



Variable Frequency Drive

LS Drive Series

iE5 / M100 / iG5A / G100 / S100 / H100 / iS7 / iP5A / iV5



LSIS



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.





RoHS



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: 5.5kW - 30kW
3Ø 400V: 5.5kW - 450kW
3Ø 575V: 5.5kW - 280kW

H100
3Ø 200V: 5.5kW - 18.5kW
3Ø 400V: 5.5kW - 500kW

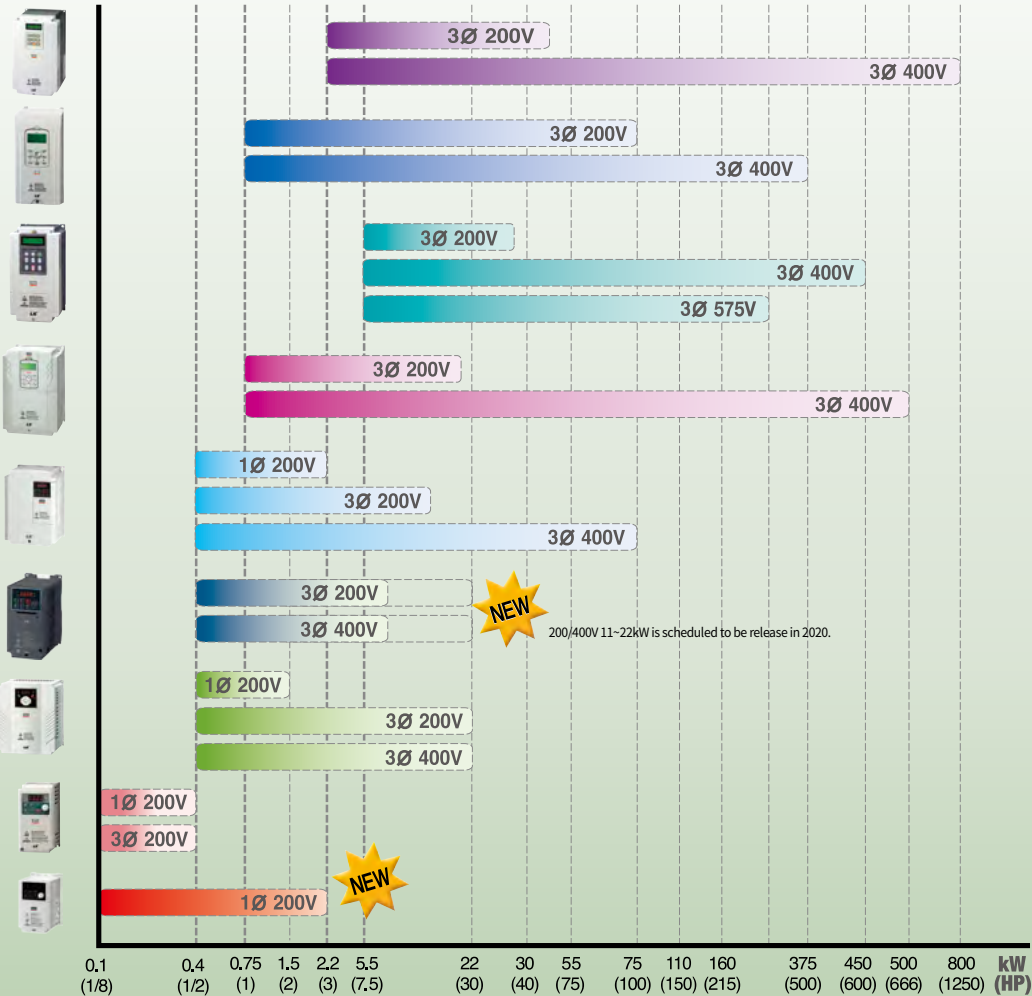
S100
1Ø 200V: 0.4kW - 2.2kW
3Ø 200V: 0.4kW - 15kW
3Ø 400V: 0.4kW - 75kW

G100
3Ø 200V: 0.4kW - 7.5kW
3Ø 400V: 0.4kW - 7.5kW

iG5A
1Ø 200V: 0.4kW - 1.5kW
3Ø 200V: 0.4kW - 22kW
3Ø 400V: 0.4kW - 22kW

iE5
1Ø 200V: 0.1kW - 0.4kW
3Ø 200V: 0.1kW - 0.4kW

M100
1Ø 200V: 0.1kW - 2.2kW



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M100

Variable Frequency Drive

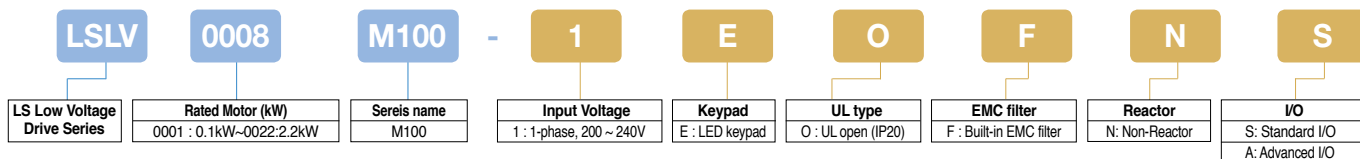
Ultra Compact Micro VFD

1 phase 0.1 ~ 2.2kW (0.125 ~ 3.0HP), 200 ~ 240V



- Built-in EMC filter (C2 Class)
- Compact & Micro size
- DIN rail installation
- Side by side installation (2mm)
- Potentiometer
- Built-in RS485 communication (Advanced model)
- Built-in DB Unit (1.5kW or higher)
- Easy connection with RJ 45 port (Modbus, Smart Copier, Remote keypad, DriveView 7)
- CE and New UL 61800-5-2 design

Model Number



General specification

| Model number: LSLV□□□□M100-1E0FN□ | | 0001 | 0002 | 0004 | 0008 | 0015 | 0022 |
|-----------------------------------|----------------------|-------------------------------|------|------|------|------|------|
| Motor rating | [HP] | 0.125 | 0.25 | 0.5 | 1 | 2 | 3 |
| | [kW] | 0.1 | 0.2 | 0.4 | 0.75 | 1.5 | 2.2 |
| Output rating | Rated Capacity [kVA] | 0.3 | 0.6 | 0.95 | 1.9 | 3 | 4.5 |
| | Rated Current [A] | 0.8 | 1.4 | 2.4 | 4.2 | 7.5 | 10 |
| Output Frequency | | 0~400 Hz | | | | | |
| Output Voltage [V] | | 3-phase 200~240 V | | | | | |
| Input rating | Service Voltage [V] | 3-phase 200~240 V (-15%~+10%) | | | | | |
| | Input Frequency | 50~60 Hz (±5%) | | | | | |
| Weight | Rated Current [A] | 1 | 1.8 | 3.7 | 7.1 | 13.6 | 18.7 |
| | [kg] | 0.66 | | 1 | | 1.45 | |

| | | | |
|---------------|---|---|--|
| Control Spec. | Control method | V/F control, slip compensation | |
| | Frequency settings power resolution | Digital command: | 0.01Hz |
| | | Analog command: | 0.06 Hz (60 Hz standard) |
| | Frequency accuracy | 1% of maximum output frequency | |
| | V/F pattern | Linear, square reduction, user V/F | |
| | Overload capacity | Rated current: 150% 1 min | |
| Torque boost | Manual torque boost, automatic torque boost | | |
| Operation | Operation type | Select key pad, terminal strip, or communication operation | |
| | Frequency settings | Analog type: V1terminal 0~10 V, I2 terminal (Advanced I/O) 0~20 mA and 0~10 V Digital type: key pad input | |
| | Operation function | Anti-forward and reverse direction rotation, Frequency jump, Frequency limit, DC braking, Jog operation, Up-down operation, 3-wire operation, Dwell operation, Slip compensation, PID control, Energy saving operation, Speed search, Automatic restart | |
| Input signal | | Select PNP (Source) or NPN (Sink) mode. | |
| | Multi-function terminal | Forward direction operation, Reset, Emergency stop, Multi-step speed frequency-high/med/low, DC braking during stop, Frequency increase, 3-wire, Select acc/dec/stop, Reverse direction operation, External trip, Jog operation, Multi-step acc/dec-high/med/low, Second motor selection, Frequency reduction, Fix analog command frequency, Transition from PID to general operation | |
| Output signal | Multi- function open collector terminal (standard I/O only) | Fault output and inverter operation status output | Less than DC 24 V, 50 mA |
| | Multi-function relay terminal | | Less than (N.O., N.C.) AC250V 1A, Less than DC 30V, 1A |
| | Analog output | 0~10 Vdc: Select frequency, output current, output voltage, DC terminal voltage and others | |
| Protection | Failures | Motor over heat trip, Motor overload trip, Output open-phase trip, External signal trip, Inverter overload trip, Command loss trip Over current trip, Inverter over heat, Over voltage trip, Ground trip, COM trip, Fan trip, Low voltage trip, Command loss trip | |
| | Alerts | Overload alarm | |
| | Instantaneous blackout | Less than 15 ms: continue operation (must be within the rated input voltage and rated output range) More than 15 ms: auto restart operation | |
| Enclosure | IP20 | | |

