

# 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	Symbol	Input rating	Symbol	Loader	Symbol	UL Certification	Symbol	DCR	Symbol	Certificate
	0008 : 0.75kW ~ 4500 : 450kW	iP5A	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 □		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	
	[V]	Three-phase 200 ~ 230V											
Input rating	[Hz]	0.01 ~ 120Hz											
	[V]	Three-phase 200 ~ 230V (-15% ~ +10%)											
Weight	[kg]	4.1	4.2	4.2	4.9	4.9	6	6	13	13.5	20	20	
	[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		
	[V]	Three-phase 380 ~ 480V																									
Input rating	[Hz]	0.01 ~ 120Hz																									
	[V]	Three-phase 380 ~ 480V (-15% ~ +10%)																									
Weight	[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	
	[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	

  

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
Operation	Overload capacity	110% for 1 minute, 120% for 1 minute(based on ambient 25°C)
	Torque boost	Auto & Manual(0 ~ 15%) torque boost
	Keypad display	32 characters LCD keypad
	Operation method	Keypad / Terminal / Communication
Input signal	Start signal	Analog: 0 ~ 12V / -12V ~ 12V / 4 ~ 20mA or 0 ~ 20mA / Pulse / Ext - PID / Digital: Keypad
	Multi-step	DC braking / Frequency limit / Frequency jump / Second function / Slip compensation / Reverse rotation prevention / Auto restart / Drive By-pass / Auto-tuning
	Multi-step Accel/Decel time	/ PID control / Flying star / Safety stop / Flux braking / Low leakage / Pre-PID / Dual-PID / MMC / Easy start / Pre-heater
	Emergency stop	Forward / Reverse
Output signal	JOG	Up to 8 speeds can be set including JOG (Use Programmable Digital Input terminal)
	Fault reset	0.1~6,000 sec. Up to 4 types can be set (Use Multi-function terminal)
	Operating status	Accel/Decel curve : Linear, U curve, S curve
	Fault output	Interrupts the Output from Drive
Protection	Drive trip	JOG operation
	Drive alarm	Trip status is removed when Protection function is active
		Frequency detection level / Overload alarm / Stalling / Over voltage / Low voltage / Drive overheating / Run / Stop / Constant speed / Drive By-pass / Speed search
		Contact output (3A, 3C, 3B) - AC250V 1A, DC30V 1A
Enclosure Option	Board, cable, keypad	Output frequency / Output current / Output voltage / DC Link voltage(Output voltage:0~10V)
	Communication	IP20/UL type 1(5.5~11kW[7.5~15HP]), IP00/UL open type(15~450kW[20~600HP])