



Solar Pump Rates

Submersible Solar Pumps

Model	Solar Generator Wp (watt)	Lift (m)	Flow rate (m3/day)
SP1800CT	1800	10	165
SP1200CT	1200	10	134
SP1200HT	1200	70	19
SP1000CT	1000	10	105
SP1000HT	1000	70	17
SP840CT	840	10	91
SP840HT	840	70	14
SP720CT	720	10	78
SP720HT	720	70	13
SP660CT	660	10	70
SP660HT	660	70	11
SP480CT	480	5	80
SP480HT	480	70	7.4
SP420CT	420	5	72
SP420HT	420	70	6.4
SP350CT	350	5	62
SP350HT	350	70	5.8
SP300CT	300	5	52
SP300HT	300	70	4.2
SP250HF	250	10	16
SP200HF	200	10	13
SP150HF	150	10	9
SP150CF	150	10	13

Surface Solar Pumps

Model	Solar Generator Wp (watt)	Lift (m)	Flow rate (m3/day)
SP340ST	340	8	9
SP400ST	400	8	19.5
SP480ST	480	8	36
SP600ST	600	14	4.8
SP720ST	720	14	11.2
SP900ST	900	14	33.6
SP130SF	130	40	2.5

Symbol explanations

SP = Solar Pump
 xxx = PV Modules Watt Peak
 H = Helical Rotor
 C = Centrifugal Pump
 T = Tracking System
 F = Fixed Modules
 S = Surface Pump

Instructions

Solar Irradiation = 6 KWh/m2/day
 Solar Tracking Improve the Performance by aprox. 40%
 The PV Modules Tilted Angle = Latitude Angle
 Flow Rates May Vary +/- 10%

Application

Drinking Water Supply
 Livestock Watering
 Pond Management
 Irrigation

System Components

Solar Modules
 Solar Pump
 Solar Tracking (Option)
 Accessories (Sensors, Cables,...etc)



Solar & Diesel Pumping Systems Comparison

Systems	Solar Pump	Diesel Pump
Model	SP1400CT	Tobland
Components Origin Brand	Germany	India
Sun Energy Using	Yes	No
Fossil Fuel Consumption/Day (Lit)	No	High
Oil Consumption/Day (Kg)	No	High
Maintenance Cost/Day (\$)	No	High
Performance Guarantee (Years)	20	N/A
Manufacture Guarantee (Years)	2	N/A
Life Time (Years)	25	N/A
System Cost Ratio% After 25 Years Refer to the Solar Pump Initial Cost	120%	500%
Reduction of CO2 Emission (Tons/Year) due to install the SP1400CT System	4	-4
Reduction of CO2 Emission (Tons per 25 Years)	100	-100
The Annual Value of CO2 Emission Reduction according to CDM Financial Program (€)	40	0.00
The Value of CO2 Emission Reduction after 25 years (€)	1000	0.00

*** The above comparison according to the Egyptian market survey for the Diesel Pump Machines up to 9 HP, the price of Fossil Fuel is 1.15 L.E/lit, the price of Oil is 8 L.E/Kg, the Solar Radiation is 6 KW.hr/day/m², the Solar Systems include Tracking Systems & the value of 1 ton CO₂ emission reduction equal 10 € according to CDM Financial Program.

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