G100

Variable Frequency Drive

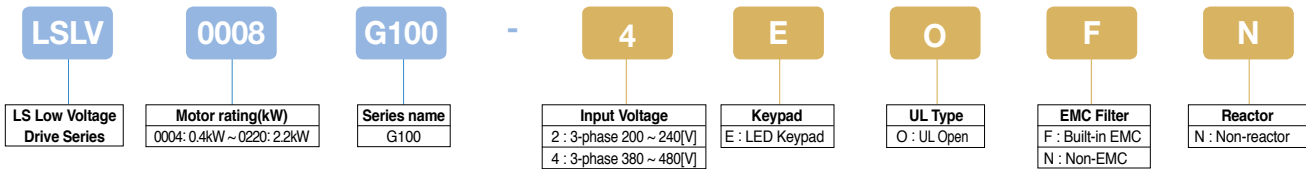
General Drive VFD

3 phase 0.4~7.5kW(0.5~10HP), 200~400V
3 phase 0.4~7.5kW(0.5~10HP), 380~480V



- Meets UL 61800-5-1
- Military (MIL 217Plus) design based methodology
- Enhanced materials and manufacturing processes
- Enhanced motor control-sensorless & V/F performance
- User-friendly-easy tuning sensorless control
- Suitable for most applications
- Easy to install, use and maintain
- Various options

Model Number



General specification

| Model number: LSLV □□□□ G100-2 □□□□ | | | 0004 | 0008 | 0015 | 0022 | 0040 | 0055 | 0075 |
|-------------------------------------|---------------------|------------------|----------------------------------|------|------|------|------|------|------|
| Motor Rating | Heavy Duty (HD) | (HP) | 0.5 | 1.0 | 2.0 | 3.0 | 5.4 | 7.5 | 10 |
| | | (kW) | 0.4 | 0.75 | 1.5 | 2.2 | 4.0 | 5.5 | 7.5 |
| Rating | Normal Duty (ND) | (HP) | 1.0 | 2.0 | 3.0 | 5.4 | 7.5 | 10 | 15 |
| | | (kW) | 0.75 | 1.5 | 2.2 | 4.0 | 5.5 | 7.5 | 11 |
| Output Rating | Capacity [kVA] | Heavy Duty (HD) | 1.0 | 1.9 | 3.0 | 4.2 | 6.5 | 9.1 | 12.2 |
| | | Normal Duty (ND) | 1.2 | 2.3 | 3.8 | 4.6 | 6.9 | 11.4 | 15.2 |
| | Rated Current | Heavy Duty (HD) | 2.5 | 5.0 | 8.0 | 11.0 | 17.0 | 24.0 | 32.0 |
| | | Normal Duty (ND) | 3.1 | 6.0 | 9.6 | 12.0 | 18.0 | 30.0 | 40.0 |
| Input Rating | (3-Phase Input) [A] | Heavy Duty (HD) | 1.5 | 2.8 | 4.6 | 6.1 | 9.3 | 12.8 | 17.4 |
| | | Normal Duty (ND) | 2.0 | 3.6 | 5.9 | 6.7 | 9.8 | 16.3 | 22.0 |
| Input Rating | Frequency [Hz] | | 0~400Hz (IM sensorless: 0~120Hz) | | | | | | |
| | Voltage [V] | | 3-Phase 200~240V | | | | | | |
| Input Rating | Voltage [V] | | 3-Phase 200~240VAC (-15%~+10%) | | | | | | |
| | Frequency [Hz] | | 50~60Hz (±5%) | | | | | | |
| Input Rating | Rated Current [A] | Heavy Duty (HD) | 2.2 | 4.9 | 8.4 | 11.8 | 18.5 | 25.8 | 34.9 |
| | | Normal Duty (ND) | 3.0 | 6.3 | 10.8 | 13.1 | 19.4 | 32.7 | 44.2 |
| Weight [kg] | | | 1.04 | 1.06 | 1.36 | 1.4 | 1.89 | 3.08 | 3.21 |

| Model number: LSLV □□□□ G100-4 □□□□ | | | 0004 | 0008 | 0015 | 0022 | 0040 | 0055 | 0075 |
|-------------------------------------|---------------------|------------------|----------------------------------|------|------|------|------|------|------|
| Motor Rating | Heavy Duty (HD) | (HP) | 0.5 | 1.0 | 2.0 | 3.0 | 5.4 | 7.5 | 10 |
| | | (kW) | 0.4 | 0.75 | 1.5 | 2.2 | 4.0 | 5.5 | 7.5 |
| Rating | Normal Duty (ND) | (HP) | 1.0 | 2.0 | 3.0 | 5.4 | 7.5 | 10 | 15 |
| | | (kW) | 0.75 | 1.5 | 2.2 | 4.0 | 5.5 | 7.5 | 11 |
| Output Rating | Capacity [kVA] | Heavy Duty (HD) | 1.0 | 1.9 | 3.0 | 4.2 | 6.5 | 9.1 | 12.2 |
| | | Normal Duty (ND) | 1.5 | 2.4 | 3.9 | 5.3 | 7.6 | 12.2 | 17.5 |
| | Rated Current | Heavy Duty (HD) | 1.3 | 2.5 | 4.0 | 5.5 | 9.0 | 12.0 | 16.0 |
| | | Normal Duty (ND) | 2.0 | 3.1 | 5.1 | 6.9 | 10.0 | 16.0 | 23.0 |
| Input Rating | (3-Phase Input) [A] | Heavy Duty (HD) | 0.7 | 1.4 | 2.1 | 2.8 | 4.9 | 6.4 | 8.7 |
| | | Normal Duty (ND) | 1.3 | 1.9 | 2.8 | 3.6 | 5.4 | 8.7 | 12.6 |
| Input Rating | Frequency [Hz] | | 0~400Hz (IM sensorless: 0~120Hz) | | | | | | |
| | Voltage [V] | | 3-Phase 380~480V | | | | | | |
| Input Rating | Voltage [V] | | 3-Phase 380~480VAC (-15%~+10%) | | | | | | |
| | Frequency [Hz] | | 50~60Hz (±5%) | | | | | | |
| Input Rating | Rated Current [A] | Heavy Duty (HD) | 1.1 | 2.4 | 4.2 | 5.9 | 9.8 | 12.9 | 17.5 |
| | | Normal Duty (ND) | 2.0 | 3.3 | 5.5 | 7.5 | 10.8 | 17.5 | 25.4 |
| Weight [kg] | | | 1.02 | 1.06 | 1.4 | 1.42 | 1.92 | 3.08 | 3.12 |

- Maximum applicable capacity is indicated in case of using a 4-pole standard motor
- For the rated capacity, 200 and 400V class input capacities are based on 220 and 440V, respectively.
- The rated output current is limited based on the carrier frequency set at Cn.04.

- The output voltage becomes 20-40 % lower during no-load operations to protect the inverter from the impact of the motor closing and opening (0.4-4.0 kW models only).

| | | | |
|---------------------|-------------------------------|---|--|
| Control | Control Method | V/F, Slip Compensation, Sensorless Vector | |
| | Frequency Setting Resolution | Digital command: 0.01Hz / Analog command: 0.06Hz(maximum frequency: 60 Hz) | |
| | Frequency Accuracy | 1% of the maximum output frequency | |
| | V/F Pattern | Linear, squared, user V/F | |
| | Overload Capacity | HD: 150% 1 minute, ND: 120% 1minute | |
| | Torque Boost | Manual/Automatic torque boost | |
| Operation | Operation Mode | Select key pad, terminal strip, or communication operation | |
| | Frequency Setting | Analog: -10~10[V], 0~10[V], 4~20[mA] / Digital: Keypad | |
| | Operation Function | PID control, 3-wire operation, Frequency limit, Second function, Anti-forward and reverse direction rotation, Commercial transition, Speed search, Power braking, Leakage reduction, Up-down operation, DC braking, Frequency jump, Slip compensation, Automatic restart, Automatic tuning, Energy buffering, Flux braking, Fire mode | |
| | Input | Multi-Function Terminal (5 Points) | 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 |
| Protective Function | Output | Analog Input | V1: -10~10V, I2 4~20mA |
| | Multi-Function Relay Terminal | Output | Fault output and drive operation status output (N.O., N.C.) less than AC 250V 1A, less than DC 30V 1A |
| | Analog Output | Output | 0~12Vdc: Frequency, Output current, Output voltage, DC stage voltage etc. selectable |
| Environment | Trip | Over current trip, external signal trip, ARM short current fault trip, over heat trip, input imaging trip, ground trip, motor over heat trip, I/O board link trip, no motor trip, parameter writing trip, emergency stop trip, command loss trip, external memory error, CPU watchdog trip, motor light load trip | Over voltage trip, temperature sensor trip, inverter over heat, option trip, output image trip, inverter overload trip, fan trip, pre-PID operation failure external brake trip, low voltage trip during operation, low voltage trip, analog input error, motor overload trip, over torque trip, under torque trip |
| | Alarm | Command loss trip warning, overload warning, light load warning, inverter overload warning, fan operation warning, braking resistance braking rate warning, rotor time constant tuning error, inverter pre-overheat warning, over torque warning, under torque warning | |
| | Momentary Power Loss | HD below 15ms (ND below 8ms): Continuous operation (To be within rated input voltage, rated output) HD above 15ms (ND above 8ms): Automatic restart operation enable | |
| | Cooling Type | Forced fan cooling structure | |
| | Protection Degree | IP20/UL Open (Default), UL Enclosed type 1 (Option) | |
| Environment | Ambient Temperature | Ambient temperature under the condition of no ice or frost. HD: -10~50°C(14~122°F) / ND: -10~40°C(14~104°F) [However, recommended to use load below 80% when using at 50°C under light load] | |
| | Humidity | Relative humidity below 95% RH (no dew formation) | |
| | Storage Temperature | -20~65°C(-4~149°F) | |
| | Location | No corrosive gas, flammable gas, oil mist and dust etc. indoors (Pollution degree 2 environment) | |
| | Altitude, Vibration | Below 1,000m (From 1000 to 4000m, the rated input voltage and rated output current of the drive must be derated by 1% for every 100m.), below 9.8m/sec2 (1G) | |
| | Pressure | 70~106kPa | |

