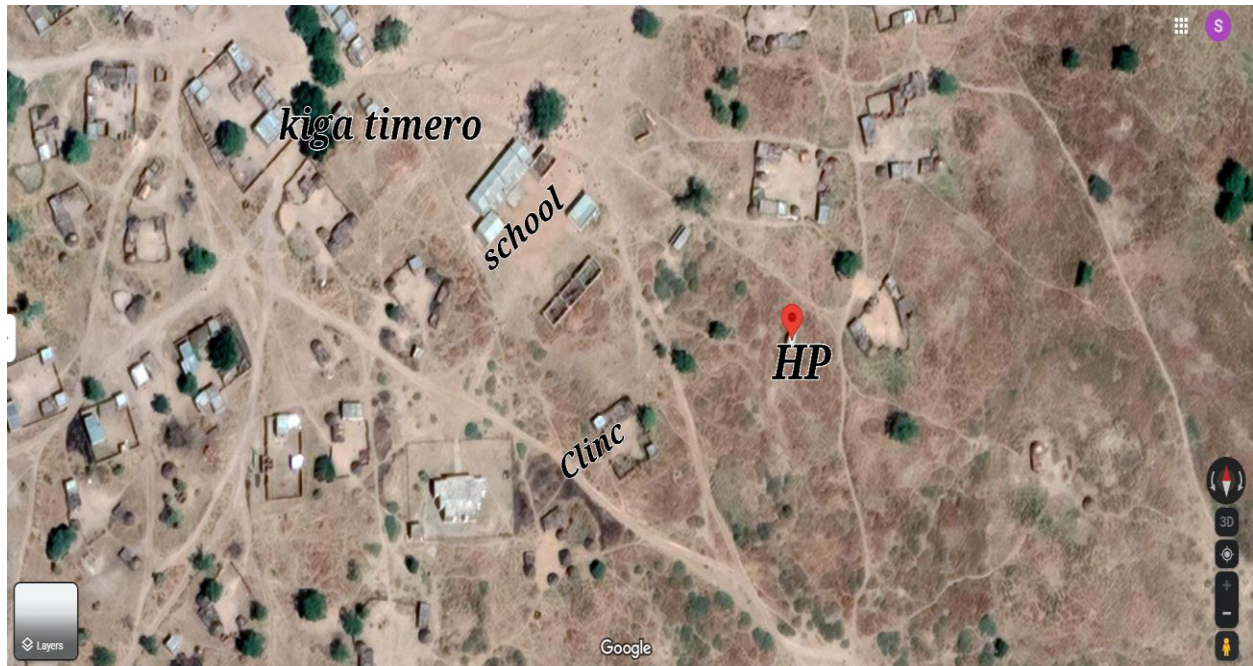


Design parameters for solar powered pumping system in – Kiga Timero-Alreef Alshargy- South Kordofan State ()

The solar powered pumping systems planned to be installed according to the following specification and requirements:



Borehole Parameters	N 11 ° 22' 12.2232 " E 29° 45 ' 9.2808"
Coordinates	
Elevation (m)	555 m
Casing diameter (in)	4 inch
Borehole depth (m)	33 m
Tank elevation above ground	2.5 m
NO. of Beneficiaries	3,000

Motor specifications:

- Upper bracket: Cathaphoresis treated cast iron plus SS304 cover cap.
- Max. Immersion depth: 985 ft.
- Protection: IP68

- Nos. of start per hour: max 20 at regular intervals.
- Sand slinger and lip seal.
- Insulation: Class F
- Rated ambient temperature: 86°C with min.
- Cooling flow 0.08 m/s of water flow speed
- Standard installation position: vertical and horizontal

Pump specifications:

Pump Size (Millimeter)	120 mm
Power Consumption (in kw)	1.1 kw

- **Max Head(ft): 276**
- **Max Flow(LpHr): 4800**
- **Discharge: 1 1/2"**
- **HP: 1.5**
- **Pump Material: Stainless Steel 304**
- **Pump Model: SP 2509**

Additional Information

Service Factor 1.3

Material Stainless Steel 304

Efficiency (Allowable load %) 64.3

Efficiency (Overload Factor %) 64.7

Cable section (AWG) 14

Cable length (m) 45

Dimensions L x W x H (in.) 3.8 x 3.8 x 30.1

