

# LS - Inverters

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**LS** Industrial Systems  
New Name of  **LG Industrial Systems**



# Starvert iC5

## Dynamic & Micro Single Phase Inverter

0.4 ~ 2.2 kW, 1φ

- Volts / hertz & sensorless vector control (PWM by IGBT)
- Motor parameter auto-tuning
- 150% torque at 0.5Hz
- 0 ~ 400Hz output frequency
- 1 ~ 15kHz carrier frequency
- Built-in process PID control
- Ground fault protection
- Built-in RFI filter (class A)
- Built-in potentiometer
- Programmable I / O
- PNP / NPN selectable signal input
- 0 ~ 10Vdc Analog output
- Optional ModBus communication chip



## Specifications

Model		SV004iC5-1	SV008iC5-1	SV015iC5-1	SV022iC5-1	SV004iC5-1F	SV008iC5-1F	SV015iC5-1F	SV022iC5-1F	
Motor rating	[HP]	0.5	1	2	3	0.5	1	2	3	
	[kW]	0.4	0.75	1.5	2.2	0.4	0.75	1.5	2.2	
Output ratings	Capacity [kVA]	0.95	1.9	3	4.5	0.95	1.9	3	4.5	
	FLA [A]	2.5	5	8	12	2.5	5	8	12	
	Voltage [V]	Three phase, 200~230V								
	Frequency [Hz]	0~400Hz								
Input ratings	Voltage [V]	Single phase, 200~230V (±10%)								
	Frequency [Hz]	50~60Hz (±5%)								

Control method	• Sensorless Vector • V/F
Frequency setting resolution	• Digital reference: 0.01Hz • Analog reference: 0.06Hz at 60Hz
Frequency setting accuracy	• Digital: 0.01% of Maximum output frequency • Analog: 0.1 % of Maximum output frequency
V/F ratio	• Linear • Square • User V/F
Overload capacity	• 1 minute at 150% • 30 seconds at 200% (with inverse characteristic proportional to time)
Torque boost	• Auto • Manual
RFI filter	None   Built-in (Class A)
Multi-function input terminals	Total 5 inputs (programmable)
Analog output	0~10V Linear

Output signal	Operator control	• 3 digits LED keypad • Terminals • ModBus communication (option)
	Frequency setting	• Analog: 0~10V, 4~20mA • Digital: Keypad • Communication: ModBus • Potentiometer
	Start signal	• Forward • Reverse
	Multi-step operation	Setting up to 8 speeds (using multi-function terminal)
	Multi-step Accel./Decel. time	0.1~6000 seconds. Maximum 8 pre-defined steps using multi-function terminals
	Operational functions	• PID control • Up-Down operation • 3-wire operation • Frequency limit • Frequency jump • Second motor function • Slip compensation • Reverse rotation prevention • Auto restart
	Emergency stop	Interrupting output from inverter
	Jog	Jog operation
	Indicator	Reset fault signal when protective function is active
	Output signal	Operational status
Indicator		• Output frequency • Output current • Output voltage • DC bus voltage

Protective functions	Trip	• Overvoltage • Undervoltage • Overcurrent • Inverter overheat • Motor overheat • I/O phase loss • I/O miss wiring • Overload • External device fault 1 & 2 • Speed command loss • Hardware fault • Communication error • CPU error
	Alarm	• Stall • Overload

# Starvert iG5A

Powerful & Compact Sensorless Vector Control inverter

**LS** Industrial Systems

New Name of  **LG Industrial Systems**



0.4 ~ 22 kW

- Extremely compact in its size
- Volts / hertz and sensorless vector control
- 150% torque in overall range
- Motor parameter auto-tuning at stop mode
- Changing carrier frequency as per Module temperature
- Ground fault detection during run
- Built-in process PID control
- Up / down & 3-wire operational function
- Built-in remote keypad
- 0 ~ 10Vdc, -10 ~ +10Vdc Analog Input
- PNP / NPN selectable signal input
- Selectable configured I / O
- Built-in ModBus (RS485) communication
- Built-in Braking IGBT
- Cooling fan On / Off control

