

iSOLAR



SOLAR & BOREHOLE

PUMPING SYSTEMS

PRODUCT BROCHURE 2021

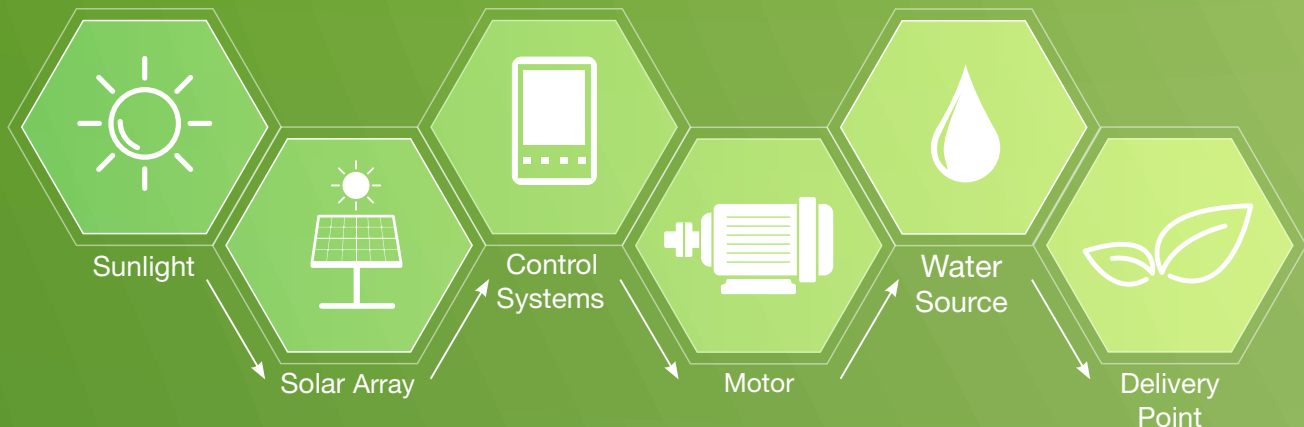
THE LATEST IN SOLAR PUMPING TECHNOLOGIES

iSOLAR harvests sunlight to provide high performance pumping solutions. Solar powered pumping systems are a cost-effective alternative to fuel powered pumps where electricity is not readily available and are ideal for remote area water supply. Pumping water using the iSolar technology is simple, reliable and requires less maintenance than traditional pumping solutions.



SOLAR ENERGY IS A **RENEWABLE,** **VAST AND CLEAN** RESOURCE

A typical solar pumping system consists of the following: A solar array to convert sunlight to electricity, a controller to manage the power from the array to the motor which rotates the pump to move the water to where you need it most.



CONTENTS

- 4 iSOLAR 3" POSITIVE DISPLACEMENT PUMP SERIES**
The 3" Helical Rotor iSOLAR PDP3 range provides a 'plug and play' kitset solution that requires only moderate DIY skills to install.
-
- 5 3" PDP SERIES - INSTALLATION GUIDE**
A quick guide for installing the 3" PDP Series
-
- 6 iSOLAR 4" POSITIVE DISPLACEMENT PUMP SERIES**
The 4" Helical Rotor iSOLAR PDP4 range increases the scope and flexibility of the iSOLAR product suite employing the same proven, highly efficient and innovative iSOLAR M220HR motor.
-
- 7 4" PDP SERIES - INSTALLATION GUIDE**
A quick guide for installing the 4" PDP Series.
-
- 8 PDP SERIES - PERFORMANCE CURVES**
Performance curves for the PDP 3" & 4" Series.
-
- 9 iSOLAR S4 PLUS RANGE**
Solar energy is a renewable, vast and clean resource powered by a system which harvests sunlight or solar energy in in turn powers a bore pump.
-
- 11 PERFORMANCE CURVES**
Performance curves on the new iSOLAR S4 Plus Range.
-
- 18 DAB S4 PLUS BOREHOLE PUMPS**
Multi-stage centrifugal type with pump type with pump and motor directly coupled with splined coupling.
-
- 19 SINGLE PHASE BOREHOLE PUMPS**
DAB S4 PLUS 4" Stainless steel pumps with 240V energy efficient PSC motors complete.
-
- 20 THREE PHASE BOREHOLE PUMPS**
DAB S4 PLUS 4" Stainless Steel Pumps with 415V energy efficient motors complete.
-
- 21 BOREHOLE PUMP WET ENDS**
DAB S4 PLUS 4" Stainless steel wet ends.
-
- 22 DAB S4 PLUS PERFORMANCE CURVES**
Performance curves on the new DAB S4 Plus Range.
-
- 25 VARIABLE FREQUENCY DRIVES & PUMP KITS**
The Bianco iSUB controllers are 240V single phase input variable frequency drives for the control of pumps up to 3.0kW, 240V 3 phase.
-
- 26 iSUB PERFORMANCE CURVES**
Performance curves for the iSUB range.
-
- 29 BOREHOLE TESLA MOTOR PUMPS**
DAB S4 4" Series Tesla Motors Water Filled & Oil Filled
-
- 30 ACCESSORIES**
Tesla Control Boxes, Motors and Borehole Pump Accessories
-
- 32 REFLEX PRESSURE TANKS**
Pressure vessels store energy in the form of pressurised water to save energy by reducing pump starts and cycling.

iSOLAR 3" POSITIVE DISPLACEMENT PUMP SERIES

The 3" Helical Rotor iSOLAR PDP3 range provides a 'plug and play' kitset solution that requires only moderate DIY skills to install. Ground water supply – supplying water from wells or reservoirs, ideal for farm, small waterworks and windmill replacements. The addition of a Positive Displacement Pump exploits the versatility of the motor's operating range to deliver water even when solar conditions are less than optimum. The iSOLAR 3" PDP can be installed down a bore, in a tank or fitted to a pontoon to supply from an open body of water.

3" HELICAL SOLAR PUMP COMPLETE SOLUTION KIT:

Kit includes:

- 3" iCON Solar Motor with 30 meters power cable with 4 pin plug
- 3" iCON Positive Displacement Pump
- iCON PDP3 Solar Controller (Plug-n-play)
- Float/Level Switch with 30 meters cable
- Nylon Safety Rope - 30 meters
- Non-return Valve
- Plug-n-play DC Isolator

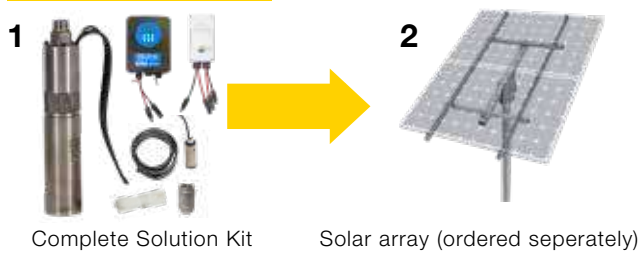
Optional add-ons:

- Solar panels
- Solar post mount kit (1 to 4 panel kits)
- Bore accessories



**Images are for illustration purposes only. Actual product may vary.*

ORDERING STEPS



MODELS AVAILABLE

Part Number	Item Code	Motor (kW)	Max Head (m)	Max Flow (lpm)	Controller (V)	Solar Array	Vmp (V)	Max VOC (V)	Max Amps
BIA-PDP3-SOLAR250	808691	0.25	60	25	24	1 x 300W	18-40	48	15
BIA-PDP3-SOLAR370	808692	0.37	80		48	2 x 300W in series	40-76	96	
BIA-PDP3-SOLAR750	808694	0.75	140		96	4 x 300W in series	80-140	180	

ACCESSORIES

Part Number	Item Code	Description
BIA-RA-PRESSURE-SWITCH-LOW	809863	Reverse acting pressure switch low (15 - 80 PSI) (1.0 - 5.5 Bar)
BIA-RA-PRESSURE-SWITCH-HIGH	809864	Reverse acting pressure switch high (35 - 150 PSI) (2.4 - 10.3 Bar)

WINDMILL REPLACEMENT MARKET

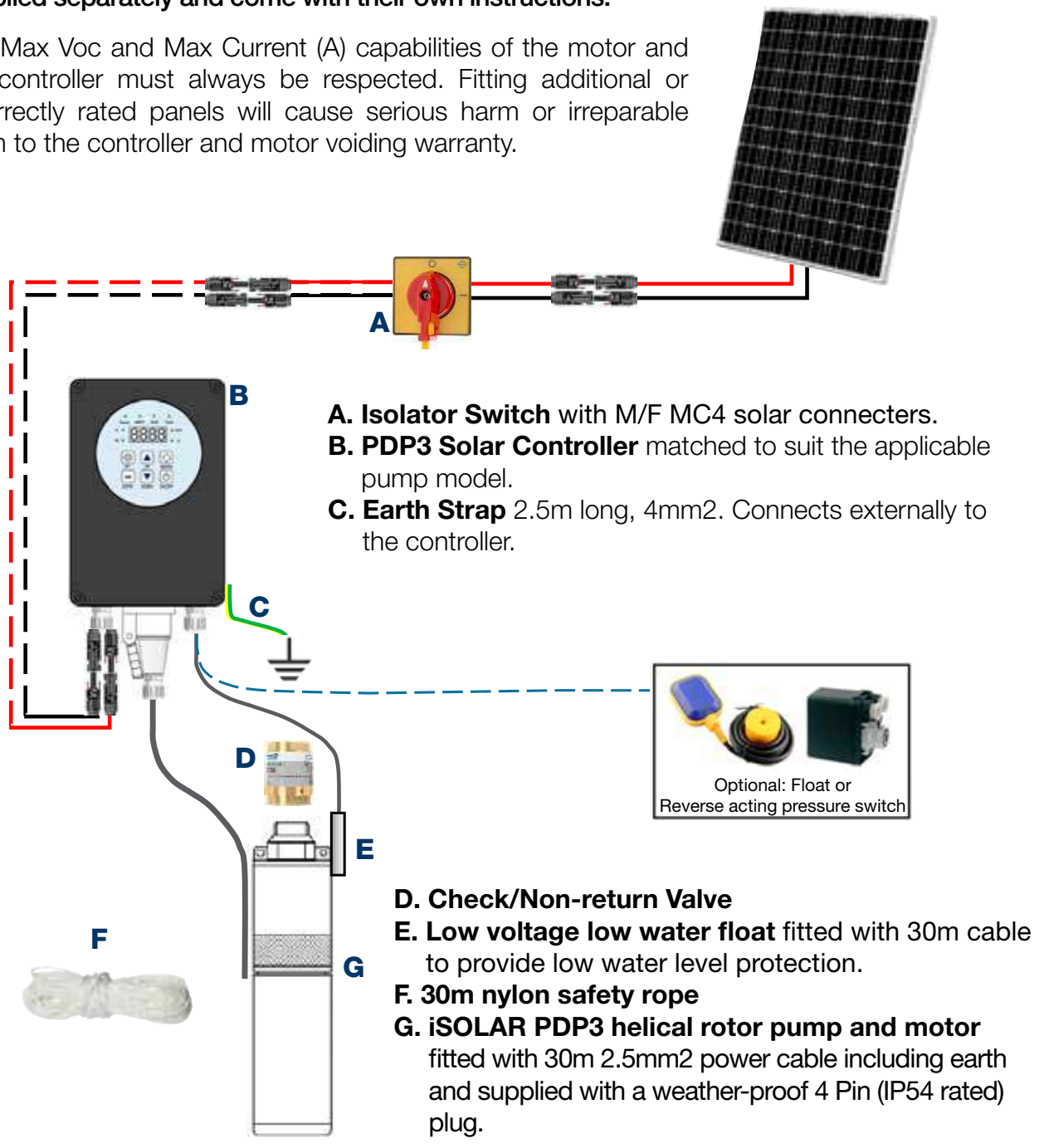
- Solar Pumps are low maintenance, easy to install, have little to no recurring costs and virtually operate themselves requiring only sunlight to pump water.
- Windmills often require maintenance, repair and replacement of parts which is often expensive and labour intensive. Furthermore, if there is no wind there is no water.
- A solar pump will be in use whenever there is sunlight, even on overcast and cloudy days.



3" PDP SERIES - INSTALLATION GUIDE

Solar Panels and their mounting system (where applicable) are supplied separately and come with their own instructions.

The Max Voc and Max Current (A) capabilities of the motor and the controller must always be respected. Fitting additional or incorrectly rated panels will cause serious harm or irreparable harm to the controller and motor voiding warranty.



- A. Isolator Switch** with M/F MC4 solar connectors.
- B. PDP3 Solar Controller** matched to suit the applicable pump model.
- C. Earth Strap** 2.5m long, 4mm². Connects externally to the controller.



Optional: Float or Reverse acting pressure switch

- D. Check/Non-return Valve**
- E. Low voltage low water float** fitted with 30m cable to provide low water level protection.
- F. 30m nylon safety rope**
- G. iSOLAR PDP3 helical rotor pump and motor** fitted with 30m 2.5mm² power cable including earth and supplied with a weather-proof 4 Pin (IP54 rated) plug.

Maximum Pump Submergence is 100m

For Cable Selection refer to iSOLAR Selector

iSOLAR **WEB SELECTOR**
isolarselector.whiteint.com.au

iSOLAR 4" POSITIVE DISPLACEMENT PUMP SERIES

The 4" Helical Rotor iSOLAR PDP4 range increases the scope and flexibility of the iSOLAR product suite employing the same proven, highly efficient and innovative iSOLAR M220HR motor.

The addition of a Positive Displacement Pump exploits the versatility of the motor's operating range to deliver water even when solar conditions are less than optimum.

The iSOLAR 4" PDP can be installed down a bore, in a tank or fitted to a pontoon to supply from an open body of water. Degree of protection: IP68

4" HELICAL SOLAR PUMP COMPLETE SOLUTION KIT:

Kit includes:

- 4" iCON Solar Motor with 3 meters power cable
- 4" iCON Positive Displacement Pump
- Low-level float switch with 30 meters cable
- Nylon Safety Rope - 30 meters
- Built-in NRV
- Plug-n-play DC Isolator

You will need:

- V3 controller / Pro controller (plug-n-play)

Optional add-ons:

- Solar panels
- Solar array mount (1 - 10 panel kits)
- Bore accessories



iSOLAR



ORDERING STEPS



MODELS AVAILABLE

Part Number	Item Code	Motor (kW)	Rated Motor Speed (rpm)	Max Head (m)	Max Flow (lpm)	Min Fluid Temp (°C)	Max Fluid Temp (°C)	DC Voltage & Current			AC Voltage & Current	
								Vmpp	Voc	Amps (A)	Volts (V)	Amps (A)
BIA PDP4-SOLAR900	808695	2.2	3600	300	11.5	10	40	60-380	60-440	12	90-280	10
BIA PDP4-SOLAR1200	808696			200	25							
BIA PDP4-SOLAR1500	808697			140	46							

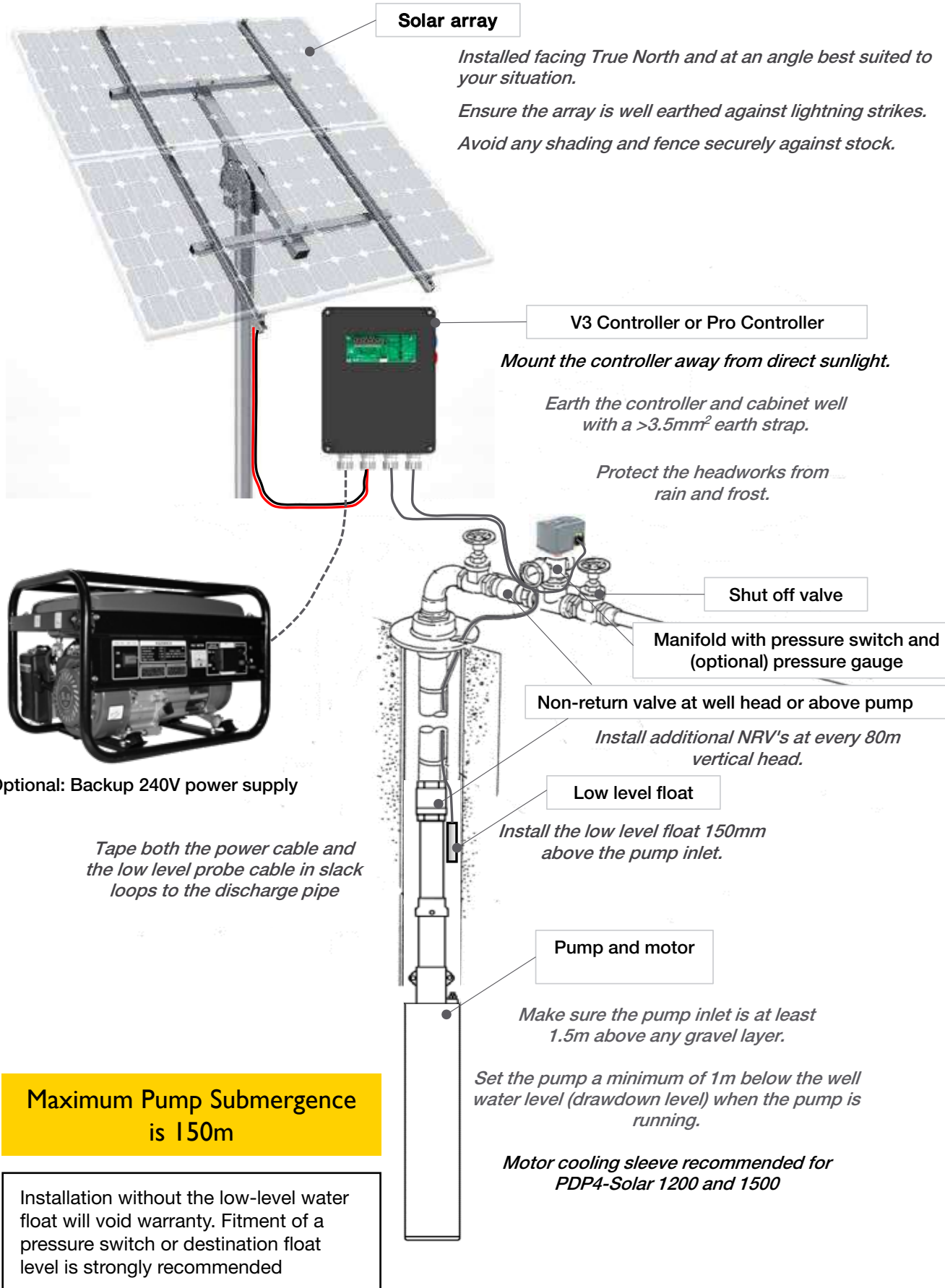
CONTROLLER OPTIONS

Part Number	Item Code	Description
BIA-SOLCONTV3-JKIT	809445	iCON SOLAR Motor V3 Controller with JKIT
BIA-SOLCONTPRO-JKIT	809446	iCON SOLAR Motor Pro Controller with JKIT

