

iS7

Variable Frequency Drive / Inverter

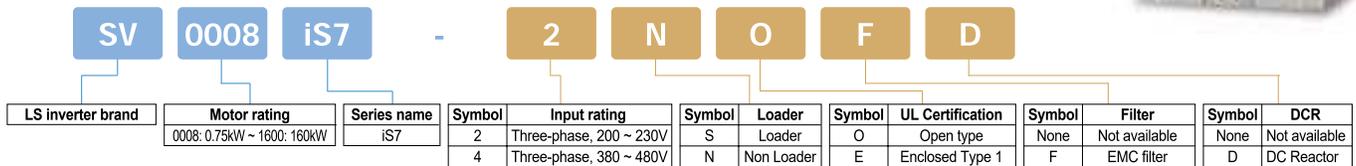
High Torque Performance and Precise Control

3 phase 0.75 ~ 22kW, 220V
3 phase 0.75 ~ 160kW, 400V

- Constant torque / Variable torque dual rating
- Selectable V/f, V/f PG, sensorless vector, sensed vector
- 150 MIPS(million instructions per second) high speed DSP
- High performances & functions :
Droop control (automatic torque balance)
KEB (Kinetic Energy Buffering) protection
Ride Through (LV Trip Delay) protection
Under Load Trip protection
PMSM sensorless vector function
Power Brake & Flux Brake function
Static motor parameter Auto-tuning (available soon)
- Easy to control : Easy Start Mode, User & Macro group, Multi Function Key
- 2nd motor sensorless control and parameter setting- IP21 (0.75~160kW) / IP54 (0.75~22kW - Optional)
- Built-in LS Bus / Modbus-RTU communication
- Built-in Braking circuit (0.75~22kW)
- EMC filter(0.75~22kW) / DC reactor(0.75~160kW) (Built-in option)
- Wide graphic LCD keypad (6 different languages)
- PLC board (optional) :
Master-K platform - 14 max. inputs & 7 max. outputs
- Extension I/O boards (Optional) :
11 max. inputs & 6 max outputs
- Communication boards (Optional) :
Profibus-DP, Modbus-TCP, Rnet, DeviceNet, LonWork, CANOpen
- Monitoring & commissioning software (DriveView)



Inverter Model Number



General specification

| Model number: SV | iS7-2 | 008 | 015 | 022 | 037 | 055 | 075 | 110 | 150 | 185 | 220 |
|------------------|-----------------|--------------------------------------|------|------|------|------|------|------|------|------|------|
| Motor rating | [HP] | 1 | 2 | 3 | 5 | 7.5 | 10 | 15 | 20 | 25 | 30 |
| | [kW] | 0.75 | 1.5 | 2.2 | 3.7 | 5.5 | 7.5 | 11 | 15 | 18.5 | 22 |
| Output rating | Capacity [kVA] | 1.9 | 3 | 4.5 | 6.1 | 9.1 | 12.2 | 17.5 | 22.9 | 28.5 | 33.5 |
| | Current [A]: CT | 5 | 8 | 12 | 16 | 24 | 32 | 46 | 60 | 74 | 88 |
| | Current [A]: VT | 8 | 12 | 16 | 24 | 32 | 46 | 60 | 74 | 88 | 124 |
| Input rating | Voltage [V] | Three-Phase 200 ~ 230V | | | | | | | | | |
| | Frequency [Hz] | 0.01 ~ 400Hz | | | | | | | | | |
| | Voltage [V] | Three-Phase 200 ~ 230V (-15% ~ +10%) | | | | | | | | | |
| | Frequency [Hz] | 50 ~ 60Hz (± 5%) | | | | | | | | | |
| | Current [A]: CT | 8.3 | 12.9 | 18.6 | 24 | 32.9 | 41.4 | 58 | 69 | 88 | 96 |
| | Current [A]: VT | 7 | 10.6 | 14.8 | 21.8 | 28 | 42 | 52 | 60 | 75 | 107 |

