

WATER • TECHNOLOGY

4" Submersible Borehole Pump

Product Range



CONTENTS PAGE

4" Borehole Pumps - Introduction.....	3
4" Borehole Submersible Pumps.....	4
Sand Tolerance.....	4
Impellers and Diffusers.....	5
4" Borehole Submersible Pumps.....	6
Applications & Materials	
4" Borehole Motors - Water Filled.....	7
Technical Data & General Data	
4" Borehole Motors -Oil Filled.....	8
Technical Data & General Data	
4" Borehole Submersible Pumps Performance Curves.....	9
4" Borehole Submersible Pumps Selection Chart.....	12
4" Borehole Pumps - Solar Powered & Solar Panels.....	13
4" Borehole Pumps - Solar Powered.....	14
Applications & Materials	
4" Borehole Pumps - Solar Powered.....	15
Construction Features of the iCON iSolar Motor & Materials	
4" Borehole Pumps - Solar Powered Performance Curves.....	16
4" Borehole Pumps Variable Frequency Drive.....	21
4" Borehole Pumps Variable Frequency Drive Performance Curves.....	22
Accessories.....	28
DAB 4" Tesla Motor Control Boxes & DAB S4 Series 4" Tesla 2 Wire Motors	
Accessories Continued.....	29
Borehole Pump Accessories	
iSolar Selection Matrix.....	30

TESTIMONIAL

"The new DAB iSolar System...it's the future...a real new innovation, easy install. Incredible performance & efficiency...to replace all old windmill systems"

*John Wilde
Moree Pumps Irrigation & Plumbing*



4" BOREHOLE PUMPS - INTRODUCTION

With over 2 million units produced every year, DAB's electronic pumps are synonymous with technology and reliability.

Thanks to a merger with TESLA, a leading Italian manufacturer of submersible borehole motors, DAB is now a world leader in the manufacturer of submersible borehole motors with more than 200,000 units produced annually from the factory in Italy.

When combined with the pump production by DAB of a wide range of submersible borehole pumps from 3" to 12", DAB are able to provide specific solutions for every kind of application, from small domestic irrigation to the most demanding industrial applications and municipal water supply.

The range of TESLA motors, **designed and manufactured in Italy** with ISO 9001 certified processes, is capable of satisfying a wide range of needs and includes water encapsulated motors (4" and 6"), water cooled rewindable motors (up to 14") and oil filled rewindable (4").

The range has now been further extended with the addition of a 4" DC / AC powered motor allowing for input power from Solar, Mains or Generator energy sources giving complete flexibility on and off the grid.

White International Pty Ltd have partnered with DAB Pumps since 1988 and are the exclusive importer, distributor and technical representative for DAB Pumps in Australasia.

Our businesses work closely together and technically collaborate on pump projects to find tailor made solutions for our customers' pumping requirements.

DAB Pumps and White International Pty Ltd puts at your disposal a dedicated technical and commercial team, which provide product development, immediate support and flexibility, while also offering a high degree of customization for all your borehole pump requirements.

- A professional quality pump
- Micro casted stainless steel structural parts , supporting higher performance, higher power and higher torque when in use
- Proven techno polymer floating stack design- reduced wear, binding and easier starts in heavy sand applications guaranteed capability up to 120g/m³
- Integrated non - return valve in discharge for stable system operation

KEY POINTS



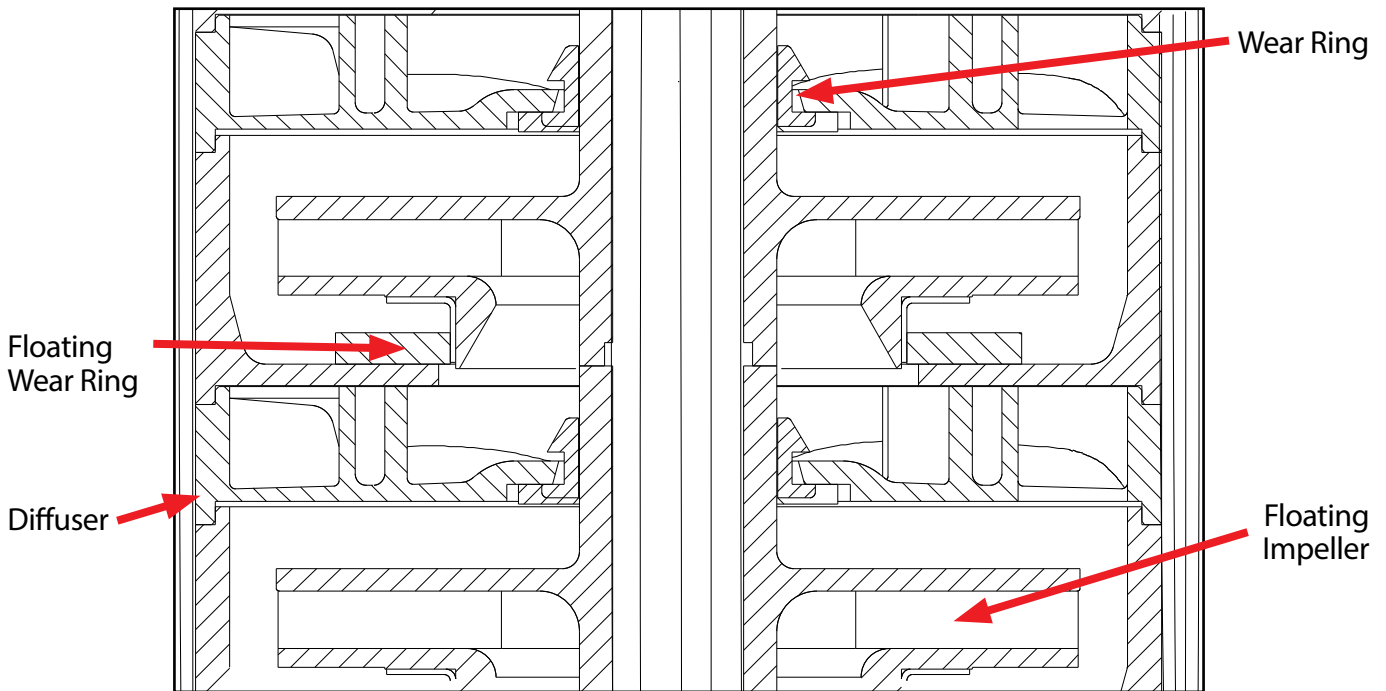
4" BOREHOLE SUBMERSIBLE PUMPS

Sand Tolerance

The floating impeller stack allows vertical movement of impellers to enable small solids to be passed through without locking up the pump.

This also allows easier start ups by preventing sand lock up and ensures trouble free operation and longer motor life.

**FLOATING
STACK =**
sand capable up
to 120g / m³



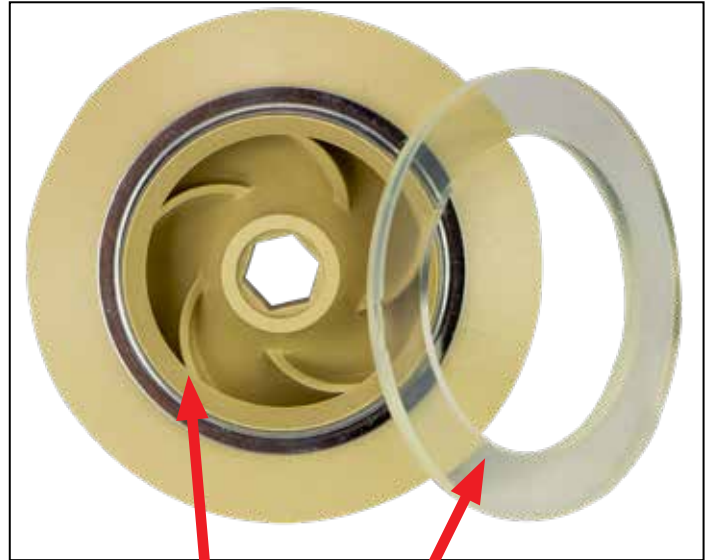
Floating impeller stack
High resistance to abrasion thanks to the hydraulic design:
Max amount of suspended sand: 120 g/m³

4" BOREHOLE SUBMERSIBLE PUMPS

Impellers and Diffusers



Diffuser with wear ring



Impeller with AISI 304 wear ring

Separation between stage casing and impeller by floating ring



REDUCED WEAR OR BLOCKING ISSUES IN HEAVY SAND CONDITIONS



- Impellers, diffusers and stage casing made in technopolymer
- Hexagonal posi drive shaft with splined coupling in AISI 304 (NEMA)

4" BOREHOLE SUBMERSIBLE PUMPS

Applications

Submersible electric pumps for 4" wells or larger, capable of generating a wide range of flows and heads. These units have a very extensive range of applications for lifting, distribution, and pressurisation in domestic, farming, civil and industrial water systems, filling of pressure vessels and tanks, irrigation and fire-fighting systems. For Example: Water supply for domestic dwellings, irrigation of gardens and nursery's, horticultural and agricultural water supply, filling of storage tanks and cisterns, extreme lifts to storage tanks and off-grid water supplies.

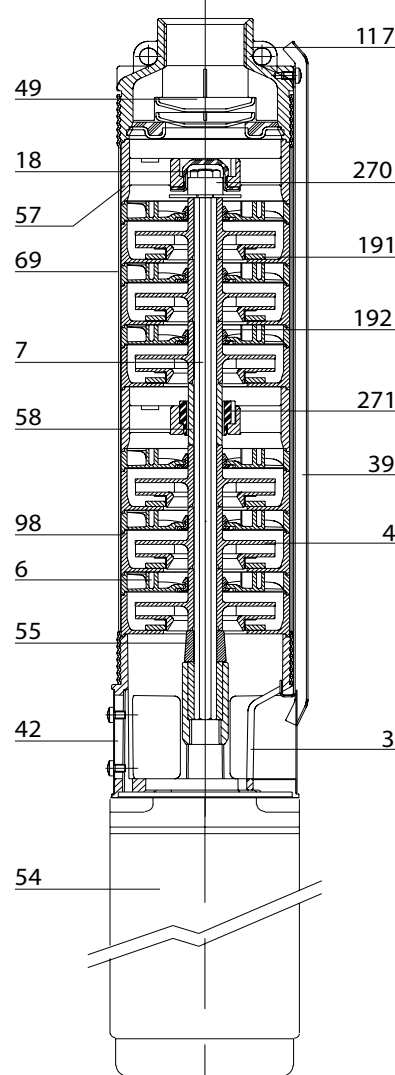
DAB Borehole submersible pumps incorporate the latest technology in hydraulic design and materials to reduce running costs, extend pump life and increase serviceability.

- Technopolymer impellers and diffusers for resistance to wear and corrosion
- Floating special material abrasion wear ring reduces wear due to sand, allows easier starting
- Micro cast stainless steel support and valve body for high strength and corrosion resistance
- 4GG and 4OL single phase motors use remote starter box with manual reset overload
- Large range to suit most applications
- Floating impeller stack for easier starts in abrasive conditions
- Posi drive pump shaft improves impeller life in adverse conditions
- Maximum sand quantity = 120 gm / m³.



Materials

N.	PART*	MATERIALS
3	BASE SUPPORT	AISI 304 MICROCAST STAINLESS STEEL
4	IMPELLER	TECHNOPOLYMER A with thrust in STAINLESS STEEL AISI 304 X5CrNi1810 - UNI 6900/71
6	DIFFUSER	TECHNOPOLYMER A
7	SHAFT WITH COUPLING	STAINLESS STEEL AISI 304 X5CrNi1810 - UNI 6900/71
18	LOCKING NUT	STAINLESS STEEL
39	CABLE SHEATH	STAINLESS STEEL AISI 304 X5CrNi1810 - UNI 6900/71
42	STRAINER	STAINLESS STEEL
49	VALVE	STAINLESS STEEL AISI 304 X5CrNi1810 - UNI 6900/71
54	MOTOR	STAINLESS STEEL AISI 304 X5CrNi1810 - UNI 6900/71
55	SPACER	TECHNOPOLYMER A
57	SUPPORT	TECHNOPOLYMER A
58	INTERMEDIATE BUSHING	STAINLESS STEEL AISI 304 X5CrNi1810 - UNI 6900/71
69	PUMP LINER	STAINLESS STEEL AISI 304 X5CrNi1810 - UNI 6900/71
98	DIFFUSER BODY	TECHNOPOLYMER A
117	UPPER HEAD	AISI 304 MICROCAST STAINLESS STEEL
191	FRONT THRUST RING	AISI 304 MICROCAST STAINLESS STEEL
192	REAR THRUST RING	AISI 304 MICROCAST STAINLESS STEEL
270	UPPER SHAFT GUIDE BUSH	RUBBER
271	INTERMEDIATE SHAFT GUIDE BUSH	ABRASION - PROOF SYNTHETIC MATERIAL



4" BOREHOLE MOTORS - WATER FILLED - 4GG

Technical Data

- Flanging:** NEMA 4"
- Insulation Class:** F
- Protection Class:** IP68
- Cooling Flow Speed:** min. 0,3 m/s 35°C
- Power Supply Tolerance:** + 6% / - 10%
- Max. Starts:** 20/h
- Max Operating Depth:** 300 m
- Horizontal Operation:** 0,5 HP - 10 HP



KEY POINTS

- Canned motor design
 - Stator now resin filled for better heat management and mechanical resistance.
- Motor filled with water - no risk of contamination
- Proven Kingsbury thrust bearings
- All water contact parts made of 304 Stainless Steel
- VFD compatible

General Data




4" submersible asynchronous two-pole electric motor made entirely of AISI 304 stainless steel for the parts in contact with water. The thrust block and bushes are cooled and lubricated with a mixture of water and glycol.

The rotor is mounted on a Kingsbury self-centering thrust block designed to withstand significant axial loads. Stator housed in an airtight AISI 304L stainless steel casing with internal sleeve and outer casing and flanges.

The cable connector is removable for the purpose of quick and easy maintenance. The cable is ACS, WRAS and KTW certified. The motor is suitable for use with variable frequency drive (30 Hz - 50 Hz). For the 50 Hz single-phase version, the capacitor and manually resettable overload protection are in the electrical control box provided separately.

Overload protection to be provided by the user for the three-phase version.