ACCESSORIES

Part Number	Item Code	Description
DAB-SBC-SS-V2	807997	Bore Cap 1-1/2" and 2" 304 Stainless Steel
DAB-SDC3G4	805894	Electrical Drop Cable 4.0mm 2 core + earth (per meter)
DAB-SSR	702722	Synthetic Cable Rope per metre
WHI-JKIT	701610	Splice Kit for 1.5 - 6mm Cable
DAB-SA10032	805677	Shroud Adaptor 100mm x 32mm
DAB-SA10050	805678	Shroud Adaptor 100mm x 50mm
DAB-F2002000	805679	Pontoon Float 200mm x 2000mm, loads up to 29kg
DAB-6BARPS	701440	Telemecanique Pressure Switch 6 BAR
DAB-12BARPS	701380	Telemecanique Pressure Switch 12 BAR
DAB-3WT	701423	Three Way Tee 1"x1"x1" Bronze
DAB-5WT	701431	Five Way Tee 1/4"x1/4"x1"x1"x1" Bronze
DAB-NRV25FM	701758	Check Valve 1" Bronze F/M
DAB-NRV25MF	701759	Check Valve 1" Bronze M/F

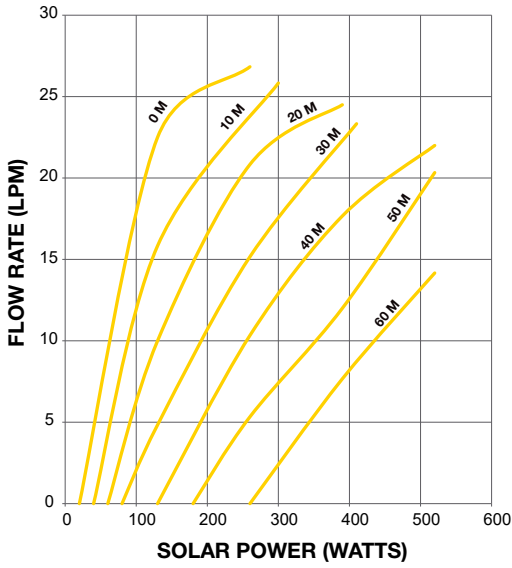
4" PDP SERIES - INSTALLATION GUIDE



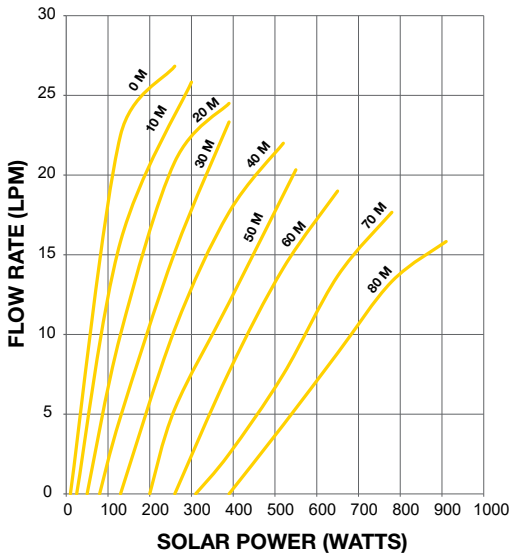
PDP SERIES - PERFORMANCE CURVES

3" PDP PUMPS

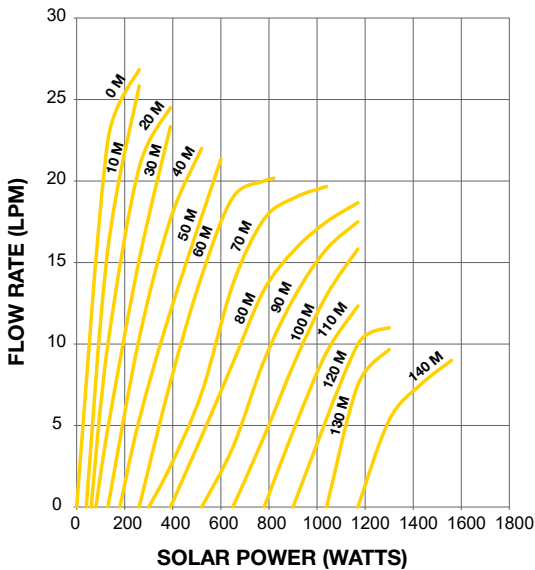
BIA-PDP3SOLAR250



BIA-PDP3SOLAR370

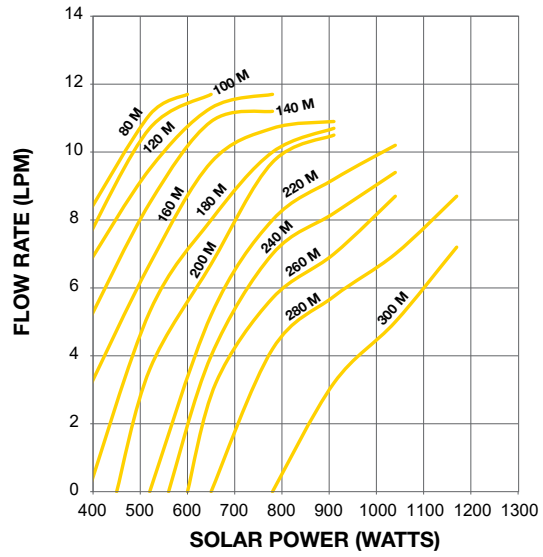


BIA-PDP3SOLAR750

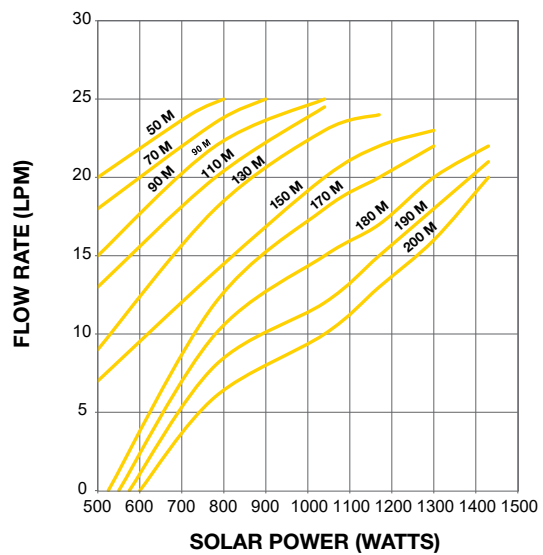


4" PDP PUMPS

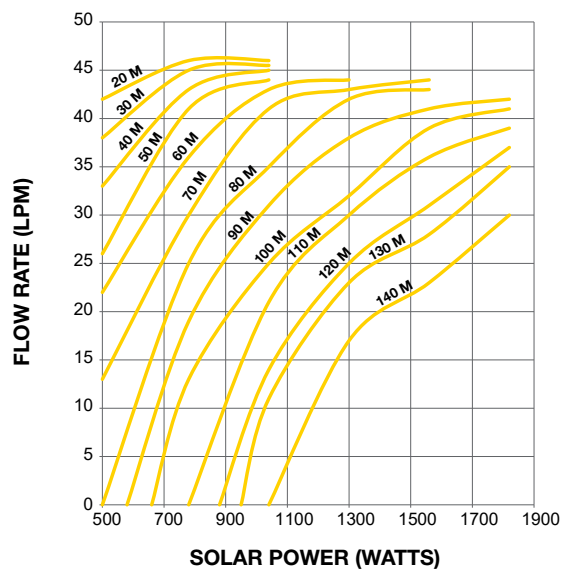
BIA-PDP4SOLAR900

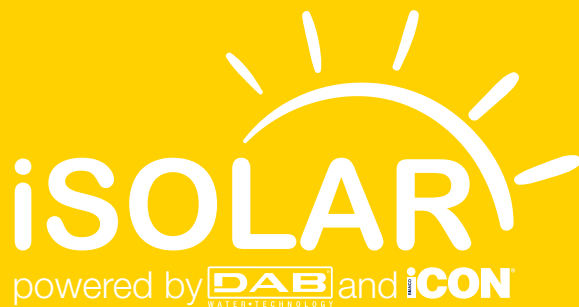


BIA-PDP4SOLAR1200



BIA-PDP4SOLAR1500





INTRODUCING... S4 PLUS

Solar energy is a renewable, vast and clean resource. The iSOLAR system powered by DAB & Bianco iCON, harvests sunlight or solar energy and in turn powers a bore pump. Solar powered pumping systems are a cost-effective alternative to other fuel-powered solutions where power is not readily available and are ideal for remote areas where water supply is limited. Pumping water using the iSOLAR technology is simple, reliable and requires less maintenance.

Features

- Revolutionary BLDC (Brushless Direct Current Motor) design.
- Bianco iCON iSolar motor powers the new DAB system for the supply of ground water based on the most widely available renewable energy, the sun.
- 4" inch diameter DAB Borehole pumps available to suit the majority of bore sizes.
- Flows from 5 lpm - 365 lpm
- Heads from 10m - 240m
- DAB Borehole pumps have technopolymer impellers and unique abrasion resistant rings to tolerate sand up to 150gram/1000 litres of water - the best in its class!
- All iSOLAR system configurations utilise the Bianco iCON controller with multiple control inputs and power supplies (AC/DC) for an integrated and fully automated pumping system.
- The permanent-magnet motor technology assures a highly efficient system and requires a smaller number of photovoltaic panels to operate.
- Designed for easy installation and requires little to no maintenance.
- The system ensures a continuous supply of water even with varying solar irradiation. This is achieved by the combination of a DAB S4 PLUS Series 4" Submersible Pump and revolutionary iCON motor with built-in inverter technology.
- Combined with the iSOLAR Controller which enables automatic switching between DC and AC power (grid power or generator) you can be assured of a reliable water supply.

NEW S4 PLUS SERIES

4" Solar Powered Pump Kits

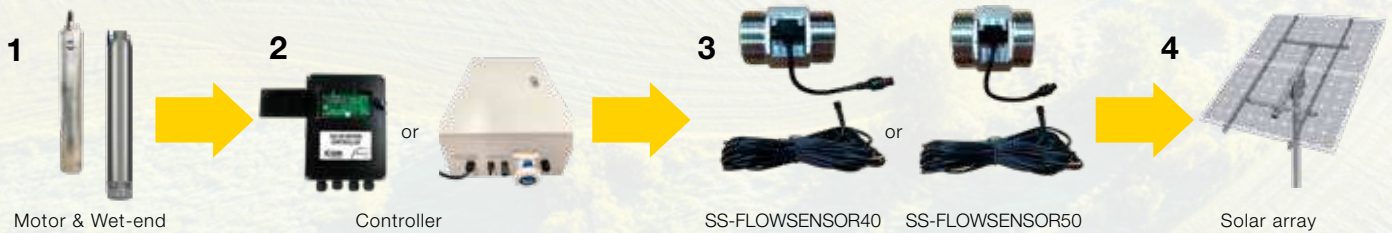
The iCON solar motor powers the new DAB system for the supply of clear water based on the most widely available renewable energy, the sun.

The system is able to ensure a continuous drawing of water from underground when the solar irradiation conditions vary.

This is achieved by utilising the electric power supplied by a series of photovoltaic panels combined with the DAB S4 PLUS series 4" submersible pump with a built-in inverter type controller. The permanent-magnet motor technology results in high system efficiency which results in a reduced number of photovoltaic panels needed to meet the required duty.

The iSOLAR system is designed for easy use. It is an ideal solution for supplying water in remote areas, where the normal power supply of electricity to the power grid is inconsistent or completely unavailable and is a good alternative to fuel powered solutions.

ORDERING STEPS



WARRANTY



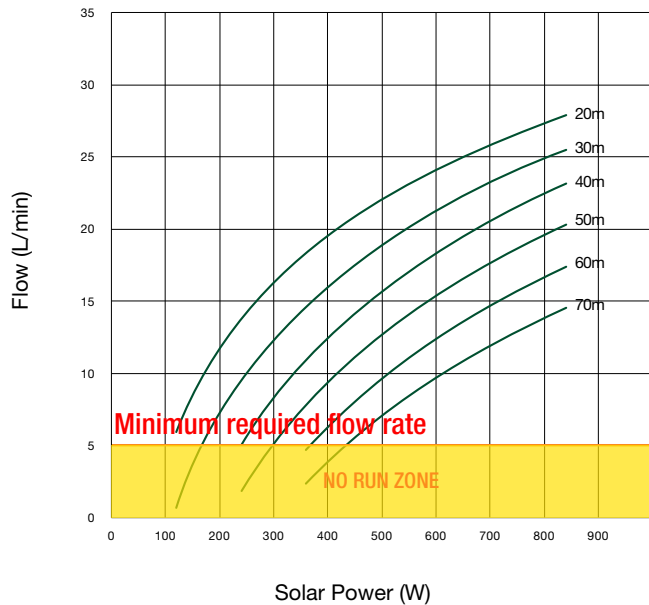
Part Number	Item Code	Max Head (m)	Max Flow (lpm)	Port	kW
DAB-S4-1/13SOL	809421	70	28	1 1/4" BSPF outlet	0.37
DAB-S4-1/19SOL	809422	90	26		0.55
DAB-S4-1/37SOLM110	809423	120	29		1.1
DAB-S4-1/37SOLM240	809424	220	24		1.1
DAB-S4-2/14SOL	809425	80	60		0.75
DAB-S4-2/20SOL	809426	120	56		1.1
DAB-S4-2/28SOLM110	809427	120	57		1.5
DAB-S4-2/28SOLM240	809428	160	43		1.5
DAB-S4-2/40SOL	809429	240	47		2.2
DAB-S4-3/13SOL	809430	70	82		0.75
DAB-S4-3/19SOL	809431	100	80		1.1
DAB-S4-3/25SOL	809432	120	83		1.5
DAB-S4-3/39SOLM110	809462	120	70		2.2
DAB-S4-3/39SOLM240	809433	200	53		2.2
DAB-S4-4/9SOL	809434	50	98		0.75
DAB-S4-4/14SOL	809435	80	98		1.1
DAB-S4-4/19SOL	809436	110	95	1.5	
DAB-S4-4/27SOL	809437	140	84	2.2	
DAB-S4-6/7SOL	809438	35	153	0.75	
DAB-S4-6/14SOL	809439	70	150	1.5	
DAB-S4-8/6SOL	809440	35	188	2" BSPF outlet	1.1
DAB-S4-8/8SOL	809441	45	185		1.5
DAB-S4-8/13SOL	809442	80	175		2.2
DAB-S4-12/8SOL	809443	40	247		1.5
DAB-S4-16/8SOL	809444	30	365	2.2	
BIA-M110SOL	805891	iCON Solar Motor - 304L			1.1
BIA-M240SOL	805892	iCON Solar Motor - 304L			2.4
BIA-M110SOL-SS	807065	iCON Solar Motor - 316SS			1.1
BIA-M240SOL-SS	807066	iCON Solar Motor - 316SS			2.4



PERFORMANCE CURVES

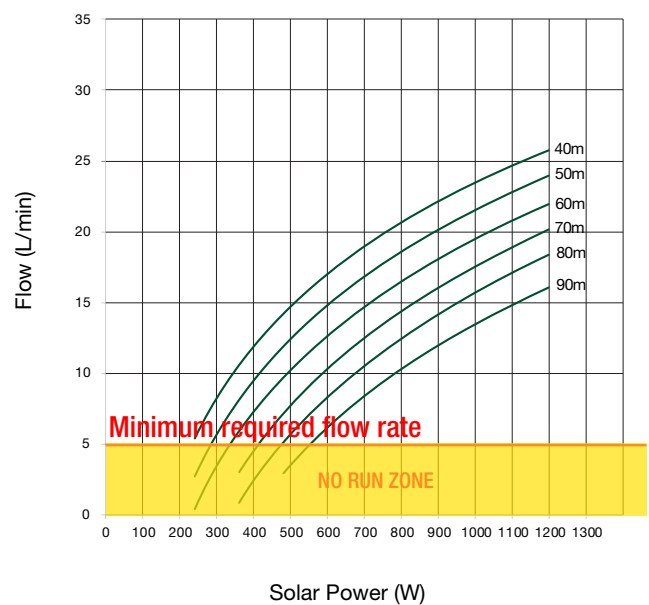
S4-1/13

Motor to use: M110SOL
Min Head: 20m
Max Head: 70m



S4-1/19

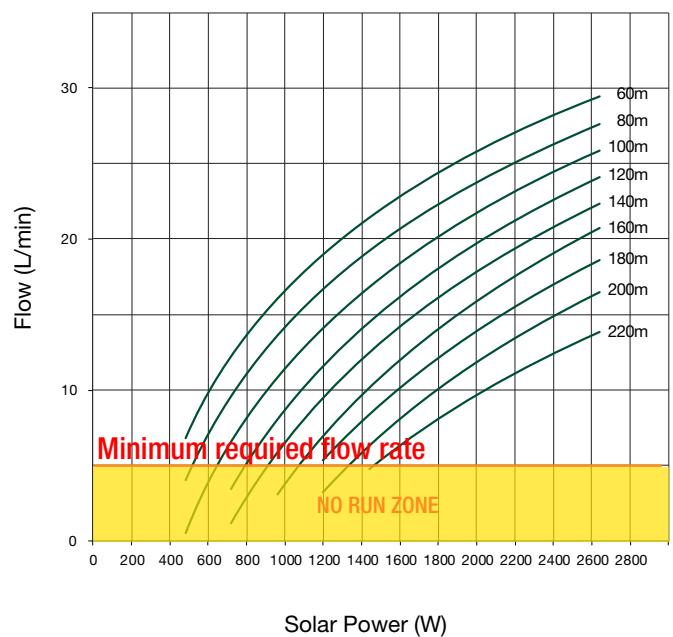
Motor to use: M110SOL
Min Head: 40m
Max Head: 90m



