

Friday, September 25, 2020

UNHCR Sudan, Kosti Sub Office

AI Redis 1 Camp Solar & Pump Sizing

Solar pumping project

Note: For efficient operation and future upgrading, its recommended a new set of pump & PV module is installed.

Parameter

Location:	Sudan, Kosti (13° North; 32° East)	Water temperature:	25 °C	Altitude	855 m
Required daily output:	250 m ³ ; Sizing for July	Dirt loss:	5.0 %	Motor cable:	35 m
Pipe type (Discharge side):	steel, weldless, new comm. size galvanized: 0.160 mm	Pressure head:	17 m	Pipe length (Discharge side):	1,650 m
Pipe type (Suction side):	steel, weldless, new comm. size galvanized: 0.160 mm	Suction head:	3 m	Pipe length (Suction side):	5.0 m

Products

Quantity Details

PSk2-9 CS-F42-20	1 pc.	Surface pump system including controller with DataModule, motor and pump end
LC260-P60	25 pc.	6,500 Wp; 25 x 1 modules; 15 ° tilted
Motor cable	35 m	4 mm ² 3-phase cable for power and 1-phase cable for ground
Pipeline (Discharge side)	1,650 m	100 mm (inner diameter) Pipeline
Pipeline (Suction side)	5.0 m	80 mm (inner diameter) Pipeline
Accessories	1 set	Water Sensor, Float Switch, PV Disconnect 1000-40-5, PV Protect 1000-125, SmartPSUk2, SmartStart, Surge Protector2

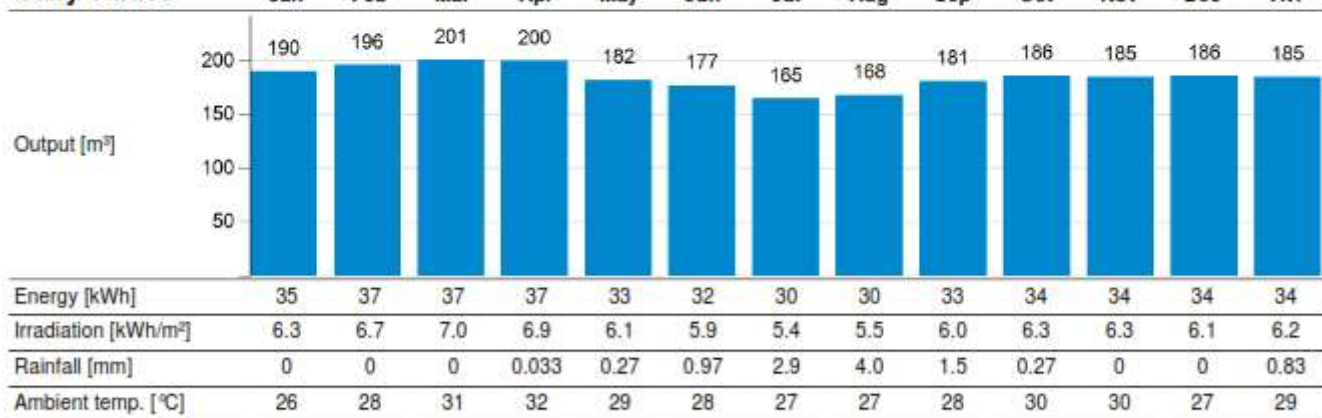
SunSwitch setting in PumpScanner

min. 200 W/m²

Daily output in July

165 m³

Daily values



Hourly values