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 highstrength stainless steel machined by Tesla with a spherical lapping process. From 0,5 HP to 1.5 HP: 2000 N From 2 HP to 3 HP: 3000 N From 4 HP to 10 HP: 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 3 HP and in copper for motors of power above 4 HP.</p>
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4" BOREHOLE MOTORS - OIL FILLED - 40L

Technical Data

- Flanging:** NEMA 4"
- Insulation Class:** F
- Protection Class:** IP68
- Cooling Flow Speed:** min. 0,3 m/s 35°C
- Power Supply Tolerance:** + 6% / - 10%
- Max. Starts:** 20/h
- Max Operating Depth:** 250 m
- Horizontal Operation:** 0,5 HP - 10 HP

NEW



KEY POINTS

- Reduced cost
- Rewindable stator therefore repairable
- Ball bearing design better for lower speed applications
- 24 slot motor design that is VFD compatible, we are the only oil filled motor that is currently.
- All water contact parts made of 304 Stainless Steel
- FDA approved food grade oil removing risk of bore contamination.

General Data

4" rewindable submersible asynchronous two-pole electric motor made entirely of AISI 304 stainless steel for the parts in contact with water. Cooling and lubrication of ball bearings is assured by a special FDA approved coolant (no risk of bore contamination).

Stator housed in a AISI 304L stainless steel casing fixed with steel pins to the upper support of the motor.

The cable connector is removable for the purpose of quick and easy maintenance. The cable is ACS, WRAS and KTW certified. The motor is suitable for use with variable frequency drive (30 Hz - 50/60 Hz). For the single-phase version, the capacitor and manually resettable overload protection are in the electrical control box provided separately.

Overload protection to be provided by the user for the three-phase version.

SS OIL FILLED CONSTRUCTION FEATURES



Rewindable stator housed in an outer casing in AISI 304L. The stator has 24 slots to ensure better elasticity and smooth operation; copper conductors with a double layer of Class H insulating enamel.

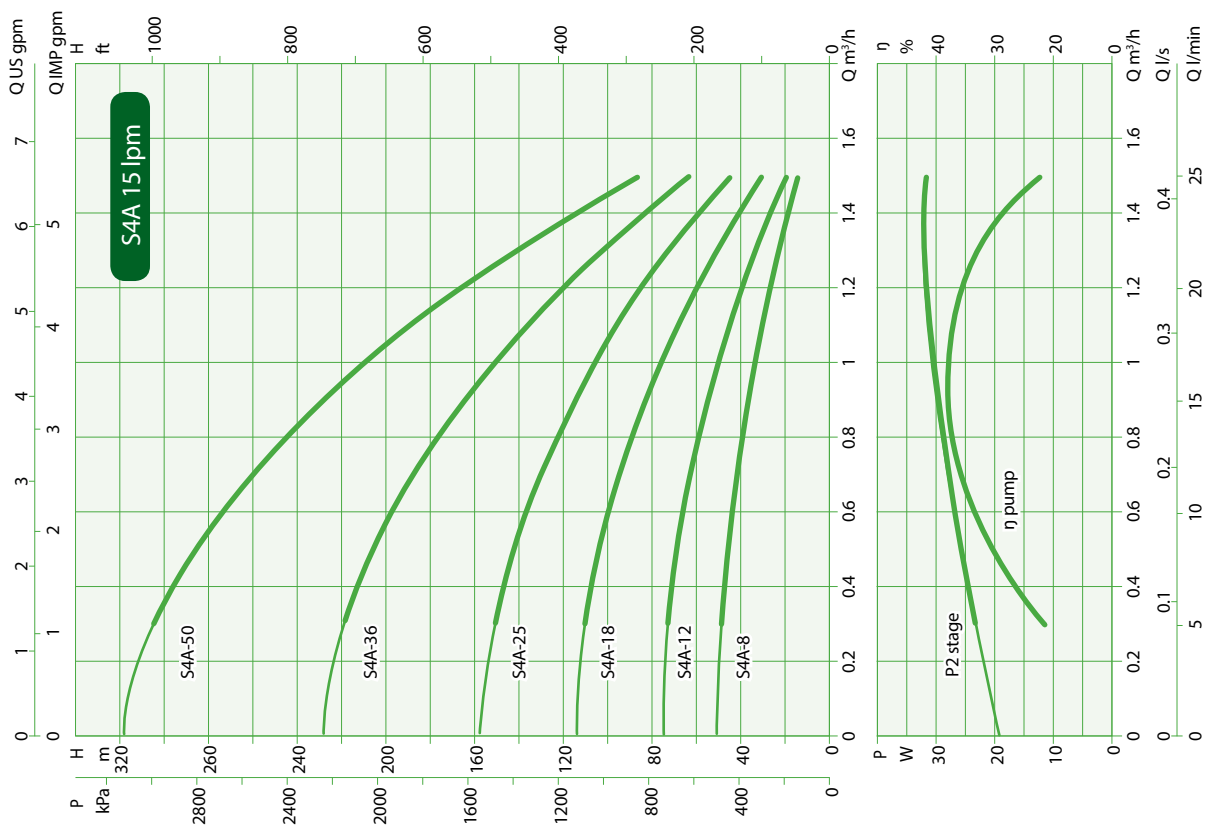
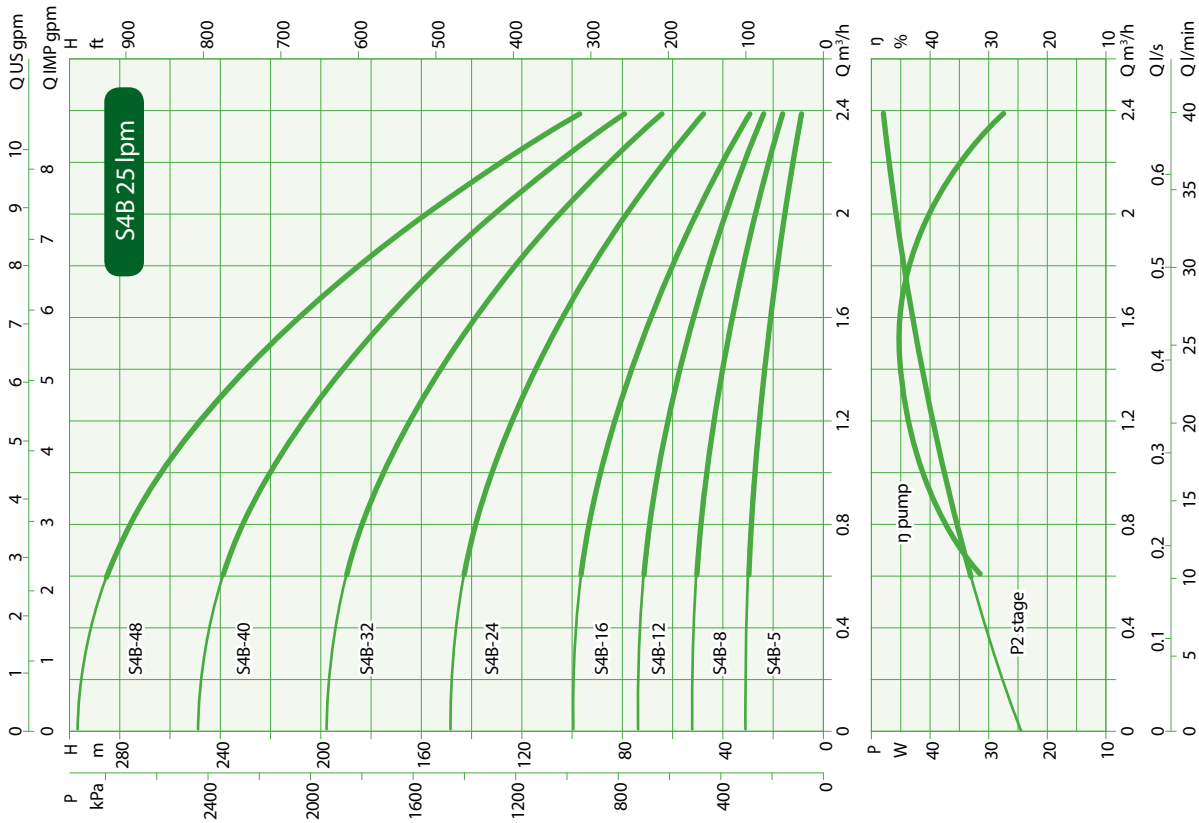


Oversized ball bearings of high axial load.
 From 0,5 HP to 2 HP: 2000 N 3
 HP: 3000 N
 From 4 HP to 5,5 HP: 4000 N
 From 7,5 HP to 10 HP: 5000 N



Shafts with terminal in AISI 304/Duplex, with special surface hardening process. Squirrel cage rotor in aluminium for power ratings up to 3 HP and in copper for motors of power above 4 HP.

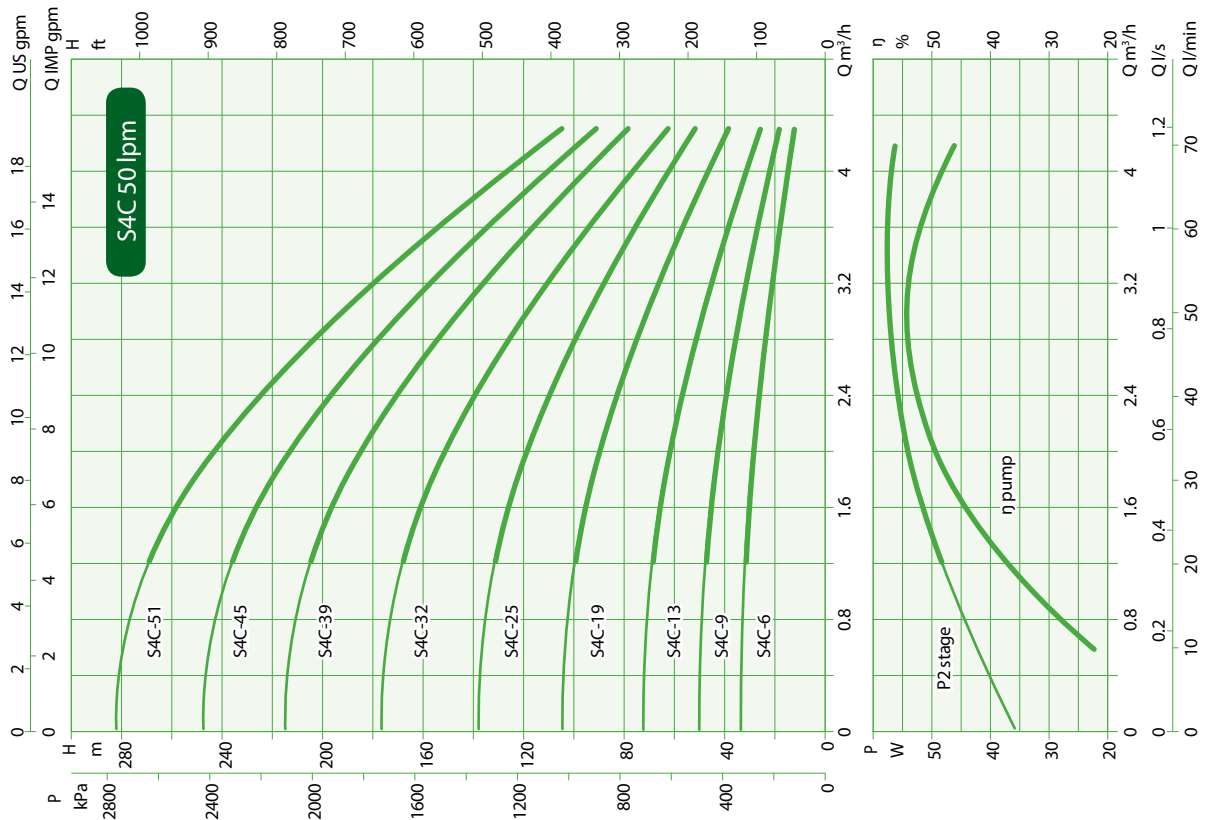
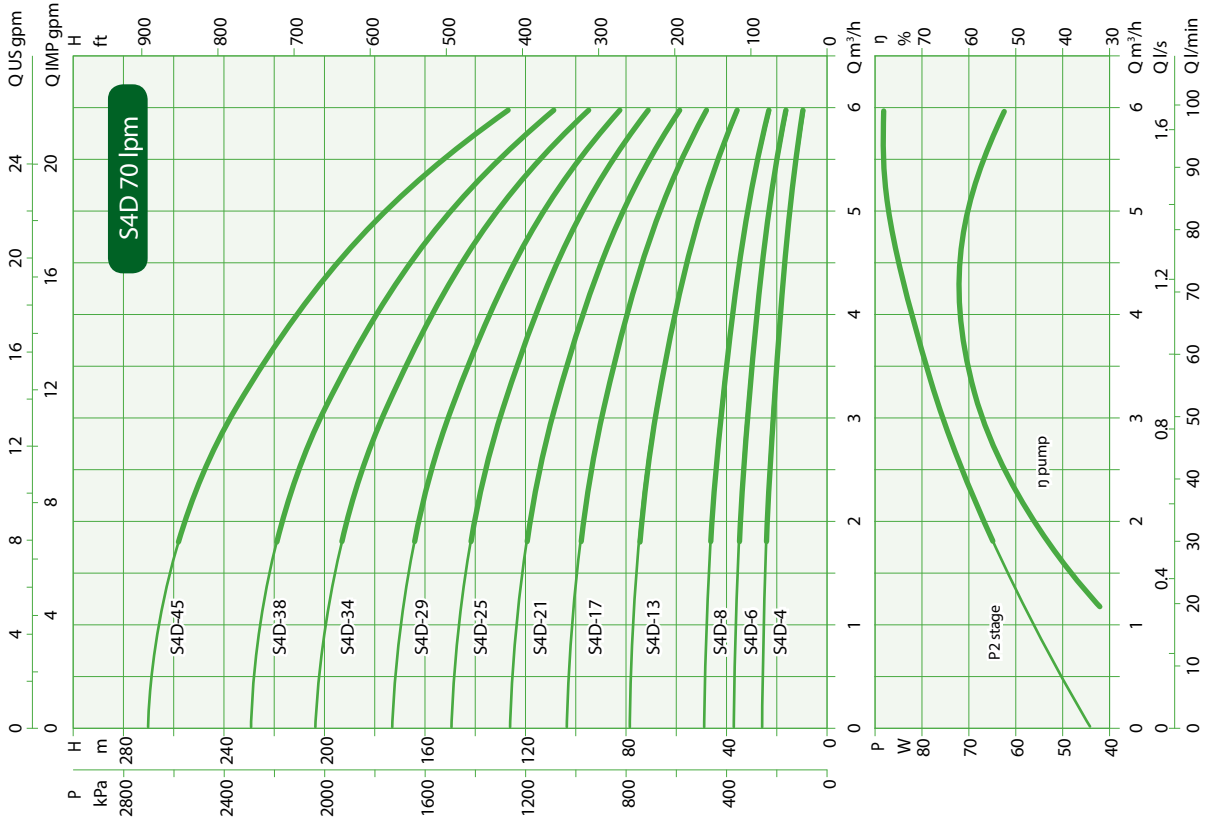
4" BOREHOLE SUBMERSIBLE PUMPS



Note: Pumps should be operated as close as possible to the middle of the performance curve and not outside maximum and minimum flows.