S4-1/37

DAB-S4-1/37SOLM110
Motor to use: M110SOL
Min Head: 60m
Max Head: 120m

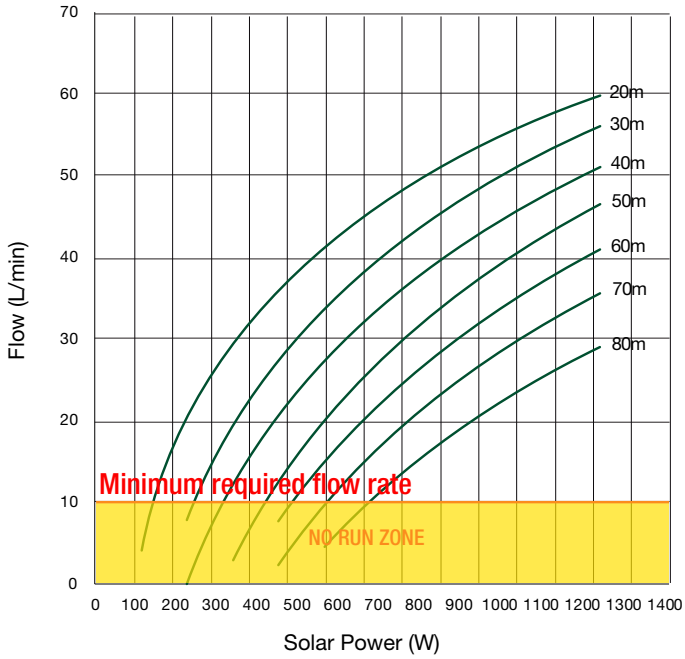
DAB-S4-1/37SOLM240
Motor to use: M240SOL
Min Head: 120m
Max Head: 220m



PERFORMANCE CURVES

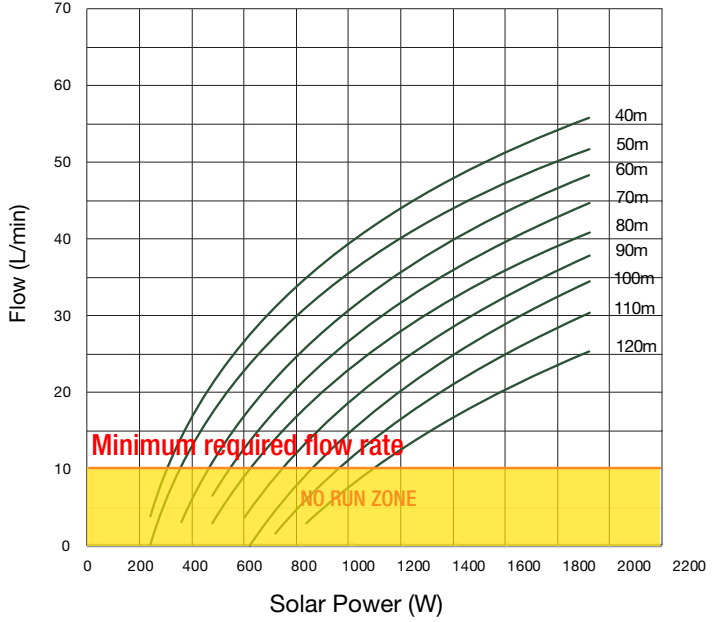
S4-2/14

Motor to use: M110SOL
Min Head: 20m
Max Head: 80m



S4-2/20

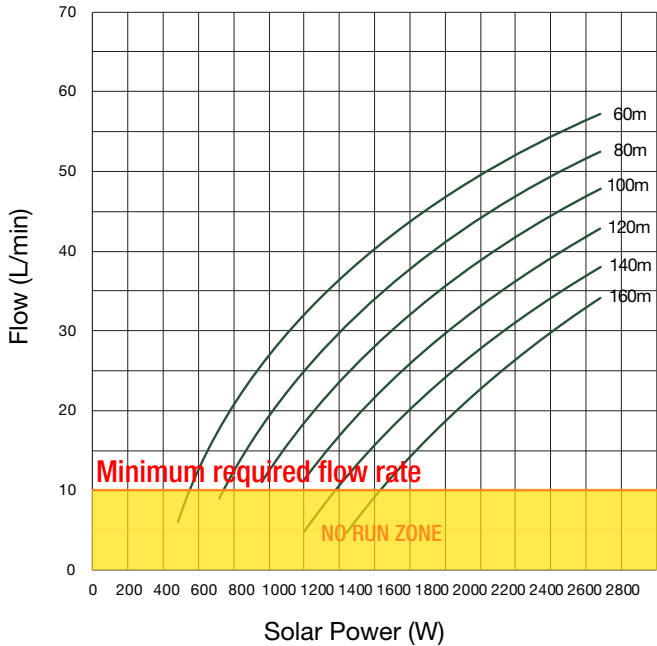
Motor to use: M110SOL
Min Head: 40m
Max Head: 120m



S4-2/28

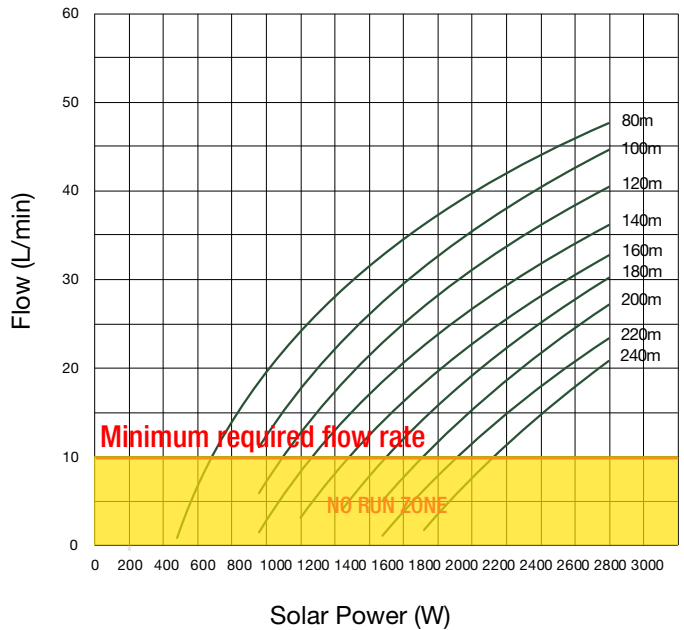
DAB-S4-2/28SOLM110
Motor to use: M110SOL
Min Head: 60m
Max Head: 120m

DAB-S4-2/28SOLM240
Motor to use: M240SOL
Min Head: 120m
Max Head: 160m



S4-2/40

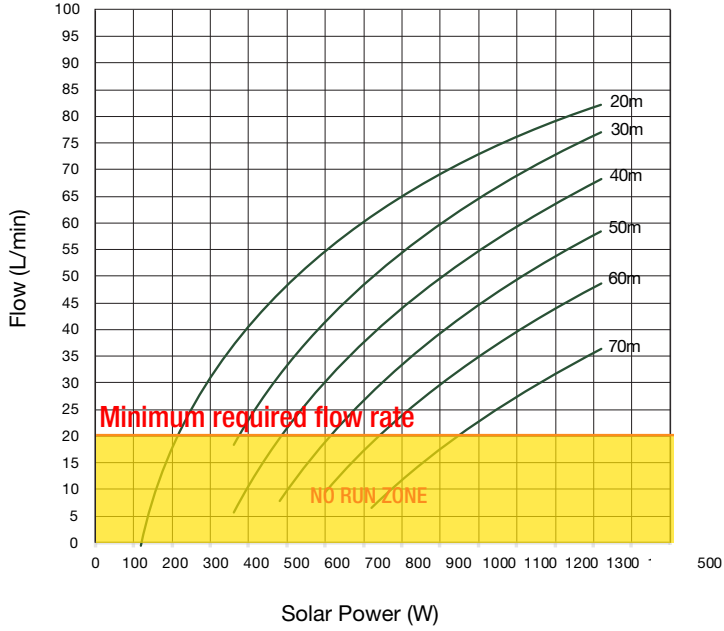
Motor to use: M240SOL
Min Head: 80m
Max Head: 240m



PERFORMANCE CURVES

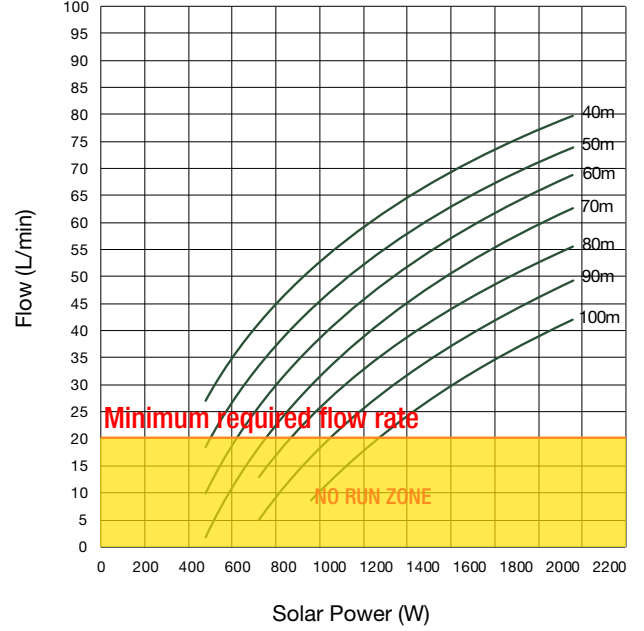
S4-3/13

Motor to use: M110SOL
Min Head: 20m
Max Head: 70m



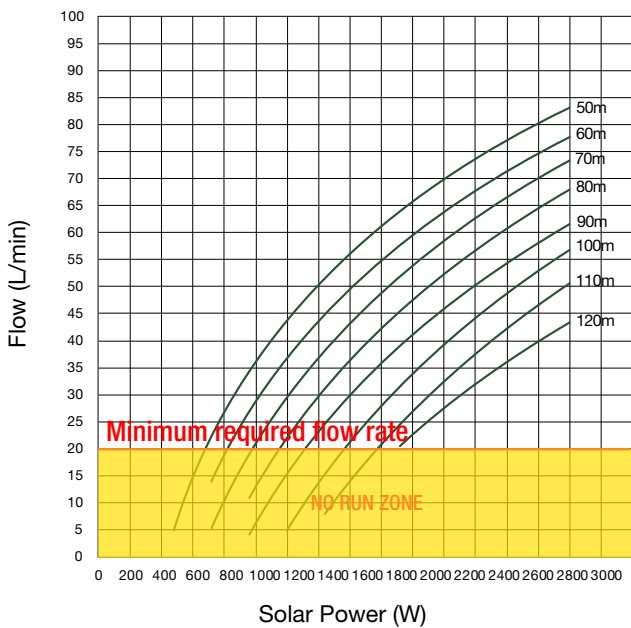
S4-3/19

Motor to use: M110SOL
Min Head: 40m
Max Head: 100m



S4-3/25

Motor to use: M110SOL
Min Head: 50m
Max Head: 120m



S4-3/39

DAB-S4-3/39SOLM110
Motor to use: M110SOL
Min Head: 80m
Max Head: 120m

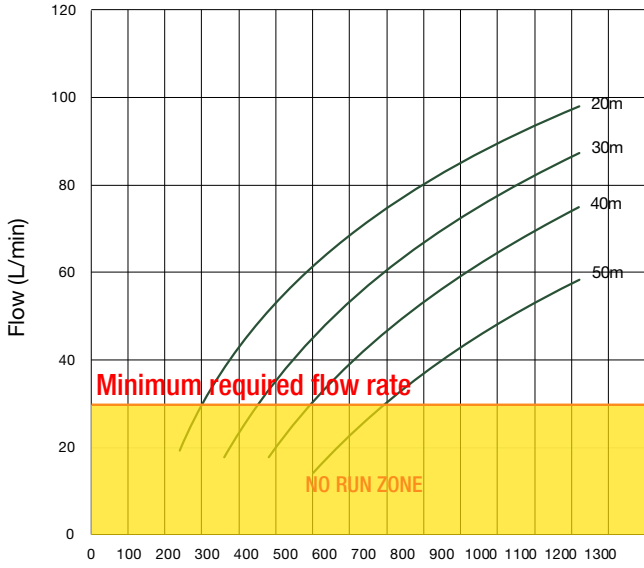
DAB-S4-3/39SOLM240
Motor to use: M240SOL
Min Head: 120m
Max Head: 200m



PERFORMANCE CURVES

S4-4/9

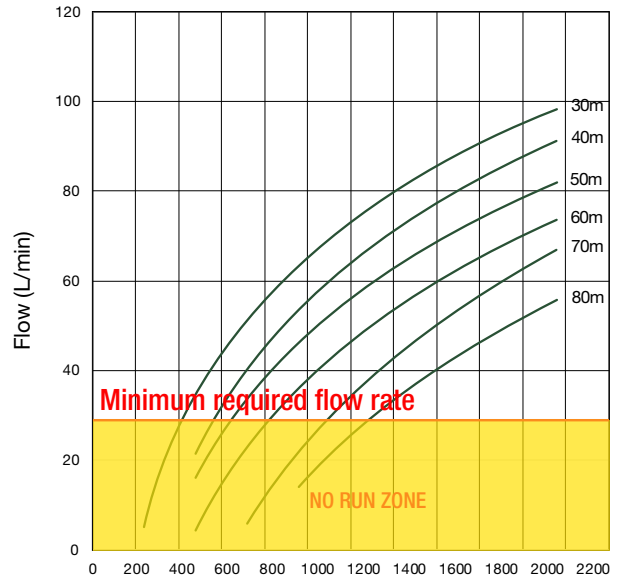
Motor to use: M110SOL
Min Head: 20m
Max Head: 50m



Solar Power (W)

S4-4/14

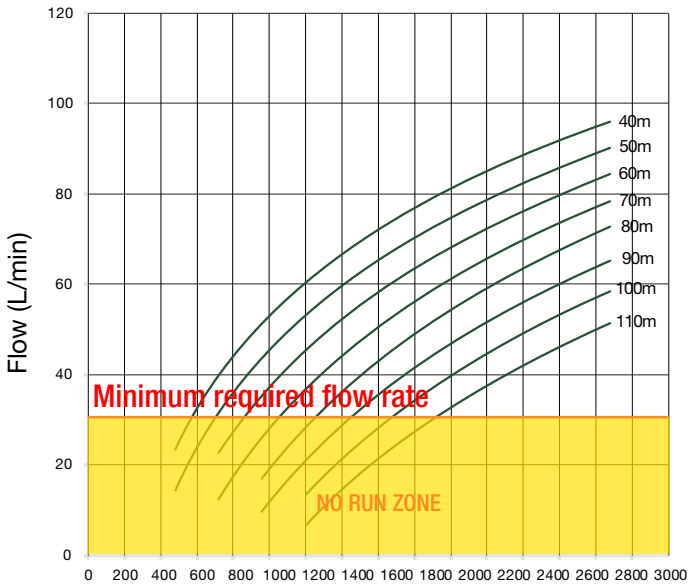
Motor to use: M110SOL
Min Head: 30m
Max Head: 80m



Solar Power (W)

S4-4/19

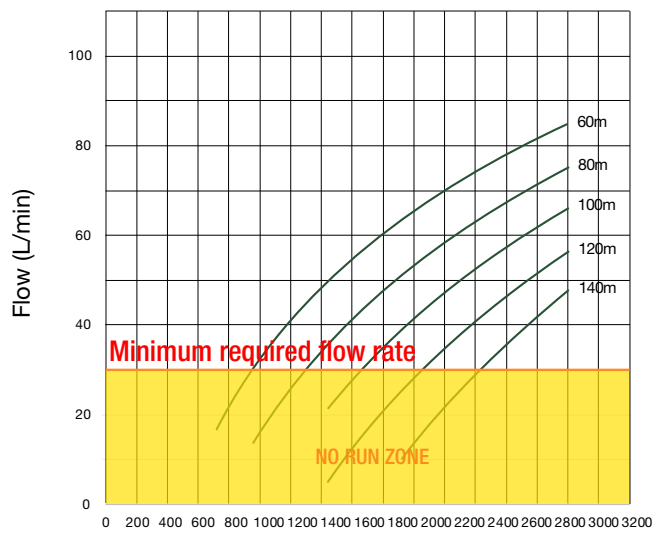
Motor to use: M110SOL
Min Head: 40m
Max Head: 110m



Solar Power (W)

