

HIGH SPEED DEEP WELL PUMP

DYU
WATER SOLUTION





DYU water solution company: Precision Engineering for a Sustainable Future in Submersible Motors. Since its inception in 1987, DYU has established itself as a global frontrunner in the manufacturing and commercialization of 3, 4 and 6-inch submersible motors. DYU, located in a prestigious production center in the western part of Germany, says its mission as providing an unrivaled range of submersible motor solutions. This extensive range includes both traditional oil-filled rewindable motors and advanced encapsulated-resin-filled options.

Nowadays competitive landscape, where environmental responsibility is paramount, DYU stands out through its unwavering commitment to innovation. The company consistently enhances its product line, pioneering new Smart and “Energy- Saving” motors, such as the recently introduced high-speed 3-inch model. This dedication to progress is underpinned by a deep-seated belief in continuous improvement. DYU rigorously updates its skills and implements cutting-edge work tools, ensuring all production processes adhere to the highest quality standards. Robust monitoring, stringent safety protocols, unwavering compliance with industry norms, profound environmental awareness, and the attainment of various certifications form the bedrock of DYU's comprehensive quality control system.

To customers:

Firstly, thanks for choosing our submersible pumps. Before installation, please read the manual carefully and make sure you have understood all the content well, it will help you to install, to run and to maintain the product correctly. Should there be any problems unsolved properly, please contact us for after sales service, we will help and solve the problems in a short time.

Warning symbols used in this manual:



Before installation, please read the manual carefully



ELECTRIC DANGER

Indicates a hazardous situation which, if not avoided, will result in death or serious personal injury.



DANGER

Indicates a hazardous situation which, if not avoided, will result in death or serious personal injury or significant property loss.



WARNING

Indicates a hazardous situation which, if not avoided, may result in death or serious personal injury or significant property loss.



CAUTION

Indicates a hazardous situation which, if not avoided, may result in minor or moderate personal injury, or property loss.



If do not comply with these instructions, may result in equipment failure or damage

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1. Warning

Strictly comply with below clauses, otherwise it will result in personal injury, significant property loss, equipment failure or damage.

1.1 Before running the submersible pump, please read the manual carefully.

1.2 The submergible pump must be earthing.

1.3 Dry running without water is prohibited.

1.4 Test running the submersible pump before normally running.

1.5 Max. submersible depth cannot be more 150m (some models are 70m max, please read the nameplate on pump), minimum submersible depth cannot be less than 1m.

1.6 Prohibit to pull the cable when lifting or moving the pump, change the cable immediately if there is any damage.

1.7 Prohibit to contact the cable with high temperature object, avoid electric shock injury.

1.8 Power supply should be installed with leakage protective device.

1.9 Before carrying out any operation on the pump (assembly, disassembly, inspection, transport, maintenance, cleaning, etc.), ensure that the power supply is disconnected and protected, avoid the power being reconnected.

1.10 Rotation direction must be same as marking after connecting the controller with the pump.

1.11 Submersible pump must match the built-out controller code.

1.12 The deep well pipe must be straight, smooth, no bulge or misalignment.

2. Application fields, Application limits and Storage

2.1 Application fields: Lifting water from well or pool, Resident water supplying, Public water supplying, sprinkling, irrigation, Industry pumping, etc.



DANGER

Prohibit to pump the explosive and flammable liquids (gasoline, diesel, kerosene, etc.).



ELECTRIC SHOCK DANGER When the pump used in swimming pool or pond, it may result in mortal danger when people or animals enter the swimming pool or pond. The pump must not be used when people or animals are in the water.

2.2 Application limits Voltage: single phase: 150–265V;

Frequency: 50Hz/60Hz

Ambient temperature: 1°C–40°C

PH value: 6.5–8.5

Max. permissible quantity of sand: 100 g/m³

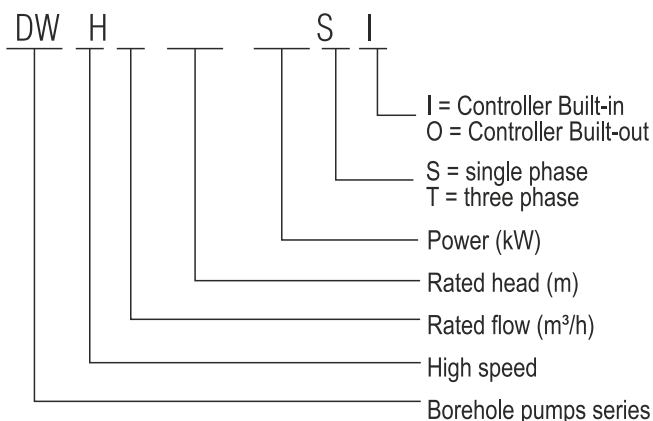
Maximum particle diameter less than 1 mm

2.3 Storage:

Storage temperature: 10°C – +60°C

Storage environment: The pump and controller should be stored in dry and ventilated environment, sunscreen and rainproof precautions should be taken when outdoor storage. In winter or when the ambient temperature is below 0°C, this product must be stored in an indoor environment above 10°C.