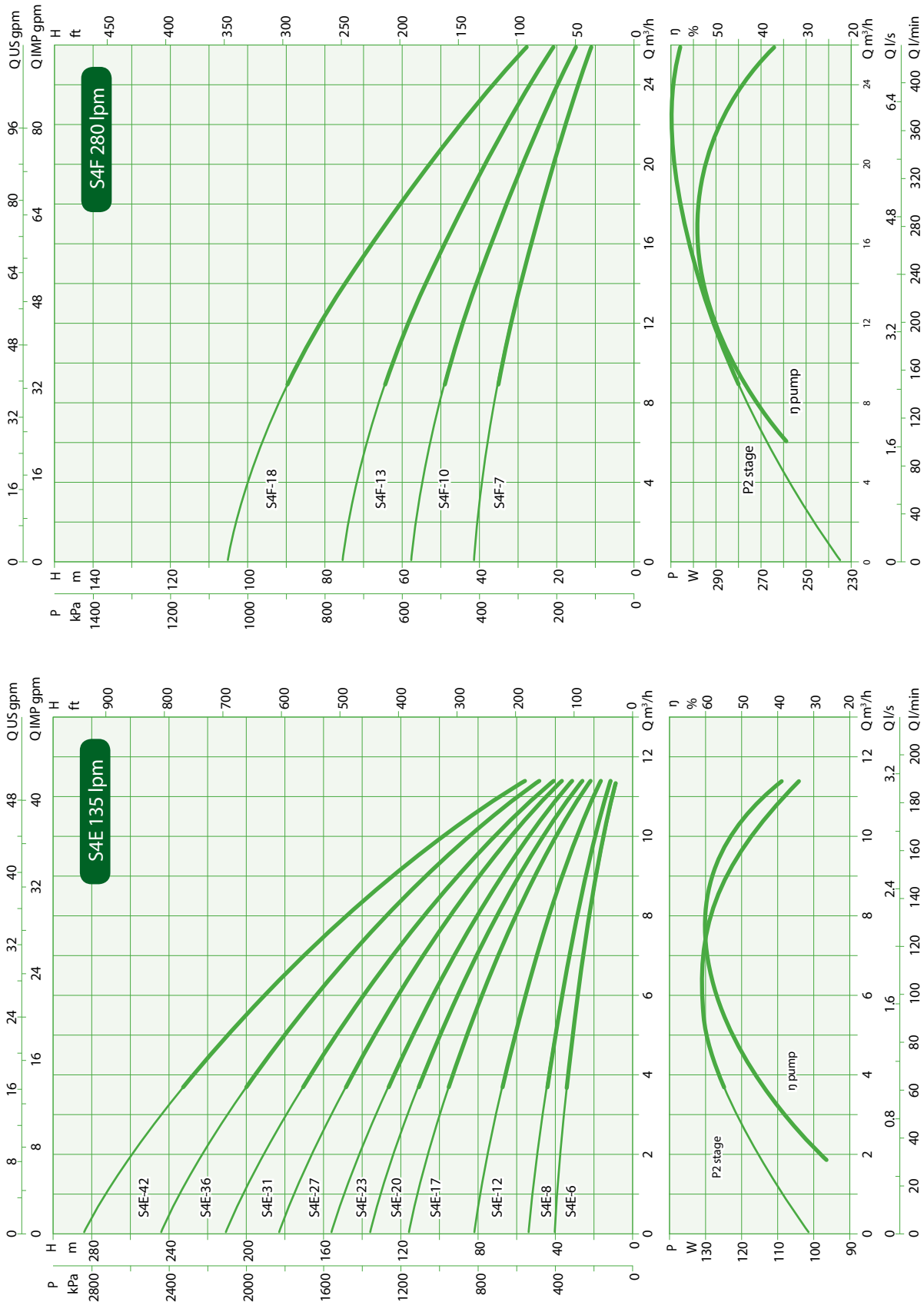
Disclaimer: Every effort has been made to publish the correct details in this brochure. No responsibility will be taken for errors, omissions or changes in product specifications.

4" BOREHOLE SUBMERSIBLE PUMPS



Note: Pumps should be operated as close as possible to the middle of the performance curve and not outside maximum and minimum flows.

4" BOREHOLE SUBMERSIBLE PUMPS



Note: Pumps should be operated as close as possible to the middle of the performance curve and not outside maximum and minimum flows.

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4" BOREHOLE SUBMERSIBLE PUMPS

Selection Chart

Model		P2 Nominal		m³/h	0	0.6	1.2	1.5	1.8	2.14	3	4.2	4.8	6	9	11.4	18	24	27	
Single	Three-phase	kW	hp	l/min	0	10	20	25	30	40	50	70	80	100	150	190	300	400	500	
S4A-8M		0.37	0.50			44.4	26.8	13.7												
S4A-12M	S4A-12T	0.37	0.50			66.6	40.2	20.5												
S4A-18M	S4A-18T	0.55	0.75			99.8	60.3	30.8												
S4A-25M	S4A-25T	0.75	1.00			138.7	83.7	42.7												
S4A-36M	S4A-36T	1.10	1.50			200.0	120.6	61.6												
S4A-50M	S4A-50T	1.50	2.00			277.4	167.5	85.5												
S4B-5M		0.37	0.50			30.0	26.0	22.6	19.0	10.0										
S4B-8M	S4B-8T	0.37	0.50			47.8	41.5	36.2	30.6	16.0										
S4B-12M	S4B-12T	0.55	0.75			71.8	62.3	54.4	45.8	24.0										
S4B-16M	S4B-16T	0.75	1.00			95.7	83.0	72.5	61.0	32.0										
S4B-24M	S4B-24T	1.10	1.50			143.5	124.6	108.7	91.7	48.0										
S4B-32M	S4B-32T	1.50	2.00			191.4	166.0	144.9	122.2	64.0										
S4B-40M	S4B-40T	2.20	3.00			239.2	207.6	181.2	152.8	80.0										
S4B-48M	S4B-48T	2.20	3.00			287.1	249.2	217.4	183.4	96.0										
S4C-6M	S4C-6T	0.37	0.50				31.8	30.7	29.4	26.4	22.7	13.2								
S4C-9M	S4C-9T	0.55	0.75				47.7	46.0	44.0	39.6	34.0	19.8								
S4C-13M	S4C-13T	0.75	1.00				68.9	66.4	63.7	57.2	49.2	28.6								
S4C-19M	S4C-19T	1.10	1.50				100.7	97.0	93.0	83.6	71.8	41.8								
S4C-25M	S4C-25T	1.50	2.00				132.5	128.0	122.5	110.0	94.5	55.0								
S4C-32M	S4C-32T	2.20	3.00				169.6	163.0	156.8	140.8	120.9	70.4								
S4C-39M	S4C-39T	2.20	3.00				206.7	200.0	191.1	171.6	147.4	85.8								
	S4C-45T	3.00	4.00				238.5	229.0	220.5	198.0	170.1	99.0								
	S4C-51T	3.00	4.00				270.3	261.0	250.0	224.4	192.8	112.2								
S4D-4M	S4D-4T	0.37	0.50	H					23.0	22.0	21.8	18.0	16.2	11.2						
S4D-6M	S4D-6T	0.55	0.75	(m)					34.5	33.0	31.5	27.0	24.3	16.8						
S4D-8M	S4D-8T	0.75	1.00						46.0	44.0	42.0	36.0	32.5	22.4						
S4D-13M	S4D-13T	1.10	1.50						47.7	71.5	68.3	59.0	52.6	36.4						
S4D-17M	S4D-17T	1.50	2.00						98.0	93.5	89.5	77.5	6.88	47.6						
S4D-21M	S4D-21T	2.20	3.00						121.0	115.5	110.0	96.0	85.0	8.5						
S4D-25M	S4D-25T	2.20	3.00						144.0	137.5	132.0	114.5	101.2	70.0						
	S4D-29T	3.00	4.00						166.0	159.5	152.0	132.0	117.4	81.2						
	S4D-34T	3.00	4.00						196.0	187.0	179.5	155.0	137.7	95.2						
	S4D-38T	4.00	5.50						219.0	209.0	200.0	173.0	153.9	106.4						
	S4D-45T	4.00	5.50						259.0	247.5	237.0	205.0	182.2	127.0						
S4E-6M	S4E-6T	0.75	1.00									31.5	30.0	27.0	17.6	7.7				
S4E-8M	S4E-8T	1.10	1.50									42.0	40.0	37.0	23.4	10.3				
S4E-12M	S4E-12T	1.50	2.00									63.0	60.0	55.0	35.2	15.5				
S4E-17M	S4E-17T	2.20	3.00									89.5	86.0	78.0	49.8	21.9				
	S4E-20T	3.00	4.00									105.0	101.5	91.0	58.6	25.7				
	S4E-23T	3.00	4.00									120.5	117.0	104.5	67.4	29.6				
	S4E-27T	4.00	5.50									141.5	137.0	122.5	79.2	34.8				
	S4E-31T	4.00	5.50									162.0	156.0	140.0	90.9	39.9				
	S4E-36T	5.50	7.50									188.0	180.0	162.0	105.5	46.5				
	S4E-42T	5.50	7.50									220.0	211.0	189.0	123.2	54.0				
S4F-7M	S4F-7T	2.20	3.00												36.0	33.0	24.0	15.0	11.0	
	S4F-10T	3.00	4.00												50.8	47.0	34.0	22.0	16.0	
	S4F-13T	4.00	5.50												66.0	62.0	44.7	28.0	20.0	
	S4F-18T	5.50	7.50												91.0	84.0	61.2	39.0	28.0	

Note: Pumps should be operated as close as possible to the middle of the performance curve and not outside maximum and minimum flows.

4" BOREHOLE PUMPS - SOLAR POWERED

NEW

Revolutionary BLDC design, iCON iSolar motor powers the new DAB system for the supply of ground water based on the most widely available renewable energy, the sun.

By means of the electric power supplied by a series of photovoltaic panels and taking advantage of the combination of a DAB S4 series 4" submersible pump with a built-in inverter type controller, the system is able to ensure a continuous drawing of water from underground even with varying solar irradiation conditions.

The permanent-magnet motor technology assures high efficiency of the system that now requires a smaller number of photovoltaic panels in order to work.

It is designed for easy use and requires no maintenance.

It is the ideal solution for supplying water in remote areas, where the normal power supply of electricity to the power grid is inconsistent or completely unavailable.

Comes complete with controller to enable automatic switching between DC and AC power.



Plug and Play Version Available

Solar Panel & Frames

*Special Order Only

Solar Motor Controller

PART NO.	ITEM CODE	DESCRIPTION		
		NO. OF PANELS	MOUNT	TOTAL WATTS
SOLAR ARRAYS*				
BIA-ER02PM	805923	2	POST	630
BIA-ER03PM	805924	3	POST	945
BIA-ER04PM	805925	4	POST	1260
BIA-ER05PM	806215	5	POST	1575
BIA-ER06PM	805926	6	POST	1890
BIA-ER07PM	806216	7	POST	2205
BIA-ER08PM	805927	8	POST	2520
BIA-ER09PM	806217	9	POST	2835
BIA-ER10PM	805928	10	POST X 2	3150
BIA-ER03GM	805918	3	GROUND	945
BIA-ER04GM	805919	4	GROUND	1260
BIA-ER06GM	805920	6	GROUND	1890
BIA-ER08GM	805921	8	GROUND	2520
BIA-ER10GM	805922	10	GROUND	3150

PART NO.	ITEM CODE	DESCRIPTION
BIA-SOLCONTV3-FLOW32	806067	iCON Solar Motor V3 Controller with Flow meter 32
BIA-SOLCONTV3-FLOW50	806068	iCON Solar Motor V3 Controller with Flow meter 50
BIA-SOLCONTPRO-FLOW32	806069	iCON Solar Motor Pro Control Plug & Play with Flow meter 32
BIA-SOLCONTPRO-FLOW50	806070	iCON Solar Motor Pro Control Plug & Play with Flow meter 50

INCLUDES:

- MC4 Lead - 3m
- MC4 Lead - 10m
- 3 Phase 20A AC Isolator Rotary Switch
- Post Mount or Ground Mount Framing
- 315W Solar Panels

DAB iCON iSOLAR motor

- Revolutionary Brushless DC motor design
- Two motor sizes: M110 and M240.
- Permanent magnets for high efficiency operation
- Integrated Variable Frequency Drive able to accept AC or DC power sources directly
- Motor uses both Vector and MPPT control to ensure best operation according to duty
- Proven Kingsbury thrust bearings

DAB iCON iSOLAR Controller

- Multiple power source controller to allow for Auto and Manual control of AC and DC power sources
- Multiple input type to allow for wider use as complete pressure or float based system
- Integrate output contact for generator start control
- Flow meter capable to ensure long term system life

View the iSolar Selector at <http://isolarselector.whiteint.com.au/>

KEY POINTS

4" BOREHOLE PUMPS - SOLAR POWERED

Applications

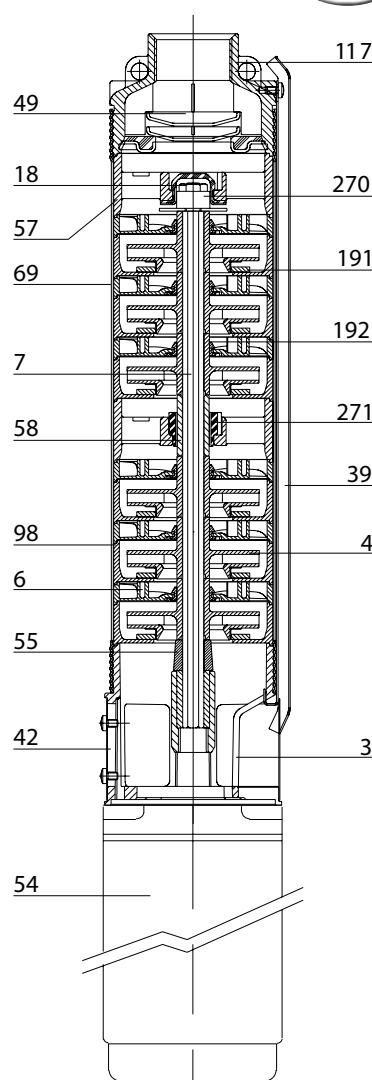
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271	INTERMEDIATE SHAFT GUIDE BUSH	ABRASION - PROOF SYNTHETIC MATERIAL



TESTIMONIAL

"The new DAB iSolar System... is a game-changer... the flexibility of power options it offers to the farmer so they are never out of water is incredible... very impressed!"