S4-4/27

Motor to use: M240SOL
Min Head: 60m
Max Head: 140m

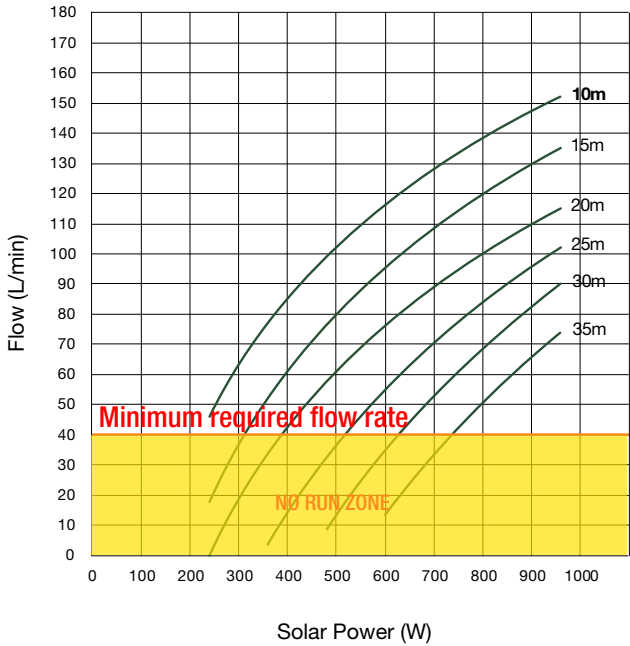


Solar Power (W)

PERFORMANCE CURVES

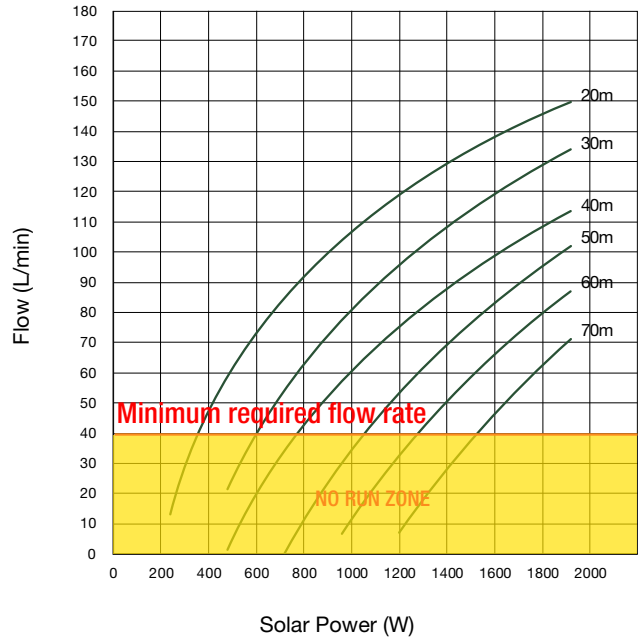
S4-6/7

Motor to use: M110SOL
Min Head: 10m
Max Head: 35m



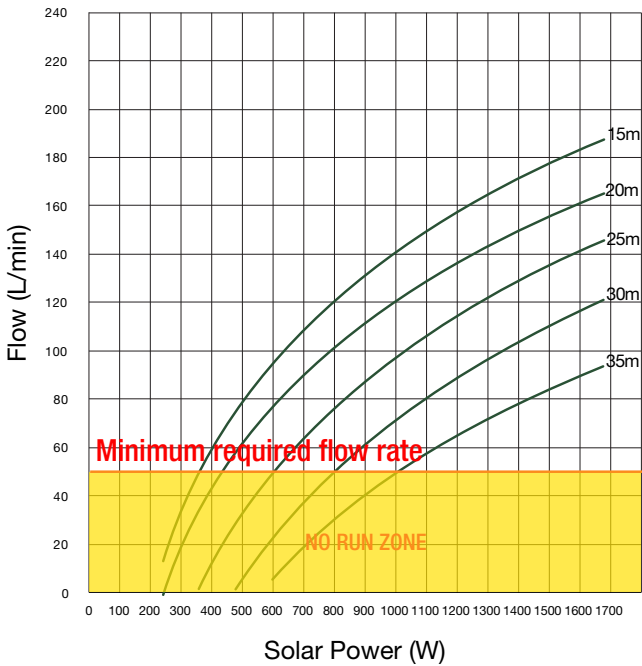
S4-6/14

Motor to use: M110SOL
Min Head: 20m
Max Head: 70m



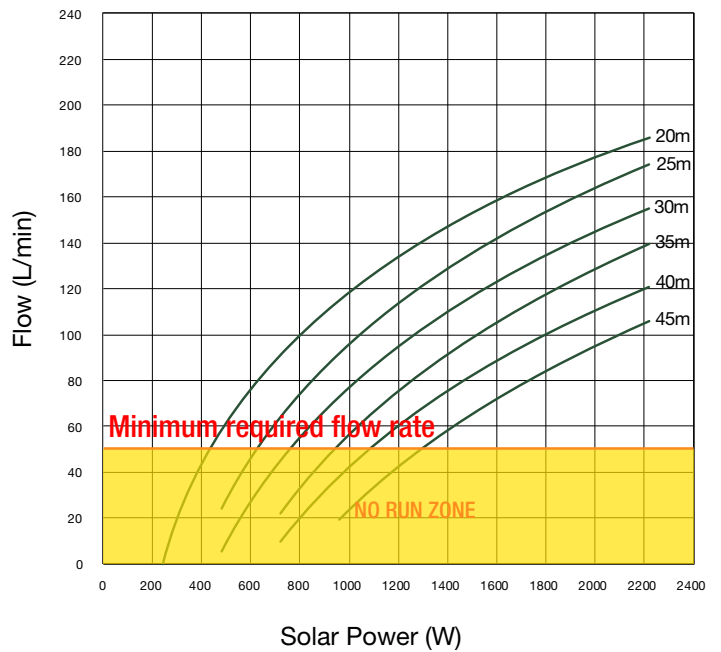
S4-8/6

Motor to use: M110SOL
Min Head: 15m
Max Head: 35m



S4-8/8

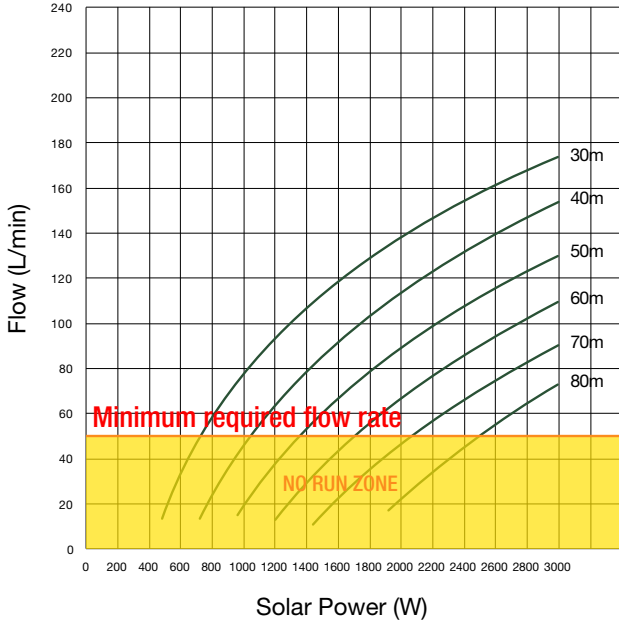
Motor to use: M110SOL
Min Head: 20m
Max Head: 45m



PERFORMANCE CURVES

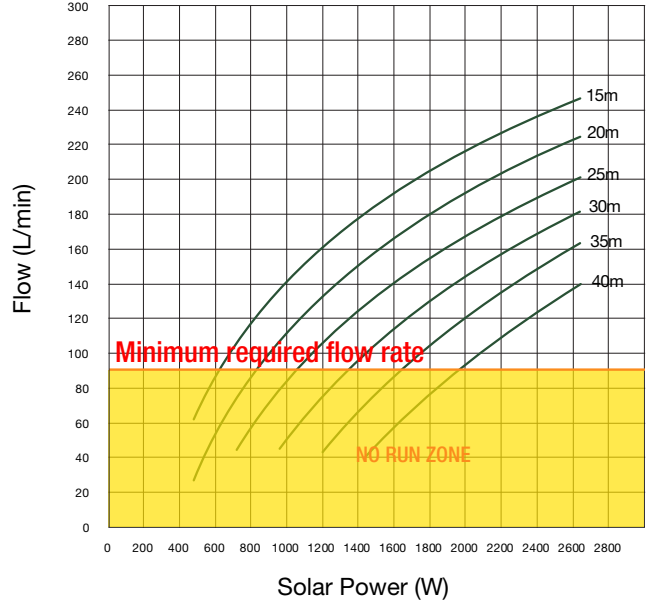
S4-8/13

Motor to use: M240SOL
Min Head: 30m
Max Head: 80m



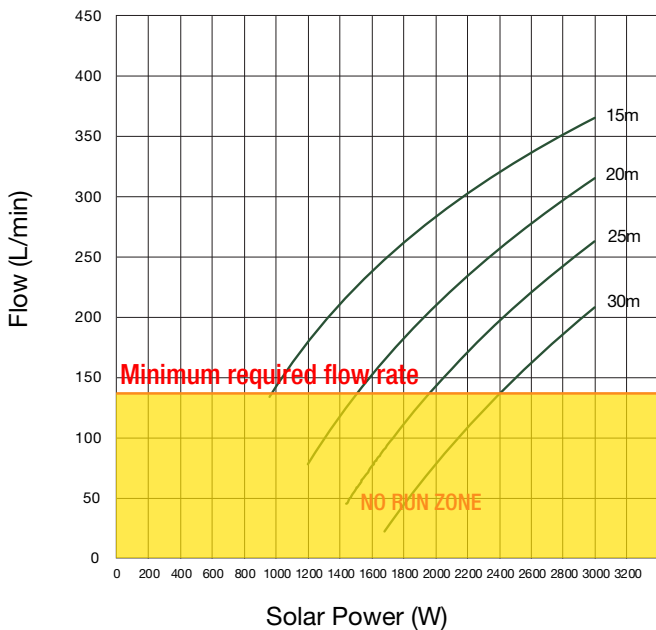
S4-12/8

Motor to use: M110SOL
Min Head: 15m
Max Head: 40m



S4-16/8

Motor to use: M240SOL
Min Head: 15m
Max Head: 30m



SOLAR BORE PUMPS

Arrays with Solar Panels (Freight Charges Apply)

Part Number	Item Code	No. of Panels	Mount	Total Watts
BIA-ER01PM	808866	1 X 330W	POST	330
BIA-ER02PM	805923	2 X 330W		660
BIA-ER03PM	805924	3 X 330W		990
BIA-ER04PM	805925	4 X 330W		1320
BIA-ER05PM	806215	5 x 330W		1650
BIA-ER06PM	805926	6 X 330W		1980
BIA-ER07PM	806216	7 x 330W		2310
BIA-ER08PM	805927	8 X 330W		2640
BIA-ER09PM	806217	9 x 330W		2970
BIA-ER10PM	805928	10 X 330W		3300



WARRANTY



INCLUDES:

- 2 x MC4 leads 3m
- 2 x MC4 leads 10m
- 1 x 1000V 25A DC isolator
- Post Mount Kit
- 330W Panels

WARRANTY:

- Solar Panels, 12 year product warranty plus 25 year linear performance warranty
- Frames, 10 year warranty

Part Number	Item Code	Description	Flow Rates (lpm)
SS-FLOWSSENSOR40	808735	BIA-FLOWSSENSOR40	5 - 200
SS-FLOWSSENSOR50	808736	BIA-FLOWSSENSOR50	10 - 300
BIA-SOLCONTV3-FLOW40	806067	iCON Solar Motor V3 Controller with SS Flow Sensor 40	
BIA-SOLCONTV3-FLOW50	806068	iCON Solar Motor V3 Controller with SS Flow Sensor 50	
BIA-SOLCONTPRO-FLOW40	806069	iCON Solar Motor Pro Control Plug & Play with SS Flow Sensor 40	
BIA-SOLCONTPRO-FLOW50	806070	iCON Solar Motor Pro Control Plug & Play with Flow sensor 50	
DAB-SBC-SS-V2	807997	Cap, 1-1/2" & 2" 304 S/S Bore DAB SBC SS V2	
PLUG-N-PLAY DC ISOLATOR	809475	DC Solar Isolator	

iSolar Pro-Controllers

- Controller:
- Full Plug and play option in Powder coated enclosure
- Fitted with AC and DC Circuit breaker and IP44 rated power connector for motor
- Easy fit connections for solar array
- AC240 V Power lead for Mains supply
- Can take signals from two float switches placed in a tank or similar
- Is suitable for outdoor installation and is weather-proof
- "No flow" protection with flow sensor connected to controller.
- Has built-in adjustable timer (10 - 60 minutes in 10 minute intervals).
- Stainless Steel Flow Sensor:
- Flow sensor for use with iCON Solar Motor Controller for no flow pump protection
- Flow sensor from 40mm - 50mm
- Maximum water pressure 20 bar
- Working voltage range: DC 5-18 V
- Provides a pulse output to the iSOLAR Controller
- Operating Temperature: up to 80°C
- Dimensions: 120mm x 55mm

WARRANTY



SS-FLOWSSENSOR40 SS-FLOWSSENSOR50

BIA-SOLCONTPRO-SSFLOW40 | BIA-SOLCONTPRO-SSFLOW50

Disclaimer: Every effort has been made to publish the correct details in this brochure. No responsibility will be taken for errors, omissions or changes in product specifications.

S4

PLUS



WATER • TECHNOLOGY

BOREHOLE PUMPS

with either water filled or oil filled motors

Construction features of the S4 PLUS Pump:

- Multi-stage centrifugal type with pump and motor directly coupled with splined coupling.
- New technopolymer impellers designed in Italy for lower mechanical load and higher sand resistance (150g/m³).
- New stage housings in technopolymer and stainless steel for up to 20 stages and stainless steel stage housing for over 20 stages.
- Pump liner, shaft, coupling, strainer and cable sheath is stainless steel. Base support and upper head in microcast AISI 304 stainless steel.

Construction features of the Motor:

Pump can be coupled to water filled or oil filled motors

- The water filled motor is a two-pole asynchronous motor with the parts in contact with water made of AISI 304 stainless steel. The thrust block and bushes are cooled and lubricated with a mixture of water and glycol. Rotor mounted on a Kingsbury type self-centering thrust block capable of withstanding high axial loads. The stator is immersed in thermosetting insulating resin with high heat dissipation capacity and encapsulated in an airtight AISI 304 stainless steel casing.
- The oil filled motor is a two-pole asynchronous motor with the parts in contact with water made of AISI 304L stainless steel. Cooling and lubrication of ball bearings is ensured by a special liquid approved for contact with food. The rewindable stator is housed in an AISI 304L stainless steel casing fixed with steel pins to the upper support of the motor. Equipped with a carbon-ceramic mechanical seal.

For both motors:

- Removable cable connector, ACS, WRAS and KTW certified cable, motor suitable for use with inverters (30 Hz - 50 Hz). In the 50 Hz single-phase version, the capacitor and manually resettable overload protection are in the electrical control panel (to be ordered separately). In the three-phase version, the protection must be guaranteed by the user.

SINGLE PHASE BOREHOLE PUMPS

DAB S4 PLUS 4" Stainless steel pumps with 240V energy efficient PSC motors complete
 240V Complete Pump and Control Box. Sand resistant to 150 gr/m³

SS WATER FILLED							SS OIL FILLED	
Part Number	Item Code	Max Head (m)	Min Flow (lpm)	Max Flow (lpm)	Port	kW	Part Number	Item Code
DAB-S41-10M	808126	64	5	25	1 1/4" BSPF	0.37	DAB-S41-10MOL	808226
DAB-S41-13M	808127	82					DAB-S41-13MOL	808227
DAB-S41-19M	808131	124				DAB-S41-19MOL	808228	
DAB-S41-26M	808132	169				DAB-S41-26MOL	808229	
DAB-S41-37M	808701	225				DAB-S41-37MOL	808230	
DAB-S42-7M	808134	47	10	50		0.37	DAB-S42-7MOL	808231
DAB-S42-10M	808135	67				0.55	DAB-S42-10MOL	808232
DAB-S42-14M	808136	93				0.75	DAB-S42-14MOL	808233
DAB-S42-20M	808137	130				1.1	DAB-S42-20MOL	808234
DAB-S42-28M	808138	187				1.5	DAB-S42-28MOL	808235
DAB-S42-40M	808139	267	2.2	DAB-S42-40MOL		808236		
DAB-S43-6M	808140	33	20	70	0.37	DAB-S43-6MOL	808237	
DAB-S43-9M	808141	50			0.55	DAB-S43-9MOL	808238	
DAB-S43-13M	808142	72			0.75	DAB-S43-13MOL	808239	
DAB-S43-19M	808143	105			1.1	DAB-S43-19MOL	808240	
DAB-S43-25M	808144	138			1.5	DAB-S43-25MOL	808241	
DAB-S43-32M	808145	176	2.2	DAB-S43-32MOL	808242			
DAB-S43-39M	808146	215		DAB-S43-39MOL	808243			
DAB-S44-4M	808147	27	30	90	0.37	DAB-S44-4MOL	808244	
DAB-S44-7M	808148	46			0.55	DAB-S44-7MOL	808245	
DAB-S44-9M	808149	59			0.75	DAB-S44-9MOL	808246	
DAB-S44-14M	808150	93			1.1	DAB-S44-14MOL	808247	
DAB-S44-19M	808151	126			1.5	DAB-S44-19MOL	808248	
DAB-S44-27M	808152	179	2.2	DAB-S44-27MOL	808249			
DAB-S46-5M	808153	30	40	140	0.55	DAB-S46-5MOL	808250	
DAB-S46-7M	808154	43			0.75	DAB-S46-7MOL	808251	
DAB-S46-10M	808155	61			1.1	DAB-S46-10MOL	808252	
DAB-S46-14M	808156	85			1.5	DAB-S46-14MOL	808253	
DAB-S46-21M	808157	125			2.2	DAB-S46-21MOL	808254	
DAB-S48-4M	808158	25	50	180	2"	0.75	DAB-S48-4MOL	808255
DAB-S48-6M	808159	38				1.1	DAB-S48-6MOL	808256
DAB-S48-8M	808160	51				1.5	DAB-S48-8MOL	808257
DAB-S48-13M	808161	83				2.2	DAB-S48-13MOL	808258
DAB-S412-5M	808162	31	90	250		1.1	DAB-S412-5MOL	808259
DAB-S412-8M	808163	49				1.5	DAB-S412-8MOL	808260
DAB-S412-11M	808164	67				2.2	DAB-S412-11MOL	808261
DAB-S416-5M	808165	29	140	367		1.5	DAB-S416-5MOL	808262
DAB-S416-8M	808166	47				2.2	DAB-S416-8MOL	808263



SAND HANDLING DESIGN

WARRANTY

Disclaimer: Every effort has been made to publish the correct details in this brochure. No responsibility will be taken for errors, omissions or changes in product specifications.