S100

Variable Frequency Drive

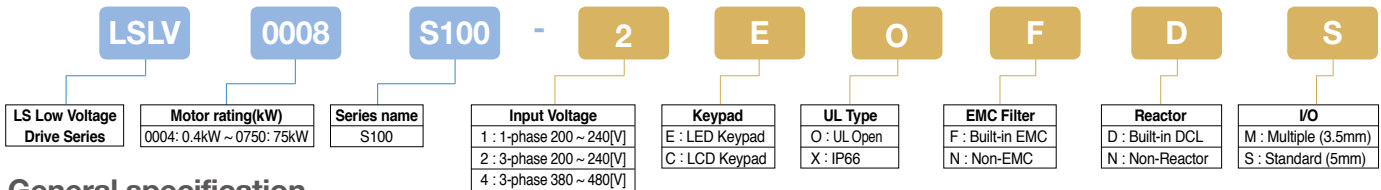
High Performance Standard VFD

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
(Able to copy parameter and download drive main OS)

Model Number



General specification

| Model number: LSLV □□□□S100-1 □□□□ | 0004 | 0008 | 0015 | 0022 | Model number: LSLV □□□□S100-2 □□□□ | 0004 | 0008 | 0015 | 0022 | 0037 | 0040 | 0055 | 0075 | 0110 | 0150 | |
|------------------------------------|----------------------------|-----------------------------------|-----------|-----------|------------------------------------|----------------------------------|-----------------------------------|------|------|------|------|------|------|------|------|------|
| Motor rating | Heavy [HP] | 0.5 | 1.0 | 2.0 | 3.0 | Heavy [HP] | 0.5 | 1.0 | 2.0 | 3.0 | 5.0 | 5.5 | 7.5 | 10.0 | 15.0 | 20.0 |
| | Duty(HD) [kW] | 0.4 | 0.75 | 1.5 | 2.2 | Duty(HD) [kW] | 0.4 | 0.75 | 1.5 | 2.2 | 3.7 | 4.0 | 5.5 | 7.5 | 11.0 | 15.0 |
| | Normal [HP] | 1.0 | 2.0 | 3.0 | 5.0 | Normal [HP] | 1.0 | 2.0 | 3.0 | 5.0 | 5.4 | 7.5 | 10.0 | 15.0 | 20.0 | 25.0 |
| | Duty(HD) [kW] | 0.75 | 1.5 | 2.2 | 3.7 | Duty(HD) [kW] | 0.75 | 1.5 | 2.2 | 3.7 | 4.0 | 5.5 | 7.5 | 11.0 | 15.0 | 18.5 |
| Output rating | Capacity Heavy Duty(HD) | 1.0 | 1.9 | 3.0 | 4.2 | Capacity Heavy Duty(HD) | 1.0 | 1.9 | 3.0 | 4.2 | 6.1 | 6.5 | 9.1 | 12.2 | 17.5 | 22.9 |
| | [kVA] Normal Duty(ND) | 1.2 | 2.3 | 3.8 | 4.6 | [kVA] Normal Duty(ND) | 1.2 | 2.3 | 3.8 | 4.6 | 6.9 | 6.9 | 11.4 | 15.2 | 21.3 | 26.3 |
| | Rated Heavy Duty(HD) | 2.5 | 5.0 | 8.0 | 11.0 | Rated Heavy Duty(HD) | 2.5 | 5.0 | 8.0 | 11.0 | 16.0 | 17.0 | 24.0 | 32.0 | 46.0 | 60.0 |
| | Current Normal Duty(ND) | 3.1 | 6.0 | 9.6 | 12.0 | Current Normal Duty(ND) | 3.1 | 6.0 | 9.6 | 12.0 | 18.0 | 18.0 | 30.0 | 40.0 | 56.0 | 69.0 |
| | Frequency [Hz] | 0~400Hz (IM Sensorless:0~120[Hz]) | | | | Frequency [Hz] | 0~400Hz (IM Sensorless:0~120[Hz]) | | | | | | | | | |
| | Voltage [V] | 3-phase 200~240V | | | | Voltage [V] | 3-phase 200~240V | | | | | | | | | |
| Input rating | Voltage [V] | 1-phase 200 ~ 240VAC (-15%~+10%) | | | | Voltage [V] | 3-phase 200 ~ 240VAC (-15%~+10%) | | | | | | | | | |
| | Frequency [Hz] | 50 ~ 60Hz (±5%) | | | | Frequency [Hz] | 50 ~ 60Hz (±5%) | | | | | | | | | |
| | Rated Heavy Duty(HD) | 4.4 | 9.3 | 15.6 | 21.7 | Rated Heavy Duty(HD) | 2.2 | 4.9 | 8.4 | 11.8 | 17.5 | 18.5 | 25.8 | 34.9 | 50.8 | 66.7 |
| | Current[A] Normal Duty(ND) | 5.8 | 11.7 | 19.7 | 24.0 | Current[A] Normal Duty(ND) | 3.0 | 6.3 | 10.8 | 13.1 | 19.4 | 19.4 | 32.7 | 44.2 | 62.3 | 77.2 |
| Weight[kg] (Built-in EMC) | | 0.9(1.14) | 1.3(1.76) | 1.5(1.76) | 2.0(2.22) | Weight[kg] (Built-in EMC) | 0.9 | 0.9 | 1.3 | 1.5 | 2.0 | 2.0 | 3.3 | 3.3 | 4.6 | 7.1 |

| Model number: LSLV □□□□S100-4 □□□□ | 0004 | 0008 | 0015 | 0022 | 0037 | 0040 | 0055 | 0075 | 0110 | 0150 | 0185 | 0220 | 0300 | 0370 | 0450 | 0550 | 0750 | |
|------------------------------------|----------------------------|-----------------------------------|-----------|-----------|-----------|-----------|-----------|------|------|------|------|------|------|------|------|-------|-------|-------|
| Motor rating | Heavy [HP] | 0.5 | 1.0 | 2.0 | 3.0 | 5.0 | 5.5 | 7.5 | 10.0 | 15.0 | 20.0 | 25.0 | 30.0 | 40.0 | 50.0 | 60.0 | 75.0 | 100.0 |
| | Duty(HD) [kW] | 0.4 | 0.75 | 1.5 | 2.2 | 3.7 | 4.0 | 5.5 | 7.5 | 11.0 | 15.0 | 18.5 | 22.0 | 30.0 | 37.0 | 45.0 | 55.0 | 75.0 |
| | Normal [HP] | 1.0 | 2.0 | 3.0 | 5.0 | 5.4 | 7.5 | 10.0 | 15.0 | 20.0 | 25.0 | 30.0 | 40.0 | 50.0 | 60.0 | 75.0 | 100.0 | 120.0 |
| | Duty(HD) [kW] | 0.75 | 1.5 | 2.2 | 3.7 | 4.0 | 5.5 | 7.5 | 11.0 | 15.0 | 18.5 | 22.0 | 30.0 | 37.0 | 45.0 | 55.0 | 75.0 | 90.0 |
| Output rating | Capacity Heavy Duty(HD) | 1.0 | 1.9 | 3.0 | 4.2 | 6.1 | 6.5 | 9.1 | 12.2 | 18.3 | 22.9 | 29.7 | 34.3 | 46.5 | 57.2 | 69.4 | 83.8 | 115.8 |
| | [kVA] Normal Duty(ND) | 1.5 | 2.4 | 3.9 | 5.3 | 7.6 | 7.6 | 12.2 | 17.5 | 22.9 | 29.0 | 33.5 | 44.2 | 57.2 | 69.4 | 81.5 | 108.2 | 128.8 |
| | Rated Heavy Duty(HD) | 1.3 | 2.5 | 4.0 | 5.5 | 8.0 | 9.0 | 12.0 | 16.0 | 24.0 | 30.0 | 39.0 | 45.0 | 61.0 | 75.0 | 91.0 | 110.0 | 152.0 |
| | Current Normal Duty(ND) | 2.0 | 3.1 | 5.1 | 6.9 | 10.0 | 10.0 | 16.0 | 23.0 | 30.0 | 38.0 | 44.0 | 58.0 | 75.0 | 91.0 | 107.0 | 142.0 | 169.0 |
| | 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%) | | | | | | | | | | | | | | | | |
| | Rated Heavy Duty(HD) | 1.1 | 2.4 | 4.2 | 5.9 | 8.7 | 9.8 | 12.9 | 17.5 | 26.5 | 33.4 | 43.6 | 50.7 | 56.0 | 69.0 | 85.0 | 103.0 | 143.0 |
| | Current[A] Normal Duty(ND) | 2.0 | 3.3 | 5.5 | 7.5 | 10.8 | 10.8 | 17.5 | 25.4 | 33.4 | 42.5 | 49.5 | 65.7 | 69.0 | 85.0 | 100.0 | 134.0 | 160.0 |
| Weight[kg] (Built-in EMC) | | 0.9(1.18) | 1.9(1.18) | 1.3(1.77) | 1.5(1.80) | 2.0(2.23) | 2.0(2.23) | 3.3 | 3.4 | 4.6 | 4.8 | 7.5 | 7.5 | 25.8 | 34.4 | 34.4 | 41.8 | 43.8 |

