



# BADU<sup>®</sup> SOLAR SMART

**SPECK** 

[speck-pumps.co.za](http://speck-pumps.co.za)

## **BADU<sup>®</sup>SOLAR SMART**

**As the pioneers in the industry, and true innovators, we are proud to offer solar power directly to your swimming pool or Koi pond with the new BADU<sup>®</sup>Solar Smart.**

### **TURN FREE SUNLIGHT INTO ENERGY!**

**The African sun is what we are most renowned for and, with excellent weather, it is ideal for solar power – Photovoltaic (PV) systems with 365 days giving an average of almost 9 hours a day of sunlight; more than enough to run your swimming pool or Koi pond pump. The BADU<sup>®</sup>Solar Smart is supplied with DC power from the PV panels directly to the pump.**

**Most solar pumps on the market run on DC power, which generally cannot provide the output performance of a normal AC pump. This is not the case with the BADU<sup>®</sup>Solar Smart pump. This is a DC pump with the performance of an AC pump. The BADU<sup>®</sup>Solar Smart can run on solar only or in conjunction with power from the grid, which is great news for Koi enthusiasts.**

**All you will need is a DC-AC converter. The BADU<sup>®</sup>Solar Smart is designed to use solar power first and then, with a flick of a switch, be switched to power from the grid. It's that simple.**



***Get ready to pull the plug on loadshedding and electricity bills for your swimming pool.***

**Our photovoltaic (PV) systems give an average of almost 9 hours of sunlight a day, more than enough to run your swimming pool or Koi pond efficiently and economically during the day!**

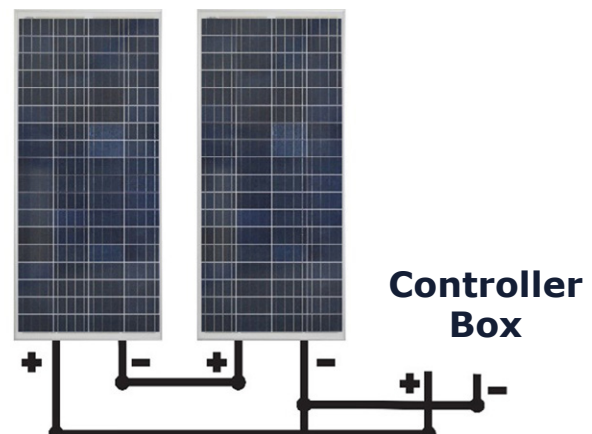
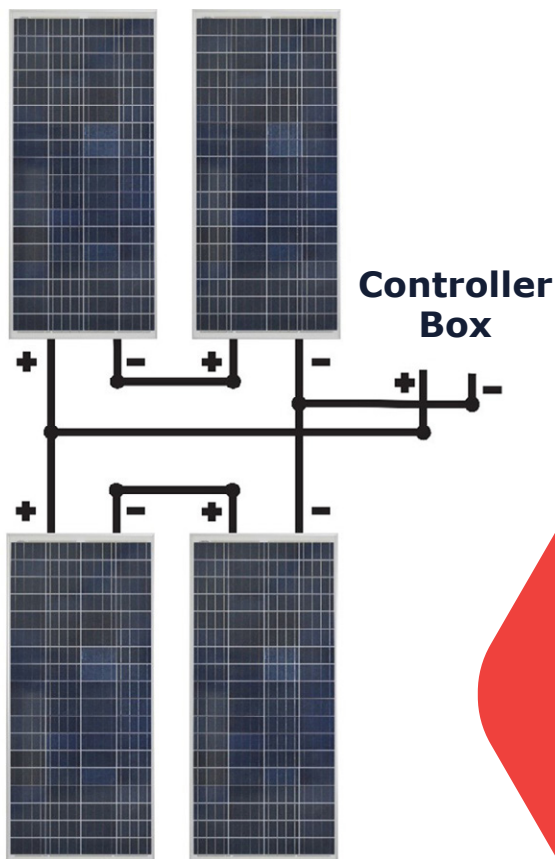
## HOW THE BADU<sup>®</sup>SOLAR SMART WORKS

This is how our BADU<sup>®</sup>Solar Smart works: Sunlight shines on a solar panel creating DC electricity. The electricity flows then from the panels through to the controller box mounted on top of the pump and the pump is now operational.

The panels get installed in rows, facing true North if you are in the southern hemisphere and true South, if you are in the Northern hemisphere, and they need to be tilted the same angle as your house's latitude, e.g. Cape Town is 33°, Durban is 29°, JHB is 26° and Pretoria is 25° to generate the best possible power.