THREE PHASE BOREHOLE PUMPS

DAB S4 PLUS 4" Stainless Steel Pumps with 415V energy efficient motors complete
 415V Complete Pump. Sand resistant to 150 gr/m³.

SS WATER FILLED							SS OIL FILLED	
Part Number	Item Code	Max Head (m)	Min Flow (lpm)	Max Flow (lpm)	Port	kW	Part Number	Item Code
DAB-S41-10T	808167	64	5	25	1-1/4"	0.37	DAB-S41-10TOL	808264
DAB-S41-13T	808168	82			1-1/4"	0.37	DAB-S41-13TOL	808265
DAB-S41-19T	808169	124			1-1/4"	0.55	DAB-S41-19TOL	808266
DAB-S41-26T	808170	169			1-1/4"	0.75	DAB-S41-26TOL	808267
DAB-S41-37T	808171	225			1-1/4"	1.1	DAB-S41-37TOL	808268
DAB-S42-7T	808172	47	10	50	1-1/4"	0.37	DAB-S42-7TOL	808269
DAB-S42-10T	808173	67			1-1/4"	0.55	DAB-S42-10TOL	808270
DAB-S42-14T	808174	93			1-1/4"	0.75	DAB-S42-14TOL	808271
DAB-S42-20T	808175	130			1-1/4"	1.1	DAB-S42-20TOL	808272
DAB-S42-28T	808176	187			1-1/4"	1.5	DAB-S42-28TOL	808273
DAB-S42-40T	808177	267	20	70	1-1/4"	2.2	DAB-S42-40TOL	808274
DAB-S42-52T	808178	347			1-1/4"	3	DAB-S42-52TOL	808275
DAB-S43-6T	808179	33			1-1/4"	0.37	DAB-S43-6TOL	808276
DAB-S43-9T	808180	50			1-1/4"	0.55	DAB-S43-9TOL	808277
DAB-S43-13T	808181	72			1-1/4"	0.75	DAB-S43-13TOL	808278
DAB-S43-19T	808182	105	30	90	1-1/4"	1.1	DAB-S43-19TOL	808279
DAB-S43-25T	808183	138			1-1/4"	1.5	DAB-S43-25TOL	808280
DAB-S43-32T	808184	176			1-1/4"	2.2	DAB-S43-32TOL	808281
DAB-S43-39T	808185	215			1-1/4"	2.2	DAB-S43-39TOL	808282
DAB-S43-45T	808186	247			1-1/4"	3	DAB-S43-45TOL	808283
DAB-S43-51T	808187	281	40	140	1-1/4"	3	DAB-S43-51TOL	808284
DAB-S43-67T	808188	368			1-1/4"	4	DAB-S43-67TOL	808285
DAB-S44-4T	808189	27			1-1/4"	0.37	DAB-S44-4TOL	808286
DAB-S44-7T	808190	46			1-1/4"	0.55	DAB-S44-7TOL	808287
DAB-S44-9T	808191	59			1-1/4"	0.75	DAB-S44-9TOL	808288
DAB-S44-14T	808192	93	50	180	1-1/4"	1.1	DAB-S44-14TOL	808289
DAB-S44-19T	808193	126			1-1/4"	1.5	DAB-S44-19TOL	808290
DAB-S44-27T	808194	179			1-1/4"	2.2	DAB-S44-27TOL	808291
DAB-S44-35T	808195	226			1-1/4"	3	DAB-S44-35TOL	808292
DAB-S44-48T	808196	320			1-1/4"	4	DAB-S44-48TOL	808293
DAB-S46-5T	808197	30	90	250	1-1/4"	0.55	DAB-S46-5TOL	808294
DAB-S46-7T	808198	43			1-1/4"	0.75	DAB-S46-7TOL	808295
DAB-S46-10T	808199	61			1-1/4"	1.1	DAB-S46-10TOL	808296
DAB-S46-14T	808200	85			1-1/4"	1.5	DAB-S46-14TOL	808297
DAB-S46-21T	808201	125			1-1/4"	2.2	DAB-S46-21TOL	808298
DAB-S46-29T	808202	173	160	367	1-1/4"	3	DAB-S46-29TOL	808299
DAB-S46-38T	808203	227			1-1/4"	4	DAB-S46-38TOL	808300
DAB-S46-52T	808204	311			1-1/4"	5.5	DAB-S46-52TOL	808301
DAB-S48-4T	808205	25			2"	0.75	DAB-S48-4TOL	808302
DAB-S48-6T	808206	38			2"	1.1	DAB-S48-6TOL	808303
DAB-S48-8T	808207	51	2"	1.5	DAB-S48-8TOL	808304		
DAB-S48-13T	808208	83	90	250	2"	2.2	DAB-S48-13TOL	808305
DAB-S48-17T	808209	109			2"	3	DAB-S48-17TOL	808306
DAB-S48-23T	808210	148			2"	4	DAB-S48-23TOL	808307
DAB-S48-32T	808211	205			2"	5.5	DAB-S48-32TOL	808308
DAB-S48-43T	808212	275			2"	7.5	DAB-S48-43TOL	808309
DAB-S412-5T	808213	31	160	367	2"	1.1	DAB-S412-5TOL	808310
DAB-S412-8T	808214	49			2"	1.5	DAB-S412-8TOL	808311
DAB-S412-11T	808215	67			2"	2.2	DAB-S412-11TOL	808312
DAB-S412-15T	808216	92			2"	3	DAB-S412-15TOL	808313
DAB-S412-20T	808217	122			2"	4	DAB-S412-20TOL	808314
DAB-S412-27T	808218	165	90	250	2"	5.5	DAB-S412-27TOL	808315
DAB-S412-36T	808219	221			2"	7.5	DAB-S412-36TOL	808316
DAB-S416-5T	808220	29			2"	1.5	DAB-S416-5TOL	808317
DAB-S416-8T	808221	47			2"	2.2	DAB-S416-8TOL	808318
DAB-S416-11T	808222	65			2"	3	DAB-S416-11TOL	808319
DAB-S416-15T	808223	89	160	367	2"	4	DAB-S416-15TOL	808320
DAB-S416-20T	808224	119			2"	5.5	DAB-S416-20TOL	808321
DAB-S416-28T	808225	165			2"	7.5	DAB-S416-28TOL	808322



SAND HANDLING DESIGN

WARRANTY


Note: Above prices include control box and cable joint kit for all single phase pumps.
 Control box for single phase pumps

Disclaimer: Every effort has been made to publish the correct details in this brochure. No responsibility will be taken for errors, omissions or changes in product specifications.

BOREHOLE PUMP WET ENDS

DAB S4 PLUS 4" Stainless steel wet ends

Sand resistant to 150 gr/m³

Part Number	Item Code	Description	Port
DAB-S41-10-1	808040	Pump Only	1-1/4"
DAB-S41-13-1	808041		
DAB-S41-19-1	808042		
DAB-S41-26-1	808043		
DAB-S41-37-1	808044		
DAB-S42-7-1	808045		
DAB-S42-10-1	808046		
DAB-S42-14-1	808047		
DAB-S42-20-1	808048		
DAB-S42-28-1	808049		
DAB-S42-40-1	808050		
DAB-S42-52-1	808051		
DAB-S43-6-1	808052		
DAB-S43-9-1	808053		
DAB-S43-13-1	808054		
DAB-S43-19-1	808055		
DAB-S43-25-1	808056		
DAB-S43-32-1	808057		
DAB-S43-39-1	808058		
DAB-S43-45-1	808059		
DAB-S43-51-1	808060		
DAB-S43-67-1	808061		
DAB-S44-4-1	808062		
DAB-S44-7-1	808063		
DAB-S44-9-1	808064		
DAB-S44-14-1	808065		
DAB-S44-19-1	808066		
DAB-S44-27-1	808067		
DAB-S44-35-1	808068		
DAB-S44-48-1	808069		
DAB-S46-5-1	808070		
DAB-S46-7-1	808071		
DAB-S46-10-1	808072		
DAB-S46-14-1	808073		
DAB-S46-21-1	808074		
DAB-S46-29-1	808075		
DAB-S46-38-1	808076		
DAB-S46-52-1	808077		
DAB-S48-4-1	808078		
DAB-S48-6-1	808079		
DAB-S48-8-1	808080		
DAB-S48-13-1	808081		
DAB-S48-17-1	808082		
DAB-S48-23-1	808083		
DAB-S48-32-1	808084		
DAB-S48-43-1	808085		
DAB-S412-5-1	808086		
DAB-S412-8-1	808087		
DAB-S412-11-1	808088		
DAB-S412-15-1	808089		
DAB-S412-20-1	808090		
DAB-S412-27-1	808091		
DAB-S412-36-1	808092		
DAB-S416-5-1	808093		
DAB-S416-8-1	808094		
DAB-S416-11-1	808095		
DAB-S416-15-1	808096		
DAB-S416-20-1	808097		
DAB-S416-28-1	808098		
		Pump Only	2"



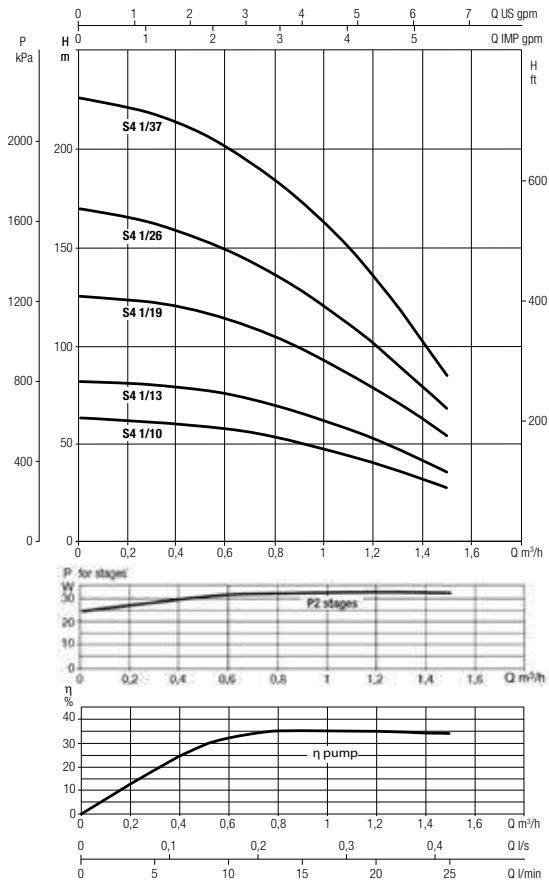
SAND
HANDLING
DESIGN



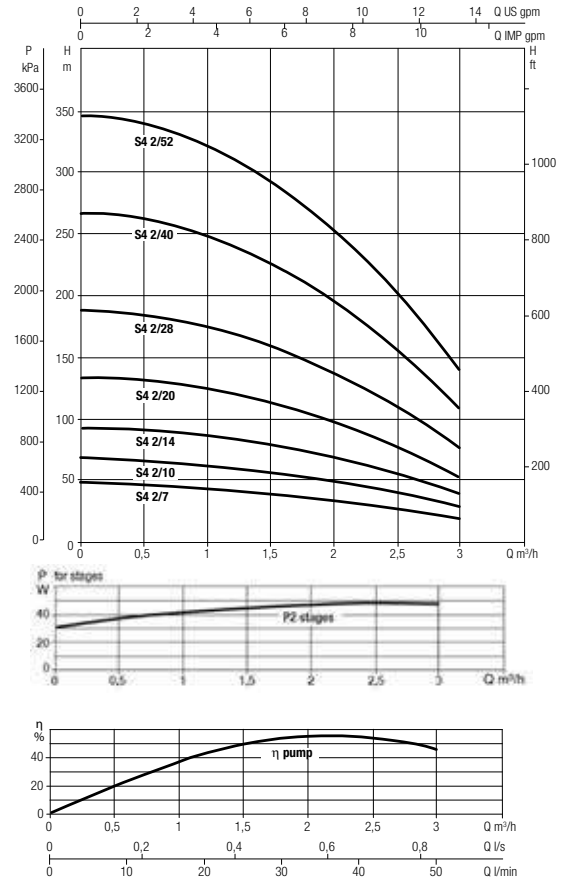
Disclaimer: Every effort has been made to publish the correct details in this brochure. No responsibility will be taken for errors, omissions or changes in product specifications.