| | | |
|-------------------------|---|---|
| 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 Standard I/O(5points) Multiple I/O(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 Option | Keypad | IP20, UL Type1, IP66 |
| | Communication | Graphic LCD keypad(S7) Profibus-DP, EtherNet-IP, Modbus-TCP, CANopen |

H100

Variable Frequency Drive

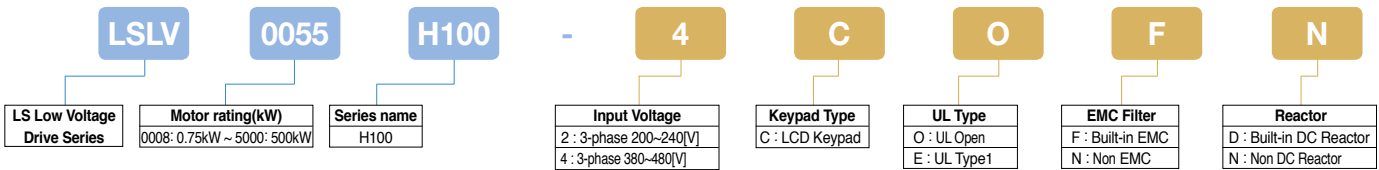
Fan and Pump VFD

3 phase 0.75~18.5kW(1.0~25HP), 200~240V
3 phase 0.75~500kW(1.0~800HP), 380~480V



- Specialized function for HVAC
 - Multi-motor control
 - Scheduling function (Time event: Real Time Clock)
 - Flow Compensation
 - Soft fill operation
 - Start Ramp & End Ramp
 - Dec Valve Ramp
 - Pump Clean
 - Load Tuning
 - Fire Mode
 - Energy-saving Display (Payback Counter)
 - Boost, Wake-up function
- V/f control
 - Built-in BACnet communication
 - LonWorks(Optional)
 - Keypad Exclusive for HVAC
 - Built-in EMC filter/DC Reactor
 - Side by Side Installation
 - Heatsink out the back installation (Flange Option)
 - Enhanced Size Competitiveness
 - Capacitor/Fan Life Cycle Management Function
 - Smart Copier Option (Able to copy parameter and download drive main OS)

Model Number



General specification

| Model number: LSLV □□□□ H100-2 □□□□ | | 0008 | 0015 | 0022 | 0037 | 0055 | 0075 | 0110 | 0150 | 0185 |
|-------------------------------------|----------------------|--------------------------------|------|------|------|------|------|------|------|------|
| Applied Motor | [HP] | 1.0 | 2.0 | 3.0 | 5.0 | 7.5 | 10 | 15 | 20 | 25 |
| | [kW] | 0.75 | 1.5 | 2.2 | 3.7 | 5.5 | 7.5 | 11 | 15 | 18.5 |
| Rated Output | Rated Capacity [kVA] | 1.9 | 3.0 | 4.5 | 6.1 | 8.4 | 11.4 | 16.0 | 21.3 | 26.3 |
| | Rated Current | 5 | 8 | 12 | 16 | 22 | 30 | 42 | 56 | 69 |
| Rated Input | Output Frequency | 0~400Hz | | | | | | | | |
| | Output Voltage [V] | 3-phase 200~240V | | | | | | | | |
| | Service Voltage [V] | 3-phase 200~240VAC (-15%~+10%) | | | | | | | | |
| | Input Frequency | 50 ~ 60Hz (±5%) | | | | | | | | |
| Weight | Rated Current [A] | 4.9 | 8.4 | 12.9 | 17.5 | 23.7 | 32.7 | 46.4 | 62.3 | 77.2 |
| | [kg] | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 4.6 | 7.1 |

| Model number: □□□□ H100-4 □□□□ | | 0008 | 0015 | 0022 | 0037 | 0055 | 0075 | 0110 | 0150 | 0185 | 0220 | 0300 | 0370 | 0450 | 0550 | 0750 | 0900 | 1100 | 1320 | 1600 | 1850 | 2200 | 2500 | 3150 | 3550 | 4000 | 5000 |
|--------------------------------|----------------------|--------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Applied Motor | [HP] | 1.0 | 2.0 | 3.0 | 5.0 | 7.5 | 10 | 15 | 20 | 25 | 30 | 40 | 50 | 60 | 75 | 100 | 120 | 150 | 200 | 250 | 300 | 350 | 400 | 500 | 550 | 650 | 800 |
| | [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 | 250 | 315 | 355 | 400 | 500 |
| Rated Output | Rated Capacity [kVA] | 1.9 | 3.0 | 4.5 | 6.1 | 9.1 | 12.2 | 18.3 | 23 | 29 | 34.3 | 46.5 | 57.1 | 69.4 | 82.0 | 108.2 | 128.8 | 170 | 201 | 248 | 282 | 329 | 367 | 467 | 520 | 587 | 733 |
| | Rated Current | 2.5 | 4 | 6 | 8 | 12 | 16 | 24 | 30 | 38 | 45 | 61 | 75 | 91 | 107 | 142 | 169 | 223 | 264 | 325 | 370 | 432 | 481 | 613 | 683 | 770 | 962 |
| Rated Input | Output Frequency | 0~400Hz | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Output Voltage [V] | 3-phase 380~480V | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Service Voltage [V] | 3-phase 380~480VAC (-15%~+10%) | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Input Frequency | 50 ~ 60Hz (±5%) | | | | | | | | | | | | | | | | | | | | | | | | | |
| Weight | Rated Current [A] | 2.4 | 4.2 | 6.5 | 8.7 | 12.2 | 17.5 | 26.5 | 33.4 | 42.5 | 50.7 | 69.1 | 69.3 | 84.6 | 100.1 | 133.6 | 160.0 | 215.1 | 254.6 | 315.3 | 358.9 | 419.1 | 469.3 | 598.1 | 666.4 | 751.3 | 938.6 |
| | [kg] | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.4 | 4.6 | 4.8 | 7.5 | 7.5 | 26 | 35 | 35 | 43 | 43 | 55.8 | 55.8 | 74.7 | 74.7 | 120.0 | 120.0 | 185.5 | 185.5 | 265 | 265 | |

