / voltage / DC voltage selectable
Protection	Drive trip	Over voltage / Low voltage / Over current / Ground fault / Drive overheat / Output phase open / Drive overload Overload trip / Communication error / Frequency command loss / Hardware fault / Fan fault / etc.
	Drive alarm	Stall prevention, Overload
Enclosure		IP20
Option	Communication, copy unit	Modbus RTU, Parameter copy unit

iG5A

Variable Frequency Drive

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)
- Footprint EMC Filter (Option)
- Communication options
  - DeviceNet, EtherNet, Profibus-DP, CANOpen

Model Number

SV 015 iG5A - 2 FB

LS drive brand
SV

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

Symbol	Type
FB	Field bus communication
EN	EMC Filter
ENC	EMC Filter + Field bus communication

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 Multi-function open collector	Fault output & drive status output (N.O., N.C.) Less than AC250V, 0.3A / Less than DC 30V 1A DC24V (less than 50mA)
	Analog output	0 to 10Vdc (less than 10mA): frequency / current / voltage / DC voltage selectable
Protection	Drive trip	Over voltage / Low voltage / Over current / Over Current 2 / Ground fault / Drive overheat / Output phase open / Drive overload / Overload trip / Communication error / Frequency command loss / Hardware fault / Fan fault / Brake error / etc.
	Drive 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
	Communication	DeviceNet, EtherNet, CANOpen, Profibus-DP
Others		Built-in Dynamic braking transistor, Built-in RS485(LS Bus / Modbus RTU)

iS7

Variable Frequency Drive

High Torque Performance and Precise VFD

3 phase 200V : 0.75~75kW(1~100HP), 200~230V
3 phase 400V : 0.75~375kW(1~500HP), 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 W

LS drive brand
SV

Motor rating
0008 : 0.75kW ~ 3750 : 375kW

Series name
iS7

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

Symbol	Loader
N	Non Loader
S	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

Symbol	Application
None	Normal application
W	Web application

General specification

Model number: SV □□□□ iS7-2 □			0008	0015	0022	0037	0055	0075	0110	0150	0185	0220	0300	0370	0450	0550	0750
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	28.5	33.5	46	57	69	84	116
	Current (CT)	[A]	5	8	12	16	24	32	46	60	74	88	116	146	180	220	288
	Current (VT)	[A]	8	12	16	24	32	46	60	74	88	124	146	180	220	288	345
	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	121	154	191	233	305
	Current (VT)	[A]	7	10.6	14.8	21.8	28	42	52	60	75	107	152	190	231	302	326

Model number: SV □□□□ iS7-4□			0008	0015	0022	0037	0055	0075	0110	0150	0185	0220	0300	0370	0450	0550	0750	0900	1100	1320	1600	1850	2200	2800	3150	3750
Motor rating		[HP]	1	2	3	5	7.5	10	15	20	25	30	40	50	60	75	100	120	150	180	225	250	300	375	420	500
		[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	185	220	280	315	375
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	286	329	416	467	557
	Current (CT)	[A]	2.5	4	6	8	12	16	24	30	39	45	61	75	91	110	152	183	223	264	325	370	432	547	613	731
	Current (VT)	[A]	4	6	8	12	16	24	30	39	45	61	75	91	110	152	183	223	264	325	370	432	547	613	731	877
	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	404	466	605	674	798
	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	463	590	673	796	948

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 / Drive 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	Fault output & drive status output (N.O., N.C.) Less than AC250V, 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	Drive trip	Over current / Over voltage / Low current / External trip / Ground fault / Drive 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.
	Drive alarm	Stall prevention / Overload / Light load / Encoder connection error / Keypad command loss / Speed command loss
Enclosure		IP00 (30~75kW, 200V/ 90~375kW, 400V), IP21 (0.75~22kW, 200V / 0.75~75kW, 400V), IP54 / NEMA12 (0.75~22kW, 200V/ 400; 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)

iP5A
Variable Frequency Drive

Fan & Pump specialized VFD
3 phase 200V : 0.75~30kW(1~400HP), 200~230V
3 phase 400V : 0.75~450kW(1~600HP), 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*, CANOpen, CC-Link
- Monitoring & commissioning PC based software tool (Drive View)
- DNV Certification

Model Number

SV 0055 iP5A - 2 N O L (CLASS)

LS drive brand	Motor rating	Series name
SV	0008 : 0.75kW ~ 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

