



SOLAR IRRIGATION SYSTEM

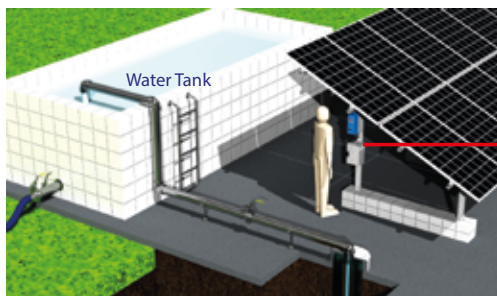
Three phase submersible or surface water pumps can run on energy generated from solar panels directly, where there is no electricity grid or generator.

Solar irrigation system consists of a Solar Direct Drive unit with MPPT feature, solar panels and a water tank where necessary.

Solar panels are connected directly to the SDD unit and the highest instantaneous power generated by panels is transmitted to the pump (MPPT function). Motor drive unit changes the pump shaft speed and torque so that system offers the use of water at high flow rates at noon and low flow rates in the evening depending on the instantaneous power delivered by the solar panels. Water can be used instantaneously or it can be stored in the tank and be used for irrigation at night time.

Equipment to be used in this system and cost are associated with the following data and the technical planning of the system;

- Well depth / meter (only for submersible pumps)
- The requested amount of daily water / ton
- Irrigation season (beginning and ending months)
- Installation location (village, town and city name)



Model	Solar Drive							PV	AC PUMP		
	Inverter Power (kW)	Input Voltage DC (V)	MPPT Voltage (V)	Recommended MPPT Voltage (V)	Max. DC Input Current (A)	Output Current (AC) A	Operating Frequency (Hz)	325W Number of Panels	Pump Power (kW)	Operating (VAC)	Max. Efficiency
SDDPV2200M	2.2	200-440	150-400	330	12	14	0-50/60	10	2,2	1 Phase 220	97%
SDDPV2200U	2.2	200-440	150-400	330	12	10	0-50/60	10	2,2	3 Phase 220	
SSDDPV2200	2.2	300-800	250-750	550	12	5,5	0-50/60	17	2,2	3 Phase 380	
SDDPV4000	4	300-800	250-750	550	16,5	9,5	0-50/60	17	3	3 Phase 380	
SDDPV4000	4	300-800	250-750	550	16,5	9,5	0-50/60	19	4	3 Phase 380	
SDDPV5500	5.5	300-800	250-750	550	23,9	14	0-50/60	34	5,5	3 Phase 380	
SDDPV7500	7.5	300-800	250-750	550	30,6	18,5	0-50/60	36	7,5	3 Phase 380	
SDDPV11K	11	300-800	250-750	550	39,2	25	0-50/60	54	11	3 Phase 380	
SDDV15K	15	300-800	250-750	550	49	32	0-50/60	72	15	3 Phase 380	
SDDPV22K	22	300-800	250-750	550	60	45	0-50/60	108	22	3 Phase 380	
SDDPV37K	37	300-800	250-750	550	90	75	0-50/60	171	37	3 Phase 380	
SDDPV55K	55	300-800	250-750	550	150	115	0-50/60	266	55	3 Phase 380	
SDDPV75K	75	300-800	250-750	550	200	150	0-50/60	360	75	3 Phase 380	