John Barden
Barden Pumps



4" BOREHOLE PUMPS - SOLAR POWERED

Construction Features of the iCON iSolar Motor

Innovative design allows the motor to be powered by both AC and DC power sources.

The motor is available in two sizes: M110 and M240. The speed range of the motor is 1800 rpm to 3000 rpm depending on the power input and load.

The motor uses rare earth permanent magnets, and has a built-in electronic unit comprising a frequency converter and motor controller. Vector control and MPPT are used to select the best operating point for the pump.

The motor can be supplied with either AC or DC voltage.

55 - 360 VDC, 1ph 240 VAC M110.

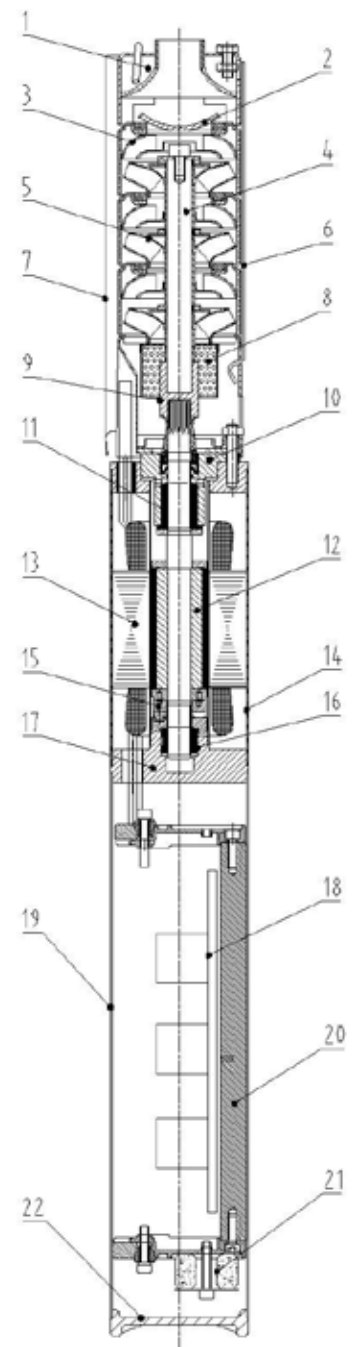
90 - 360 VDC, 1ph 240 VAC M240.

BLDC Motor Design.



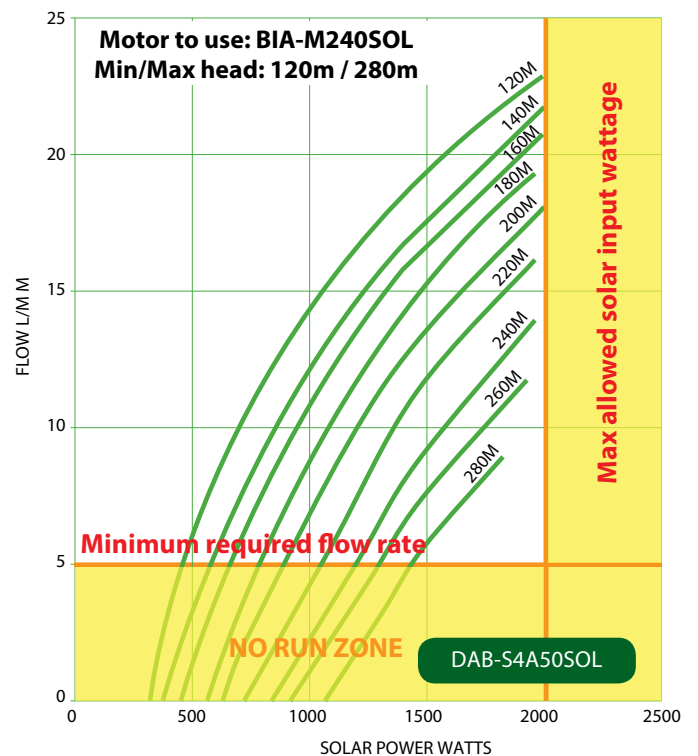
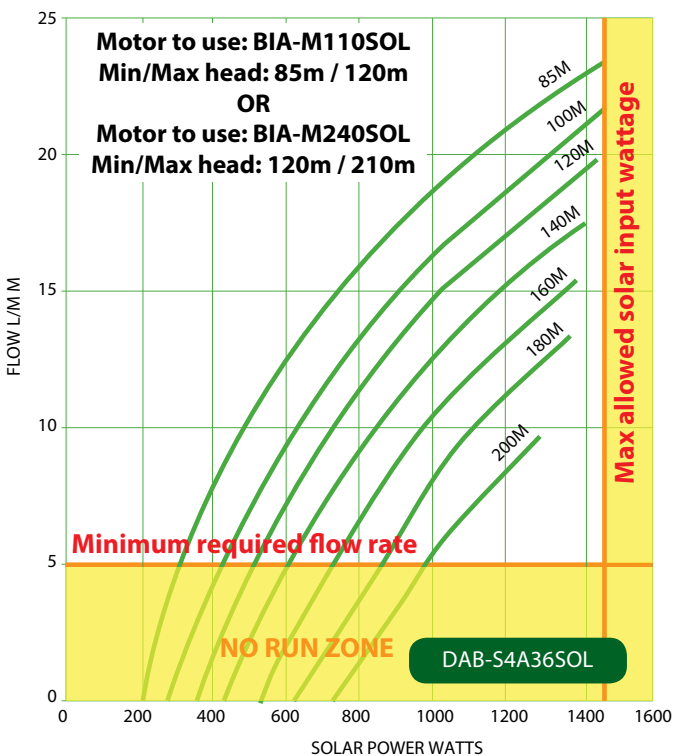
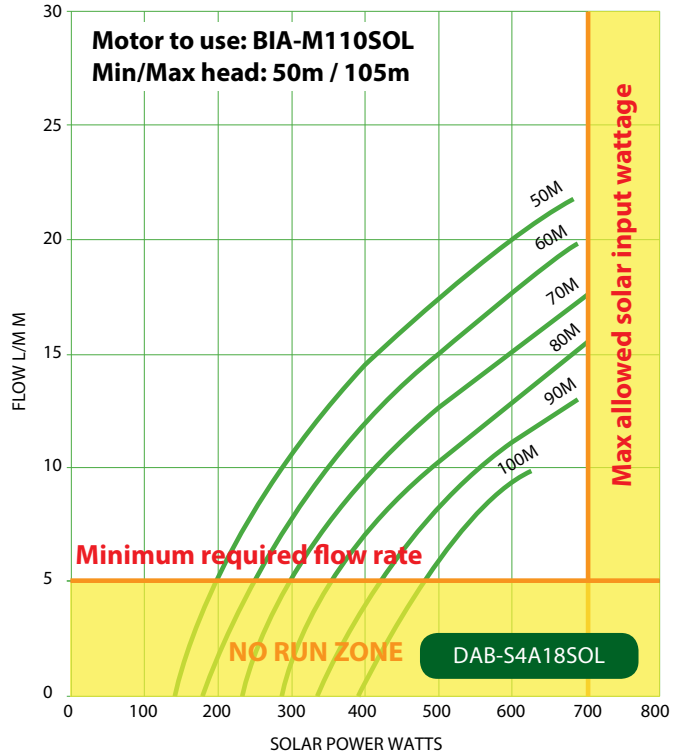
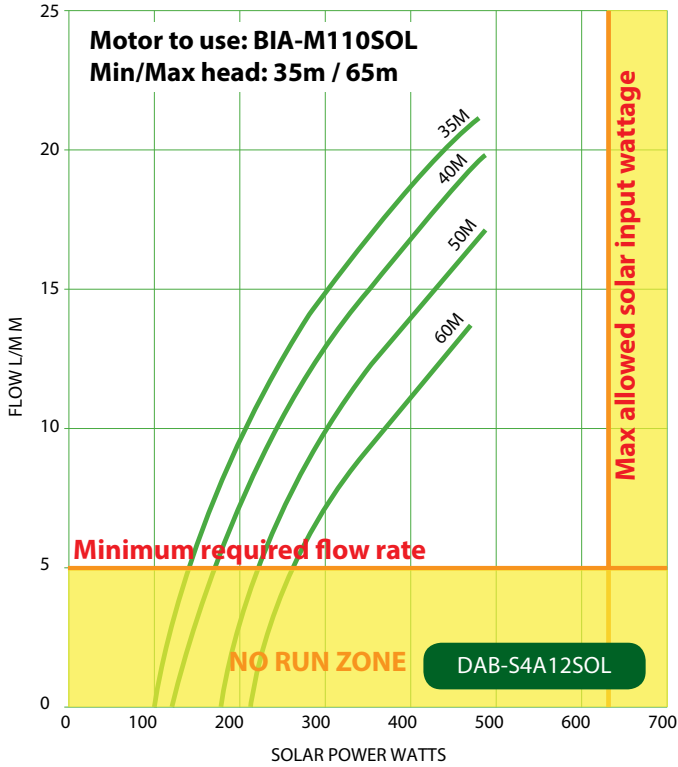
Materials

N.	PART*	MATERIALS
1	DISCHARGE CHAMBER	STAINLESS STEEL
2	NON-RETURN VALVE	STAINLESS STEEL
3	GUIDE VANES	PC/STAINLESS STEEL
4	PUMP SHAFT	STAINLESS STEEL
5	IMPELLER	POM/STAINLESS STEEL
6	IMPELLER FASTENER	STAINLESS STEEL
7	CABLE COVER	STAINLESS STEEL
8	INLET PART	STAINLESS STEEL
9	SHAFT COUPLING	STAINLESS STEEL
10	UPPER BEARING HOUSING	STAINLESS STEEL
11	UPPER BEARING	SILICON CARBIDE
12	PM ROTOR	--
13	STATOR	--
14	PUMP HOUSING	STAINLESS STEEL
15	THRUST BEARING	GRAPHITE
16	LOWER BEARING	SILICON CARBIDE
17	LOWER BEARING HOUSING	STAINLESS STEEL
18	PABA	CONTROLLER ELECTRONIC PART
19	CONTROLLER HOUSING	STAINLESS STEEL
20	RADIATOR	ALUMINIUM
21	INDUCTOR	--
22	BASE	STAINLESS STEEL

