



# LS1000

AC Solar Pump Controller



*Infinite Solar Pumping Energy*



**S O L A R P U M P C O N T R O L L E R**

### INTRODUCTION

LS1000 series controller special for PV water pump adopts the high accuracy fast MPPT algorithms, tracking the PV array output by the maximum power point, driving the pump motor as much as possible to meet various pumping applications.

The controller specially design for PV water pump can support AC input besides support PV array DC input. When the PV array can not drive the motor or dose not have output, it can also accept the grid AC input or other AC motor to supply the power ti meet various emergency needs. LS1000 series controller special design for PV water pump provides full protection. maximizing the life of motor and pump.

### FEATURE & BENEFITS

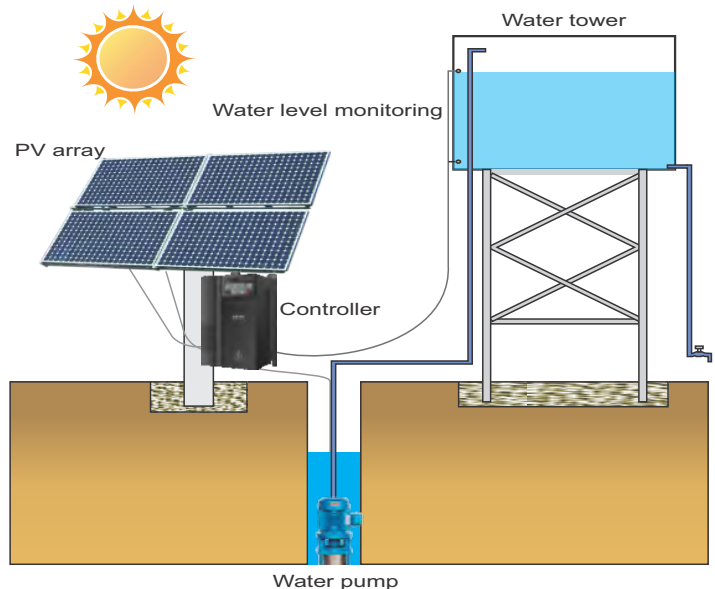
- Built-in high precision PV array maximum power point tracking MPPT algorithms
- Dry running mode monitoring, treatment
- Tank water level control
- Accept DC/AC input
- LED/LCD auto scrolling displays the real time situation and the parameters like Output Frequency, DC voltage, kW, kWh & Output Current
- Based on RS485 real time remote control system
- Fast installation design, no need extra maintenance
- Built-in full protection and diagnostic mechanism.
- IP54 Controller
- UL & MNRE approved
- Overall Efficiency : >97.5%
- Soft starter features prevents water hammer and increase system life.
- GSM option also available to control and monitor remote location Pump.

### CAPACITY RANGE

- **Power range** : 0.75~190kW
- **Output frequency** : 0~300Hz
- **Input voltage range** :
  - DC 150V~380V, 1-phase AC220V,
  - DC 200V~380V, 3-phase AC220V,
  - DC 350V~750V, 3-phase AC380V

### APPLICATION

- Tank filling
- Wild life & Farms
- Rural water supply for villages & homesteads
- Irrigation system in Agriculture
- Fountains
- Drinking water supply
- Livestock watering
- Pond management
- Irrigation, etc.



### STANDARDS

<b>Efficiency</b>	: IEC 61683
<b>Environmental</b>	: IEC 60068-2-1, IEC60068-2-2, IEC 60068-2-14, IEC 60068-2-30
<b>Protection Degree</b>	: IEC 60529 (IP54)

### PROTECTION DEVICES

<b>Built in dry run protection</b>	: Yes
<b>Built in surge protection</b>	: Yes
<b>Reverse polarity protection</b>	: Yes
<b>Short circuit protection</b>	: Yes

### SPECIFICATION

Model	HP	Rated Output Power(kw)	Max. Input DC Voltage (V)	Output for Motor/Pump	Maximum current carrying capacity (A)	Recommended MPP Voltage (VDC)
<b>FOR 110/150V 3 PHASE MOTOR</b>						
LE400LV	0.5	0.37	400V DC	110V /3-ph	4	150~350
LE750LV	0.75	0.55	400V DC	110V /3-ph	6	150~350
LE750LV	1.0	0.75	400V DC	110V /3-ph	8	150~350
LE1500LV	1.5	1.1	400V DC	150 V / 3-Ph	7.5	200~350
LE1500LV	2.0	1.5	400V DC	150 V / 3-Ph	9.5	200~350
LE2200LV	3.0	2.2	450V DC	165 V / 3-Ph	13	300~350