| | | |
|---------------|---|--|
| Control Spec | Control Method | V/F control, slip compensation |
| | Frequency Set Resolution | Digital command: 0.01Hz Analog command: 0.06Hz (based on 60Hz) |
| | Control Degree of Frequency | 1% of the maximum output frequency |
| Operation | V/f curve | Liner, squared overload reduction and user V/F |
| | Overload Capacity | Rated Current: 120% , 1 minute (5.5~90kW), 110% , 1 minute (110~500kW) |
| | Torque Boost | Manual torque boost, automatic torque boost 1, automatic torque boost 2 |
| Input signal | Multifunctional Terminal(7points) | Optional: Keypad, terminal board or communication control Analog mode: -10~10V, 0~10V, 0~20mA Digital mode: Keypad and pulse train input |
| | Pulse Train | PID control, 3-Wire control, Frequency limitation, Secondary Functions, Forward/Reverse rotation prohibited, DC braking, Commercial power switching, Speed search, Power braking, Reduction of leakage, Up-Down control, DC braking Flux braking, Frequency pump, Slip compensation, Automatic restart, Automatic tuning, Energy buffering control, Energy-saving control |
| Output signal | Multifunctional Open Collector Terminal | Forward Operation, Reset, Emergency stop, Multi-step frequency – High/Mid/Low, DC braking during stop, Pre-Heat, Frequency increase, 3-Wire, Optional: Acceleration, deceleration or stop, MMC interlock, Reverse Operation, Pump cleaning, External trip, Jog control, Multi-step acceleration/deceleration-High/Mid/Low, Secondary motor selection, RTC(Time event function), Frequency decrease, Analog command frequency fixation, Switching to normal operation during PID operation |
| | Failure [Fault] Relay Terminal | 0~3kHz, Low Level: 0~0.8V, High Level: 3.5~12V |
| Protection | Multifunctional Relay Terminal | DC 26V, 50mA or below N.O. : AC 250V, 5A or below, DC30V, 3A or below N.C. : AC 250V, 1A or below, DC30V, 1A or below AC 250V, 5A or below, DC30V, 5A or below |
| | Analog Output | 0~12Vdc(0~20mA): Optional among frequency, output current, output voltage and DC voltage |
| Others | Pulse train | Maximum 32kHz, 0~12V |
| | Trip | Over-current trip, Trip caused by external signals, ARM short-circuit current trip, Overheat trip, Pipe broken trip, Input open-phase trip Ground trip, Motor overheat trip, IO board connection trip, No Motor trip, Parameter Write trip, Emergency stop trip, Command loss trip, External memory error, CPU watchdog trip, Motor under-load trip, Overvoltage trip, Temperature sensor trip, Drive overheat, Option trip, Output open-phase trip, Drive overload trip, Fan trip, Low voltage trip during operation, Low voltage trip, Analog input error, Motor overload trip, Keypad command loss trip, Damper trip, Level Detect trip, All auxiliary motor failure trip, Pump clean failure (fault) |
| Enclosure | Warning | Command loss trip warning, overload warning, under-load warning, drive overload warning, fan operation warning, damping resistance brake percentage warning, capacitor life warning, pump clean warning, Fire Mode warning and LDT warning |
| | Instant Power Interruption | Below 8 ms: Continuous operation [within the rated input voltage and rated output] 8 ms or above: Automatic restart operation |
| Option | Board | IP20/UL Open(default), UL Enclosed Type 1(option) |
| | Communication | Extension I/O (available soon) Lonworks |

iE5

Variable Frequency Drive

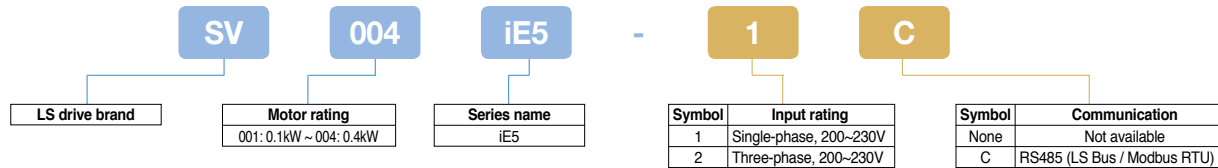
User friendly micro size slim VFD

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



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 (P1 ~ P5) | PNP / NPN selectable 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 | | | | | |

iG5A

Variable Frequency Drive

Powerful & compact sensorless vector control VFD

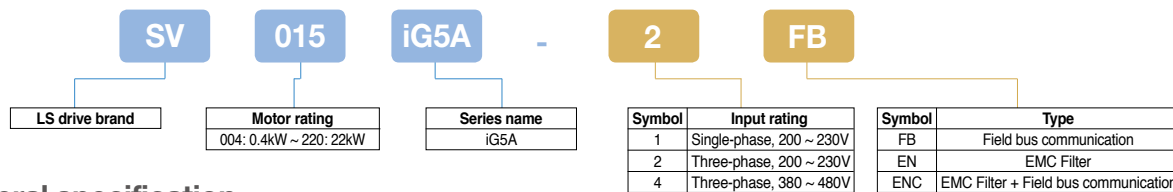
1 phase 0.4~1.5kW(0.5~2HP), 200~230V
 3 phase 0.4~22kW(0.5~30HP), 200~230V
 3 phase 0.4~22kW(0.5~30HP), 380~480V



- 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 algorithm
- Monitoring & commissioning PC based software tool (Drive View)
- Footprint EMC Filter (Option)
- Communication options
 - DeviceNet, EtherNet, Profibus-DP, CANOpen



Model Number



General specification

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

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

| Model number: SV □□□ iG5A-4 □ | | 004 | 008 | 015 | 022 | 037 | 040 | 055 | 075 | 110 | 150 | 185 | 220 |
|-------------------------------|----------------|--------------------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Motor rating | [HP] | 0.5 | 1 | 2 | 3 | 5 | 5.4 | 7.5 | 10 | 15 | 20 | 25 | 30 |
| | [kW] | 0.4 | 0.75 | 1.5 | 2.2 | 3.7 | 4.0 | 5.5 | 7.5 | 11 | 15 | 18.5 | 22 |
| Output rating | Capacity [kVA] | 0.95 | 1.9 | 3 | 4.5 | 6.1 | 6.5 | 9.1 | 12.2 | 18.3 | 22.9 | 29.7 | 34.3 |
| | Current [A] | 1.25 | 2.5 | 4 | 6 | 8 | 9 | 12 | 16 | 24 | 30 | 39 | 45 |
| Input rating | Voltage [V] | Three-phase 380 ~ 480V (+10%, -15%) | | | | | | | | | | | |
| | Frequency [Hz] | 0.1 ~ 400Hz | | | | | | | | | | | |
| | Voltage [V] | Single-phase 200 ~ 230V (+10%, -15%) | | | | | | | | | | | |
| Weight | [kg] | 0.76 | 0.77 | 1.12 | 1.84 | 1.89 | 1.89 | 3.66 | 3.66 | 9.00 | 9.00 | 13.3 | 13.3 |

| | | |
|---------------|-----------------------------------|--|
| Control spec | Control method | V/f, Slip compensation, Sensorless vector |
| | Speed reference resolution | Digital command: 0.01Hz / Analog reference: 0.06Hz (Max freq., 60Hz) |
| | Frequency accuracy | Digital command: 0.01% of Max output freq. / Analog signal command of 0.1% of Max output freq. |
| | V/f curve | Linear, Squared, User custom V/f |
| | Overload capacity | 150% for 1 minute |
| | Torque boost | Auto & manual torque boost |
| Operation | Keypad display | 4 digit, 7 segment LED |
| | Operation method | Keypad / Terminal / Communication |
| | Frequency setting | Analog: 0 to 10V / -10 to 10V / 0 to 20mA / Digital: Keypad |
| | Operation function | PID control / Up-Down operation / 3-Wire operation |
| Input signal | Multi-function terminal (P1 ~ P8) | PNP / NPN selectable 8 points (programmable) |
| Output signal | Multi-function relay | Fault output & drive status output (N.O., N.C.) Less than AC250V, 0.3A / Less than DC 30V 1A DC24V (less than 50mA) |
| | Multi-function open collector | |
| | 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

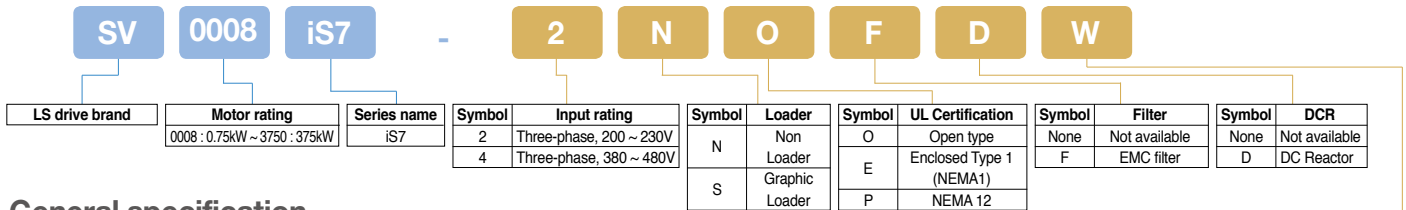


- Constant torque / Variable torque dual rating
- Selectable V/f, V/f PG, sensorless vector, sensored vector
- 150 MIPS(million instructions per second) high speed DSP
- High performances & functions:
 - Droop control (automatic torque balance)
 - KEB (Kinetic Energy Buffering) protection
 - Ride Through (LV Trip Delay) protection
 - Under Load Trip protection
 - 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)



※ ABS Standard - Acquired (up to 90kW) / In Progress (above 90kW)
※ DNV Standard - Acquired