**Convert to the BADU<sup>®</sup>Solar Smart and save on your electricity bill!**



### SOLAR PANEL RECOMMENDATION

For optimal performance, we recommend 2 x 550W solar panels, alternatively 4 x 380W solar panels. Two should be installed parallel, and two in series. ( $V_{oc} \approx 100V$ ,  $V_{mp} \approx 72V$ )





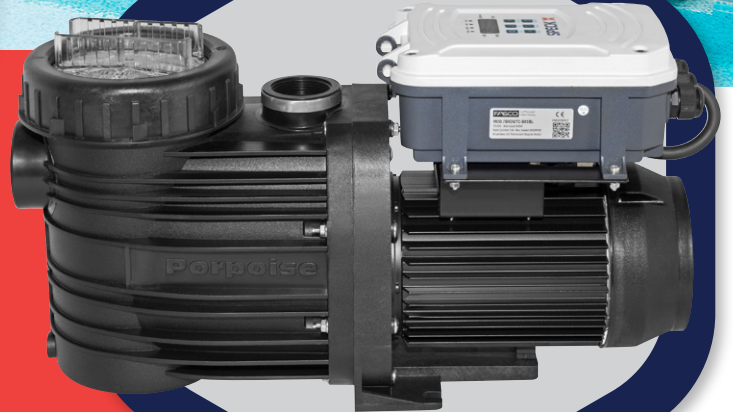
# BADU® SOLAR SMART

The BADU® Solar Smart can run on solar only or in conjunction with power from the grid, which is great news for Koi enthusiasts. These units are designed to use solar power first and then top up, if needed, from the grid.

## FEATURES:

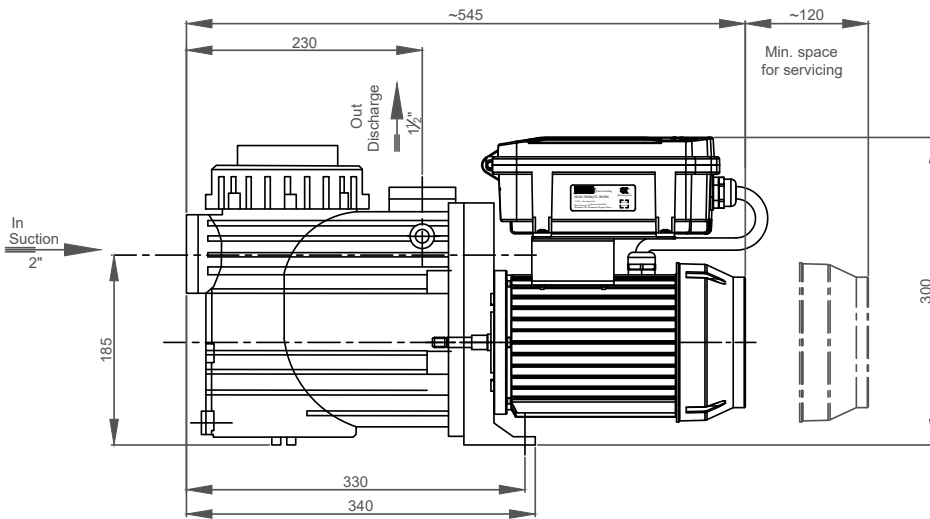
- Output performance of a normal AC pump
- Dual power usage capability
- User-friendly control panel
- Built-in Variable Speed Drive
- Permanent Magnet Brushless DC Motor
- Direct Photovoltaic (PV) power source
- MPPT\* feature to optimize motor power
- Built-in protection for high temperatures and voltage fluctuations
- Drive designed to withstand temperatures below freezing without issues
- 24-month ex-factory warranty under normal operating conditions from date of purchase.