DAB S4 PLUS PERFORMANCE CURVES

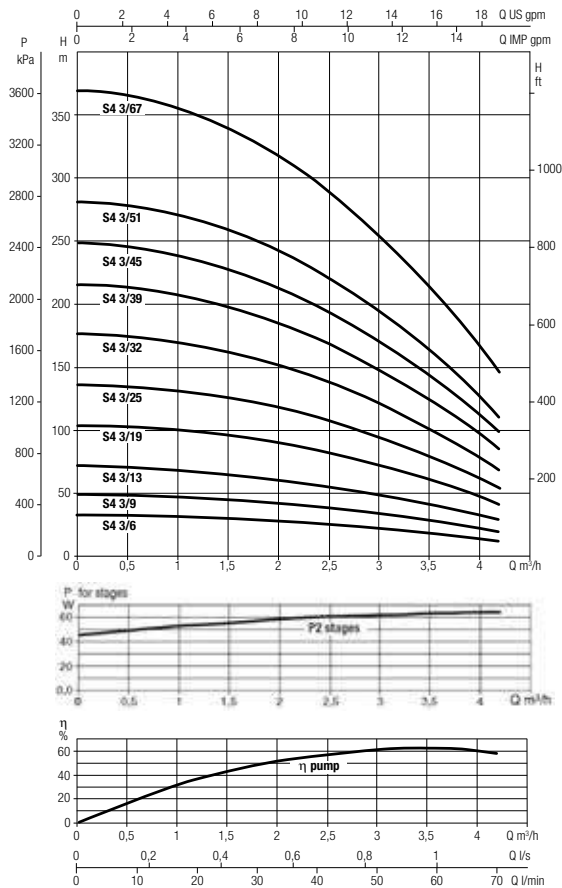
S4 1



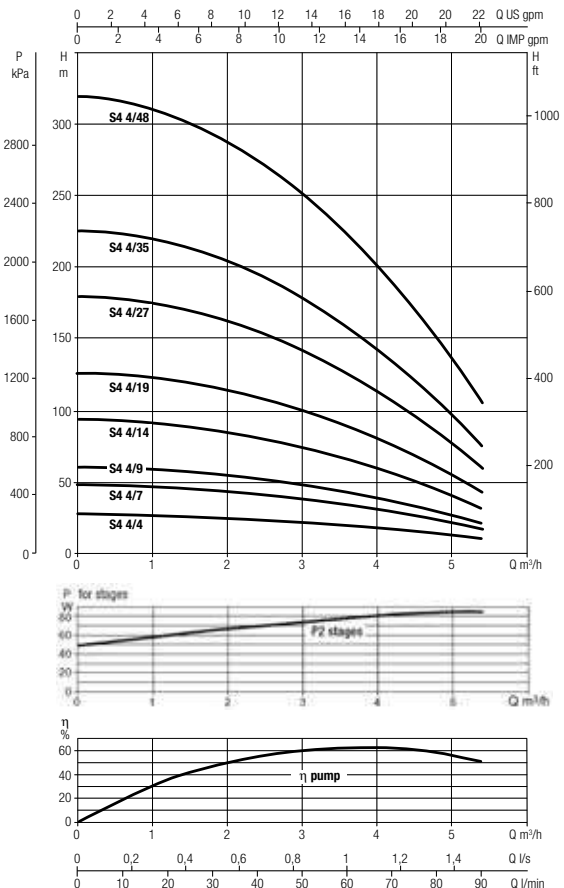
S4 2



S4 3

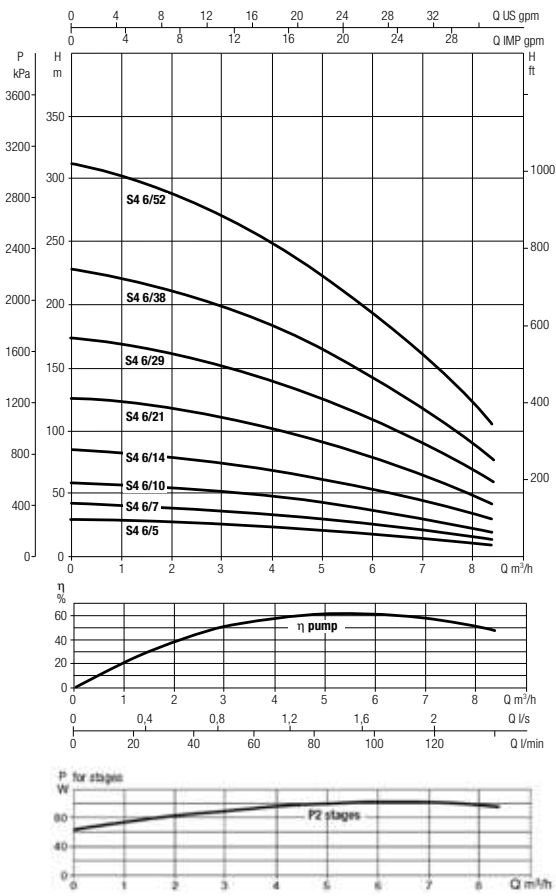


S4 4

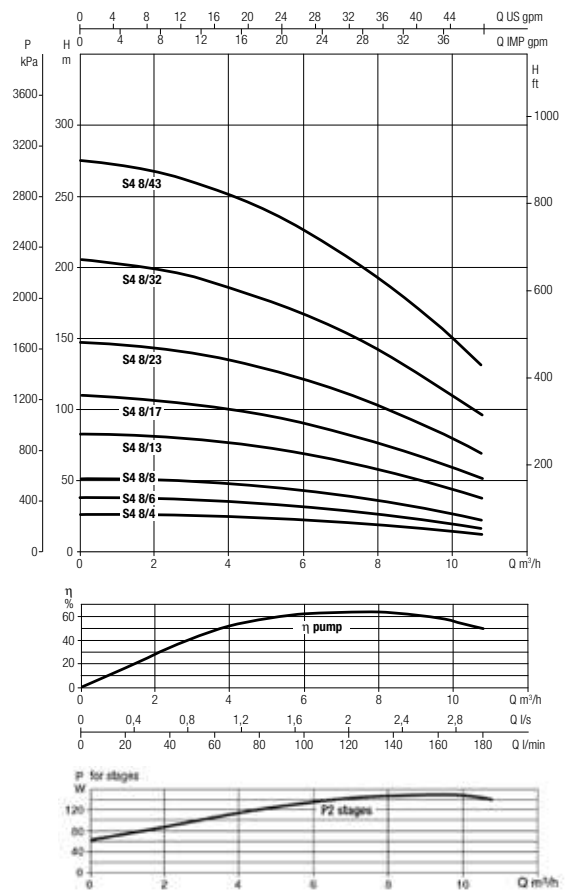


DAB S4 PLUS PERFORMANCE CURVES

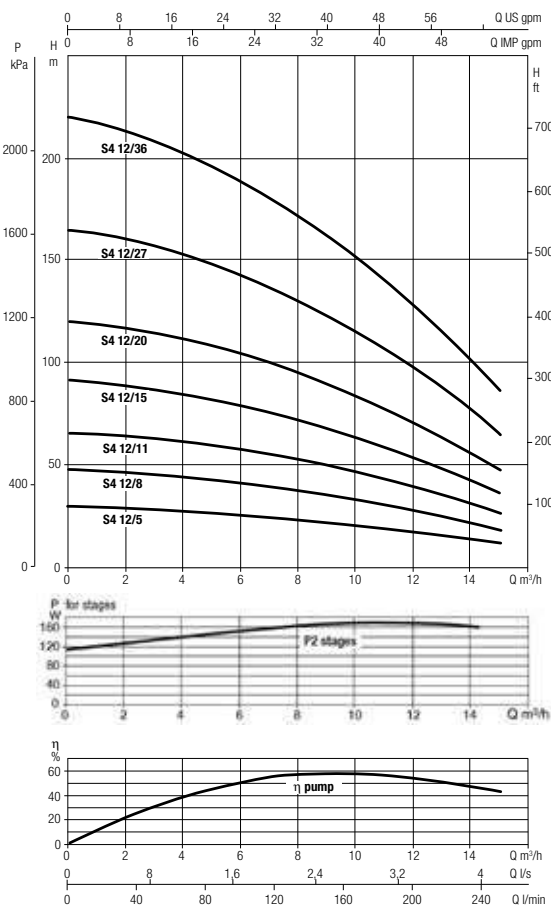
S4 6



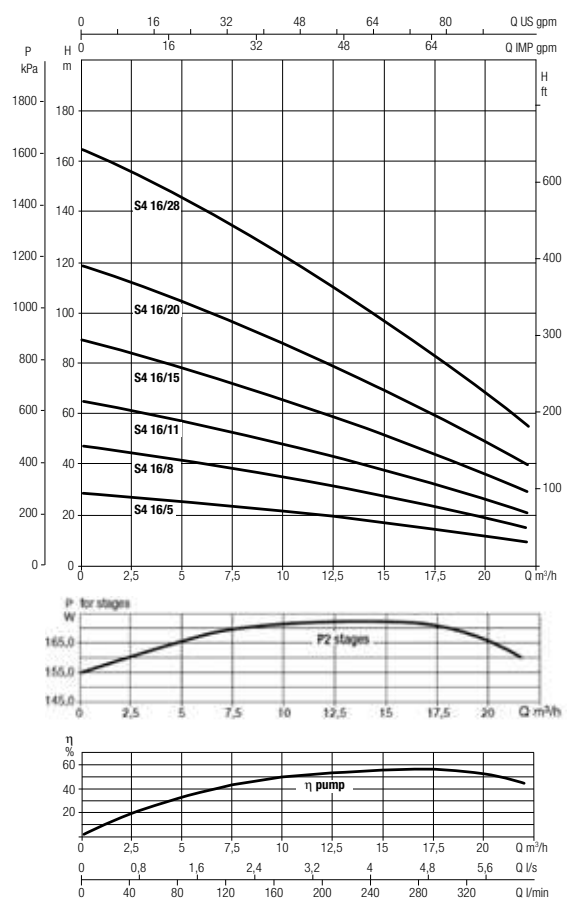
S4 8



S4 12



S4 16

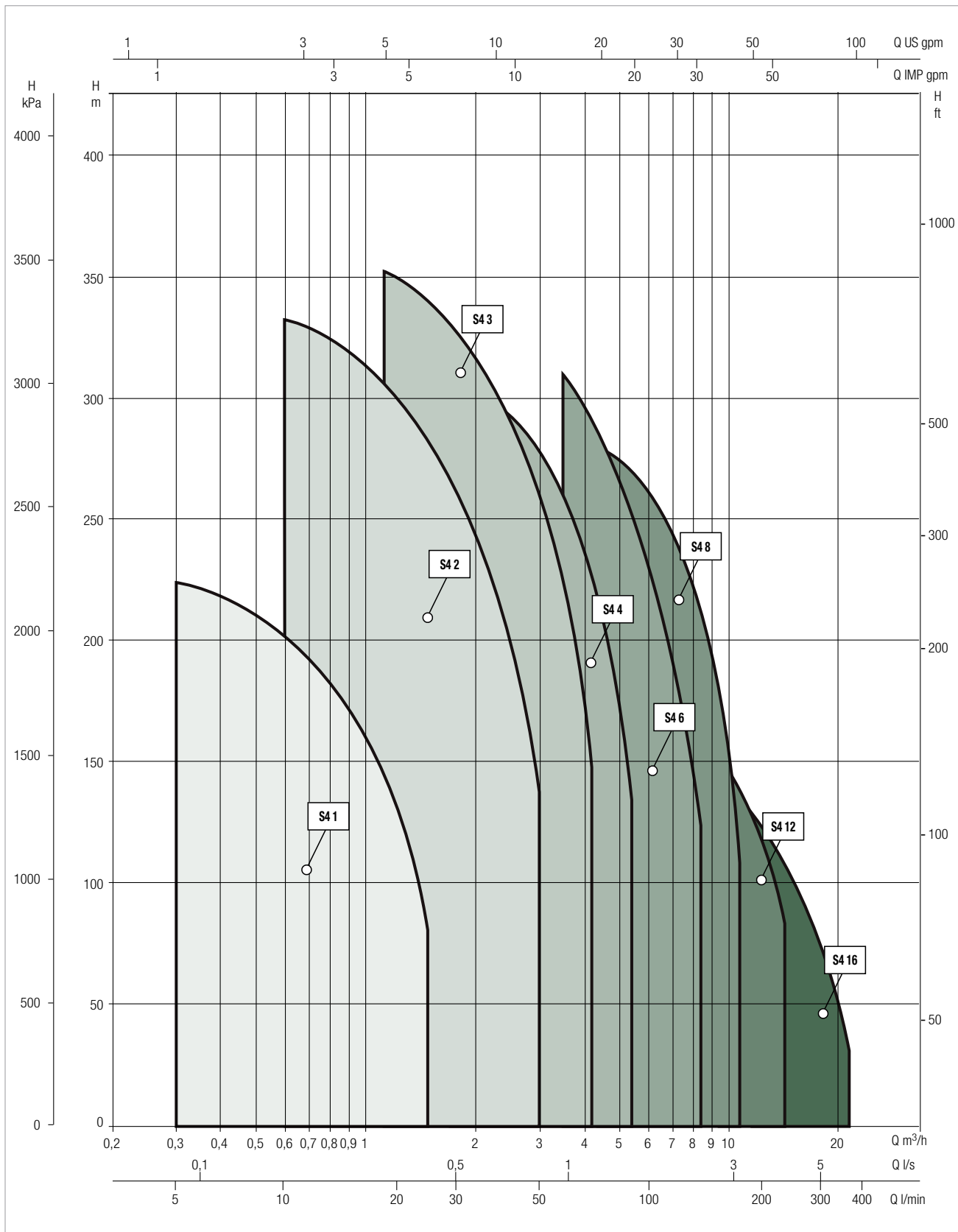


Disclaimer: Every effort has been made to publish the correct details in this brochure. No responsibility will be taken for errors, omissions or changes in product specifications.

PERFORMANCE RANGE

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

GRAPHIC SELECTION TABLE



VARIABLE FREQUENCY DRIVES & PUMP KITS

The Bianco iSUB controllers are 240V single phase input variable frequency drives for the control of pumps up to 3.0kW, 240V 3 phase.

Suitable for borehole pumps, the Bianco iSUB controllers are mounted in an outdoor enclosure with independent fan cooling and inspection window and also includes a 1" stainless manifold, pressure transducer and pressure gauge.

FEATURES:

- Constant water pressure
- Optimises pump performance
- Soft start, low motor start current
- No large pressure tank required

Protection:

- Dry run protection
- High and low voltage protection
- Input and output short circuit protection
- High and low water pressure protection
- Input and output phase failure protection
- Over temperature protection
- Sensor fault protection

Part Number	Item Code	kW	Volts	Phase
BIA-iSUB22	802677	1.5	240	3
BIA-iSUB37	803809	3.0		



CON
SERIES DRIVES

WARRANTY



VARIABLE FREQUENCY DRIVES PUMP KITS:

The pump kits include the following:

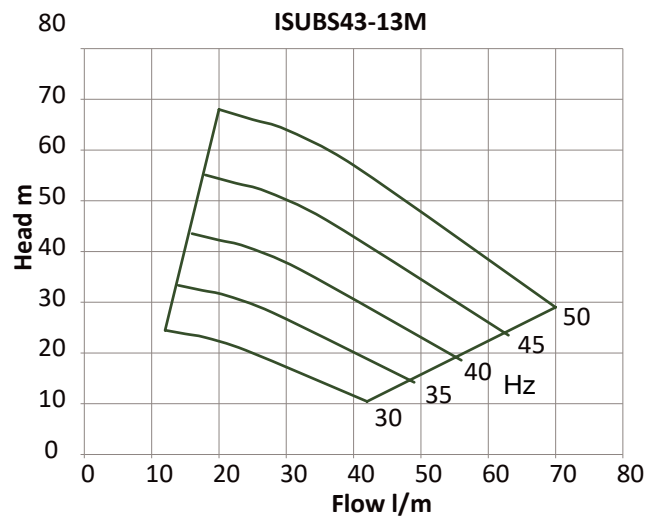
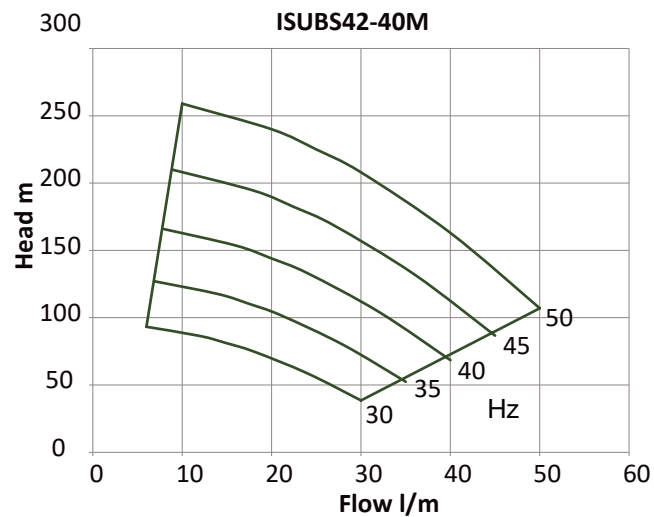
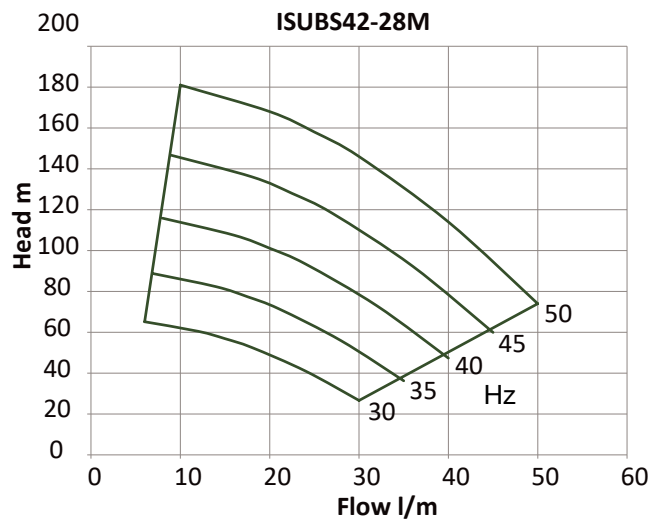
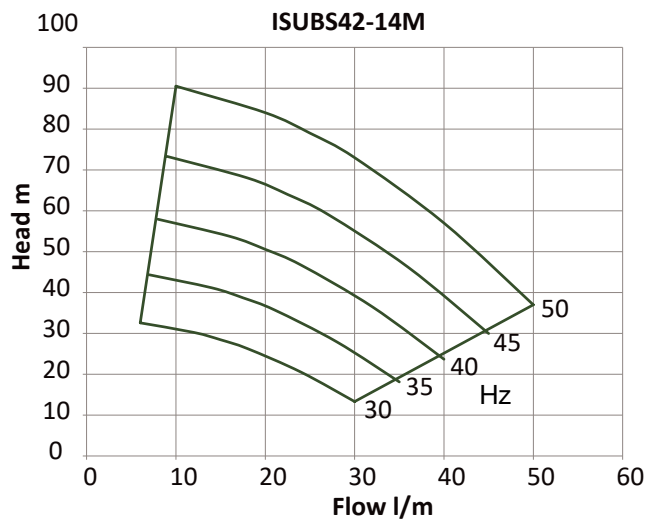
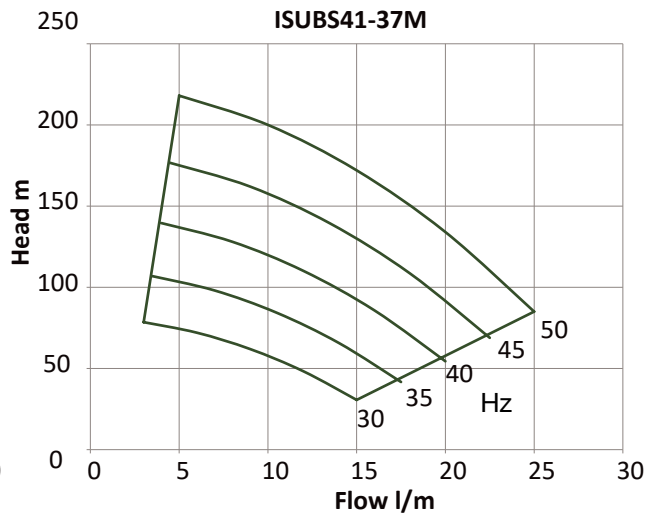
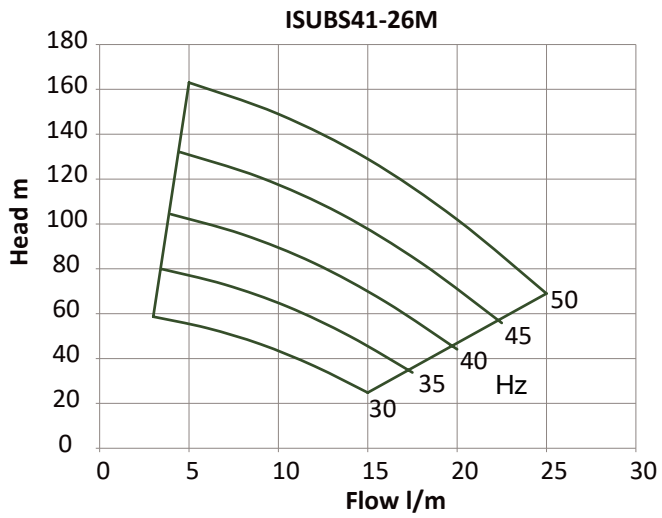
- Pump
- Motor
- VFD in enclosure with transducer
- Stainless steel manifold
- 18 litre pressure tank

Part Number	Item Code	Max Head (m)	Max Flow (lpm)	Port	kW
BIA-ISUBS41-26M	808327	163	25	1-1/4"	0.75
BIA-ISUBS42-14M	808328	90	50		0.75
BIA-ISUBS43-13M	808329	68	70		0.75
BIA-ISUBS44-9M	808330	55	90		0.75
BIA-ISUBS41-37M	808331	218	25		1.1
BIA-ISUBS42-28M	808332	181	50		1.5
BIA-ISUBS43-25M	808333	131	70		1.5
BIA-ISUBS44-19M	808334	116	90		1.5
BIA-ISUBS46-14M	808335	76	140		1.5
BIA-ISUBS48-8M	808336	50	180		2"
BIA-ISUBS42-40M	808337	259	50	1-1/4"	2.2
BIA-ISUBS43-39M	808338	204	70		2.2
BIA-ISUBS44-27M	808339	165	90		2.2
BIA-ISUBS46-21M	808340	113	140	2"	2.2
BIA-ISUBS48-13M	808341	80	180		2.2
BIA-ISUBS412-11M	808342	58	250		2.2
BIA-ISUBS416-8M	808343	38	367	2"	2.2

