Variable Frequency Drive

LS Drive Series

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

LS IS

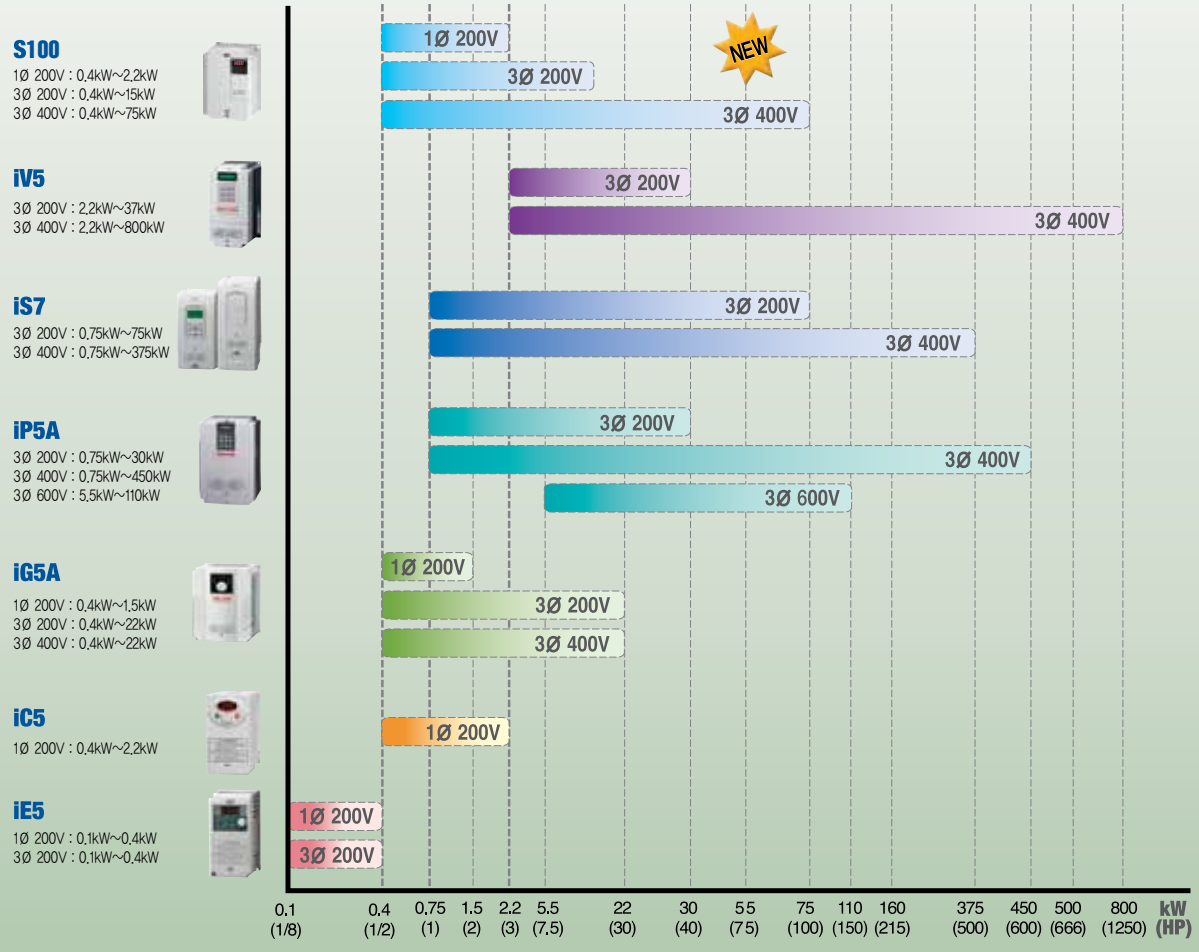


Take another look!

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



Contents



S100

Variable Frequency Drive

High Performance Standard VFD

1 phase 0.4~22kW(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
LS Low Voltage Drive Series	Motor rating(kW) 0004: 0.4kW ~ 0750: 75kW	Series name S100	Input Voltage 1 : 1-phase 200 ~ 240[V] 2 : 3-phase 200 ~ 240[V] 4 : 3-phase 380 ~ 480[V]	I/O Type S : Standad I/O E : Extension I/O	UL Type O : UL Open & Endosed type1 X : IP66		EMC Filter Blank : Non EMC Filter F : Built-in EMC Filter	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, Silp compensation, Sensorless vector
	Speed reference resolution	Digital command: 0.01Hz / Analog command: 0.06Hz (Maxmaxmum frequency : 60Hz)
	Frequency accuracy	1% of the maxmum 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, Silp 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-Outut 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 | 0004 | iE5 | - | 1 | C

LS drive brand

Motor rating
001: 0.1kW ~ 0004: 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-□			0001-1	0002-1	0004-1	0001-2	0002-2	0004-2
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 | 0004 | iC5 | - | 1 | F

LS drive brand	Motor rating	Series name
	0004: 0.4kW ~ 0022: 2.2kW	iC5

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

Symbol	Filter
None	Not available
F	EMC filter

General specification

Model number: SV□□□□ iC5-□			0004-1	0008-1	0015-1	0022-1
Motor rating		[HP]	0.5	1	2	3
		[kW]	0.4	0.75	1.5	2.2
Output rating	Capacity	[kVA]	0.95	1.9	3	4.5
	Current	[A]	2.5	5	8	12
	Voltage	[V]	Three-phase 200 ~ 230V			
	Frequency	[Hz]	0.1 ~ 400Hz			
Input rating	Voltage	[V]	Single-phase 200 ~ 230V (±10%)			
	Frequency	[Hz]	50 ~ 60Hz (±5%)			
	Current	[A]	5.5	9.2	16	21.6
Weight		[kg]	0.87	0.89	1.79	1.85