## Specifications

Type: SV □□□ iG5A-4 □□		004	008	015	022	037	040	055	075	110	150	185	220
Max. capacity	(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	3.0	4.5	6.1	6.5	9.1	12.2	18.3	22.9	29.7	34.3
	FLA (A)	1.25	2.5	4	6	8	9	12	16	24	30	39	45
	Max frequency	400 [Hz]											
	Max voltage	3 phase 380~480 V											
Input rating	Rated voltage	3 phase 380~480 VAC (+10%, -15%)											
	Rated frequency	50~60 [Hz] (±5%)											
Cooling method		N/C	Forced air cooling										
Weight (kg)		0.76	0.77	1.12	1.84	1.89	1.89	3.66	3.66	9.0	9.0	13.3	13.3

Control method	• V/F Control .Sensorless Vector Control
Frequency setting resolution	• Digital reference: 0.01Hz (below 99Hz) & 0.1Hz (100Hz and over) • Analog reference: 0.06Hz at 60Hz
Frequency setting accuracy	• Digital: 0.01% of Maximum output frequency • Analog: 0.1 % of Maximum output frequency
V/F ratio	• Linear • Square • User V/F
Overload capacity	• 1 minute at 150% • 30 seconds at 200% (with inverse characteristic proportional to time)
Torque boost	• Auto • Manual (0~15%)
Multi-function input terminals	Total 8 inputs (programmable)
Analog output	0~10V linear

Input signal	Operator control	• 32 character LCD keypad • 4 digits LED keypad • Terminals • Modbus-RTU communication
	Frequency setting	• Optional ModBus-RTU, RS485, ProfiBus-DP, DeviceNet, F-Net
	Start signal	• Analog: 0~10V, 4~20mA, additional port for Sub-Board (0~10V) • Digital: Keypad • Communication Start signal • Forward • Reverse
	Multi-step operation	Setting up to 8 speeds (using multi-function terminal)
	Multi-step Accel./Decel. time	0.1~6000 seconds. Maximum 8 pre-defined steps using multi-function terminals
	Operational functions	• DC braking • Frequency limit • Frequency jump • Second motor function • Slip compensation • Reverse rotation prevention
	Emergency stop	Interrupting output from inverter
	Auto operation	Operates from Internal Sequence by Setting Multi-Function Terminal (5 Way x 8 Step)
	Jog	Jog operation
	Fault reset	Reset fault signal when protective function is active
Output signal	Operational status	• Frequency detection • Overload alarm • Stall • Overvoltage • Undervoltage • Inverter overheat • Run • Stop • Constant speed
	Indicator	• Speed search • Fault output (Relay and Open collector output) • Inverter by-pass • Auto-operation step • Auto-operation sequence
	Indicator	• Output frequency • Output current • Output voltage • DC voltage • Output torque (output voltage: 0~10V)

Protective functions	Trip	• Overvoltage • Undervoltage • Overcurrent • Inverter overheat • Motor overheat • I/O phase loss • I/O miss wiring
	Alarm	• Overload • Speed command loss • Hardware fault • Communication error
		• Stall .Overload • Temperature sensor fault

# iS7 Series

High performance dual rated VFDs  
[3 phase 0.75~160kW]

- 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\*
- 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)



## Specifications

Rated Input and Output: Input voltage of 400V class (0.75~160kW)

Type: SV□□□ iS7-4□		0008	0015	0022	0037	0055	0075	0110	0150	0185	0220	
Motor Applied*	[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	
Rated Output	Rated Capacity [kVA]*	1.9	3.0	4.5	6.1	9.1	12.2	18.3	22.9	29.7	34.3	
	Rated Current [A] <sup>3</sup>	CT	2.5	4	6	8	12	16	24	30	39	45
		VT	4	6	8	12	16	24	30	39	45	61
	Output Frequency [Hz]	0 ~ 400 [Hz]*										
	Output Voltage [V]	3-phase 380 ~ 480V*										
Available Voltage [V]	3-phase 380 ~ 480 VAC (-15% ~ +10%)											
Rated Input	Frequency [Hz]	50 ~ 60 [Hz] (±5%)										
	Rated Current [A]	CT	4.3	7.2	10.6	15.4	21	25.8	38.7	43.85	56.9	57.4
VT		3.5	5.3	7.3	10.8	13.8	22.5	26.1	33.2	40	52.2	