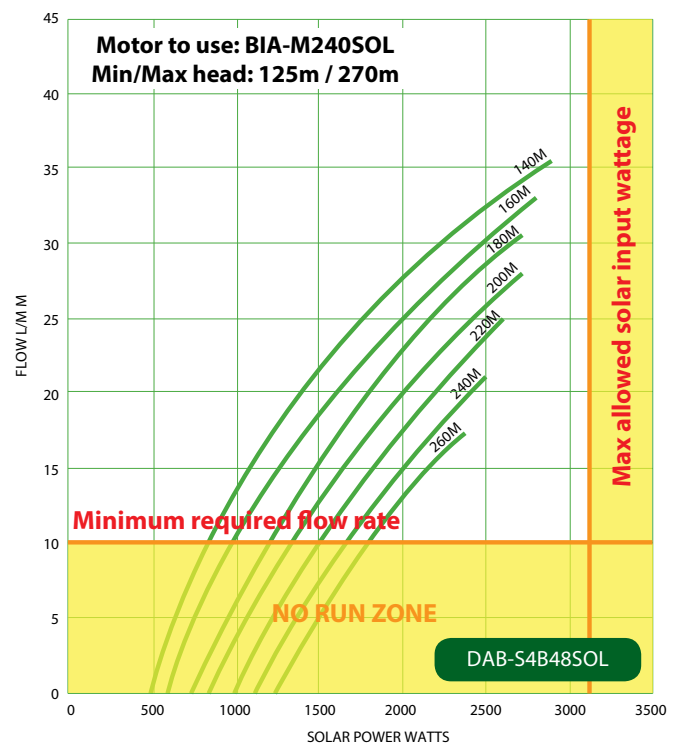
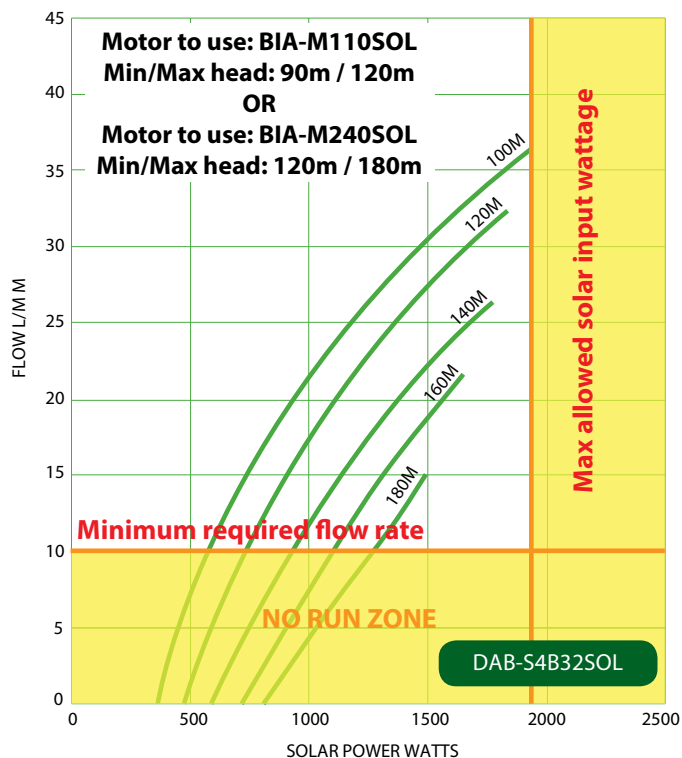
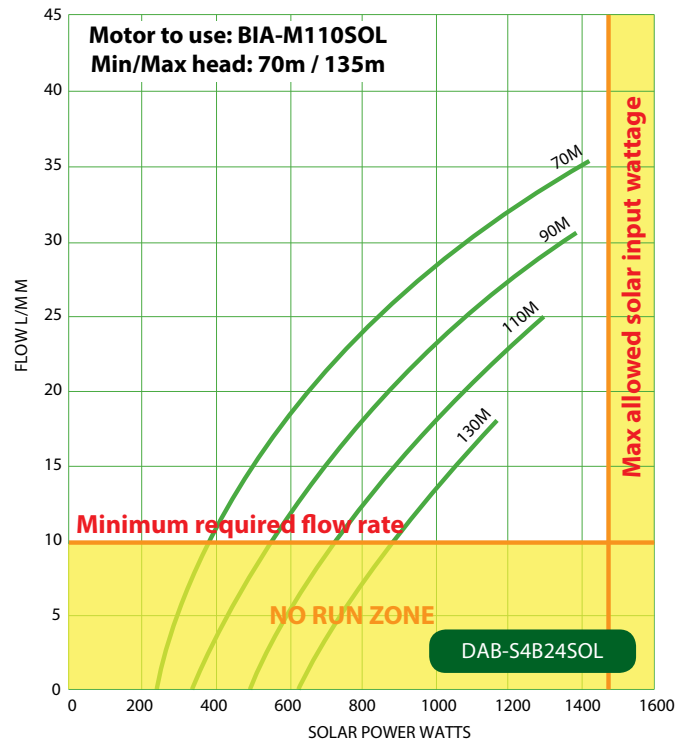
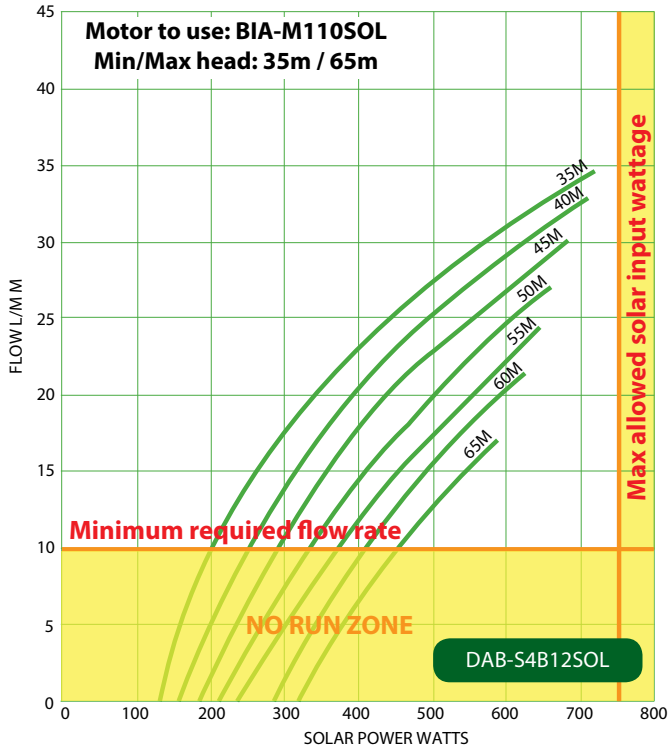


4" BOREHOLE PUMPS - SOLAR POWERED

Performance Curves

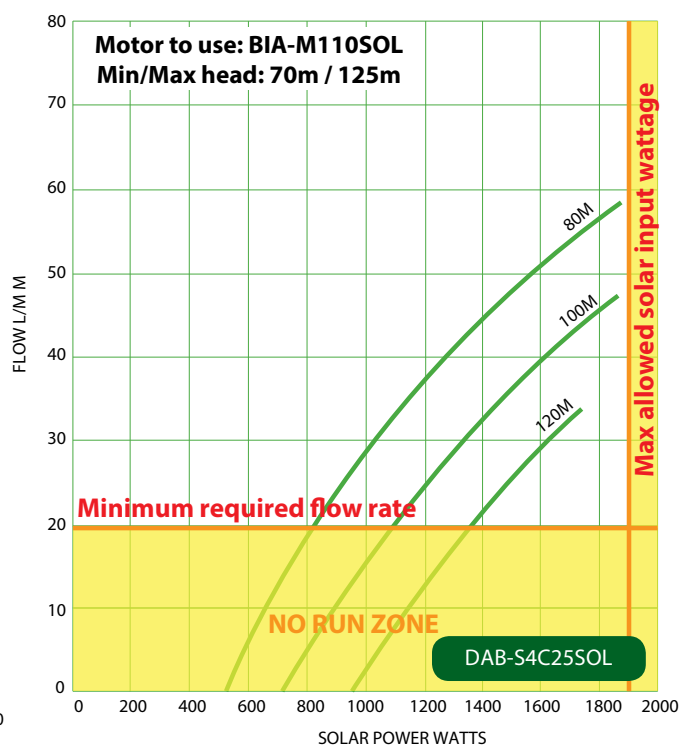
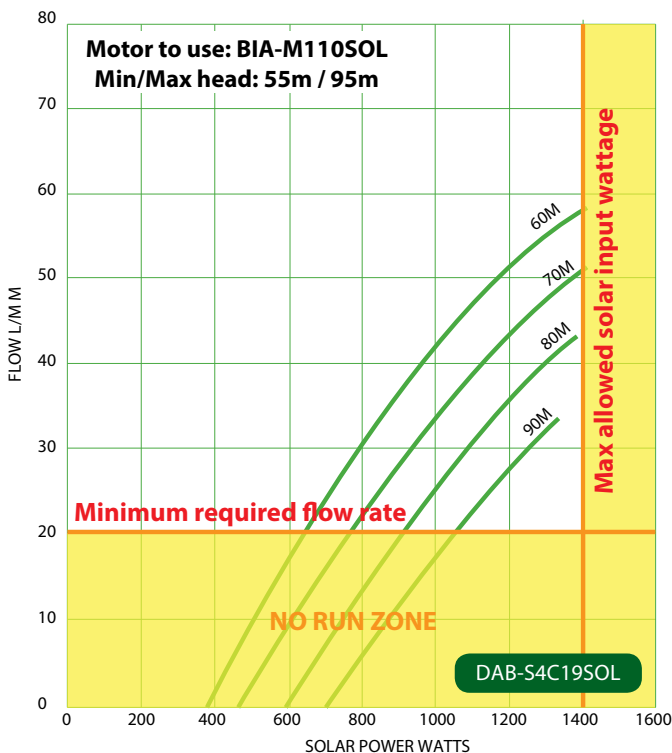
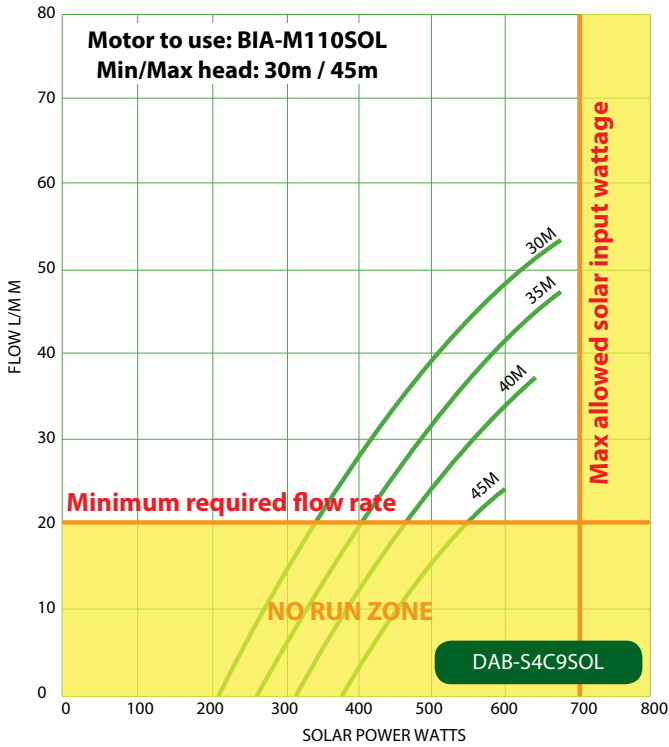


4" BOREHOLE PUMPS - SOLAR POWERED



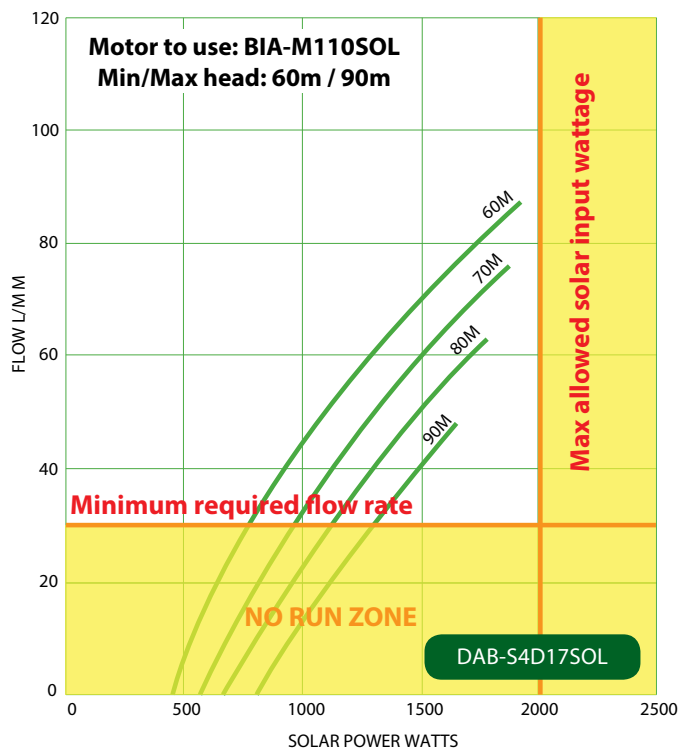
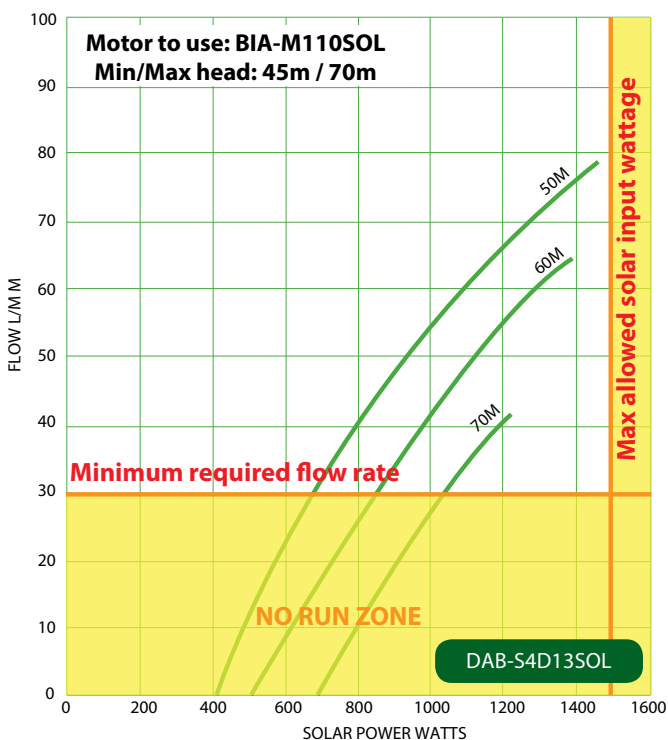
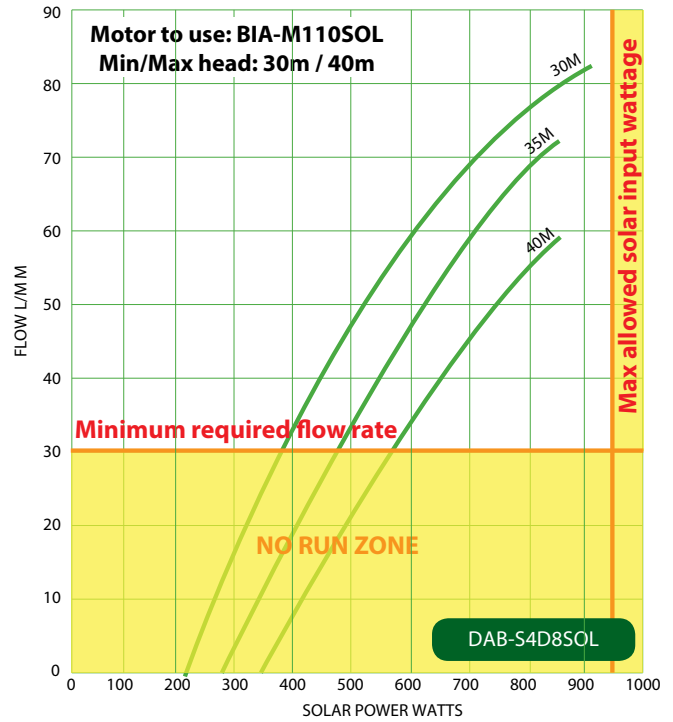
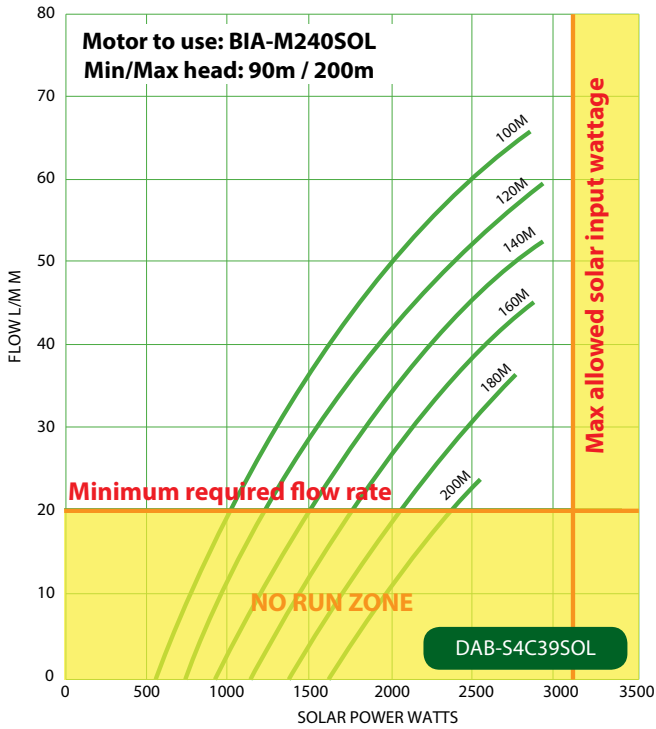
4" BOREHOLE PUMPS - SOLAR POWERED