\* MPPT Maximum power point tracking or sometimes just power point tracking (PPT), is a technique used with photovoltaic (PV) solar systems to maximize energy extraction as conditions fluctuate. (*Wikipedia*)

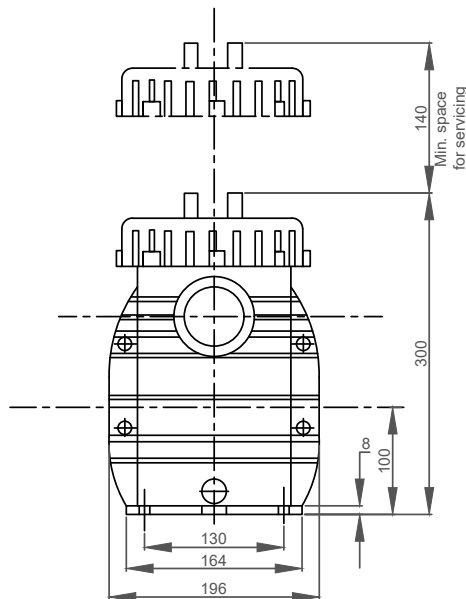


Side View

# PRODUCT INFORMATION



Controller



Top View

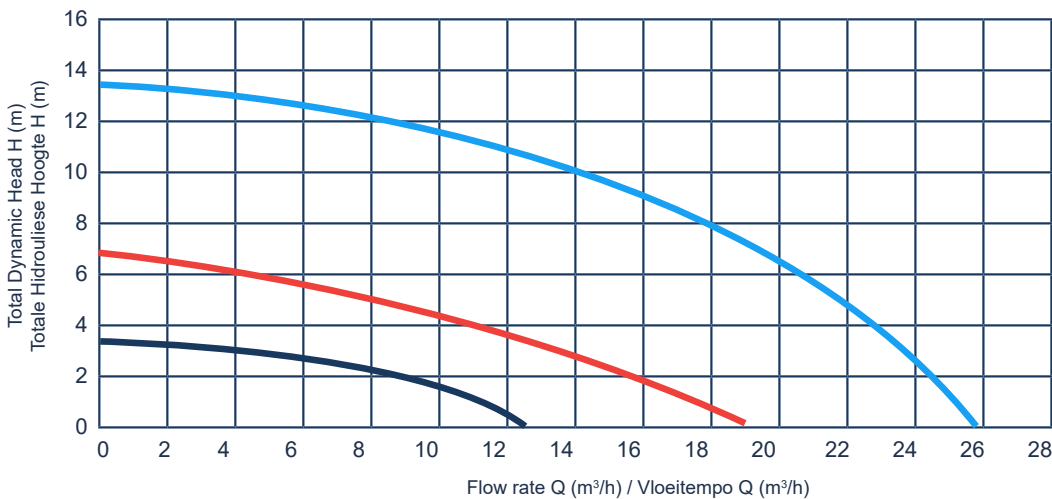
**BADU®Solar Smart dimension table (mm)**

Type	Height	Length	Width	Weight
BADU®Solar Smart	300	545	196	9.9kg



# TECHNICAL INFORMATION

Technical Data	BADU®Solar Smart
Inlet / outlet connection (Rp)2	63/50
Inlet / outlet pipe, PVC-pipe, (d <sup>4</sup> )	63/50
Power Output	750 W
Maximum power at motor input	930 W
Nominal Voltage of motor	72 Vdc
Operating Voltage range of motor	60-150 Vdc
Maximum motor current	15 A
Insulation Class	F155
Operating max ambient temperature	55°C
Maximum motor speed (rpm)	2850
Maximum Water temperature (°C)	60
Maximum Casing pressure (bar)	2.5



- **BADU®Solar Smart**  
n=1450 min<sup>-1</sup>
- **BADU®Solar Smart**  
n=2150 min<sup>-1</sup>
- **BADU®Solar Smart**  
n=2850 min<sup>-1</sup>



## **DURBAN BRANCH**

P.O. Box 267  
Pinetown, 3600  
Unit 1 & 2, Goodwood Park  
10 Goodwood Road  
Westmead, Pinetown, 3610  
Tel: +27 31 700 8005  
Fax: +27 31 700 8006

## **JOHANNESBURG BRANCH**

P.O. Box 2425  
Bedfordview, 2008  
4 Bart Street  
Wilbart  
Germiston, 1609  
Tel: +27 11 455 4300  
Fax: +27 11 455 1949

## **HEAD OFFICE**

### **CAPE TOWN BRANCH**

P.O. Box 39340  
Capricorn Square, 7948  
Unit 7, Southern Cross Village  
Capricorn Boulevard South  
Capricorn Park  
Muizenberg, 7945  
Tel: +27 21 704 1143  
Fax: +27 21 703 4374

## **PRETORIA BRANCH**

P.O. Box 2425  
Bedfordview, 2008  
Unit 4, 123 Mosaic Street  
Silvertondale, Pretoria, 0184  
Tel: +27 12 804 1294  
Fax: +27 12 804 1295

# **SPECK**

[speck-pumps.co.za](http://speck-pumps.co.za)