Symbol	Certificate
(CLASS)	DNV

General specification

Model number: SV □□□□ iP5A-2 □			0008	0015	0022	0037	0055	0075	0110	0150	0185	0220	0300
Motor rating (Fan/Pump)		[HP]	1	2	3	5	7.5	10	15	20	25	30	40
		[kW]	0.75	1.5	2.2	3.7	5.5	7.5	11	15	18.5	22	30
	Current	[A]	5	8	12	16	24	32	46	60	74	88	115
	(110% overload)		Normal duty: 110% for 1 minute										
Motor rating (General load)		[HP]	0.5	1	2	3	5	7.5	15	15	20	25	30
		[kW]	0.4	0.75	1.5	2.2	3.7	5.5	7.5	11	15	18.5	22
	Current	[A]	2.5	5	8	12	17	23	33	44	54	68	84
	(150% overload)		Heavy duty: 150% for 1 minute										
Output rating		[kVA]	1.9	3.0	4.6	6.1	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]	4.1	4.2	4.2	4.9	4.9	6	6	13	13.5	20	20

Model number: SV □□□□ iP5A-4 □			0008	0015	0022	0037	0055	0075	0110	0150	0185	0220	0300	0370	0450	0550	0750	0900	1100	1320	1600	2200	2800	3150	3750	4500
Motor rating (Fan/Pump)		[HP]	1	2	3	5	7.5	10	15	20	25	30	40	50	60	75	100	125	150	175	215	300	350	400	500	600
		[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	220	280	315	375	450
	Current	[A]	2.5	4	6	8	12	16	24	30	39	45	61	75	91	110	152	183	223	264	325	432	547	613	731	877
	(110% overload)		Normal duty: 110% for 1 minute																							
Motor rating (General load)		[HP]	0.5	1	2	3	5	7.5	10	15	20	25	30	40	50	60	75	100	125	150	175	215	300	350	400	500
		[kW]	0.4	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	220	280	315	375
	Current (Non DCR / DCR)	[A]	1.25	2.5	4	6	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
	(150% overload)		Heavy duty: 150% for 1 minute																							
Output rating		[kVA]	2.0	3.2	4.8	6.4	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]	4.1	4.2	4.2	4.9	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 / Drive 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 Drive
	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 / Drive overheating / Run / Stop / Constant speed / Drive 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	Drive trip	Over voltage / Low voltage / Over current 1, 2 / Ground fault / Drive overheating / Electronic thermal / Output phase open / overload / External Fault A, B / Communication Error / Frequency command loss / Hardware fault / Option fault / etc
	Drive 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	DeviceNet, Profibus-DP, Modbus TCP, Modbus RTU, Matasys N2, LonWorks, BACnet, CC-Link, CANopen

iV5

Variable Frequency Drive

High duty full flux vector control VFD

3 phase 200V :2.2~37kW(3~50HP), 200~230V
3 phase 400V : 2.2~500kW(1~666HP), 380~480V
DC input type : 5.5~500kW(7.5~666HP)

- 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) (DC), 380V

LS drive brand	Motor rating	Series name	Symbol	Input rating	Symbol	Dynamic Brake	Symbol	Cover type	Symbol	Input type	Symbol	Rated voltage
	022: 2.2kW ~ 3750: 370kW	iV5	2	Three-phase, 200 ~ 230V	None	Not available	None	Metallic cover	None	AC Input	None	200~230V or 380~480V
			4	Three-phase, 380 ~ 480V	DB	Dynamic Braking	(MD)	Mold cover*	(DC)	DC Input	****	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	5000
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	666
		[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	500
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	732
	Current	[A]	6	8	12	16	24	30	39	45	61	75	91	110	152	183	223	264	325	432	546	614	731	960
	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	476

Model number: SV □□□ iV5-4 (DC)			055	075	110	150	185	220	300	370	450	550	750	900	1100	1320	1600	2200	2800	3150	3750	5000
Motor rating		[HP]	7.5	10	15	20	25	30	40	50	60	75	100	120	150	175	215	300	373	420	500	666
		[kW]	5.5	7.5	11	15	18.5	22	30	37	45	55	75	90	110	132	160	220	280	315	375	500
Output rating	Capacity	[kVA]	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	732
	Current	[A]	12	16	24	30	39	45	61	75	91	110	152	183	223	264	325	432	546	614	731	960
	Voltage	[V]	380 ~ 480V																			
	RPM		0 ~ 3600 [RPM]																			
Input rating	Voltage	[V]	DC 540 ~ 680V (+10%,)																			
Weight		[kg]	12	12	24	24.5	25	25	38.5	38.5	50	50	55	79	79	98.5	98.5	154.5	206	343	343	466

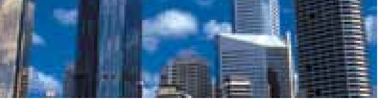
Control spec	Control method	Sensored Vector (speed sensor)
	Speed reference resolution	Digital command: 0.1rpm / Analog reference: □□0.0005% of Max output freq.
	Speed accurancy	Digital command: □□0.01(0~40°C) of Max output freq. / Analog signal reference: □□0.02(25□□10°C) of Max output freq.
	Cut-off 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 / Drive overheat / Drive 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