Performance Curves



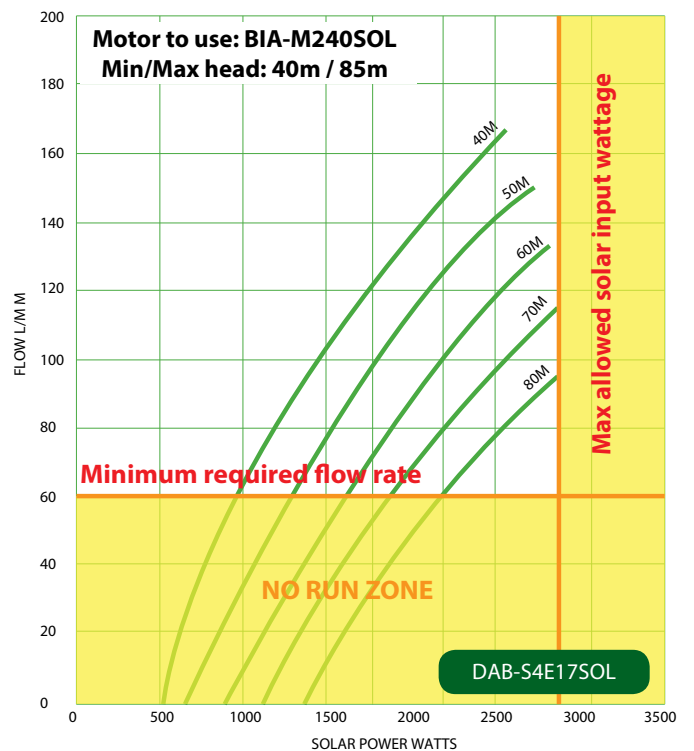
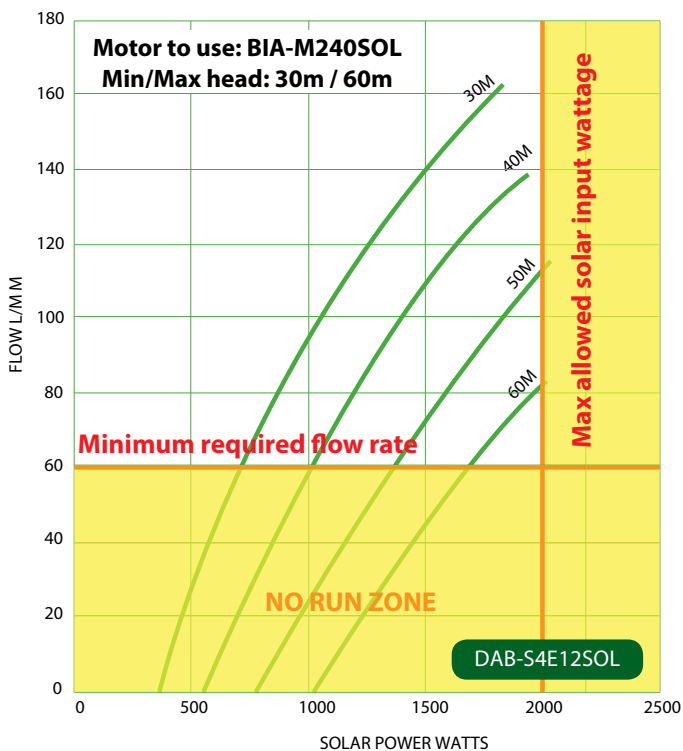
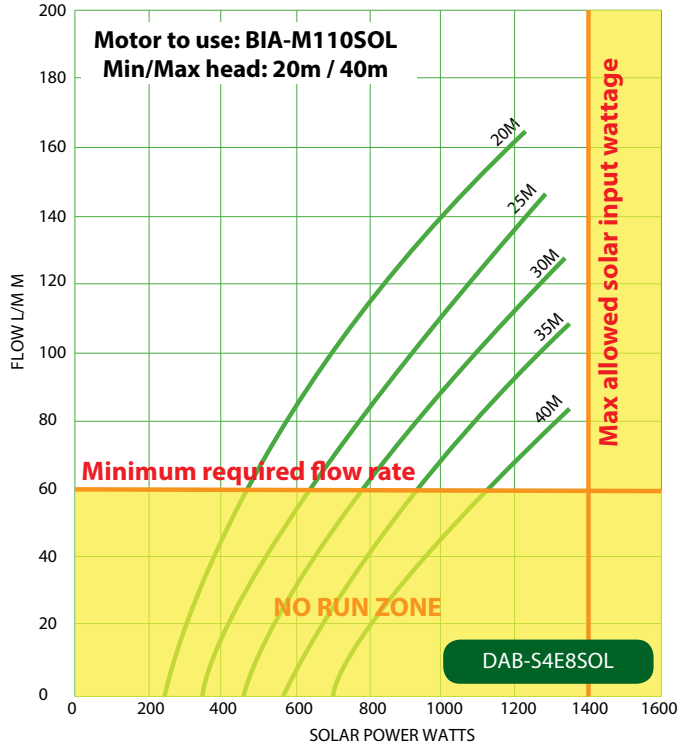
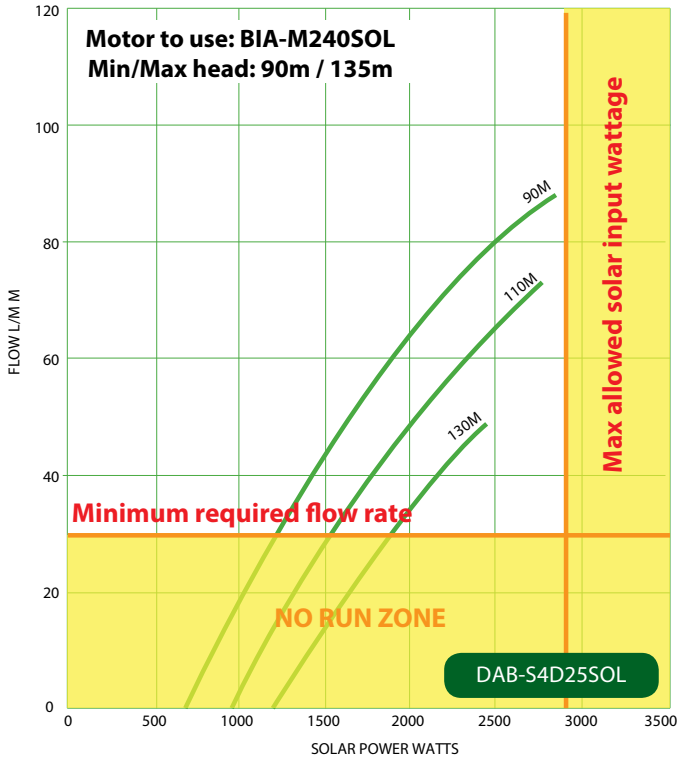
4" BOREHOLE PUMPS - SOLAR POWERED

Performance Curves



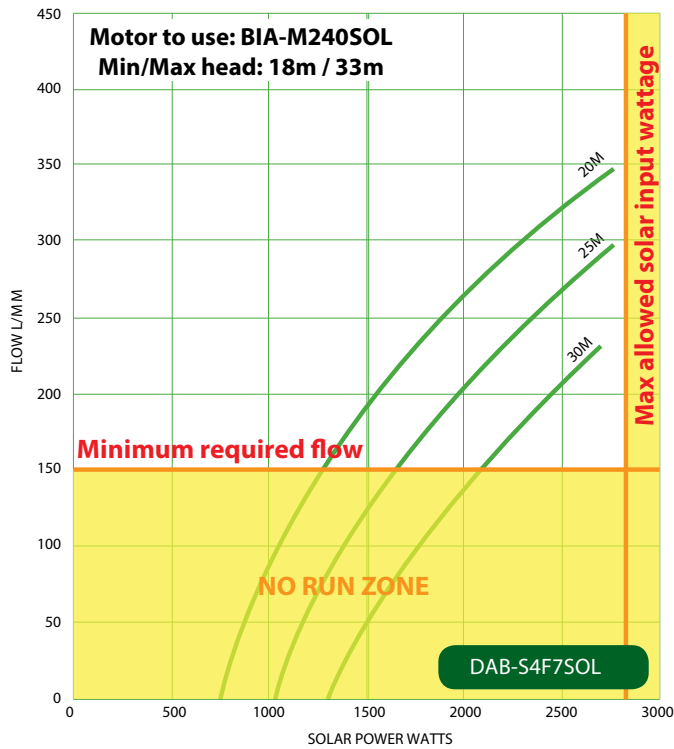
4" BOREHOLE PUMPS - SOLAR POWERED

Performance Curves



4" BOREHOLE PUMPS - SOLAR POWERED

Performance Curves



TESTIMONIAL

"The pump was installed several months ago and has been run predominantly on DC for that time. It successfully runs our garden pop up sprays, and maintains the water level easily in our 25,000-litre tank."

The system also has run a small 5 spray irrigation line for stock feed. It has even pumped some water into the tank at 7am on a foggy morning on DC power.

I would have no hesitation in recommending this system, and happy for prospective purchasers to look at the system or call me."

*Bruce Payne
Moree Pumps Irrigation & Plumbing*



4" BOREHOLE PUMPS VARIABLE FREQUENCY DRIVE

The iSUB22 is a 240V single phase input variable frequency drive for the control of pumps up to 1.5kW, 240V 3 phase.

The iSUB37 is a 240V single phase input variable frequency drive for the control of pumps up to 3.0kW, 240V 3 phase.

Particularly suited to borehole pumps, Variable frequency drives are mounted in an outdoor enclosure with independent fan cooling and inspection window. Also included is 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:

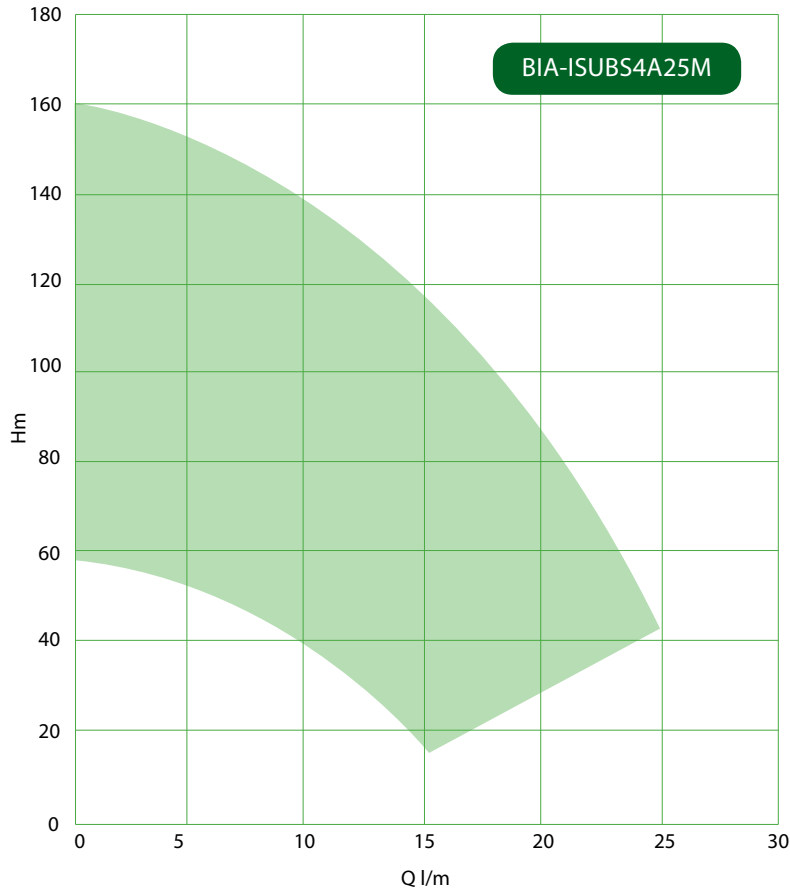
- Dry run protection
- High and low voltage protection
- Input and output short circuit protection
- High and low water pressure protection
- Input and output phase failure protection
- Over temperature protection
- Sensor fault protection

Standard Pump kits are also available using iSUB22, 1" stainless manifold, 18 litre pressure tank, pressure transducer and pressure gauge along with a selection of 0.75 kW and 1.5 kW DAB S4 Series 4" Borehole Pumps.