Type: SV□□□ iS7-4□		0300	0370	0450	0550	0750	0900	1100	1320	1600	-	
Motor Applied*	[HP]	40	50	60	75	100	120	150	180	225	-	
	[kW]	30	37	45	55	75	90	110	132	160	-	
Rated Output	Rated Capacity [kVA]*	46	57	69	84	116	139	170	201	248	-	
	Rated Current [A]*	CT	61	75	91	110	152	183	223	264	325	-
		VT	75	91	110	152	183	223	264	325	370	-
	Output Frequency [Hz]	0 ~ 400 [Hz] (Sensorless-1: 0 ~ 300Hz, Sensorless-2, Vector: 0 ~ 120Hz)*										
	Output Voltage [V]	3-phase 380 ~ 480V*										
Available Voltage [V]	3-phase 380 ~ 480 VAC (-15% ~ +10%)											
Rated Input	Frequency [Hz]	50 ~ 60 [Hz] (±5%)										
	Rated Current [A]	CT	57	69	83	113	154	195	239	286	362	-
VT		90	109	123	162	195	237	282	350	403	-	

## Control

Control Method	V/F control, V/F PG, slip compensation, sensorless vector control, vector control
Frequency Setting Resolution	Digital command: 0.01Hz Analog command: 0.06Hz (maximum frequency: 60Hz)
Frequency Tolerance	Digital command operation: 0.01% of the maximum frequency Analog command operation: 0.1% of the maximum frequency
V/F Pattern	Linear, double reduction, user V/F
Overload Capacity	CT current rating: 150% for 1 minute, 200% for 22 seconds, VT current rating: 110% for 1 minute
Torque Boost	Manual torque boost, automatic torque boost

## Specifications

Operating Method		Selectable among keypad/terminal block/communication operation	
Frequency Setting		Analog: 0 ~ 10[V], -10 ~ 10[V], 0 ~ 20[mA] Digital: keypad	
Operating Function		PID control, up-down operation, 3-wire operation, DC brake, frequency limit, frequency jump, second function, slip compensation, reverse rotation prevention, auto restart, inverter by-pass, auto tune flying start, energy buffering, power braking, flux braking, leakage current reduction, MMC, easy start	
Input	Multi-function terminal (8 points) P1 ~ P81	NPN / PNP selectable	
		Function: forward operation; reverse operation; reset; external trip; emergency stop; jog operation; sequential frequency-high; medium and low; multi-level acceleration and deceleration-high; medium and low; D.C. control during stop; selection of a second motor; frequency increase; frequency decrease; 3-wire operation; change to general operation during PID operation; main body operation during option operation; analog command frequency fixation; acceleration and deceleration stop selectable	
Output	Multi-function open collector terminal	Inverter fault output	Below DC 24V 50mA
	Multi-function relay terminal		Below (N.O., N.C.) AC250V 1A, Below DC 30V 1A
	Analog output	0 ~ 10 Vdc (below 10mA): selectable from frequency, current, voltage, direct current voltage	

## Protective Functions

Trip	Over voltage, low voltage, over current, over current detection, inverter overheat, motor thermal protection, phase loss protection, overload protection, communication error, frequency command loss, hardware failure, cooling fan failure, pre-PID failure, no motor trip, external brake trip. etc
Alarm	Stall prevention, overload, diminished load, encoder error, fan failure, keypad command loss, speed command loss.
Instantaneous Interruption*2)	Below CT class 15 msec (VT class 8 msec): operation continues (within rated input voltage, rated output) Over CT class 15 msec (VT class 8 msec): automatic restart

## Structure and Use Environment

Cooling Method	Forced air blast cooling: 0.75 ~ 15kW (200/400V class), 22kW (400V class) Inhalation cooling: 22kW (200V class), 30 ~ 160kW (400V class)
Protection Structure	Below 75kW: Open Type(IP21), UL Enclosed Type 1(Optional) Over 90kW: Open Type(IP20), UL Enclosed Type 1(Optional)
Surrounding Temperature	CT (Heavy Duty) load: -10 ~ 50°C (14 ~ 122°F) with no ice or frost VT (Normal Duty) load: -10 ~ 40°C (14 ~ 122°F) with no ice or frost [It is recommended that you use less than 80% load when you use VT load at 50°C (122°F)]
Preservation Temperature	-20 ~ 65°C (-4 ~ 149°F)
Surrounding Humidity	Below 90% RH of relative humidity (with no dew formation)
Altitude, Vibration	Below 1,000m (3280 ft), below 5.9m/sec <sup>2</sup> (19.36 ft/sec <sup>2</sup> , 0.6G)
Environment	There should be no corrosive gas, flammable gas, oil mist or dust.



