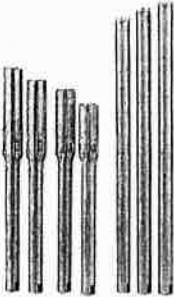

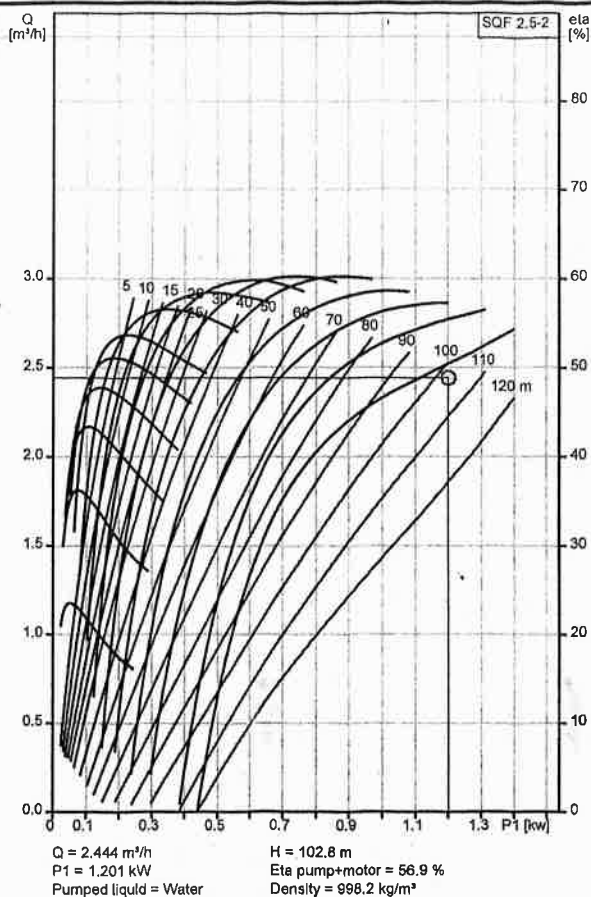


Qty.	Description
1	<p data-bbox="236 185 343 212">SQF 2.5-2</p>  <p data-bbox="592 504 1026 526">Note! Product picture may differ from actual product</p> <p data-bbox="236 533 475 560">Product No.: 95027330</p> <p data-bbox="236 616 906 642">The 3" SQFlex centrifugal pump is for medium heads and flow rates.</p> <p data-bbox="236 667 1358 721">The SQFlex system is a reliable water supply system based on renewable energy sources, such as solar and wind energy.</p> <p data-bbox="236 723 1382 777">Thanks to its flexible energy supply and performance, the SQFlex system can be combined and adapted to meet any need on the installation site.</p> <p data-bbox="236 801 1378 855">The SQFlex system has a wide voltage range, built-in maximum power point tracking (MPPT) as well as dry-running, voltage and overload protection.</p>

Qty.	Description
1	<p>CU 200</p>  <p>Notel Product picture may differ from actual product</p> <p>Product No.: 96625360</p> <p>The CU 200 control unit is a combined status, control and communication unit especially developed for the SQFlex system. Furthermore, the CU 200 enables connection of a level switch.</p> <p>The CU 200 incorporates cable entries for ...</p> <ul style="list-style-type: none"> -power supply connection, -pump connection, -earth connection, -level switch connection. <p>Communication between the CU 200 and the pump takes place via the pump power supply cable. This is called mains borne signalling (or Power Line Communication), and this principle means that no extra cables between the CU 200 and the pump are required.</p> <p>It is possible to start, stop and reset the pump by means of the on/off button.</p> <p>The CU 200 control unit offers:</p> <ul style="list-style-type: none"> -System monitoring -Alarm indication. <p>The following indications allow the operation of the pump to be monitored:</p> <ul style="list-style-type: none"> -Water reservoir is full (level switch) -Pump is running -Input power. <p>The CU 200 offers the following alarm indications:</p> <ul style="list-style-type: none"> -Dry running -Service needed in case of: <ul style="list-style-type: none"> - no contact to pump - overvoltage - overtemperature - overload. -Insufficient energy supply. <p>In addition, the CU 200 shows the symbols of the energy supply options.</p> <p>Technical:</p> <p>Approvals: CE</p> <p>Installation:</p> <p>Range of ambient temperature: 30 .. 50 °C</p> <p>Relative humidity: 95 %</p> <p>Electrical data:</p> <p>Power consumption: 5 W</p> <p>Rated voltage ac: 1 x 90-240 V</p> <p>Rated voltage dc: 30-300 V</p> <p>Enclosure class (IEC 34-5): IP55</p> <p>Others:</p> <p>Net weight: 2 kg</p>