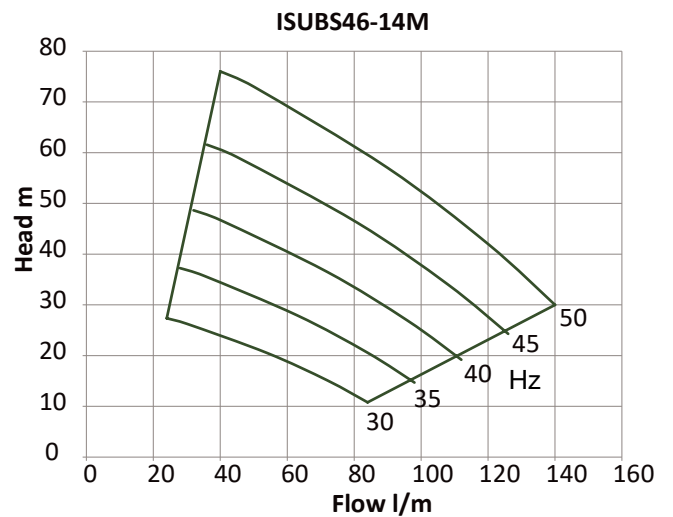
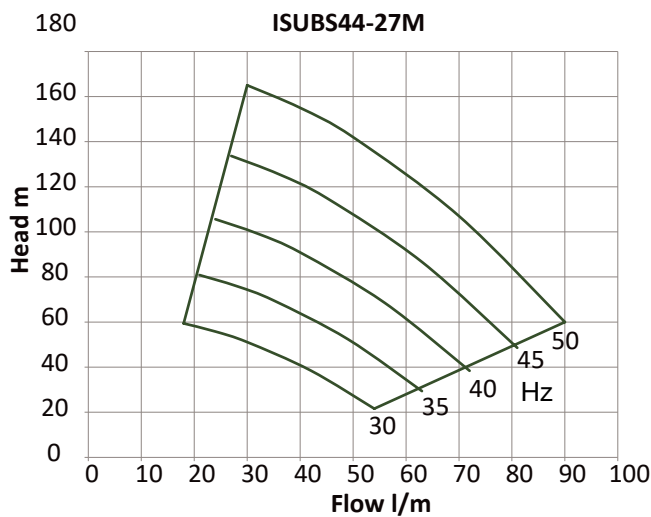
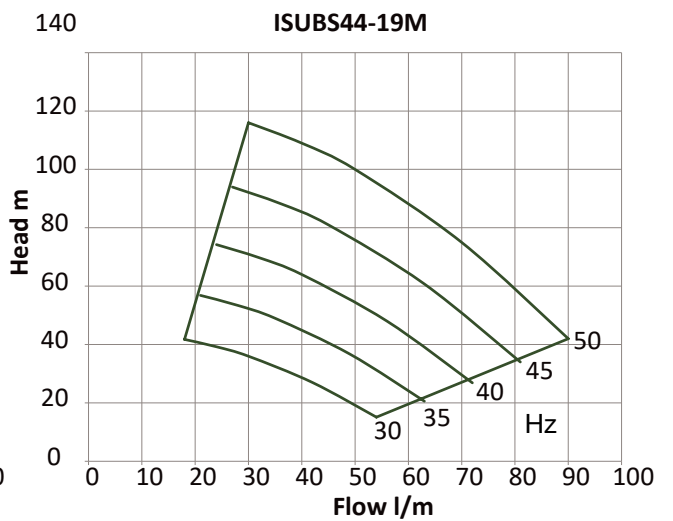
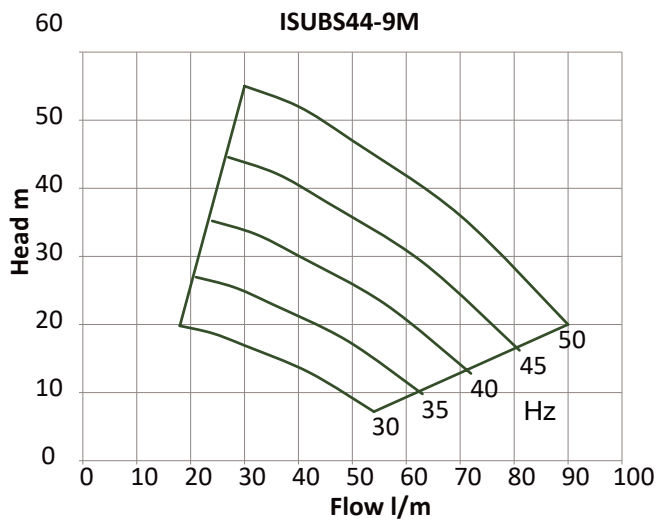
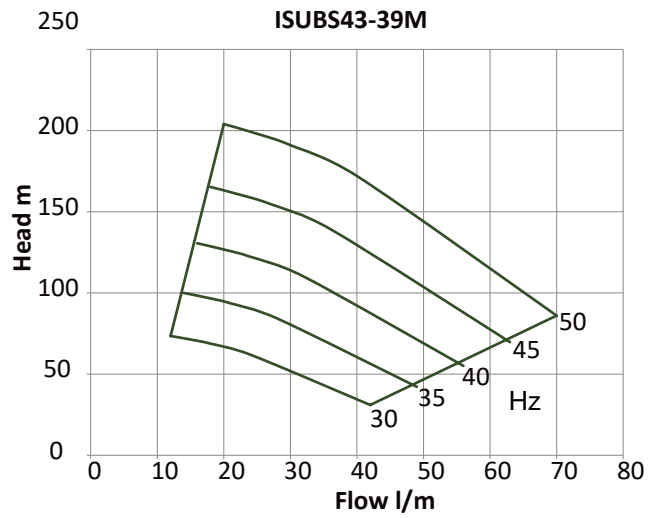
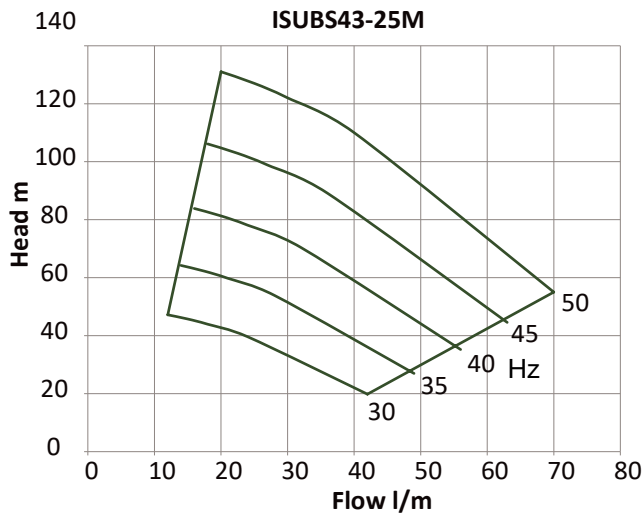


Disclaimer: Every effort has been made to publish the correct details in this brochure. No responsibility will be taken for errors, omissions or changes in product specifications.

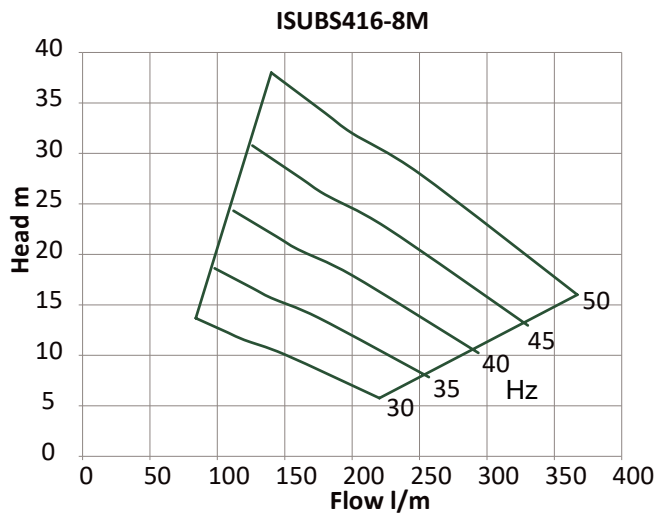
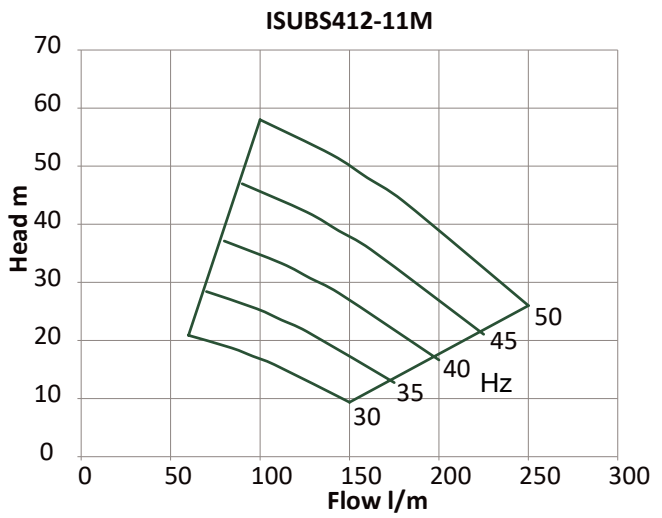
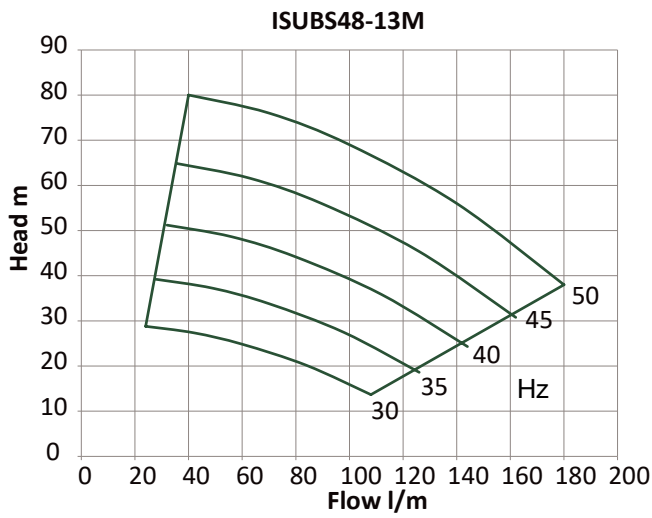
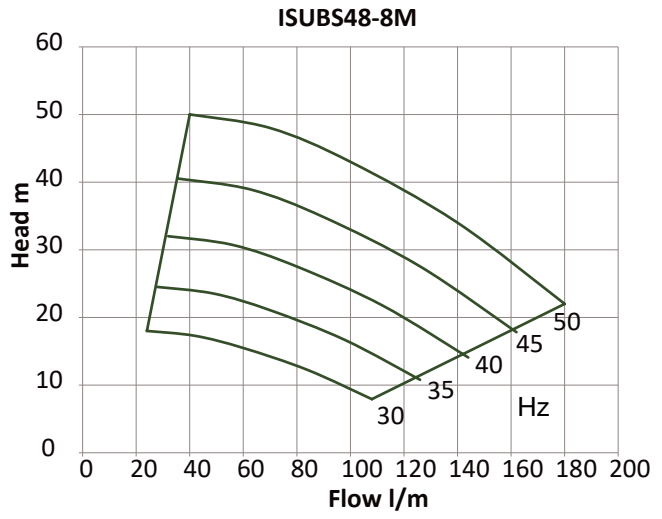
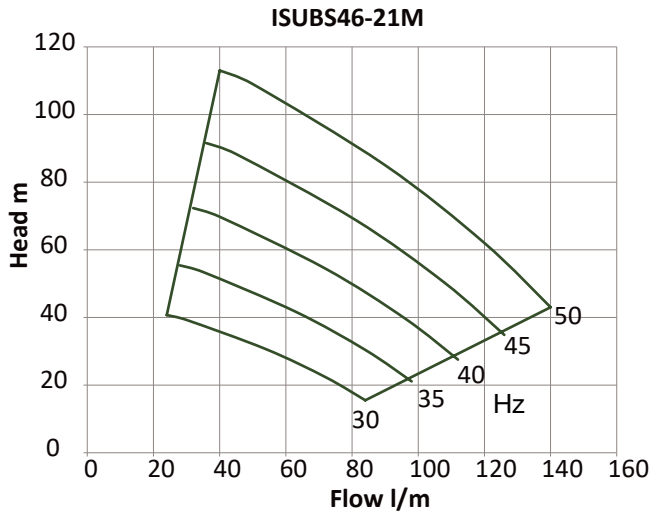
iSUB PERFORMANCE CURVES



ISUB PERFORMANCE CURVES



iSUB PERFORMANCE CURVES



BOREHOLE TESLA MOTOR PUMPS

DAB S4 4" Series Tesla Motors - Water Filled




SS WATER FILLED MOTORS				
Part Number	Item Code	Volts	HP	kW
TES-M037S*	709880	240	0.5	0.37
TES-M037T	709882	415		
TES-M055S*	709883	240	0.75	0.55
TES-M055T	709885	415		
TES-M075S*	709886	240	1.0	0.75
TES-M075T	709888	415		
TES-M075T240*	709831	240	1.5	1.1
TES-M110S*	709889			
TES-M110T	709891	415	2.0	1.5
TES-M150S*	709893	240		
TES-M150T	709894	415	3.0	2.2
TES-M150T240*	803071	240		
TES-M220S*	709896	415	4.0	3.0
TES-M220T	709897			
TES-M220T240*	709898	240	5.5	4.0
TES-M300T	709899	415		
TES-M400T	709900		415	7.5
TES-M550T	709905			
TES-M750T	709906	415	10.0	7.5

*3 phase motors



Single Phase Capacitor Sizing	
0.37kW	16uF
0.55kW	20uF
0.75kW	25uF
1.1kW	35uF
1.5kW	40uF
2.2kW	60uF



SS WATER FILLED CONSTRUCTION FEATURES		
 <p>Stator housed in an outer casing and flanges in AISI 304L. The stator has 24 slots to ensure better elasticity and smooth operation. The copper conductors have a double layer of Class H insulating enamel.</p>	 <p>Kingsbury thrust block equipped with carbon clearance ring and oscillating pads in high strength stainless steel machined by Tesla with a spherical lapping process. From 0.37kW to 1.1kW: 2000 N From 1.5kW to 2.2kW: 3000 N From 3.0kW to 7.5kW: 6000 N</p>	 <p>Shafts with terminal in AISI 304/Duplex, with special surface hardening and polishing in the work area of the bushings. Squirrel cage rotor in aluminium for power ratings up to 2.2kW and in copper for motors of power ratings above 3.0kW.</p>




DAB S4 4" Series Tesla Motors - Oil Filled

SS OIL FILLED MOTORS				
Part Number	Item Code	Volts	HP	kW
TES-M037SOL*	805185	240	0.5	0.37
TES-M037TOL	805176	415		
TES-M055SOL*	805186	240	0.75	0.55
TES-M055TOL	805177	415		
TES-M075SOL*	805187	240	1.0	0.75
TES-M075TOL	805178	415		
TES-M110SOL*	805188	240	1.5	1.1
TES-M110TOL	805179	415		
TES-M150SOL*	805189	240	2.0	1.5
TES-M150TOL	805180	415		
TES-M220SOL*	805190	240	3.0	2.2
TES-M220TOL	805181	415		
TES-M300TOL	805182	415	4.0	3.0
TES-M400TOL	805183			
TES-M550TOL	805184	415	7.5	5.5



Single Phase Capacitor Sizing	
0.37kW	16uF
0.55kW	20uF
0.75kW	25uF
1.1kW	35uF
1.5kW	40uF
2.2kW	60uF



SS OIL FILLED CONSTRUCTION FEATURES		
 <p>Rewindable stator housed in an outer casing in AISI 304L. The stator has 24 slots to ensure better elasticity and smooth operation. The copper conductors have a double layer of Class H insulating enamel.</p>	 <p>Oversized ball bearings of high axial load. From 0.37kW to 1.5kW: 2000 N 2.2kW: 3000 N. From 3.0kW to 4.0kW: 4000 N From 5.5kW to 7.5kW: 5000 N</p>	 <p>Shafts with terminal in AISI 304/Duplex, with special surface hardening process. Squirrel cage rotor in aluminium for power ratings up to 2.2kW and in copper for motors of power ratings above 3.0kW.</p>

*Note: Tesla PSC motors require Tesla PSC control boxes (on the next page)

Disclaimer: Every effort has been made to publish the correct details in this brochure. No responsibility will be taken for errors, omissions or changes in product specifications.

TESLA CONTROL BOXES

DAB 4" Tesla PSC Motor Control Boxes

The below control boxes are only applicable to the Tesla motors.