Model Number



General specification

| Model number: SV □□□□ iS7-2 □ | | 0008 | 0015 | 0022 | 0037 | 0055 | 0075 | 0110 | 0150 | 0185 | 0220 | 0300 | 0370 | 0450 | 0550 | 0750 | Symbol | Application |
|-------------------------------|------------------|---|------|------|------|------|------|------|------|------|-------|------|------|------|------|------|--------|--------------------|
| Motor rating | [HP] | 1 | 2 | 3 | 5 | 7.5 | 10 | 15 | 20 | 25 | 30 | 40 | 50 | 60 | 75 | 100 | None | Normal application |
| | [kW] | 0.75 | 1.5 | 2.2 | 3.7 | 5.5 | 7.5 | 11 | 15 | 18.5 | 22 | 30 | 37 | 45 | 55 | 75 | W | Web application |
| 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 | | |
| Input rating | 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) | | | | | | | | | | | | | | | | |
| | Voltage [V] | Three-phase 200 ~ 230V (-15% ~ +10%) | | | | | | | | | | | | | | | | |
| | Frequency [Hz] | 50 ~ 60Hz (±5%) | | | | | | | | | | | | | | | | |
| Current (CT) [A] | | 4.3 | 6.9 | 11.2 | 14.9 | 22.1 | 28.6 | 44.3 | 55.9 | 70.8 | 85.3 | 121 | 154 | 191 | 233 | 305 | | |
| | Current (VT) [A] | 6.8 | 10.6 | 14.9 | 21.3 | 28.6 | 41.2 | 54.7 | 69.7 | 82.9 | 116.1 | 152 | 190 | 231 | 302 | 326 | | |

| Model number: SV □□□□ iS7-4 □ | | 0008 | 0015 | 0022 | 0037 | 0055 | 0075 | 0110 | 0150 | 0185 | 0220 | 0300 | 0370 | 0450 | 0550 | 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 |
| Input rating | 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) | | | | | | | | | | | | | | | | | | | | | | | |
| | Voltage [V] | Three-phase 380 ~ 480V (-15% ~ +10%) | | | | | | | | | | | | | | | | | | | | | | | |
| | Frequency [Hz] | 50 ~ 60Hz (±5%) | | | | | | | | | | | | | | | | | | | | | | | |
| Current (CT) [A] | | 2.2 | 3.6 | 5.5 | 7.5 | 11.0 | 14.4 | 22.0 | 26.6 | 35.6 | 41.6 | 55.5 | 67.9 | 82.4 | 102.6 | 143.4 | 174.7 | 213.5 | 255.6 | 316.3 | 404 | 466 | 605 | 674 | 798 |
| | Current (VT) [A] | 3.2 | 5.7 | 7.7 | 11.1 | 14.7 | 21.9 | 26.4 | 35.5 | 55.7 | 67.5 | 81.7 | 101.8 | 123 | 143.6 | 173.4 | 212.9 | 254.2 | 315.3 | 359.3 | 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) |
| Operation | 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 |
| Input signal | Overload capacity | CT(Heavy duty): 150% for 1 minute, VT(Normal duty): 110% for 1 minute |
| | Torque boost | Auto & Manual torque boost |
| Output signal | Keypad display | Wide graphic LCD keypad (available 6 languages) |
| | Operation method | Keypad / Terminal / Communication |
| Protection | 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 |
| Enclosure | Multi-function terminal (P1 ~ P8) | PNP / NPN selectable 8 points (programmable) |
| | Multi-function relay | Fault output & drive status output (N.O., N.C.) Less than AC250V, 1A / Less than DC 30V 1A |
| Others | 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 | Option | IP00 (30~75kW, 200V/90~375kW, 400V), IP21 (0.75~22kW, 200V / 0.75~75kW, 400V), IP54 / NEMA12 (0.75~22kW, 200V/ 400; Optional) |
| | Others | Graphic LCD keypad(IP21), Extension I/O, Isolation I/O, Encoder board, PLC board, Remote cable(2M/3M) Profibus-DP, DeviceNet, Modbus TCP, Rnet, LonWorks, CANopen, EtherNet/IP Built-in Dynamic braking transistor (0.75~22kW[1~30HP]), Built-in RS485(LS Bus / Modbus RTU) |

iP5A

Variable Frequency Drive

Fan & Pump specialized VFD

3 phase 200V : 5.5~30kW(1~400HP), 200~230V
3 phase 400V : 5.5~450kW(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 0008 : 0.75kW ~ 4500 : 450kW | Series name iP5A | Symbol | Input rating | Symbol | Loader | Symbol | UL Certification | Symbol | DCR | Symbol | Certificate |
| | | | 2 | Three-phase, 200 ~ 230V | None | Loader | O | Open type | None | Not available | (CLASS) | DNV |
| | | | 4 | Three-phase, 380 ~ 480V | N | Non Loader | E | Enclosed Type 1 | L | DC Reactor | | |

General specification

| Model number: SV □□□□ iP5A-2 □ | | 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] | 7.5 | 10 | 15 | 20 | 25 | 30 | 40 | 50 | 60 | 75 | 100 | 125 | 150 | 175 | 215 | 300 | 350 | 400 | 500 | 600 | |
| | [kW] | 5.5 | 7.5 | 11 | 15 | 18.5 | 22 | 30 | 37 | 45 | 55 | 75 | 90 | 110 | 132 | 160 | 220 | 280 | 315 | 375 | 450 | |
| Current (110% overload) | [A] | 24 | 32 | 46 | 60 | 74 | 88 | 115 | | | | | | | | | | | | | | |
| Motor rating (General load) | [HP] | 5 | 7.5 | 15 | 15 | 20 | 25 | 30 | 40 | 50 | 60 | 75 | 100 | 125 | 150 | 175 | 215 | 300 | 350 | 400 | 500 | |
| | [kW] | 3.7 | 5.5 | 7.5 | 11 | 15 | 18.5 | 22 | 30 | 37 | 45 | 55 | 75 | 90 | 110 | 132 | 160 | 220 | 280 | 315 | 375 | |
| Current (150% overload) | [A] | 17 | 23 | 33 | 44 | 54 | 68 | 84 | | | | | | | | | | | | | | |
| Output rating | [kVA] | 9.1 | 12.2 | 17.5 | 22.9 | 28.2 | 33.5 | 43.8 | | | | | | | | | | | | | | |
| | [V] | Three-phase 200 ~ 230V | | | | | | | | | | | | | | | | | | | | |
| | [Hz] | 0.01 ~ 120Hz | | | | | | | | | | | | | | | | | | | | |
| Input rating | [V] | Three-phase 200 ~ 230V (-15% ~ +10%) | | | | | | | | | | | | | | | | | | | | |
| | [Hz] | 50 ~ 60Hz (±5%) | | | | | | | | | | | | | | | | | | | | |
| Weight | [kg] | 4.9 | 6 | 6 | 13 | 13.5 | 20 | 20 | 27 | 27 | 29 | 42 | 43 | | | | | | | 243 | 280 | 380 |
| | [kg] | 4.9 | 6 | 6 | 12.5 | 13 | 20 | 20 | 27 | 27 | 29 | 42 | 43 | | | | | | | 243 | 280 | 380 |
| | [kg] | 4.9 | 6 | 6 | 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 / MMC / Easy start / Pre-heater | | | | | | | | | | | | | | | | | | | | |
| Input signal | Start 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) | | | | | | | | | | | | | | | | | | | | |
| | 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 | Output frequency / Output current / Output voltage / DC Link voltage(Output voltage: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 | Option | IP20/UL type 1(5.5~11kW[7.5~15HP]), IP00/UL open type(15~450kW[20~600HP]) | | | | | | | | | | | | | | | | | | | | |
| | 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

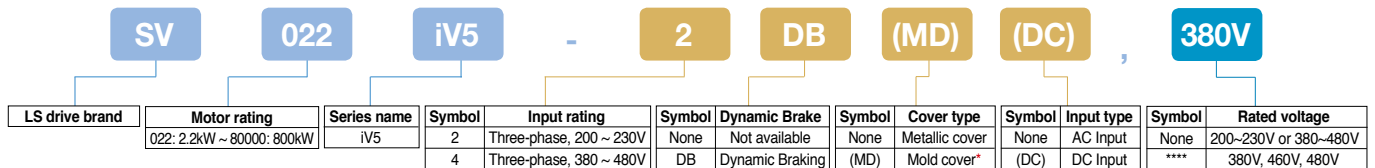
3 phase 200V : 2.2~37kW(3~50HP), 200~230V
 3 phase 400V : 2.2~800kW(3~1067HP), 380~480V
 400V DC input type : 5.5~500kW(7.5~666HP)



- 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 (SPM & IPM motors)
- Synchronous motor sensorless control
- Specialized functions for various applications
 - Load balance function
 - Diameter calculation / Taper function
 - Splicing / Inertia compensation function
 - Quick stop function
- Built-in Dynamic braking transistor (2.2~22kW[3~30HP])
- User-friendly LCD keypad (Detachable)
- Plug-in type control terminals
- Extension I/O boards (Optional):
 - EL I/O (for Elevator application)
 - Encoder division (open collector)
 - Synchronization option (Speed/Position control)
 - Sincos encoder
- Communication boards (Optional)
 - RS485(LS Bus / Modbus RTU)
 - Profibus-DP
 - DeviceNet
- Monitoring & commissioning PC based software tool (Drive View)