Description	Value
General information:	
Product name:	SQF 2.5-2
Product No:	95027330
EAN number:	5700834791741
Technical:	
Stages:	2
Approvals:	UKCA, CE, EAC, CN RoHS Exempt, Morocco, Sepro
Pump No:	95027414
Valve:	pump with built-in non-return valve
Zinc Anodes:	NO
Materials:	
Pump:	Stainless steel
Pump:	DIN W.-Nr. 1.4301
Pump:	AISI 304
Impeller:	DIN W.-Nr. 1.4301
Rotor:	Stainless steel
Rotor:	DIN W.-Nr. 1.4301
Rotor:	AISI 304
Stator:	Stainless steel / EPDM
Stator:	DIN W.-Nr. 1.4301
Stator:	AISI 304
Installation:	
Maximum ambient pressure:	15 bar
Pump outlet:	Rp 1 1/4
Minimum borehole diameter:	76 mm
Liquid:	
Pumped liquid:	Water
Liquid max temp:	40 °C
Electrical data:	
Motor type:	MSF3
Power input - P1:	1.4 kW
Rated voltage ac:	1 x 90-240 V
Rated voltage dc:	30-300 V
Rated current:	8.4 A
Power factor:	1.0
Rated speed:	3600 rpm
Start, method:	direct-on-line
Enclosure class (IEC 34-5):	IP68
Insulation class (IEC 85):	F
Built-in motor protection:	Y
Thermal protec:	internal
Length of cable:	2 m
Motor No:	96275336
Udc:	300 V
Udc:	30 V
Others:	
Minimum efficiency index, MEI ≥:	—
Net weight:	10.2 kg
Gross weight:	11.3 kg
Shipping volume:	0.024 m³
Sales region:	Europe/South America/Japan



Description	Value
General information:	
Product name:	IO50, Metric
Product No:	97907253
EAN number:	5710626175826
Price:	EUR 153.22
Installation:	
t max amb:	50 °C
Electrical data:	
Mains frequency:	50 / 60 Hz

Description	Value
Rated voltage:	1 x VDC 30-300 V

Description	Value
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General information:

Product name:	CU 200
Product No:	96625360
EAN number:	5700836135131
Price:	EUR 985,22

Technical:

Approvals:	CE
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Installation:

Range of ambient temperature:	30 .. 50 °C
Relative humidity:	95 %

Electrical data:

Power consumption:	5 W
Rated voltage ac:	1 x 90-240 V
Rated voltage dc:	30-300 V
Enclosure class (IEC 34-5):	IP55
Back-up fuse:	10 A
Maximum load:	100 mA

Others:

Net weight:	2 kg
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95027330 SQF 2.5-2

Input - summary

Water volume (max): 20 m³/day
Month for sizing: August
Dynamic water level: 100 m
Sun tracking: No (fixed)
Location: Peace Drive, Western Area, SL
Latitude: 8.402412539319231 DD, Longitude: -13.166133450940235 DD

Sizing results - summary

Water production, Peak flow and Price

Total water production per year: 8030 m³
Avg. water production per day: 22 m³/day
Average water production per watt per day: 6.1 l/Wp/day

Solar module configuration:

Number of solar modules in series: 6, in parallel: 2
Solar array rated power: 3.6 kW
Solar array rated volts: 196 V
Sun tracking: No (fixed)
Tilt angle: 9 deg.