| Model number: SV | iS7-4 | 008 | 015 | 022 | 037 | 055 | 075 | 110 | 150 | 185 | 220 | 300 | 370 | 450 | 550 | 750 | 900 | 1100 | 1320 | 1600 | |
|------------------|-----------------|--------------------------------------|-----|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|------|------|------|--|
| Motor rating | [HP] | 1 | 2 | 3 | 5 | 7.5 | 10 | 15 | 20 | 25 | 30 | 40 | 50 | 60 | 75 | 100 | 120 | 150 | 180 | 225 | |
| | [kW] | 0.75 | 1.5 | 2.2 | 3.7 | 5.5 | 7.5 | 11 | 15 | 18.5 | 22 | 30 | 37 | 45 | 55 | 75 | 90 | 110 | 132 | 160 | |
| Output rating | Capacity [kVA] | 1.9 | 3 | 4.5 | 6.1 | 9.1 | 12.2 | 17.5 | 22.9 | 29.7 | 34.3 | 45 | 56 | 68 | 82 | 100 | 139 | 170 | 201 | 248 | |
| | Current [A]: CT | 2.5 | 4 | 6 | 8 | 12 | 16 | 24 | 30 | 39 | 45 | 61 | 75 | 91 | 110 | 152 | 183 | 223 | 264 | 325 | |
| | Current [A]: VT | 4 | 6 | 8 | 12 | 16 | 24 | 30 | 39 | 45 | 61 | 75 | 91 | 110 | 152 | 183 | 223 | 264 | 325 | 370 | |
| Input rating | Voltage [V] | Three-Phase 380 ~ 480V | | | | | | | | | | | | | | | | | | | |
| | Frequency [Hz] | 0.01 ~ 400Hz | | | | | | | | | | | | | | | | | | | |
| | Voltage [V] | Three-Phase 380 ~ 480V (-15% ~ +10%) | | | | | | | | | | | | | | | | | | | |
| | Frequency [Hz] | 50 ~ 60Hz (± 5%) | | | | | | | | | | | | | | | | | | | |
| | Current [A]: CT | 4.3 | 7.2 | 10.6 | 15.4 | 21 | 25.8 | 39 | 44 | 57 | 57 | 57 | 69 | 83 | 113 | 154 | | | | | |
| | Current [A]: VT | 3.5 | 5.3 | 7.3 | 10.8 | 13.8 | 22.5 | 26 | 33 | 40 | 52.2 | 90 | 109 | 123 | 162 | 195 | | | | | |

| | | |
|---------------|-----------------------------------|--|
| Control Spec | Control method | Sensorless vector1, Sensorless vector2, Vector, V/f, V/f PG |
| | Speed reference resolution | Digital command: 0.01Hz / Analog reference: 0.06Hz (Max freq., 60Hz) |
| | Frequency accuracy | Digital command: 0.01% of Max output freq. / Analog signal command of 0.1% of Max output freq. |
| | V/f curve | Linear, Squared, User custom V/f |
| | Overload capacity | CT(Heavy duty): 150% for 1 minute, VT(Normal duty): 110% for 1 minute |
| | Torque boost | Auto & manual(0 ~ 15%) torque boost |
| | Keypad Display | LCD keypad |
| | Operation method | Keypad / Terminal / Communication operation |
| | Frequency setting | Analog: 0 to 10V / -10 to 10V/ 0 to 20mA / Digital: Keypad/ Communication |
| | Operation function | PID control / Up-Down operation / 3-Wire operation / Slip compensation / Reverse rotation prevention / Auto tune flying start / Energy buffering / Power braking / Flux braking / Leakage current reduction / MMC |
| Input signal | Multi-function terminal (P1 ~ P8) | PNP / NPN selectable 8 points (programmable) |
| Output signal | Multi-function relay | Fault output & inverter status output (N.O., N.C.) Less than AC 250V, 1A / Less than DC 30V 1A |
| | Multi-function open collector | DC24V (less than 50mA) |
| | Analog output | 0 to 10Vdc (less than 10mA): frequency / current / voltage / DC voltage selectable |
| Protection | Inverter trip | Over voltage / Low voltage / Over current / Ground fault detection / Inverter overload / Overload trip / Inverter overheat / Output phase loss / Overload protection / Frequency command loss / Hardware fault/ Brake fault /Pre-PID fault |
| | Inverter alarm | Stall prevention, Overload, Temperature sensor fault, Encoder error, Fan fault, Keypad command loss, Speed command loss |
| Enclosure | | IP21, IP54 (Optional: available soon), UL type 1(Optional : available soon) |
| Option | Keypad | Graphic LCD display keypad for iS7 (128x64 COG, 11 Rubber Key, 3 LED, IP21) |
| | Board, Cable | Expansion I/O, Encoder card, PLC card, Remote cable (2M/3M) |
| Others | Communication | Modbus TCP, Profibus-DP, Rnet, BACnet, CANOpen, LorkWork, DeviceNet |
| | | Built-in Dynamic brake unit (Up to 22kW), Modbus-RTU, LS Bus |