Model Number



General specification

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

| Model number: SV □□□ iV5-4 □ | | 022 | 037 | 055 | 075 | 110 | 150 | 185 | 220 | 300 | 370 | 450 | 550 | 750 | 900 | 1100 | 1320 | 1600 | 2200 | 2800 | 3150 | 3750 | 5000 | 8000 |
|------------------------------|---------------------|--|-----|-----|------|------|------|------|------|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|
| 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 | 1067 |
| | [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 | 800 |
| Output rating | Capacity | 4.5 | 6.1 | 9.1 | 12.2 | 18.3 | 22.9 | 29.7 | 34.3 | 46 | 57 | 70 | 85 | 116 | 140 | 170 | 200 | 250 | 329 | 416 | 468 | 557 | 732 | 1105 |
| | Current | 6 | 8 | 12 | 16 | 24 | 30 | 39 | 45 | 61 | 75 | 91 | 110 | 152 | 183 | 223 | 264 | 325 | 432 | 546 | 614 | 731 | 960 | 1384 |
| Input rating | Voltage | Three-phase 380 ~ 480V | | | | | | | | | | | | | | | | | | | | | | |
| | RPM | 0 ~ 3600 [RPM] | | | | | | | | | | | | | | | | | | | | | | |
| | Frequency | Three-phase 380 ~ 480V (+10%, -10%) 50 ~ 60Hz (±5%) | | | | | | | | | | | | | | | | | | | | | | |
| Weight | Mold cover type | 6 | 6 | 7.7 | 7.7 | 13.7 | 13.7 | 20.3 | 20.3 | | | | | | | | | | | | | | | |
| | Metallic cover type | | | 14 | 14 | 28 | 28 | 28 | 28 | 42 | 42 | 63 | 63 | 68 | 98 | 98 | 112 | 112 | 175 | 243 | 380 | 380 | 476 | 1300 |

| 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 | 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 | 12 | 16 | 24 | 30 | 39 | 45 | 61 | 75 | 91 | 110 | 152 | 183 | 223 | 264 | 325 | 432 | 546 | 614 | 731 | 960 |
| Input rating | Voltage | 380 ~ 480V | | | | | | | | | | | | | | | | | | | |
| | RPM | 0 ~ 3600 [RPM] | | | | | | | | | | | | | | | | | | | |
| 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 accuracy | Digital command: ±0.01(0~40°C) of Max output freq. / Analog signal reference: ±0.02(25;±10°C) of Max output freq. |
| | Cut-off frequency of ASR | 50Hz |
| | Torque control accuracy | 3% |
| | Accel/Decel time | 0.00~6000.0 sec |
| | Accel/Decel combination | 4 combinations of Accel/Decel time |
| | Accel/Decel curve | Linear / S curve |
| | Frequency setting | Analog: -10 to 10V / 4 to 20mA / Digital: Keypad |
| Input signal | Analog input | 3 channels (AI1, AI2, AI3): Extension I/O 2 channels (AI4, AI5) -10 to 10V / 0 to 10V / 10 to 0V / 4 to 20mA / 20 to 4mA / (AI3, AI5[Extension I/O]: Motor NTC/PTC selectable) Selectable among 15 different Multi-function analog inputs AI3, AI5: NTC is available only with LG-OTIS motors (both of NTC and PTC are available in case of SV28000iV5~SV3750iV5) |
| Output signal | Contact input | FX, RX, BX, RST, P1~P7 Selectable among 40 different Multi-function analog inputs |
| | Analog output | 2 channels (AO1, AO2) -10 to 10V / 10 to -10V / 0 to 10V / 10 to 0V Selectable among 40 different Multi-function analog outputs |
| | Contact output | Multi-function contact output: 2 channels (1A-1B, 2A-2B) Fault contact output: 1 channel (30A-30C, 30B-30C) |
| | Open collector | 1 channel (OC1/EG) |
| Protection | | Over voltage / Over current / Low voltage / 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 Communication | EL I/O(for Elevator application), Encoder division(open collector), Synchronization option(Speed/Position control), Sincos encoder RS485(LS Bus / Modbus RTU), Profibus-DP, DeviceNet |

Comparison

Variable Frequency Drive

| Model Series | | iE5 | | M100 | iG5A | | G100 | | S100 | | | |
|-------------------------------|--|--------------------|-------------|---------------------|--------------|-------------|-------------|-----------------|-----------------|---------------------|-----------------|-----------|
| Input Phase | | Single-phase | Three-phase | Single-phase | Single-phase | Three-phase | Three-phase | | Single-phase | Three-phase | | |
| Voltage Range | | 200~230V | | 200~240V | 200~230V | | 380~480V | 200~240V | 380~480V | 200~240V | 200~240V | 380~480V |
| Motor rating | | 0.1~0.4kW | 0.1~0.4kW | 0.1~2.2kW | 0.4~1.5kW | 0.4~22kW | 0.4~22kW | 0.4~7.5kW | 0.4~7.5kW | 0.4~2.2kW | 0.4~15kW | 0.4~75kW |
| | | 0.13~0.5HP | 0.13~0.5HP | 0.1~3.0HP | 0.5~2HP | 0.5~30HP | 0.5~30HP | 0.5~10HP | 0.5~10HP | 0.5~3HP | 0.5~20HP | 0.5~100HP |
| Heavy Duty (Constant Torque) | | Standard | | Standard | Standard | | Standard | | Standard | | | |
| Normal Duty (Variable Torque) | | | | | | | | | Standard | | | |
| Control method | | V/f | | Standard | Standard | Standard | Standard | Standard | Standard | | | |
| | | Sensorless Vector | | | | Standard | | Standard | Standard | | | |
| | | Sensored Vector | | | | | | | Standard | | | |
| Enclosure | | IP20 | | Standard | Standard | Standard | Standard | Standard | Standard | | | |
| | | | | 0.1~0.4kW | 0.1~2.2kW | 0.4~22kW | 0.4~7.5kW | 0.4~7.5kW | 0.4~2.2kW | 0.4~15kW | 0.4~75kW | |
| | | | | 0.13~0.5HP | 0.1~3.0HP | 0.5~30HP | 0.5~10HP | 0.5~10HP | 0.5~3HP | 0.5~20HP | 0.5~100HP | |
| | | IP21 ¹⁾ | | | | Option | Option | Option | Option | | | |
| | | | | | | 0.4~22kW | 0.4~7.5kW | 0.4~7.5kW | 0.4~2.2kW | 0.4~15kW | 0.4~75kW | |
| | | | | | | 0.5~30HP | 0.5~10HP | 0.5~10HP | 0.5~3HP | 0.5~20HP | 0.5~100HP | |
| | | IP54 | | | | | | | | | | |
| | | IP66 | | | | | | | NEMA4X Line-up | | | |
| | | | | | | | | | 0.4~2.2kW | 0.4~15kW | 0.4~22kW | |
| | | | | | | | | | 0.5~3HP | 0.5~20HP | 0.5~30HP | |
| Keypad | | Type | | Fixed type | Fixed type | Fixed type | Fixed type | Fixed type | Fixed type | | Detachable type | |
| | | Built-in | | 7 segment | 7 segment | 7 segment | 7 segment | 7 segment | 7 segment | | iS7 Graphic LCD | |
| | | | | 0.1~0.4kW | 0.1~2.2kW | 0.4~22kW | 0.4~22kW | 0.4~7.5kW | 0.4~2.2kW | 0.4~15kW | 0.4~15kW | 0.4~15kW |
| | | | | 0.13~0.5HP | 0.1~3.0HP | 0.5~30HP | 0.5~30HP | 0.5~10HP | 0.5~3HP | 0.5~20HP | 0.5~20HP | 0.5~20HP |
| | | Option | | | | | | | iS7 Graphic LCD | | | |
| | | | | | | | | | 0.4~2.2kW | 0.4~15kW | 0.4~15kW | |
| | | | | | | | | | 0.5~3HP | 0.5~20HP | 0.5~20HP | |
| Remote cable | | 2 meters | | Option | Option | Option | Option | Option | Option | | | |
| | | 3 meters | | Option | Option | Option | Option | Option | Option | | | |
| | | 5 meters | | Option | Option | Option | Option | Option | Option | | | |
| Braking transistor | | | | Standard | Standard | Standard | Standard | Standard | Standard | Option | | |
| | | | | 1.5~2.2kW | 0.4~22kW | 0.4~22kW | 0.4~7.5kW | 0.4~7.5kW | 0.4~22kW | 30~75kW | | |
| | | | | 2.0~3HP | 0.5~30HP | 0.5~30HP | 0.5~10HP | 0.5~10HP | 0.5~30HP | 40~100HP | | |
| EMC Filter | | | | Built-in Standard | | | | Built-in Option | Built-in | Built-in | Built-in Option | |
| | | | | 0.1~2.2kW | | | | 0.4~7.5kW | 0.4~2.2kW | 0.4~22kW | 30~45kW | |
| | | | | 0.1~3.0HP | | | | 0.5~10HP | 0.5~3HP | 0.5~30HP | 40~60HP | |
| DC Reactor | | | | | | | | | | Built-in | Built-in | |
| | | | | | | | | | | 30~75kW | 40~100HP | |
| RS485(LS Bus) | | Standard | | Standard | Standard | Standard | Standard | Standard | Standard | | | |
| Modbus RTU | | Standard | | Standard | Standard | Standard | Standard | Standard | Standard | | | |
| Modbus TCP | | | | | | | Option | Option | Option | | | |
| DeviceNet | | | | | | | | | | | | |
| Profibus-DP | | | | | | | Option | Option | Option | | | |
| Fnet(LS PLC link) | | | | | | | | | | | | |
| Rnet | | | | | | | | | | | | |
| LonWorks | | | | | | | | | | | | |
| CANopen | | | | | | | Option | Option | Option | | | |
| BACnet | | | | | | | | | | | | |
| EtherNet/IP | | | | | | | Option | Option | Option | | | |
| CC-Link | | | | | | | | | | | | |
| Metasys N2 | | | | | | | | | | | | |
| Encoder | | | | | | | | | | | | |
| Sin/Cos encoder | | | | | | | | | | | | |
| PLC | | | | | | | | | | | | |
| I/O type | | | | Standard / Advanced | | | | | | Standard / Multiple | | |
| Extension I/O | | | | | | | | | | Option | | |
| Elevator I/O | | | | | | | | | | | | |
| Synchronization I/O | | | | | | | | | | | | |