AC power (backup) - water production

Recommended minimum output: 1.301 kW
AC 115 V: Produces: 1.914 m³/h
AC 230 V: Produces: 2.444 m³/h

Products

Pump: SQF 2.5-2, 1 x 95027330
Solar module: 12 x NN 300W
Switch box / control unit: IO50, Metric, 1 x 97907253
Switch box / control unit: CU 200, 1 x 96625360

Typical performance at solar radiation 800 W/m²

Flow: 2.4 m³/h
Total head: 102.8 m

Cables and pipes:

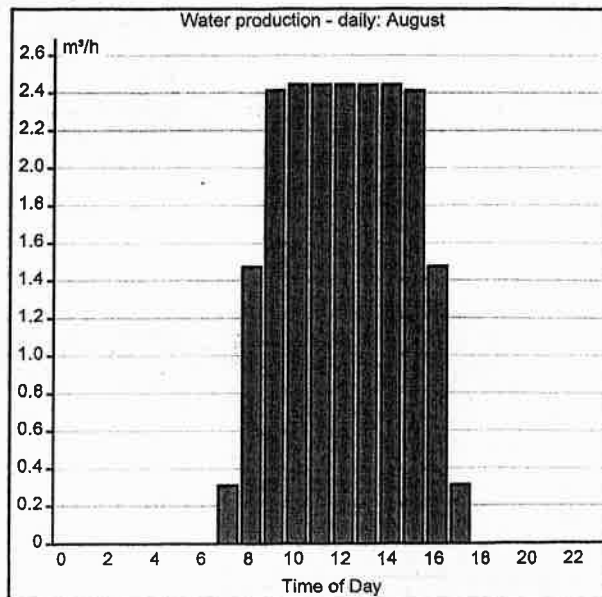
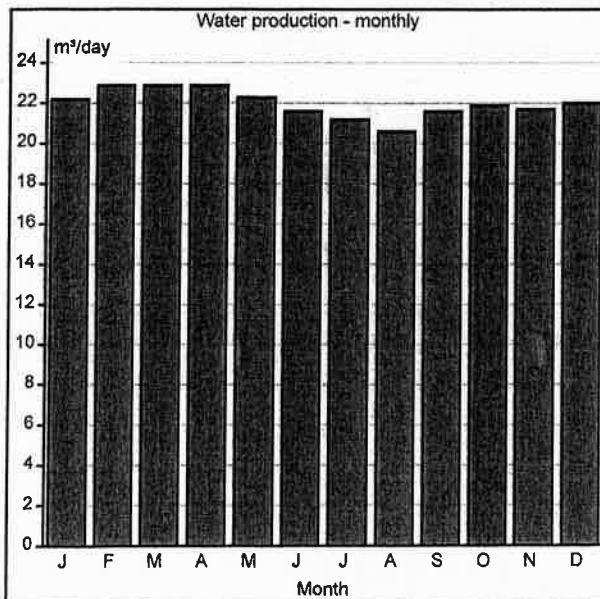
Pump cable length: 130 m
Pump cable size: 10 mm²
Total cable loss: 2.0 %

Pipe size (inner diameter), riser pipe
Pipe size (inner diameter), discharge pipe
Friction loss, riser pipe: 0
Friction losses: 2.824 m