4" BOREHOLE PUMPS

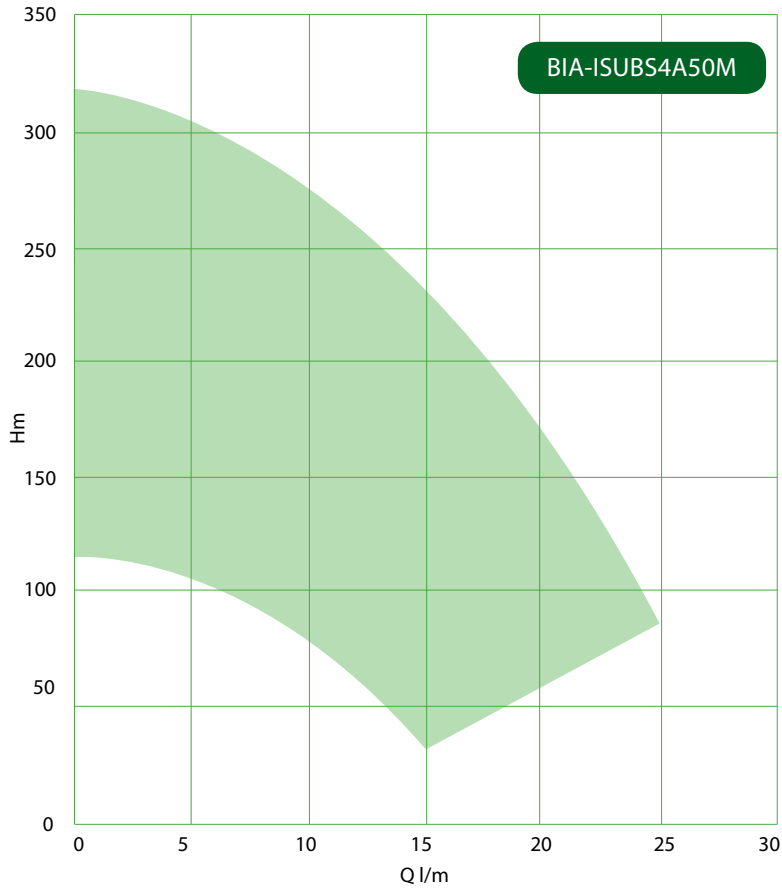
Variable Frequency Drive - Curves



Depth or lift in m																	
metres	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	SHUT
0					25	23	22	21	19	18	16	14	12	9	6		159.4
10				25	23	22	21	19	18	16	14	12	9	6			159.4
20			25	23	22	21	19	18	16	14	12	9	6				159.4
30		25	23	22	21	19	18	16	14	12	9	6					159.4
40	25	23	22	21	19	18	16	14	12	9	6						159.4
50	23	22	21	19	18	16	14	12	9	6							159.4
60	22	21	19	18	16	14	12	9	6								159.4
70	21	19	18	16	14	12	9	6									159.4
80	19	18	16	14	12	9	6										159.4
90	18	16	14	12	9	6											159.4
100	16	14	12	9	6												159.4
110	14	12	9	6													159.4
120	12	9	6														159.4
130	9	6															159.4
140	6																159.4
150																	litres/min.
160																	159.4
SHUT	149.4	139.4	129.4	119.4	109.4	99.4	89.4	79.4	69.4	59.4	49.4	39.4	29.4	19.4	9.4		

4" BOREHOLE PUMPS

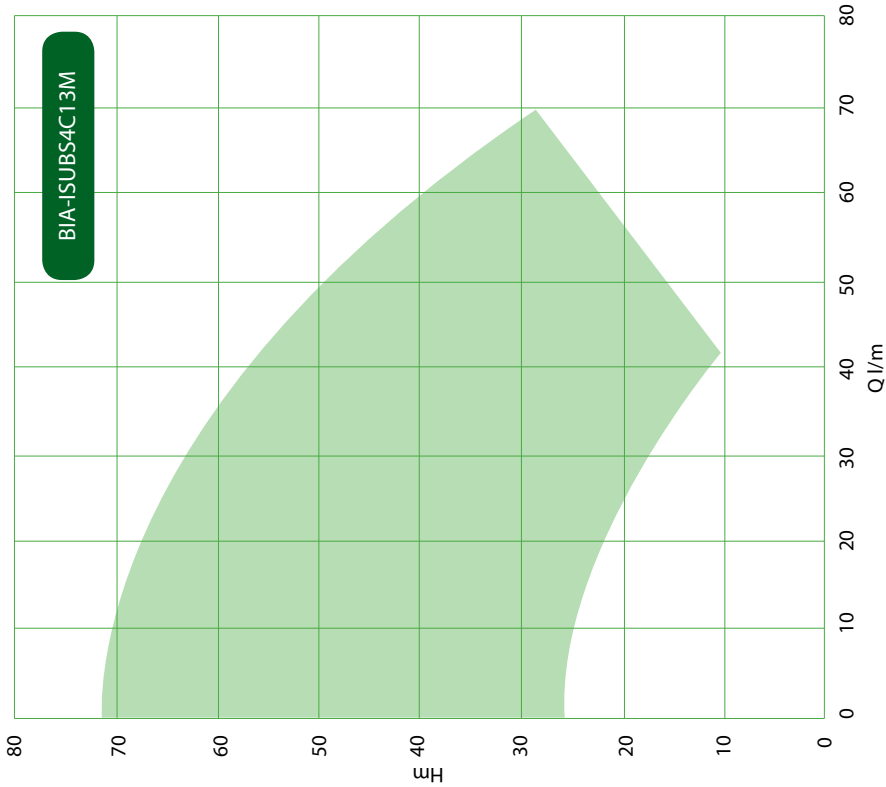
Variable Frequency Drive - Curves



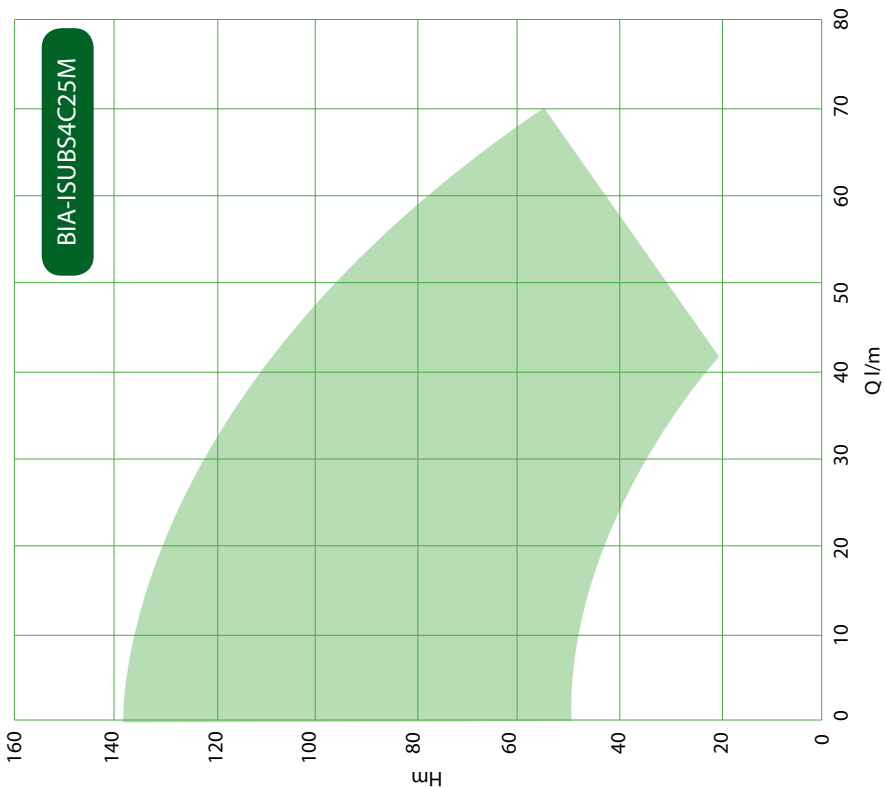
Depth or lift in m																	
metres	20	40	60	80	100	120	140	160	180	200	220	240	260	280	300	320	SHUT
0						23	22	21	19	17	16	14	12	9	6		318.8
20					23	22	21	19	17	16	14	12	9	6			318.8
40				23	22	21	19	17	16	14	12	9	6				318.8
60			23	22	21	19	17	16	14	12	9	6					318.8
80		23	22	21	19	17	16	14	12	9	6						318.8
100	23	22	21	19	17	16	14	12	9	6							318.8
120	22	21	19	17	16	14	12	9	6								318.8
140	21	19	17	16	14	12	9	6									318.8
160	19	17	16	14	12	9	6										318.8
180	17	16	14	12	9	6											318.8
200	16	14	12	9	6												318.8
220	14	12	9	6													318.8
240	12	9	6														318.8
260	9	6															318.8
280	6																318.8
300																	318.8
320																	318.8
SHUT	298.8	278.8	258.8	238.8	218.8	198.8	178.8	158.8	138.8	118.8	98.8	78.8	58.8	38.8	18.8		

4" BOREHOLE PUMPS

Variable Frequency Drive - Curves



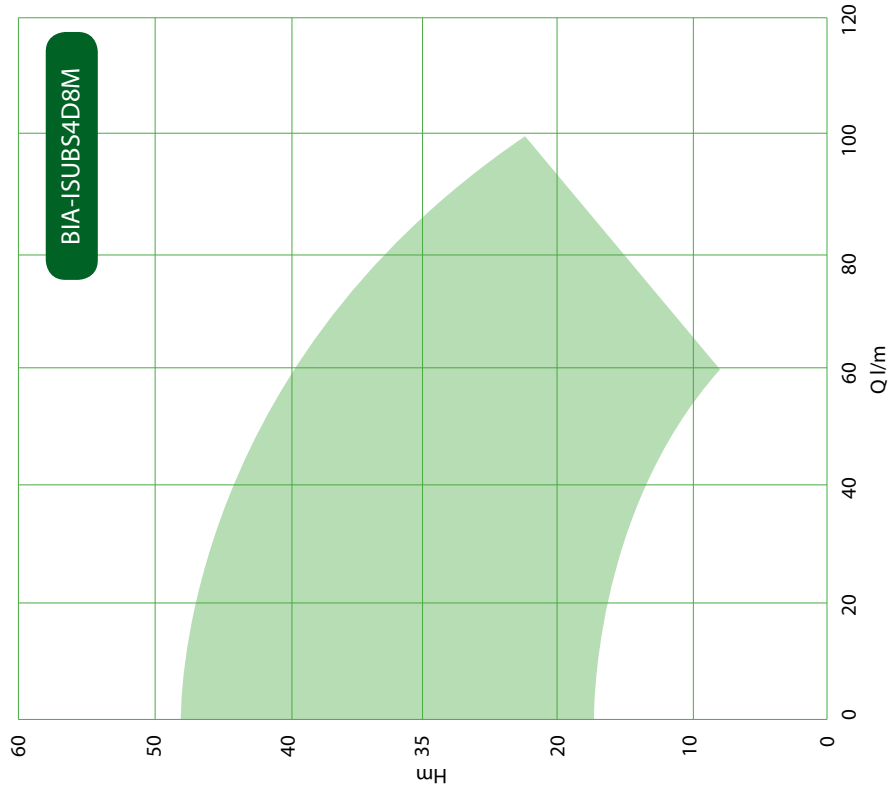
Depth or lift in m	Flow rate (l/m)											
	10	20	30	40	50	60	70	SHUT				
metres	10	20	30	40	50	60	70	SHUT			71.5	
		69	59	51	37	13						71.5
	69	59	51	37	13							71.5
	59	51	37	13								71.5
	51	37	13									71.5
	37	13										71.5
	13											71.5
												71.5
												71.5
SHUT	61.5	51.5	41.5	31.5	21.5	11.5	1.5					



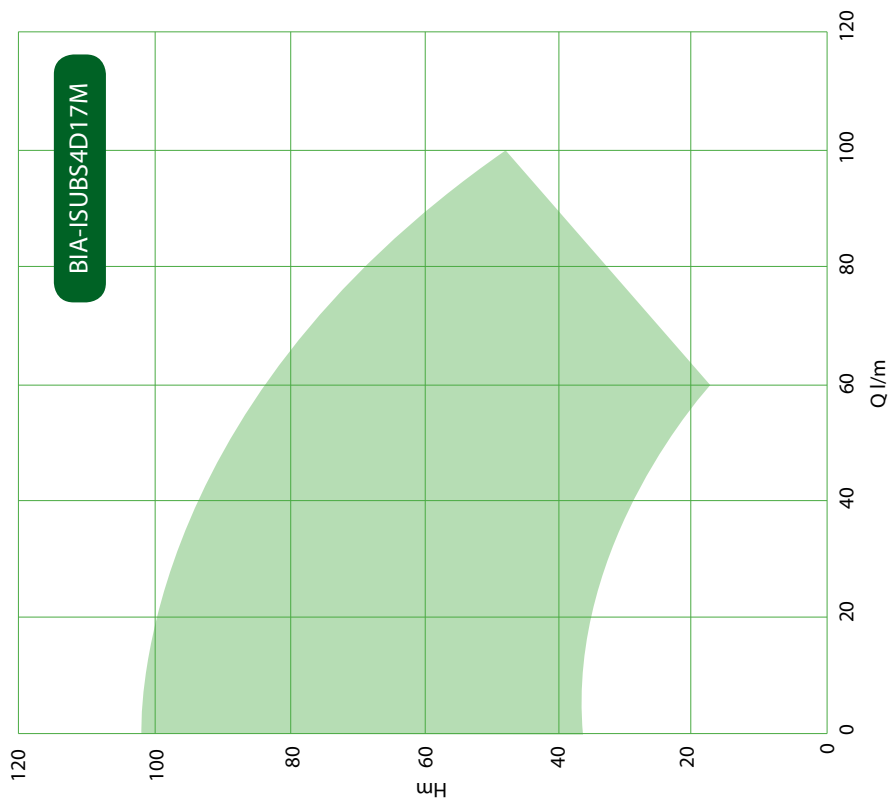
Depth or lift in m	Flow rate (l/m)											
	20	40	60	80	100	120	140	SHUT				
metres	20	40	60	80	100	120	140	SHUT			137.5	
	67	58	47	33								137.5
	67	58	47	33								137.5
	58	47	33									137.5
	47	33										137.5
	33											137.5
												137.5
												137.5
												137.5
SHUT	117.5	97.5	77.5	57.5	37.5	17.5						