¹⁾ UL Enclosed Type 1 with conduit box installed.

Comparison

Variable Frequency Drive

| Model Series | iP5A | | H100 | | iS7 | | iV5 | | |
|-------------------------------|--------------------|-----------------|-----------------|-----------------|-----------------|----------------------|-------------|-----------------|------------------|
| Input Phase | Three-phase | | Three-phase | | Three-phase | | Three-phase | | |
| Voltage Range | 200~230V | 380~480V | 200~240V | 380~480V | 200~230V | 380~480V | 200~230V | 380~480V | |
| Motor rating | 5.5~30kW | 5.5~450kW | 0.75~18.5kW | 0.75~500kW | 0.75~22kW | 0.75~375kW | 2.2~37kW | 2.2~800kW | |
| | 7.5~40HP | 7.5~600HP | 0.1~22HP | 0.1~800HP | 1~30HP | 1~500HP | 3~50HP | 3~1067HP | |
| Heavy Duty (Constant Torque) | Standard | | | | Standard | | Standard | | |
| Normal Duty (Variable Torque) | Standard | | Standard | | Standard | | | | |
| Control method | Standard | | Standard | | Standard | | | | |
| | Sensorless Vector | | | | Standard | | | | |
| | Sensored Vector | | | | Option | | Standard | | |
| Enclosure | IP00 | Standard | Standard | | | Standard | Standard | Standard | Standard 30~75kW |
| | | 15~30kW | 15~45kW | | 0.75~220kW | 30~75kW | 90~375kW | 2.2~37kW | 2.2~375kW |
| | | 20~40HP | 20~600HP | | 1.0~350HP | 40~100HP | 125~500HP | 3~30HP | 3~500HP |
| | IP20 | Standard | | Standard | | Standard | Standard | Standard | |
| | | 5.5~11kW | | 0.75~18.5kW | 0.75~220kW | 0.75~22kW | 0.75~75kW | 5.5~22kW | |
| | | 7.5~15HP | | 0.1~22HP | 1.0~350HP | 1~30HP | 1~100HP | 7.5~30HP | |
| | IP21 ¹⁾ | Option | Option | Option | | Option | Option | | |
| | | 5.5~11kW | 5.5~11kW | 0.75~18.5kW | 0.75~90kW | 0.75~22kW | 0.75~75kW | | |
| | | 7.5~15HP | 7.5~15HP | 0.1~22HP | 0.1~120HP | 1~30HP | 1~100HP | | |
| | IP54 | | | | | Option ²⁾ | | | |
| | | | | 0.75~22kW | | | | | |
| | | | | 1~30HP | | | | | |
| Keypad | Type | Detachable type | | Detachable type | | Detachable type | | Detachable type | |
| | Built-in | 37~450kW | | 0.75~90kW | | 90~160kW | | 2.2~800kW | |
| | Option | 50~600HP | | 0.1~22HP | | 125~215HP | | 3~1067HP | |
| Remote cable | 2 meters | Option | | Option | | Option | | Option | |
| | 3 meters | Option | | Option | | Option | | Option | |
| | 5 meters | Option | | Option | | Option | | Option | |
| Braking transistor | | | | | Standard | | Standard | | |
| | | | | | 0.75~22kW | | 2.2~22kW | | |
| | | | | | 1~30HP | | 3~30HP | | |
| EMC Filter | | | Built-in | | Built-in Option | | | | |
| | | | 0.75~500kW | | 0.75~22kW | | | | |
| | | | 0.1~800HP | | 1~30HP | | | | |
| DC Reactor | | | Built-in Option | | Built-in Option | | | | |
| | | | 15~280kW | | 37~500kW | | 0.75~22kW | 0.75~220kW | |
| | | | 20~350HP | | 50~800HP | | 1~30HP | 1~300HP | |
| RS485(LS Bus) | Standard / Option | | Standard | | Standard | | Option | | |
| Modbus RTU | Option | | Standard | | Standard | | Option | | |
| Modbus TCP | Option | | | | Option | | | | |
| DeviceNet | Option | | | | Option | | Option | | |
| Profibus-DP | Option | | | | Option | | Option | | |
| Fnet(LS PLC link) | | | | | | | | | |
| Rnet | | | | | Option | | | | |
| LonWorks | Option | | Option | | Option | | | | |
| CANopen | | | | | Option | | | | |
| BACnet | Option | | Standard | | | | | | |
| EtherNet/IP | | | | | Option | | | | |
| CC-Link | Option | | | | Option | | Option | | |
| Metasys N2 | Option | | Standard | | | | | | |
| Encoder | | | | | Option | | Standard | | |
| Sin/Cos encoder | | | | | | | Option | | |
| PLC | | | | | Option | | | | |
| Extension I/O | | | Option | | Option | | Option | | |
| Elevator I/O | | | | | | | Option | | |
| Synchronization I/O | | | | | Option | | Option | | |

¹⁾ UL Enclosed Type 1 with conduit box installed.

²⁾ Enclosed IP54 Type, UL Enclosed Type 12

Option list

Variable Frequency Drive

The table below describes a list of options for various LSIS drives.
Please contact LSIS for further details on our drive options.

| Series | Option Name |
|-------------------------------|---------------------------------|
| M100 | M100 remote keypad |
| | Remote cable (1m, 2m, 3m, 5m) |
| iE5 | Modbus RTU |
| iG5A | iG5A remoted keypad |
| | Remoted cable (2m, 3m, 5m) |
| G100 | 2 Port Ethernet/IP (Modbus TCP) |
| | Profibus-DP |
| | CANopen |
| | G100 remote keypad * |
| S100 | Remote cable (1m, 2m, 3m, 5m) |
| | Modbus TCP |
| | PROFINet |
| | EtherCAT |
| | EtherNet/IP |
| | Profibus-DP |
| | CANopen |
| | Scalable I/O |
| | S100 LCD keypad |
| | S100 remote keypad (LED) |
| | Remote cable (1m, 2m, 3m, 5m) |
| | H100 |
| H100 remote keypad | |
| Remote cable (1m, 2m, 3m, 5m) | |
| iS7 | EtherNet/IP |
| | RAPIDnet |
| | PROFINet |
| | Modbus TCP |
| | DeviceNet |
| | CANopen |
| | Profibus-DP |
| | CC-Link |
| | Lonworks |
| | R-Net / F-Net |
| | Encoder |
| | 24V Encoder |
| | Position control |
| | Synchronization control |
| | Scalable I / O |
| | PLC |
| | Safety |
| | Binary Input |
| | iS7 LCD keypad |
| | Remote cable (2m, 3m) |

* G100/M100 remote keypads are compatible.

| Series | Option Name |
|---------------|---------------------|
| iV5 | RS-485 |
| | Modbus RTU |
| | DeviceNet |
| | Profibus-DP |
| | CC-Link |
| | Synchronization |
| | EL I / O |
| | SIN / COS + Endat |
| | Scalable I / O |
| | 24V Encoder |
| Common | Parameter Copy Unit |
| | Smart Copier |



Safety Instructions

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



- According to The WEEE Directive, please do not discard the device with your household waste.



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