

# iS7

Variable Frequency Drive

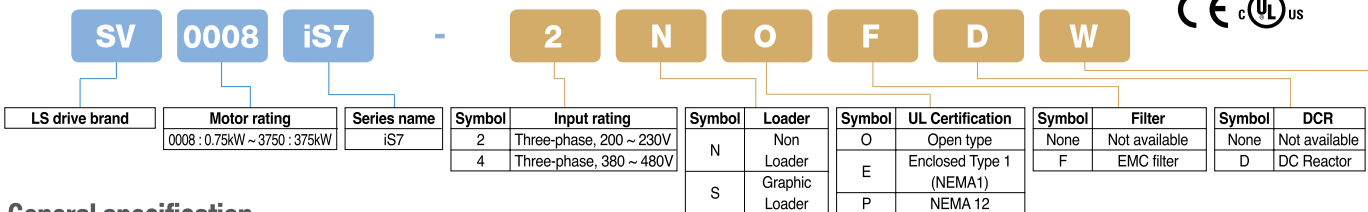
## High Torque Performance and Precise VFD

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
- 2<sup>nd</sup> 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



### 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									
	Current (VT) [A]	8	12	16	24	32	46	60	74	88	124	146	180	220	288	345									
Input rating	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]	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
Input rating	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]	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																							
Operation	Overload capacity	CT(Heavy duty): 150% for 1 minute, VT(Normal duty): 110% for 1 minute																							
	Torque boost	Auto & Manual torque boost																							
	Keypad display	Wide graphic LCD keypad (available 6 languages)																							
Input signal	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																							
Output signal	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																							
Protection	Drive trip	DC24V (less than 50mA)																							
	Drive alarm	0 to 10Vdc (less than 10mA): frequency / current / voltage / DC voltage selectable																							
Enclosure	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																							
Option	Board, Cable, Keypad	IP00 (30~75kW, 200V/90~375kW, 400V), IP21 (0.75~22kW, 200V / 0.75~75kW, 400V), IP54 / NEMA12 (0.75~22kW, 200V/ 400; Optional)																							
	Communication	Graphic LCD keypad(IP21), Extension I/O, Isolation I/O, Encoder board, PLC board, Remote cable(2M/3M)																							
Others	Profibus-DP, DeviceNet, Modbus TCP, Rnet, LonWorks, CANopen, EtherNet/IP	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)	Built-in Dynamic braking transistor (0.75~22kW[1~30HP]), Built-in RS485(LS Bus / Modbus RTU)																							