IC Renewable Solutions

Providing the technologies of tomorrow, today

IC 240 - Solar Water Pumping Kit

- Solar powered or hybrid systems.
- DC power for reliability and less components.
- For depths of 240 meters or less.
- Max. flow rate of 21 m³ / hour, depth dependent.
- Installation and mounting provided.
- Systems can be sized for budget and use.
- System price determined by quantity.
- Components: photovoltaic system with support, submersible pump with controller, all connections.
- Contact: IC Renewables 5407 Dillard Drive Raleigh, NC USA 27606 00.1.919.745.1651 info@icengineeringinc.com

Performance										
	HR-03	HR-03H	HR-04	HR-04H	HR-07					
lift [m]	0-140	140-240	0-80	80-160	40-120					
max. flow rate [m ³ /h]	0.5	0.5	0.8	0.8	1.2					
max. efficiency [%]	60	64	60	65	64					
solar operation	nominal voltage 72-96V DC, open circuit voltage max. 200V DC									
solar generator [Wp]	350-480	420-900	350-420	420-1200	420-1200					
battery operation	nominal voltage 72-96 V DC									
	HR-10	HR-14	C-SJ5-8	C-SJ8-5	C-SJ12-3					
lift [m]	30-80	0-60	0-40	0-24	0-15					
max. flow rate [m ³ /h]	1.9	2.7	7.5	11	21					
max. efficiency [%]	64	65	48	48	48					
solar operation	nominal voltage 72-96V DC, open circuit voltage max. 200V DC									
solar generator [Wp]	420-1200	350-1200	350-1200	350-1200	350-1200					
battery operation	nominal voltage 72-96 V DC									







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Technical Data, Dimensions and Weights

	dimensions					shipping dimensions			
	L	А	В	D	S	packaging	shipping volume	net weight	gross weight
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[m ³]	[kg]	[kg]
Pump Unit (PU) (motor + pump end)									
HR-03, HR-03H, HR-04, HR-04 H	780	595	185	96	G 1 1/4"	850×160×150	0.0204	11.2	12.0
HR-07, HR-10, HR-14, HR-20	771	586	185	96	G 1 1/4"	850×160×150	0.0204	11.5	12.3
C-SJ5-8	524	339	185	96	G 1 1/2"	660×160×150	0.0158	11.2	12.0
C-SJ8-5	600	415	185	96	G 2″	660×160×150	0.0158	12.7	13.5
C-SJ12-3	565	380	185	96	G 2″	660×160×150	0.0158	12.5	13.3
Controller						450×250×240	0.0270	4.5	5.3



Pump Units HR-03, HR-03H, HR-04, HR-04H



Pump Units HR-07, HR-10, HR-14, HR-20



Pump Units C-SJ5-8, C-SJ8-5, C-SJ12-3



Sand and Silt Tolerance

The pump (HR) has a higher resistance to wear from sand, clay etc. than any other pump type. In properly constructed wells the amount of particles is within the tolerance of the pump.

A concentration of particles higher than 2% (by volume) may cause blockage in the pump or the drop pipe, especially at low flow rates.

Do not use the pump to clean out a dirty well.

Pump Cable and Splice

Standard submersible cable, 3-wire + ground (total four wires). Connection to the pump is made using industry-standard splicing methods.

Drop Pipe

G 1 1/4" (optional: 1" NPT) pump outlet. If water is dirty consider a smaller sized drop pipe to increase the flow velocity. This helps to exhaust solid particles and prevent accumulation in the pipe. When considering reduced pipe size, consult a pipe sizing (friction loss) chart. Pipe can be of any standard material, rigid or flexible. A torque arrestor is not required.

Temperature Limits

Pump end, motor: water temperature up to +40°C (+104°F)

Specify temperature range on order.

Controller: ambient temperature -30°C to $+55^{\circ}C$ (-22°F to $+131^{\circ}F$)

Warranty

Two years manufacturer's warranty against defects in material and workmanship