# iP5A Series [3 phase 5.5~450kW]

## Fan & Pump specialized VFDs

- Specialized functions for Fan & Pump: Advanced PID control (Pre-PID, Dual PID), Multi Motor Control function, Up to 4 motors: 55.~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)



### 200~230V Class (5.5~30kW / 7.5~40HP)

Model Number (SV□□□ iP5A-2)			055	075	110	150	185	220	300	
Capacity [kVA]*			9.1	12.2	17.5	22.9	28.2	33.5	43.8	
Output ratings	Fan or pump load	Motor rating*	(HP)	7.5	10	15	20	25	30	40
			(kW)	5.5	7.5	11	15	18.5	22	30
		Current [A]	24	32	46	60	74	88	115	
	(110% over current)			110% 1 Minute (Normal Duty)						
	General load	Motor rating	(HP)	5.5	7.5	10	15	20	25	30
			(kW)	3.7	5.5	7.5	11	15	18.5	22
		Current [A]	17	23	33	44	54	68	84	
(150% over current)			150% 1 Minute (Heavy Duty)							
Frequency			0.01~120 Hz							
Voltage			200~230V*							
Input ratings	Voltage			3∅200~230V (-15%~+10%)						
	Frequency			50/60 Hz (± 5%)						
Protection degree			IP20 / UL Type1			IP00 / UL Open*				
Weight [kg (lbs.)]			4.9 (10.8)	6 (13.2)	6 (13.2)	13 (28.7)	13.5 (29.8)	20 (44.1)	20 (44.1)	

# iP5A Series [3 phase 5.5~450kW]

## Fan & Pump specialized VFDs

### 380~480V Class (5.5~90kW / 7.5~125HP)

Model Number (SV□□□ iP5A-4)			055	075	110	150	185	220	300	370	450	550	750	900	
Capacity [kVA]*1			9.6	12.7	19.1	23.9	31.1	35.9	48.6	59.8	72.5	87.6	121.1	145.8	
Output ratings	Fan or pump load	Motor rating*2	(HP)	7.5	10	15	20	25	30	40	50	60	75	100	125
			(kW)	5.5	7.5	11	15	18.5	22	30	37	45	55	75	90
		Current [A]		12	16	24	30	39	45	61	75	91	110	152	183
		(110% over current)		110% 1 Minute (Normal Duty)											
	General load	Motor rating	(HP)	5.5	7.5	10	15	20	25	30	40	50	60	75	100
			(kW)	3.7	5.5	7.5	11	15	18.5	22	30	37	45	55	75
		Current [A]		8.8	12	16	22/24	28/30	34/39	44/45	-	-	-	-	-
		(150% over current)		150% 1 Minute (Heavy Duty)											
	Frequency		0.01~120 Hz												
	Voltage		380~480V*3												
Input ratings	Voltage		3∅380~480V (-15%~+10%)												
	Frequency		50/60 Hz (± 5%)												
Protection degree			IP20 / UL Type1				IP00 / UL Open								
Weight [kg (lbs.)]	Standard Type		4.9 (10.8)	6 (13.2)	6 (13.2)	12.5 (27.6)	13 (28.7)	20 (44.1)	20 (44.1)	27 (59.5)	27 (59.5)	29 (64)	42 (92.6)	43 (94.8)	
	Built-in DCL Type		-	-	-	19.5 (43.9)	19.5 (42.9)	26.5 (58.3)	26.5 (58.3)	39 (86)	40 (88.2)	42 (92.6)	67 (147.4)	68 (149.9)	

### 380~480V Class (110~450kW / 150~600HP)

Model Number (SV□□□ iP5A-4)			1100	1320	1600	2200	2800	3150	3750	4500	
Capacity [kVA]*1			178	210	259	344	436	488	582	699	
Output ratings	Fan or pump load	Motor rating*2	(HP)	150	200	250	300	350	400	500	600
			(kW)	110	132	160	220	280	315	375	450
		Current [A]		223	264	325	432	547	613	731	877
		(110% over current)		110% 1 Minute (Normal Duty)							
	General load	Motor rating	(HP)	125	150	200	250	300	350	400	500
			(kW)	90	110	132	160	220	280	315	375
		Current [A]		183	223	264	325	432	547	613	731
		(150% over current)		150% 1 Minute (Heavy Duty)							
	Frequency		0.01~120 Hz								
	Voltage		380~480V*3								
Input ratings	Voltage		3∅380~480V (-15%~+10%)								
	Frequency		50/60 Hz (± 5%)								
Protection degree			IP00 / UL Open*4								
DCL			Built-in				External Option				
Weight [kg (lbs.)]			101 (222.7)	101 (222.7)	114 (251.3)	200 (441.9)	200 (441.9)	243 (535.7)	380 (837.7)	380 (837.7)	

\*1 Rated capacity (v 3XVXI) is based on 220V for 200V class and 460V for 400V class.