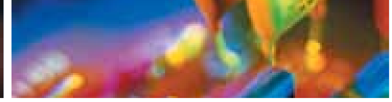
Comparison

Variable Frequency Drive

Model Series		iE5		iC5	iG5A			S100			
Input Phase		Single-phase	Three-phase	Single-phase	Single-phase	Three-phase		Single-phase	Three-phase		
Voltage Range		200~230V		200~230V	200~230V		380~480V	200~240V	200~240V	380~480V	
Motor rating		0.1~0.4kW	0.1~0.4kW	0.4~2.2kW	0.4~1.5kW	0.4~22kW	0.4~22kW	0.4~2.2kW	0.4~15kW	0.4~75kW	
		0.13~0.5HP	0.13~0.5HP	0.5~3HP	0.5~2HP	0.5~30HP	0.5~30HP	0.5~3HP	0.5~20HP	0.5~100HP	
Constant Torque		Standard		Standard	Standard			Standard			
Variable Torque								Standard			
Control method	V/f	Standard		Standard	Standard			Standard			
	Sensorless Vector			Standard	Standard			Standard			
	Sensored Vector										
Enclosure	IP00										
	IP20	Standard		Standard	Standard			Standard			
		0.1~0.4kW		0.4~2.2kW	0.4~22kW			0.4~2.2kW	0.4~15kW	0.4~75kW	
		0.13~0.5HP		0.5~3HP	0.5~30HP			0.5~3HP	0.5~20HP	0.5~100HP	
	UL Type1				Option			UL Enclosed type 1 with conduit box installed			
					0.4~22kW			0.4~2.2kW	0.4~15kW	0.4~75kW	
					0.5~30HP			0.5~3HP	0.5~20HP	0.5~100HP	
	IP54										
	IP66										
									0.4~15kW	0.4~22kW	
									0.5~20HP	0.5~30HP	
Keypad	Type	Fixed type		Fixed type	Fixed type			Fixed type		Removable	
	Built-in	7 Segment		7 Segment	7 Segment			7 Segment		iS7 Graphic LCD	
		0.1~0.4kW		0.4~2.2kW	0.4~22kW			0.4~2.2kW	0.4~15kW	0.4~75kW	
		0.13~0.5HP		0.5~3HP	0.5~30HP			0.4~2.2kW	0.4~15kW	0.5~100HP	
	Option							iS7 Graphic LCD			
								0.4~2.2kW	0.4~15kW	0.4~22kW	
								0.5~3HP	0.5~20H	0.5~30HP	
Remote cable	2 meters				Option			Option			
	3 meters				Option			Option			
	5 meters				Option						
Braking transistor					Standard			Standard			
					0.4~22kW						30~75kW
					0.5~30HP						40~100HP
EMC Filter				Built-in Option			Footprint Filter* note 1)	Built-in* note 5)		Built-in* note 6)	Built-in Option
				0.4~2.2kW			0.4~4kW	0.4~2.2kW		0.4~22kW	30~75kW
				0.5~3HP			0.5~5.4HP	0.5~3HP		0.5~30HP	40~100HP
DC Reactor											Built-in
											30~75kW
											40~100HP
RS485(LS Bus)		Standard			Standard		Standard* note 2)	Standard			
Modbus RTU		Standard		Option	Standard		Standard* note 2)	Standard			
Modbus TCP							Option* note 3)	Option			
DeviceNet							Option* note 4)				
Profibus-DP								Option			
Fnet(LS PLC link)											
Rnet											
LonWorks											
CANopen							Standard* note 3&4)	Option			
BACnet											
EtherNet/IP							Standard* note 3)	Option			
CC-Link											
MMC(Multi Motor Cable)											
Encoder											
Sin/Cos encoder											
PLC											
I/O	Standard I/O							Built-in Option			
	Extension I/O										
	30~75kW I/O										Built-in Option
Elevator I/O											
Synchronization I/O											

Note1) SV□□□iG5A-4EN-4EN or ENC
Note2) SV□□□iG5A-FB and ENC
Note3) SV□□□iG5A-FB
Note4) SV□□□iG5A-ENC
Note5) LSLV□□□□S100-1SO or 1SOF
Note6) LSLV□□□□S100-4SO or 1SOF