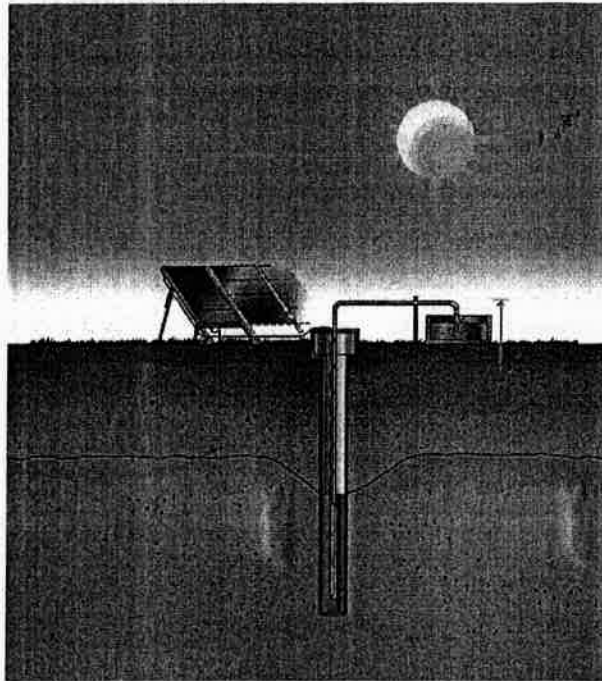
System performance - monthly average

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Water production [m ³ /day]	22.2	22.9	22.9	22.9	22.3	21.6	21.2	20.6	21.6	21.9	21.7	22
Energy production Solar [kWh/day]	14.1	14.4	14.5	14.4	13.9	13.4	13.0	12.5	13.6	13.8	13.8	14.0
Radiation horizontal [kWh/m ² day]	5.7	6.3	6.3	6.2	5.7	5.1	4.8	4.4	5.2	5.5	5.4	5.6
Radiation tilt [kWh/m ² day]	6.0	6.5	6.3	6.1	5.5	4.9	4.6	4.3	5.2	5.6	5.6	6.0
Avg. Temp. [°C]	25.8	26.2	26.6	27.4	27.3	25.8	24.2	23.8	24.6	25.5	26.1	26.1

Data location: Latitude: 9 DD, Longitude: -13 DD



Installation and Input



Sizing Results

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Cables and pipes:

Pump cable length: 130 m

Pump cable size: 10 mm²

Total cable loss: 2.0 %

Pipe size (inner diameter), riser pipe

Pipe size (inner diameter), discharge pipe

Friction loss, riser pipe: 0

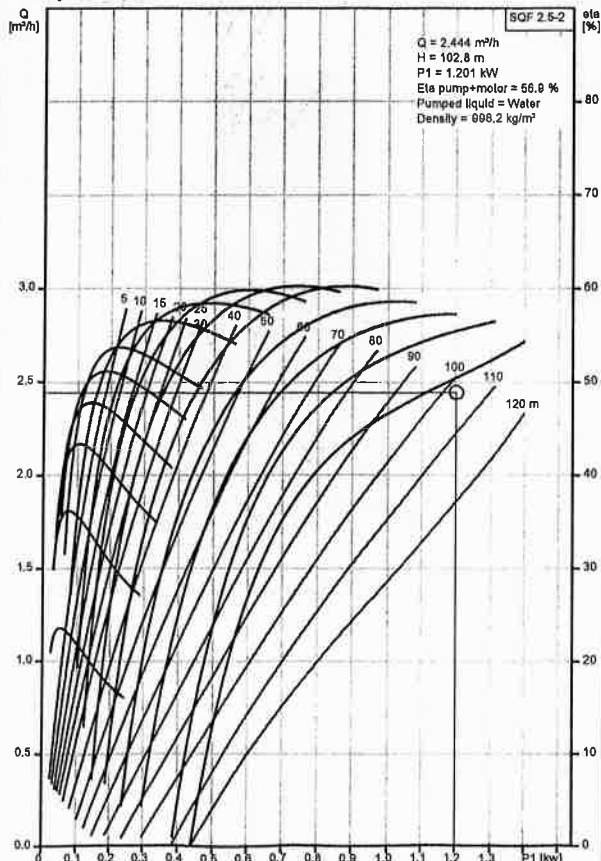
Friction losses: 2.824 m

Location: Peace Drive, Western Area, SL

Latitude: 8.402412539319231 DD, Longitude:

-13.166133450940235 DD

Pump Curve



Dimensional Drawing