\*2 Indicates the maximum applicable capacity when using a 4-Pole LS motor.

\*3 Maximum output voltage will not exceed the input voltage. An output voltage less than the input voltage may be programmed if necessary.

\*4 IP20/UL Type1 with optional conduit, it can be modified to UL Type1.



# LSMV Series [3 phase 250~4.150kW]

## Perfect Energy Saving MV Drive

- Multi-level Pulse Width Modulation method More sinusoidal output wave form, no output filter required. Low input current THD, satisfies IEEE Standard
- Compact Size MV VFD has designed an optimum inner panel through heat analysis; it promotes to get the most out of space.
- Energy Saving & High Efficiency MV VFD realizes high efficiency and high power factor more than 95% without any compensation tools. MV VFD realizes perfect energy saving VFD system without input/output filter.
- Redundant Cell Power Factor Control MV VFD has no extra charge for low power factor. MV VFD's voltage regulation is advanced. MV VFD keeps High pwer factor with standard induction motor in all of the speed range. (More than 95%)
- Built-in Cell Bypass In case of cell failure during operation, the fault cell is bypassed and the neutral point is shifted 83% of the rated voltage can be output after the failure of one cell. This function can be operated by automation and manual setting. MV VFD's drag torque is constantly maintained when cell is bypassed



### Standard Specifications

3,000V	Model Number [50Hz]	LSMV-030F200	LSMV-030F300	LSMV-030F400	LSMV-030F500	LSMV-030F600	LSMV-030F750	LSMV-030F10H	LSMV-030F12H	LSMV-030F15H	LSMV-030F20H	LSMV-030F25H	LSMV-030F30H	LSMV-030F37H
	Output Capacity [kVA]	200	300	400	500	600	750	1000	1200	1500	2000	2500	3000	3700
	Cell Rated Current [A]	35	53	70	88	105	131	175	218	260	350	438	525	657
	Max. Applicable Motor Capacity [kW]	160	250	330	410	500	620	850	1000	1250	1700	2080	2500	3150
	Model Number	LSMV-041F250	LSMV-041F380	LSMV-041F500	LSMV-041F630	LSMV-041F750	LSMV-041F950	LSMV-041F12H	LSMV-041F15H	LSMV-041F19H	LSMV-041F25H	LSMV-041F31H	LSMV-041F37H	LSMV-041F47H
	Output Capacity [kVA]	250	380	500	630	750	950	1200	1500	1900	2500	3100	3700	4700
6,000V	Model Number [50Hz]	LSMV-060F400	LSMV-060F600	LSMV-060F800	LSMV-060F10H	LSMV-060F12H	LSMV-060F15H	LSMV-060F20H	LSMV-060F25H	LSMV-060F30H	LSMV-060F40H	LSMV-060F50H	LSMV-060F60H	LSMV-060F75H
	Output Capacity [kVA]	400	600	800	1000	1200	1500	2000	2500	3000	4000	5000	6000	7500
	Cell Rated Current [A]	35	53	70	88	105	131	175	218	260	350	438	525	657
	Max. Applicable Motor Capacity [kW]	330	500	660	850	1000	1250	1700	2080	2500	3400	4100	5000	6200
	Model Number	LSMV-100F600	LSMV-100F900	LSMV-100F12H	LSMV-100F15H	LSMV-100F18H	LSMV-100F22H	LSMV-100F30H	LSMV-100F37H	LSMV-100F45H	LSMV-100F60H	LSMV-100F75H	LSMV-100F90H	LSMV-100F11M
	Output Capacity [kVA]	600	900	1200	1500	1800	2200	3000	3700	4500	6000	7500	9000	11000
Cell Rated Current [A]	35	53	70	88	105	132	175	218	260	350	438	525	657	
Max. Applicable Motor Capacity [kW]	500	700	1000	1250	1500	1800	2500	3150	3800	5000	6200	7200	9300	

