

iP5A

Variable Frequency Drive / Inverter

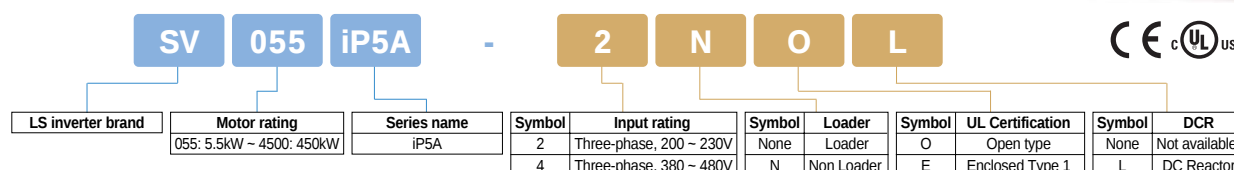
Fan & Pump specialized VFD

3 phase 5.5~30kW(7.5~40HP), 200~230V
3 phase 5.5~450kW(7.5~600HP), 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*
- Monitoring & commissioning PC based software tool (Drive View)



Model Number



General specification

Model number: SV □ □ □ IP5A-2 □		055	075	110	150	185	220	300
Motor rating (Fan/Pump)	[HP]	7.5	10	15	20	25	30	40
	[kW]	5.5	7.5	11	15	18.5	22	30
	Current (110% overload)	[A]	24	32	46	60	74	88
Motor rating (General load)	[HP]	5	7.5	10	15	20	25	30
	[kW]	3.7	5.5	7.5	11	15	18.5	22
	Current (150% overload)	[A]	17	23	33	44	54	68
Output rating	[kVA]	Heavy duty: 150% for 1 minute						
	[V]	9.1	12.2	17.5	22.9	28.2	33.5	43.8
Input rating	Frequency	Three-phase 200 ~ 230V						
	[Hz]	0.01 ~ 120Hz						
	[V]	Three-phase 200 ~ 230V (-15% ~ +10%)						
Weight	Frequency	50 ~ 60Hz (± 5%)						
	Non DCR type	[kg]	4.9	6	6	13	13.5	20

Model number: SV □ □ □ iP5A-□ □			055	075	110	150	185	220	300	370	450	550	750	900	1100	1320	1600	2200	2800	3150	3750	4500
Motor rating (Fan/Pump)	[HP]	[kW]	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	[A]	12	16	24	30	39	45	61	75	91	110	152	183	223	264	325	432	547	613	731	877
	(110% overload)		Normal duty: 110% for 1 minute																			
Motor rating (General load)	[HP]	[kW]	5	7.5	10	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 (Non DCR / DCR)	[A]	8.8	12	16	22/24	28/30	34/39	44/45	61	75	91	110	152	183	223	264	325	432	547	613	731
	(150% overload)		Heavy duty: 150% for 1 minute																			
Output rating	[kVA]	[V]	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
	Frequency	[Hz]	Three-phase 380 ~ 480V 0.01 ~ 120Hz																			
Input rating	Voltage	[V]	Three-phase 380 ~ 480V (-15% ~ +10%)																			
	Frequency	[Hz]	50 ~ 60Hz (± 5%)																			
Weight	Non DCR type	[kg]	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)
Operation	Torque boost	Auto & Manual(0 ~ 15%) torque boost
	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 / Inverter 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	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)
		Accel/Decel curve : Linear, U curve, S curve
	Emergency stop	Interrupts the Output from Inverter
Output signal	JOG	JOG operation
	Fault reset	Trip status is removed when Protection function is active
	Operating status	Frequency detection level / Overload alarm / Stalling / Over voltage / Low voltage / Inverter overheating / Run / Stop / Constant speed / Inverter 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	Inverter trip	Over voltage / Low voltage / Over current 1, 2 / Ground fault / Inverter overheating / Electronic thermal / Output phase open / overload / External Fault A, B / Communication Error / Frequency command loss / Hardware fault / Option fault / etc
	Inverter 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	Built-in RS485(I/S Bus / Modbus RTU), DeviceNet, Profibus-DP, 1 onWorks, BACnet, Modbus TCP*

*Available soon