Comparison

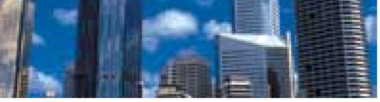
Variable Frequency Drive

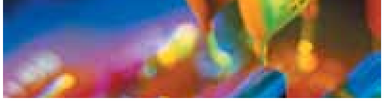
Model Series		iS7		iP5A		iV5	
Input Phase		Three-phase		Three-phase		Three-phase	
Voltage Range		200~230V	380~480V	200~230V	380~480V	200~230V	380~480V
Motor rating		0.75~22kW	0.75~375kW	5.5~30kW	5.5~450kW	2.2~37kW	2.2~375kW
		1~30HP	1~500HP	7.5~40HP	7.5~600HP	3~50HP	3~666HP
Constant Torque		Standard				Standard	
Variable Torque		Standard		Standard			
Control method	V/f	Standard		Standard			
	Sensorless Vector	Standard		Standard			
	Sensored Vector	Option				Standard	
Enclosure	IP00	Standard	Standard	Standard	Standard	Standard	Standard30~75kW
		30~75kW	90~375kW	15~30kW	15~450kW	2.2~22kW	2.2~375kW
		40~100HP	125~500HP	20~40HP	20~600HP	3~30HP	3~500HP
	IP20	Standard		Standard		Standard	
		0.75~22kW	0.75~75kW	5.5~11kW		5.5~22kW	
		1~30HP	1~100HP	7.5~15HP		7.5~30HP	
	UL Type 1	Option		Standard	Standard		
		0.75~75kW		5.5~11kW	5.5~11kW		
		1~100HP		7.5~15HP	7.5~15HP		
	IP54	Built-in Option					
		0.75~22kW					
		1~30HP					
Keypad	Type	Detachable type		Detachable type		Detachable type	
	Built-in	90~160kW		37~450kW		2.2~370kW	
		125~215HP		50~600HP		3~500HP	
	Option	0.75~75kW				5.5~30kW	
Remote cable	2 meters	1~100HP		7.5~40HP			
		Option		Option			
	3 meters	Option		Option			
	5 meters			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		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	

Option list

Variable Frequency Drive

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 drive and keypad plus fixture
	SV-iG5A Remote Cable 3M	3 meter connection cable between drive and keypad plus fixture
	SV-iG5A Remote Cable 5M	5 meter connection cable between drive 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)
S100	LSLV-S100 CANopen	CANopen communication card
	LSLV-S100 EtherNet	EtherNet communication card
	LSLV-S100 Profibus	Profibus-DP comminication 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 drive and keypad
	SV-iS7 Remote Cable(3M)	3 meter connection cable between drive 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
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 drive and keypad
	SV-iS5/iP5A Remote Cable(3M)	3 meter connection cable between drive and keypad
	SV-iS5/iP5A Remote Cable(5M)	5 meter connection cable between drive 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





Dynamic Braking Unit list

Variable Frequency Drive

Model name	Specifications
Dynamic Braking Unit	**: Based on 150% torque for 100 seconds**
SV0150DBU-2	Brake unit for 11 to 15kW, 230V / 10%ED
SV0220DBU-2	Brake unit for 18.5 to 22kW, 230V / 10%ED
SV0037DBH-2(NEW)	Brake unit for 30 to 37kW, 230V / 10%ED
SV0150DBU-4	Brake unit for 11 to 15kW, 400V / 10%ED
SV0220DBU-4	Brake unit for 18.5 to 22kW, 400V / 10%ED
SV0037DBH-4(NEW)	Brake unit for 30 to 37kW, 400V / 10%ED
SV0075DBH-4(NEW)	Brake unit for 45 to 75kW, 400V / 10%ED
SV0150DBU-2U	Brake unit for 11 to 15kW, 230V / 10%ED (UL, cUL listed)
SV0220DBU-2U	Brake unit for 18.5 to 22kW, 230V / 10%ED (UL, cUL listed)
SV0370DBU-2U	Brake unit for 30 to 37kW, 230V / 10%ED (UL, cUL listed)
SV0550DBU-2U	Brake unit for 45 to 55kW, 230V / 10%ED (UL, cUL listed)
SV0150DBU-4U	Brake unit for 11 to 15kW, 400V / 10%ED (UL, cUL listed)
SV0220DBU-4U	Brake unit for 18.5 to 22kW, 400V / 10%ED (UL, cUL listed)
SV0370DBU-4U	Brake unit for 30 to 37kW, 400V / 10%ED (UL, cUL listed)
SV0550DBU-4U	Brake unit for 45 to 55kW, 400V / 10%ED (UL, cUL listed)
SV0750DBU-4U	Brake unit for 75kW, 400V / 10%ED (UL, cUL listed)
SV0750DB-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)

External resistor list

Variable Frequency Drive / Drive

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

Memo

Variable Frequency Drive

Green Innovators of Innovation

Safety Instructions

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

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