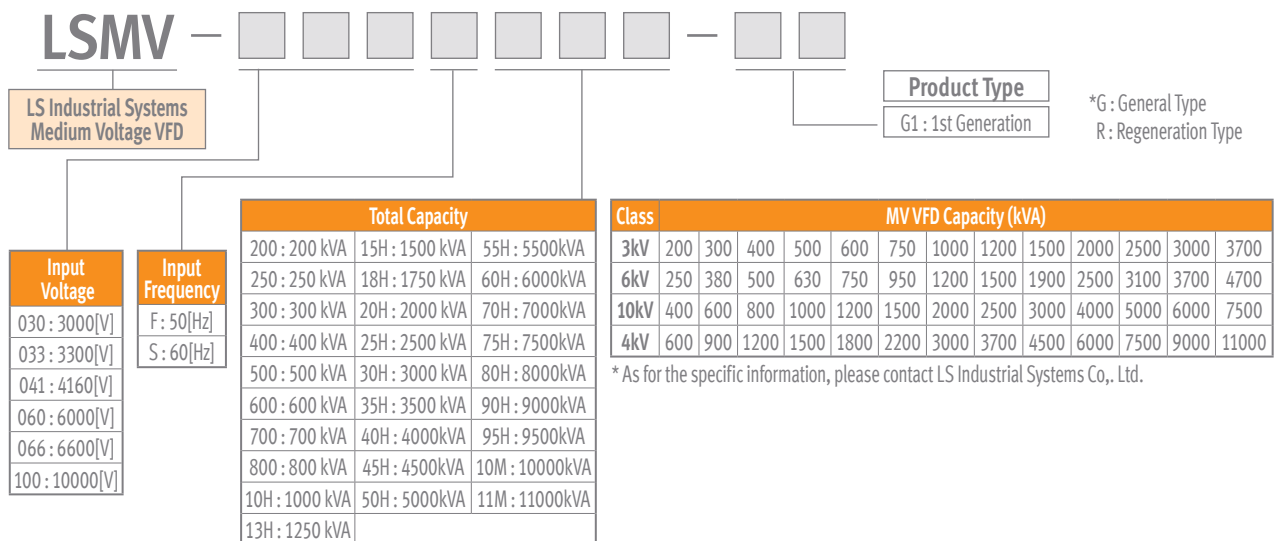
# LSMV Series [3 phase 250~4.150kW]

Perfect Energy Saving MV Drive

Power Factor		Approx. 95% (rated speed and load condition)
Efficiency		Approx. 98.5%* <sup>1</sup> (rated speed and load condition)
Input current THD		Satisfies IEEE Standard
Input	Main circuit	3-phase 3 kV/3.3 kV/4.16 kV/6 kV/6.6 kV/10 kV ±10%, 50/60 Hz
	Control circuit	3-phase 220 V/380 V/440 V ±10%, 50/60 Hz ±5%
Output	Rated voltage	3-phase 3 kV/3.3 kV/4.16 kV/6 kV/6.6 kV/10 kV Max. 25 level
	Output frequency	0 - 120 Hz
Control	Control method	V/F, sensorless vector control
	Frequency control precision	±0.1%
	Frequency resolution	0.01 Hz
	Accel/Decel time	6000 s
	Overload tolerance	120% 60 s
	Method of modulation	Multi-level pulse width modulation (multi-level PWM)
Operation	Extra features	Flying start / Cell bypass
	Keypad loader	RS-232, Modbus-RTU, key input mode
	System monitoring	HMI (XP-50) basic installation
Signal Input/Output	MV System View (Option)	Built-in touch screen input-type wide-view angle 12.1-inch 144-color TFT-KEYPAD, 1024x768 resolution and 40 ms response speed.
	Digital PLC	Input: 15 channels, output: 9 channels XBC-DR64H input: 32 channels, output: 32 channels
Analog		Input: 3-channel (DC 0 - 10 V or 4 - 20 mA) output: 4-channel (DC 0 - 10 V or 4 - 20 mA)
Protective function		Overcurrent, overvoltage, insufficient voltage, ground fault, drive overheat, motor overheat fan trip, overload, communications error, cell trip... .
Communication		RS-485 built-in, option: DeviceNet, Profibus, Modbus-RTU, Modbus/TCP, Ethernet/IP
Structure	Protection level	IP20
	Cell bypass	Default built-in (manual/auto bypass)
	Cooling method	Air-cooled
Installation environment	Ambient temperature	0~40°C
	Humidity	Max. 85% (should not have condensation)
	Altitude	Below 1,000 m
	Installation	Indoor
Input transformer		Class H, air-cooling, N/+5%/10% or -5%/N/+5

\*1 without transformer

## Model Number





**VALIADIS**  
Hellenic Motors