Control spec	Control method	V/f, Slip compensation, Sensorless vector
	Speed reference resolution	Digital command: 0.01Hz / Analog reference: 0.06Hz (Max freq., 60Hz)
	Frequency accuracy	Digital command: 0.01% of Max output freq. / Analog signal command of 0.1% of Max output freq.
	V/f curve	Linear, Squared, User custom V/f
	Overload capacity	150% for 1 minute, 200% for 30 seconds
	Torque boost	Auto & manual torque boost
Operation	Keypad display	3 digit, 7 segment LED
	Operation method	Keypad / Terminal / Communication
	Frequency setting	Analog: 0 to 10V / 4 to 20mA / Potentiometer / Digital: Keypad
	Operation function	PID control / Up-Down operation / 3-Wire operation
Input signal	Multi-function terminal (P1 ~ P5)	PNP / NPN selectable 5 points (programmable)
Output signal	Multi-function relay Multi-function open collector	Fault output & drive status output (N.O., N.C.) Less than AC 250V, 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 / 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 0015 iG5A - 2 FB

SV	0015	iG5A	-	2	FB
LS drive brand	Motor rating	Series name		Input rating	Type

Motor rating

0004: 0.4kW ~ 0220: 22kW

Series name

iG5A

Input rating

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

Type

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

General specification

Model number: SV □□□□ iG5A-1 □			0004	0008	0015
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 □			0004	0008	0015	0022	0037	0040	0055	0075	0110	0150	0185	0220
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 □			0004	0008	0015	0022	0037	0040	0055	0075	0110	0150	0185	0220
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

CE c UL us

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 Multi-function open collector	Fault output & drive status output (N.O., N.C.) Less than AC250V, 1A / Less than DC 30V 1A DC24V (less than 50mA)
	Analog output	0 to 10Vdc (less than 10mA): frequency / current / voltage / DC voltage selectable
Protection	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
	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 (110% overload)	[A]	5	8	12	16	24	32	46	60	74	88	115
			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 (150% overload)	[A]	2.5	5	8	12	17	23	33	44	54	68	84
			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 (110% overload)	[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
			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) (150% overload)	[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
			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)

CE c UL us

Model Number

SV 0022 iV5 - 2 DB (MD) (DC) , 380V

LS drive brand	Motor rating	Series name
	0022: 2.2kW ~ 3750: 370kW	iV5

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

Symbol	Dynamic Brake
None	Not available
DB	Dynamic Braking

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

Symbol	Input type
None	AC Input
(DC)	DC Input

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

General specification

Model number: SV □□□□ iV5-2 □			0022	0037	0055	0075	0110	0150	0185	0220	0300	0370
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 □			0022	0037	0055	0075	0110	0150	0185	0220	0300	0370	0450	0550	0750	0900	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)			0055	0075	0110	0150	0185	0220	0300	0370	0450	0550	0750	0900	1100	1320	1600	2200	2800	3150	3750	500
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		S100				iE5		iC5	iG5A		
Input Phase		Single-phase	Three-phase			Single-phase	Three-phase	Single-phase	Single-phase	Three-phase	
Voltage Range		200~240V	200~240V	380~480V		200~230V		200~230V	200~230V		380~480V
Motor rating		0.4~2.2kW	0.4~15kW	0.4~75kW		0.1~0.4kW	0.1~0.4kW	0.4~2.2kW	0.4~1.5kW	0.4~22kW	0.4~22kW
		0.5~3HP	0.5~20HP	0.5~100HP		0.13~0.5HP	0.13~0.5HP	0.5~3HP	0.5~2HP	0.5~30HP	0.5~30HP
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		
		0.4~2.2kW	0.4~15kW	0.4~75kW		0.1~0.4kW		0.4~2.2kW	0.4~22kW		
		0.5~3HP	0.5~20HP	0.5~100HP		0.13~0.5HP		0.5~3HP	0.5~30HP		
	UL Type1	UL Enclosed type 1 with conduit box installed							Option		
		0.4~2.2kW	0.4~15kW	0.4~75kW					0.4~22kW		
		0.5~3HP	0.5~20HP	0.5~100HP					0.5~30HP		
	IP54										
	IP66										
			0.4~15kW	0.4~22kW							
			0.5~20HP	0.5~30HP							
Keypad	Type	7 Segment			iS7 Graphic LCD	Fixed type		Fixed type	Fixed type		
	Built-in	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	0.5~20H	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		
					30~75kW				0.4~22kW		
					40~100HP				0.5~30HP		
EMC Filter		Built-in* note 5)		Built-in* note 6)	Built-in Option			Built-in Option			Footprint Filter* note 1)
		0.4~2.2kW		0.4~22kW	30~75kW			0.4~2.2kW			0.4~4kW
		0.5~3HP		0.5~30HP	40~100HP			0.5~3HP			0.5~5.4HP
DC Reactor					Built-in						
					30~75kW						
					40~100HP						
RS485(LS Bus)		Standard				Standard			Standard		Standard* note 2)
Modbus RTU		Standard				Standard		Option	Standard		Standard* note 2)
Modbus TCP		Option									Option* note 3)
DeviceNet											Option* note 4)
Profibus-DP		Option									
Fnet(LS PLC link)											
Rnet											
LonWorks											
CANopen		Option									Standard* note 3&4)
BACnet											
EtherNet/IP		Option									Standard* note 3)
CC-Link											
MMC(Multi Motor Cable)											
Encoder											
Sincos encoder											
PLC											
I/O	Standard I/O	Built-in Option									
	Extension I/O										
	Medium Capacity 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

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Safety Instructions

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

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

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