Part Number	Item Code	Description	kW
TES-CBOX037	709836	Control Box TESLA, 0.5hp	0.37
TES-CBOX055	709837	Control Box TESLA, 0.75hp	0.55
TES-CBOX075	709838	Control Box TESLA, 1.0hp	0.75
TES-CBOX110	709839	Control Box TESLA, 1.5hp	1.1
TES-CBOX150	709840	Control Box TESLA, 2.0hp	1.5
TES-CBOX220	709841	Control Box TESLA, 3.0hp	2.2



WARRANTY



TESLA MOTORS

DAB S4 Series 4" Tesla 2 Wire Motors

Part Number	Item Code	Description	kW
TES-M037S2W	709881	TESLA Motor 240V 2 Wire, 0.5hp	0.37
TES-M055S2W	709884	TESLA Motor 240V 2 Wire, 0.75hp	0.55
TES-M075S2W	709887	TESLA Motor 240V 2 Wire, 1.0hp	0.75
TES-M110S2W	709890	TESLA Motor 240V 2 Wire, 1.5hp	1.1



BOREHOLE PUMP ACCESSORIES

Part Number	Item Code	Description
BIA-iPROTECT	802697	Pump Protection Control 240V, 0.37-2.2kW
TES-GUARDIAN-1E	709877	Probeless Management Control 415V 9A, 3.0kW, 4.0hp.
TES-GUARDIAN-2E	709878	Probeless Management Control 415V 18A, 7.5kW, 10.0hp.
DAB-SBC-SS-V2	807997	Bore Cap 1-1/2" and 2" 304 Stainless Steel
DAB-SDC2.5	701948	Electrical Drop Cable 2.5mm 3 core + earth (per meter)
DAB-SDC3G4	805894	Electrical Drop Cable 4.0mm 2 core + earth (per meter)
DAB-SSR	702722	Synthetic Cable Rope per metre
TES-MOTCABLE1.7	709908	TESLA Flat Cable for Motor 1.5m
TES-MOTCABLE2.7	709909	TESLA Flat Cable for Motor 2.5m
WHI-JKIT	701610	Splice Kit for 1.5 - 6mm Cable
DAB-SA10032	805677	Shroud Adaptor 100mm x 32mm
DAB-SA10050	805678	Shroud Adaptor 100mm x 50mm
DAB-F2002000	805679	Pontoon Float 200mm x 2000mm, loads up to 29kg
DAB-ANODE 4GG <3KW	807743	ANODE 4GG < 3KW
DAB-ANODE 4GG >2.2KW	807744	ANODE 4GG > 2.2KW
DAB-ANODE 4OL	807745	ANODE 4OL
DAB-6BARPS	701440	Telemecanique Pressure Switch 6 BAR
DAB-12BARPS	701380	Telemecanique Pressure Switch 12 BAR
DAB-3WT	701423	Three Way Tee 1"x1"x1" Bronze
DAB-5WT	701431	Five Way Tee 1/4"x1/4"x1"x1"x1" Bronze
DAB-NRV25FM	701758	Check Valve 1" Bronze F/M
DAB-NRV25MF	701759	Check Valve 1" Bronze M/F
DAB-STR25M	702726	Screw In Strainer 1" Bronze
FOOTVALVE	Non-return valve 1" = (NRV25FM) and Strainer 1" (STR25M)	



iPROTECT



Pontoon Float

iSOLAR powered by DAB and iCON WEB SELECTOR

The iSOLAR web selector is a simple and quick pump selection process which provides all the information needed for your next solar pump quote.

How it works

- Visit the website - isolarselector.whiteint.com.au
isolarselector.whiteint.co.nz
- Enter your location & water requirements
- The iSOLAR web selector will determine the average available monthly solar hours, pump needed, number of solar panels required and more
- Simply download and email a copy of the results



<p>INPUT DATA</p> <p>LOCATION/POST-CODE: Sydney 2000</p> <p>TOTAL DYNAMIC HEAD: 100m</p> <p>FLOW-RATE: 4,365L/Day; 15L/min; 0.25L/sec</p> <p>SEASON: Average</p> <p>DAYLIGHT HOURS: 4.85 hrs/day</p>	<p>SOLAR IRRADIATION DATA</p> <p>Solar Irradiation for Sydney: Average 4.85 hours per day</p>
<p>PUMP DETAILS</p> <p>Description: BIA-PDP3-SOLAR750 Item code: 808864</p> <p>Max Head: 140m Max Flow: 27L/min</p> <p>Downloads SELECTION GUIDE OPERATION & INSTALLATION MANUAL DATA SHEET</p>	<p>DAILY OUTPUT GRAPH</p> <p>Daily output values for Sydney</p>
<p>SOLAR ARRAY DETAILS</p> <p>Description: BIA-ER04PM Item code: 805925</p> <p>No of Panels: 4 Mount: Pole</p> <p>Downloads DATA SHEET BROCHURE INSTALLATION MANUAL</p> <p>Watts: 1320W</p>	<p>PRODUCTS REQUIRED FOR THE ISOLAR SYSTEM</p> <ul style="list-style-type: none"> • 808864 - BIA-PDP3-SOLAR750 Kit includes the following: <ul style="list-style-type: none"> • iCON 3" PDP pump • iCON Submersible DC motor with 30m of 2.5mm cable • iCON PDP3 Solar controller • Low-level float switch with 30m cable • 1" NRV • 30m of Nylon safety rope • 805925 - BIA-ER04PM includes 2x MC4 - 3m, 2x MC4 - 10m, 1x 1000V 25A DC Isolator, Post mount, 4 x 330W panels
<p>PERFORMANCE CURVE</p> <p>Note: This selection process assumes local weather conditions, actual performance may vary.</p>	<p>CHECKLIST</p> <p>A. Over-sizing Solar panels: Max power of the solar arrays must not exceed 440Voc & 12Amps - DC Power</p> <p>B. Sizing up a generator: Take total kW of the solar array, multiply by 1.1 and then divide by 0.8 to arrive at the minimum kVA required from the generator</p> <p>C. Shaft tensions: When manipulating the shaft without power the shaft may appear to be tight. BIA-M24X50SL motors have a tighter shaft due to the magnetic force required to support up to 320m head.</p>

*Image is for illustration purposes only.

REFLEX PRESSURE SYSTEMS

Ranging from 2-400L, Reflex Pressure Tanks are manufactured in Europe and are ideally suited for a wide range of applications. These include booster systems, bore hole systems, sprinklers, irrigation systems, HVAC, thermal expansion and water hammer arresting.

An energy saving device such as a Reflex Pressure Tank pressure storage cell, stores energy in the form of pressurised water. The energy is transformed by the pump from electricity to water pressure. With a Reflex Pressure Tank, there is no loss of energy once it has been stored in the device.

By installing a Reflex Tank, the pump start events can be cut by 40 – 80%

- Saving power
- Extending pump life
- Reducing noise
- Low initial cost

The Reflex Tank is easy to fit to most pumps and can also be wall mounted.

The tank can be installed within minutes and the system can be fitted to any brand or type of pump.

Pre-Charge Nitrogen

reflex

Thinking solutions.



FEATURES:

- Manufactured in Europe
- 304 & 316Ti Stainless Steel water connection
- Corrosion resistant for long life
- UV resistant epoxy coating with a minimum thickness of 30 micron in blue RAL5007
- Air valve with sealing cap eliminates leaks
- Internal coating for drinking water applications
- Food grade approved high-grade butyl membranes and bladders WRAS, ACS, AS/NZS4020
- Maximum working temperature 70°C
- Maximum working pressures of 145psi/10bar or 232psi/16bar
- Tank pre-charge 58psi/4bar Nitrogen
- 5 year tank replacement guarantee

BENEFITS:

- Constructed for long life
- Extends pump life
- Reduces pump starts and noise
- Protects against water hammer and thermal expansion



REFIX DE

- 2-18 Litres
- Bladder according to DIN EN 13831
- All vessel parts in contact with water are corrosion resistant
- Meets or exceeds EC norms for pressure vessels 2014/108/EC directives
- Durable epoxy coating
- Factory pre-charged
- Vertical

REFIX HW

- 25-80 Litres
- Diaphragm according to DIN EN 13831 norm part 3
- All vessel parts are corrosion resistant
- Meets or exceeds EC norms for pressure vessels 2014/108/EC directives
- Durable epoxy coating
- Factory pre-charged
- Horizontal

REFIX DC

- 25 - 400 Litres
- Diaphragm, according to DIN EN 13831 norm part 3
- All vessel parts in contact with water are corrosion resistant
- Meets or exceeds EC norms for pressure vessels 2014/108/EC directives
- Durable epoxy coating
- Factory pre-charged
- Vertical / Free-Standing

CERTIFICATIONS & WARRANTY



REFLEX PRESSURE TANKS

DE SERIES:

Vertical tanks

High-grade butyl bladder according to DIN EN 13831

Part Number	Item Code	Vertical Size (L)	Bar	Outlet	Litres
REF-DE2**	806043	2	10	1" BSPM	1
REF-DE8**	806044	8			3
REF-DE18**	806045	18			6
REF-DE8-16	806046	8	16	1" BSPM	3
REF-DE25-16	806048	25			9
REF-DE80-16	806049	80			29

Note: Codes marked ** are WaterMark approved to WMTS-485:2018 Certificate No. 23340



Image of 8L tank

HW SERIES:

Horizontal tanks

High-grade butyl diaphragm according to DIN EN 13831

Part Number	Item Code	Horizontal Size (L)	Bar	Outlet	Litres
REF-HW25**	806058	25	10	1" BSPM	9
REF-HW60**	806059	60			22
REF-HW80**	806060	80			29

Note: Codes marked ** are WaterMark approved to WMTS-485:2018 Certificate No. 23340



DC SERIES:

Vertical tanks

High-grade butyl diaphragm according to DIN EN 13831

Part Number	Item Code	Vertical Size (L)	Bar	Outlet	Litres
REF-DC25**	806050	25	10	1" BSPM	9
REF-DC50**	806051	50			18
REF-DC80**	806052	80			29
REF-DC100**	806053	100			36
REF-DC140**	806054	140			50
REF-DC200**	806055	200			72
REF-DC300**	806056	300			108
REF-DC400**	806057	400			144

Note: Codes marked ** are WaterMark approved to WMTS-485:2018 Certificate No. 23340



Image of 50L - 400L free standing versions

REFLEX ACCESSORIES:

Part Number	Item Code	Description	Image
REF-WALLBRACKET	806107	Wall Bracket suit tanks 8L – 25L	
REF-LOCKSHIELD1	806108	Lockshield valve for maintenance and detachment of expansion vessels with drainage. According to DIN EN 12828. PN 10/120°C	
REF-PG	806109	Digital Pressure Gauge 0 – 9 bar	
REF-1000MFCKIT*	702977	1" F x 1" M x 1000mm	
REF-1000MFECKIT*	702978	1" 90°F x 1" M x 1000mm	

*Includes nuts, bolts, washers, thread tape and instruction sheet for mounting pumps onto horizontal pressure tanks. Some dealer supplied fittings may be required for some pressure systems. Maximum working pressure 2070kPa, rigid pipework is recommended.

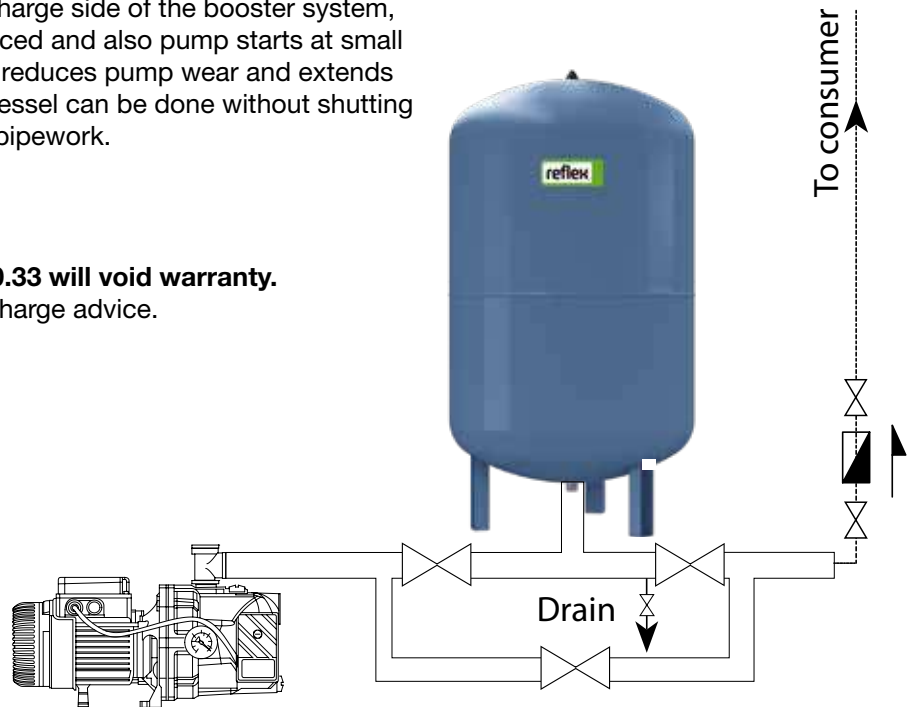
Disclaimer: Every effort has been made to publish the correct details in this brochure. No responsibility will be taken for errors, omissions or changes in product specifications.



Vessel on a pressure system

With the vessel mounted on the discharge side of the booster system, the numbers of pump starts are reduced and also pump starts at small draw-offs are totally eliminated. This reduces pump wear and extends pump life time. Maintenance of the vessel can be done without shutting off the water supply with the shown pipework.

Maximum acceptance exceeding 0.33 will void warranty.
Contact White International for pre-charge advice.



Pre-charge instructions

1. Pressure switch controlled pumps with differential pressure set at 140 kPa (20 psi), pre-charge the tank to 20 kPa (3 psi) below the cut in pressure.
2. For pumps controlled by pressure switches with higher differential pressures, electronic controls or variable speed controls, pre-charge the tank to 65% of the maximum system pressure.
3. Pressure tanks installed on mains pressure, pre-charge should be set at the mains pressure.
4. For hot water expansion, pre-charge should be set at the mains pressure.

		CUT IN PRESSURE							
		1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0
CUT OUT PRESSURE	2.5	1.30	1.80	Green cells - precharge is 20kpa below cut in pressure					
	3.0	1.66	1.80	2.30	Blue cells - precharge is 66.6% of cut out pressure				
	3.5	2	1.80	2.30	2.80				
	4.0	2.33	2.33	2.33	2.80	3.30			
	4.5	2.66	2.66	2.66	2.80	3.30	3.80		
	5.0	3	3	3	2.80	3.30	3.80	4.30	
	5.5	3.33	3.33	3.33	3.33	3.30	3.80	4.30	4.80
	6.0			3.66	3.66	3.66	3.80	4.30	4.80
	6.5			4	4	4	4	4.30	4.80
	7.0			4.33	4.33	4.33	4.33	4.33	4.80
	8.0			4.99	4.99	4.99	4.99	4.99	4.99
9.0			5.66	5.66	5.66	5.66	5.66	5.66	

PUMP SELECTION GUIDE

1. REQUIREMENT

- Household supply
- Tank filling / Transfer / Troughs
- Garden sprinkler(s)
- Irrigation

2. WATER SOURCE

- Dam
- River
- Shallow well
- Tricklefeed
- Above ground tank
- In ground tank
- Town mains (if pump being used to boost pressure)

3. POWER SUPPLY

- 240V Mains
- Generator
- Off grid / Solar

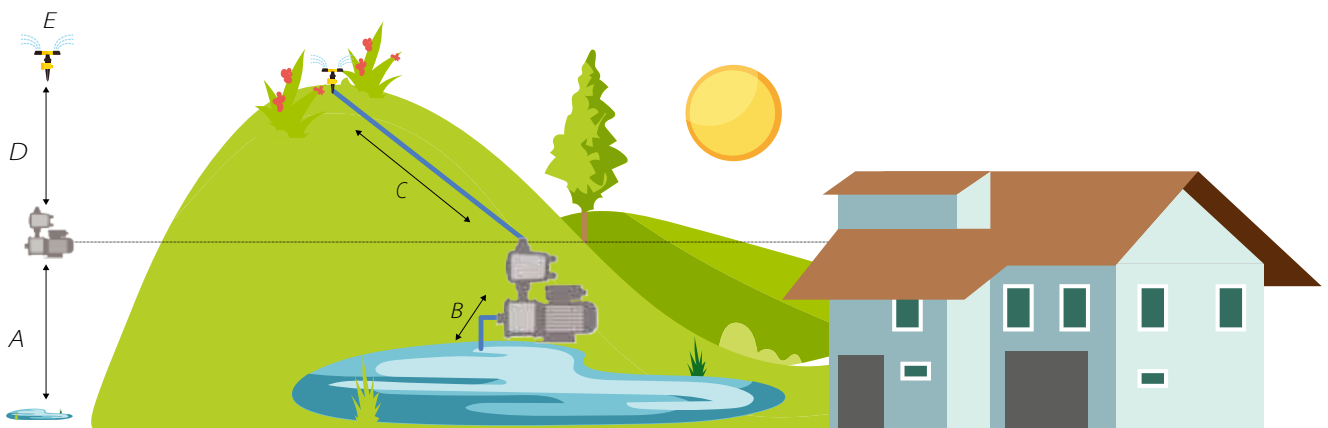
4. APPLICATION (SEE DIAGRAM)

SUCTION PIPE (FROM WATER SUPPLY TO PUMP)

- A)** Height from water to pump (vertical) _____ metres
(allow for drops in water level if below pump)
- B)** Pipe length (horizontal) _____ metres
Type of pipe _____
Diameter of pipe _____ mm
My water supply is above or below pump inlet

DELIVERY PIPE (FROM THE PUMP TO THE APPLICATION)

- C)** Pipe length (horizontal) _____ metres
Type of pipe _____
Diameter of pipe _____ mm
My application is 1 2 3 levels high
- D)** Height of pipe to discharge _____ metres
- E)** Demand pressure Low Normal High
- F)** Use Batch / Cottage / Single dwelling
 Small house Medium House Large house
 Large house with some light irrigation



Available from your local Solar & Borehole distributor:

DAB-AUS-SOLAR & BOREHOLE-PUMPS-BROCHURE_AUGUST2021

WHITE INTERNATIONAL PTY LTD

60 Ashford Ave Milperra NSW 2214
PO Box 304 Milperra NSW 2214
Phone 02 9783 6000 Fax 02 9783 6001
Customer Service 1300 783 601
Email Sales: pumpsales@whiteint.com.au
www.whiteint.com.au

WHITE INTERNATIONAL NZ LTD

15G Kervyn Avenue
East Tamaki, Auckland 2013, New Zealand
Phone 09 579 9777
Customer Service 0800 509 506
Email Sales: sales@whiteint.co.nz
www.whiteint.co.nz



Please always refer to our website for further technical information & new product innovations

Scan QR Code on your smart phone or iPad to save a digital version.



© 2021 Copyright White International Pty Ltd

TM ® - WARNING: Please be aware that various brands & products depicted within this document are subject to trademark, patent or design registrations. Infringement of any intellectual property contained within this document without express written authority by the appropriate intellectual property holder may result in further legal action to be taken. For any queries regarding use of the contained information please feel free to contact White International Pty Ltd.