Model	HP	Rated Output Power(kw)	Max. Input DC Voltage (V)	Output for Motor/Pump	Maximum current carrying capacity (A)	Recommended MPP Voltage (VDC)
<b>FOR 230V 3 PHASE MOTOR</b>						
LE400L	0.5	0.37	450V DC	220 V / 3Ph	3	300~350
LE750L	0.75	0.55	450V DC	220 V / 3Ph	4.5	300~350
LE750L	1.0	0.75	450V DC	220 V / 3Ph	6	300~350
LE1500L	1.5	1.1	450V DC	220 V / 3Ph	8	300~350
LE1500L	2.0	1.5	450V DC	220 V / 3Ph	9.5	300~350
LE2200L	3.0	2.2	450V DC	220 V / 3Ph	11	300~350

Model	HP	Rated Output Power(kw)	Max. Input DC Voltage (V)	Output for Motor/Pump	Maximum current carrying capacity (A)	Recommended MPP Voltage (VDC)
<b>FOR 320 / 415V 3 PHASE MOTOR</b>						
LE2200H	3.0	2.2	750V DC	415 V / 3Ph	5.7	420~600
LE3700H	5.0	3.7	750V DC	415 V / 3Ph	10	420~600
LE5500H	7.5	5.5	750V DC	320 V / 3-Ph	18	420~600
LE5500H	7.5	5.5	750V DC	415 V / 3Ph	14	420~600
LE7500H	10.0	7.5	750V DC	415 V / 3Ph	18.5	420~600
LE10KH	12.5	10	750V DC	415 V / 3Ph	22	420~600
LE11KH	15	11	750V DC	415 V / 3Ph	25	420~600
LE15KH	17.5	15	750V DC	415 V / 3Ph	30	420~600
LE15KH	20	15	750V DC	415 V / 3Ph	33	420~600
LE18KH	25	18.5	750V DC	415 V / 3Ph	40	420~600
LE22KH	30	22	750V DC	415 V / 3Ph	50	420~600
LE27KH	35	27	750V DC	415 V / 3Ph	57	420~600
LE30KH	40	30	750V DC	415 V / 3Ph	65	420~600
LE37KH	50	37	750V DC	415 V / 3Ph	78	420~600
LE45KH	60	45	750V DC	415 V / 3Ph	95	420~600
LE55KH	75	55	750V DC	415 V / 3Ph	115	420~600
LE75KH	100	75	750V DC	415 V / 3Ph	155	420~600
LE90KH	125	90	750V DC	415 V / 3Ph	192	420~600
LE100KH	150	100	750V DC	415 V / 3Ph	227	420~600
LE130KH	180	130	750V DC	415 V / 3Ph	268	420~600
LE150KH	200	150	750V DC	415 V / 3Ph	303	420~600
LE170KH	225	170	750V DC	415 V / 3Ph	338	420~600
LE190KH	250	190	750V DC	415 V / 3Ph	380	420~600

### GENERAL DATA

Maximum Inverter Efficiency	97.50%	Efficiency	Maximum MPPT Efficiency	99.50%
Installation Environment	No Corrosive Gas, No Direct Sun Light	Control	Control Tool	Removable Keyboard with LED/LCD, Control Terminals for remote & Sensors
Working Temperature	-15' C to 60' C		Protection	Over/Under Voltage Over Current Phase Loss Reverse Polarity Protection Ground Protection Short Circuit Protection Over Frequency Protection Speed lose Protection
Humidity	20%-95% RH (No condensation)		Frequency Resolution	0.01 Hz
Noise	< 40 dB		Ac/Deceleration time	0.1-6500s
Storage Temperature	-25'C - +65'C		Carrier frequency	1.0 - 15.0 KHz
Protection Degree	IP 54		Communication	RS-485
Cooling	Fans with Aluminum Heat Sink			