4" BOREHOLE PUMPS

Variable Frequency Drive - Curves



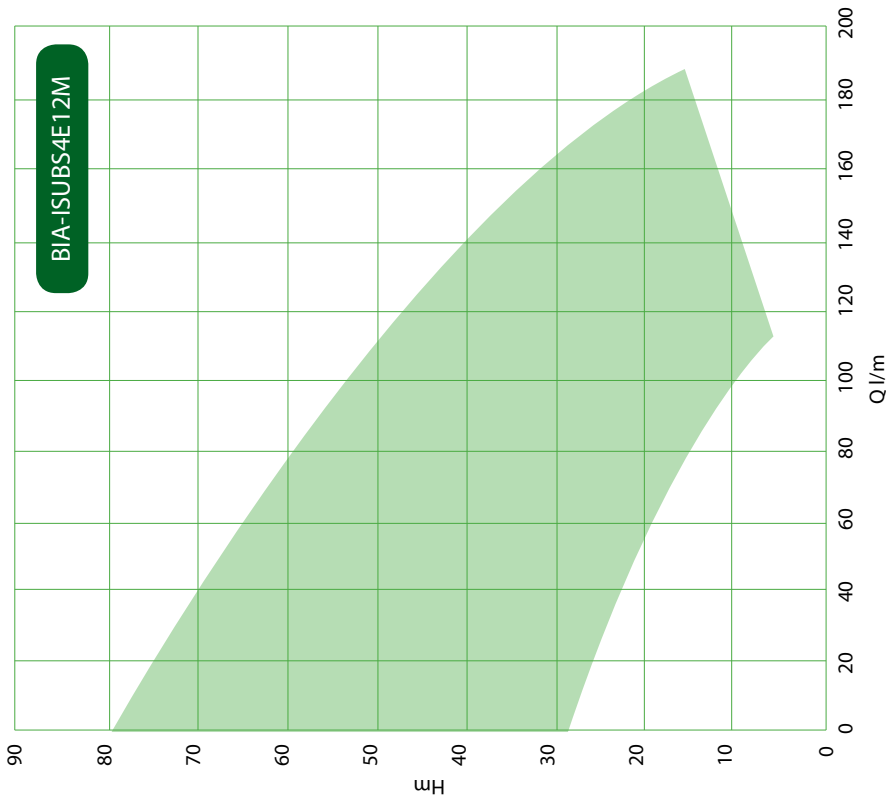
Depth or lift in m		10	15	20	25	30	35	SHUT
metres	10		90	85	72	60	35	48
	15	90	85	72	60	35		48
	20	85	72	60	35			48
	25	72	60	35				48
	30	60	35					48
	35	35						48
	SHUT	38	33	28	23	18	13	



Depth or lift in m		20	30	40	50	60	70	SHUT
metres	20		100	88	79	65	50	102
	30	100	88	79	65	50		102
	40	88	79	65	50			102
	50	79	65	50				102
	60	65	50					102
	70	50						102
	SHUT	82	72	62	52	42	32	

4" BOREHOLE PUMPS

Variable Frequency Drive - Curves



Depth or lift in m	Flow Rate (litres/min.)									
	10	20	30	40	50	60	70	SHUT	SHUT	SHUT
10	182	165	140	115	83	50				
20	165	140	115	83	50					81
30	140	115	83	50						81
40	115	83	50							81
50	83	50								81
60	50									81
70										81
SHUT	72	62	52	42	32	22	12			



ACCESSORIES

DAB 4" Tesla Motor Control Boxes

Electrical control box for operation of single-phase submersible electric pumps, containing manually resettable thermal protection, capacitor, and terminals for the connection of a pressure switch/float switch.



DAB 4" TESLA PSC MOTOR CONTROL BOXES - 2 YEAR TESLA WARRANTY		
TES-CBOX037	709836	Control Box TESLA, 0.37kW, 0.5hp.
TES-CBOX055	709837	Control Box TESLA, 0.55kW, 0.75hp.
TES-CBOX075	709838	Control Box TESLA, 0.75kW, 1.0hp.
TES-CBOX110	709839	Control Box TESLA, 1.1kW, 1.5hp.
TES-CBOX150	709840	Control Box TESLA, 1.5kW, 2.0hp.
TES-CBOX220	709841	Control Box TESLA, 2.2kW, 3.0hp.

DAB S4 Series 4" Tesla 2 Wire Motors

4" submersible asynchronous two-pole electric motor made entirely of AISI 304 stainless steel for the parts in contact with water. The thrust block and bushes are cooled and lubricated with a mixture of water and glycol. The rotor is mounted on a Kingsbury self-centering thrust block designed to withstand significant axial loads. Stator housed in an airtight AISI 304L stainless steel casing with internal sleeve and outer casing and flanges.

The cable is ACS, WRAS and KTW certified. The motor is suitable for use with variable frequency drive (30 Hz - 50Hz).

The capacitor is included in the Noryl cartridge box. Thermal protection included in the motor of 0,5 HP to 1,5 HP in the 50 Hz version.



DAB S4 SERIES 4" TESLA 2 WIRE MOTORS - 2 YEAR TESLA WARRANTY		
TES-M037S2W	709881	TESLA Motor 240V 2 Wire, 0.37kW, 0.5hp.
TES-M055S2W	709884	TESLA Motor 240V 2 Wire, 0.55kW, 0.75hp.
TES-M075S2W	709887	TESLA Motor 240V 2 Wire, 0.75kW, 1.0hp.
TES-M110S2W	709890	TESLA Motor 240V 2 Wire, 1.1kW, 1.5hp.

* Note: Tesla psc motors require Tesla psc control boxes

ACCESSORIES CONTINUED...

Borehole Pump Accessories

Bianco iPROTECT



Tesla Guardian ME



BOREHOLE PUMP ACCESSORIES		
BIA-IPROTECT	802697	Pump Protection Control 240V, 0.37-2.2kW
TES-GUARDIAN-ME	709879	Problems Management Control 240V 18A, 2.2kW, 3.0hp.
TES-GUARDIAN-1E	709877	Problems Management Control 415V 9A, 3.0kW, 4.0hp.
TES-GUARDIAN-2E	709878	Problems Management Control 415V 18A, 7.5kW, 10.0hp.
DAB-SBC	701941	Bore Cap 1-1/2"
DAB-SDC2.5	701948	Electrical Drop Cable 2.5mm Waterproof to 100m per metre
DAB-SSR	702722	Synthetic Cable Rope per metre
TES-FASTKITCABLE	709876	Adaptor Franklin to Tesla
TES-MOTCABLE1.7	709908	TESLA Flat Cable for Motor 1.5m
TES-MOTCABLE2.7	709909	TESLA Flat Cable for Motor 2.5m
DAB-JKIT	701610	Splice Kit for 2.5mm Cable



For selection online view the iSolar Selector at <http://isolarselector.whiteint.com.au/>

iSOLAR SELECTION MATRIX

HEAD M	ISOLAR BOREPUMP SELECTION BASED ON AVERAGE 6 SOLAR HOURS/DAY SUMMER, 4 SOLAR HOURS/DAY WINTER												LITRES/MIN, LITRES/DAY											
	400 W		600 W		800 W		1000 W		1200 W		1400 W		1600 W		2000 W		2400 W		2800 W		3200 W			
	SUMMER	WINTER	SUMMER	WINTER	SUMMER	WINTER	SUMMER	WINTER	SUMMER	WINTER	SUMMER	WINTER	SUMMER	WINTER	SUMMER	WINTER	SUMMER	WINTER	SUMMER	WINTER	SUMMER	WINTER		
70						S4C25SOL 27 9720	S4C25SOL 36 12960	S4C25SOL 43 15480	S4C25SOL 49 17640	S4C25SOL 55 19800	S4C25SOL 65 23400	S4C25SOL 76 27360	S4C25SOL 88 24480	S4C25SOL 91 32760	S4C25SOL 112 40320									
70						S4D17SOL 32 11520	S4D17SOL 44 15840	S4D17SOL 56 20160	S4D17SOL 65 23400	S4D17SOL 76 27360	S4D17SOL 88 24480	S4D17SOL 91 32760	S4D17SOL 112 40320	S4D17SOL 112 40320	S4D17SOL 112 40320									
70																								
80	S4A18SOL 7 2520	S4A18SOL 13 4680	S4A18SOL 13 4680	S4A18SOL 13 4680	S4A18SOL 13 4680																			
80		S4B24SOL 15 5400	S4B24SOL 21 7560	S4B24SOL 26 9360	S4B24SOL 29 10440	S4B24SOL 33 11880	S4B24SOL 35 12600	S4B24SOL 37 13320	S4B24SOL 37 13320	S4B24SOL 37 13320	S4B24SOL 37 13320	S4B24SOL 37 13320	S4B24SOL 37 13320	S4B24SOL 37 13320	S4B24SOL 37 13320									
80						S4C19SOL 25 9000	S4C19SOL 35 12600	S4C19SOL 43 15480	S4C19SOL 49 17640	S4C19SOL 55 19800	S4C19SOL 65 23400	S4C19SOL 76 27360	S4C19SOL 88 24480	S4C19SOL 91 32760	S4C19SOL 112 40320									
80						S4C25SOL 20 7200	S4C25SOL 30 10800	S4C25SOL 37 13320	S4C25SOL 44 15840	S4C25SOL 50 18000	S4C25SOL 55 19800	S4C25SOL 65 23400	S4C25SOL 76 27360	S4C25SOL 88 24480	S4C25SOL 91 32760									
80						S4D17SOL 33 11880	S4D17SOL 46 16560	S4D17SOL 56 20160	S4D17SOL 65 23400	S4D17SOL 76 27360	S4D17SOL 88 24480	S4D17SOL 91 32760	S4D17SOL 112 40320	S4D17SOL 112 40320	S4D17SOL 112 40320									
80																								
90						S4A18SOL 11 3960	S4A18SOL 11 3960	S4A18SOL 11 3960	S4A18SOL 11 3960	S4A18SOL 11 3960	S4A18SOL 11 3960	S4A18SOL 11 3960	S4A18SOL 11 3960	S4A18SOL 11 3960	S4A18SOL 11 3960									
90	S4A36SOL 7 2520	S4A36SOL 11 3960	S4A36SOL 11 3960	S4A36SOL 11 3960	S4A36SOL 11 3960	S4A36SOL 18 6480	S4A36SOL 21 7560	S4A36SOL 21 7560	S4A36SOL 21 7560	S4A36SOL 21 7560	S4A36SOL 21 7560	S4A36SOL 21 7560	S4A36SOL 21 7560	S4A36SOL 21 7560	S4A36SOL 21 7560									
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90		S4B32SOL 12 4320	S4B32SOL 18 6480	S4B32SOL 23 8280	S4B32SOL 26 9360	S4B32SOL 29 10440	S4B32SOL 29 10440	S4B32SOL 29 10440	S4B32SOL 29 10440	S4B32SOL 29 10440	S4B32SOL 29 10440	S4B32SOL 29 10440	S4B32SOL 29 10440	S4B32SOL 29 10440	S4B32SOL 29 10440									
90						S4C19SOL 28 10080	S4C19SOL 34 12240	S4C19SOL 43 15480	S4C19SOL 49 17640	S4C19SOL 55 19800	S4C19SOL 65 23400	S4C19SOL 76 27360	S4C19SOL 88 24480	S4C19SOL 91 32760	S4C19SOL 112 40320									
90						S4C25SOL 23 8280	S4C25SOL 32 11520	S4C25SOL 37 13320	S4C25SOL 44 15840	S4C25SOL 50 18000	S4C25SOL 55 19800	S4C25SOL 65 23400	S4C25SOL 76 27360	S4C25SOL 88 24480	S4C25SOL 91 32760									
90						S4C39SOL 24 8640	S4C39SOL 32 11520	S4C39SOL 37 13320	S4C39SOL 43 15480	S4C39SOL 49 17640	S4C39SOL 55 19800	S4C39SOL 65 23400	S4C39SOL 76 27360	S4C39SOL 88 24480	S4C39SOL 91 32760									
90																								
90																								

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.

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iSOLAR SELECTION MATRIX

HEAD M	ISOLAR BOREPUMP SELECTION BASED ON AVERAGE 6 SOLAR HOURS/DAY SUMMER, 4 SOLAR HOURS/DAY WINTER												LITRES/MIN, LITRES/DAY											
	400 W		600 W		800 W		1000 W		1200 W		1400 W		1600 W		2000 W		2400 W		2800 W		3200 W			
	SUMMER	WINTER	SUMMER	WINTER	SUMMER	WINTER	SUMMER	WINTER	SUMMER	WINTER	SUMMER	WINTER	SUMMER	WINTER	SUMMER	WINTER	SUMMER	WINTER	SUMMER	WINTER	SUMMER	WINTER		
130			S4A365OL S4A365OL	14	14	5040	14	14	6120	17	17	6840	19	19										
130			S4B245OL S4B245OL	13	13	4680	13	13	6120	17	17	6840	19	19										
130			S4B325OL S4B325OL	15	15	5400	15	15	6480	18	18	7200	22	22										
130			S4B485OL S4B485OL	11	11	3960	11	11	6480	19	19	7200	22	22										
130			S4C395OL S4C395OL	20	20	7200	20	20	7200	27	27	8100	34	34										
140			S4A365OL S4A365OL	13	13	4680	13	13	5760	16	16	6480	18	18										
140			S4B325OL S4B325OL	13	13	4680	13	13	5760	17	17	6480	20	20										
140			S4B485OL S4B485OL	13	13	4680	13	13	6120	17	17	6840	20	20										
140			S4C395OL S4C395OL	20	20	7200	20	20	7200	27	27	8100	34	34										
150			S4A365OL S4A365OL	12	12	4320	12	12	5040	14	14	5760	17	17										
150			S4B325OL S4B325OL	10	10	3600	10	10	5040	14	14	5760	18	18										
150			S4B485OL S4B485OL	11	11	3960	11	11	5400	15	15	6120	19	19										
150			S4C395OL S4C395OL	20	20	7200	20	20	7200	27	27	8100	34	34										

For selection online view the iSolar Selector at <http://isolarselector.whiteint.com.au/>

iSOLAR SELECTION MATRIX

HEAD M	ISOLAR BOREPUMP SELECTION BASED ON AVERAGE 6 SOLAR HOURS/DAY SUMMER, 4 SOLAR HOURS/DAY WINTER												LITRES/MIN, LITRES/DAY											
	400 W		600 W		800 W		1000 W		1200 W		1400 W		1600 W		2000 W		2400 W		2800 W		3200 W			
	SUMMER	WINTER	SUMMER	WINTER	SUMMER	WINTER	SUMMER	WINTER	SUMMER	WINTER	SUMMER	WINTER	SUMMER	WINTER	SUMMER	WINTER	SUMMER	WINTER	SUMMER	WINTER	SUMMER	WINTER		
160			S4A36SOL S4A36SOL	S4A36SOL S4A36SOL	S4A36SOL S4A36SOL	S4A36SOL S4A36SOL	S4A36SOL S4A36SOL	S4A36SOL S4A36SOL	S4A36SOL S4A36SOL	S4A36SOL S4A36SOL	S4A36SOL S4A36SOL	S4A36SOL S4A36SOL	S4A36SOL S4A36SOL	S4A36SOL S4A36SOL	S4A36SOL S4A36SOL	S4A36SOL S4A36SOL	S4A36SOL S4A36SOL	S4A36SOL S4A36SOL	S4A36SOL S4A36SOL	S4A36SOL S4A36SOL	S4A36SOL S4A36SOL	S4A36SOL S4A36SOL		
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200																								
220																								
240																								
260																								

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