3. Model instruction



4. Installation and Operation instruction

4.1 Electrical connection

4.1.1 Warning



ELECTRIC SHOCK DANGER

- Improper electrical connection may result in mortal electric shock accident, electrical connection should be operated by professional electrician, qualified by relative certificates.
- Power voltage must be same as marking on the nameplate.
- Pump must be earthing correctly.
- Before carrying out any operation on the pump, please disconnect the power supply, and make sure that the power will not be reconnected accidentally.
- Before disassembling the cover of controller and pump, ensure the power supply has been disconnected.
- Power supply should be installed with leakage protective device.
- Cable damaged may result in mortal injury, immediate action to change the damaged cable must be operated by qualified professional electrician.

4.1.2 Built-out controller connection

4.1.2.1 Markings on built-out controller

4.1.2.2 Installation requirements for built-out controller

1. Ambient temperature: 1°C—40°C
2. Ambient humidity: 5%—90%
3. Controller should be installed in dry ventilated and well-heating dissipation place, the inlet and outlet of controller should be unimpeded.
4. Controller cannot be sprayed with water.
5. Controller should keep distant from the source of electromagnetic interference, flammable and explosive objects.
6. Regularly examine and clean surrounding objects.

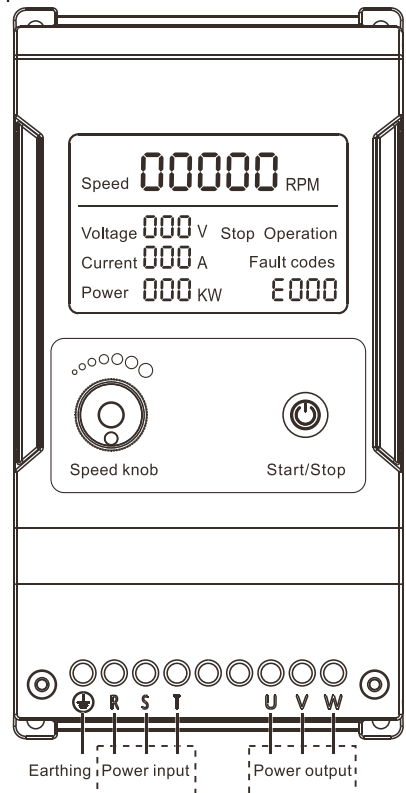


fig. 4-1

4.1.2.3 Connection ways for built-out controller Before connection, please carefully read the data on the controller's nameplate, ensure that the controller matching the power types:

1. When matching power type is AC single phase, connect the AC single phase with ends of controller power input (R, S). Then connect motor wires (Brown, Blue, Black) with motor output ends (U, V, W), strictly follow below connections, DO NOT connect the wrong colors:
 - Motor wire Brown connecting end U of controller.
 - Motor wire Blue connecting end V of controller.
 - Motor wire Black connecting end W of controller.
 - Ground connection with controller.
2. When matching power type is AC three phase, connect the AC three phase with ends of controller power input (R, S, T). Then connect motor wires (Brown, Blue, Black) with motor output ends (U, V, W), strictly follow below connections, DO NOT connect the wrong colors:
 - Motor wire Brown connecting end U of controller.
 - Motor wire Blue connecting end V of controller.
 - Motor wire Black connecting end W of controller.
 - Ground connection with controller.

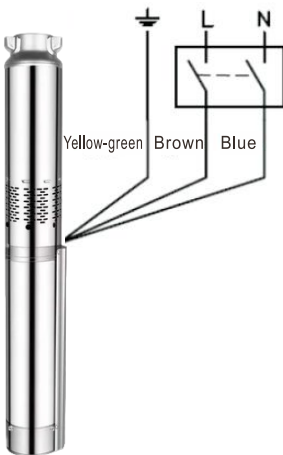


fig. 4-2

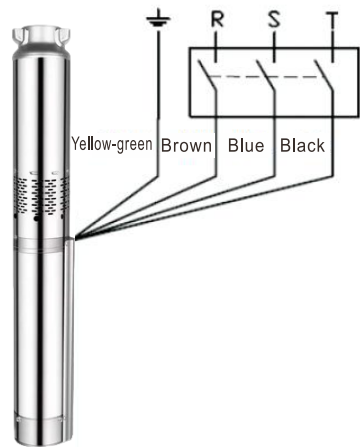


fig. 4-3

4.1.3 Built-in controller connection

4.1.3.1 Single phase built-controller Connect the pump cable wires (Brown, Blue) with AC single phase, yellow-green connecting ground. See fig. 4-2

4.1.3.2 Three phase built-controller

1. Built-in controller without function (Four cores cable line)Connect the pump cable wires (Brown, Blue, Black) with AC three phase, yellow-green connecting ground.See fig. 4-3

4.1.4 Cable wires size selection



DANGERToo small size of cable wires may cause the cable heating seriously, even result in fire disaster.

Cable wires size is configured according to the pump’s power and the length of cable, see below table:

Size (mm²)												
Volt.(V) /Power(kW)	Length (m)	0.75	1	1.5	2	2.5	3	4	6	10	16	25
		0.75	1.1	1.5	2.2	2.5	3	4	6	10	16	25
AC220	0.75	58	78	117	156	195	234					
	1.1		53	80	110	140	164	220				
	2.2				55	70	82	110	165			

- 4.2 Positional requirementsThe pump is suitable for vertical as well as horizontal installation, however, the pump shaft must never fall below the horizontal plane. See fig. 4-5.

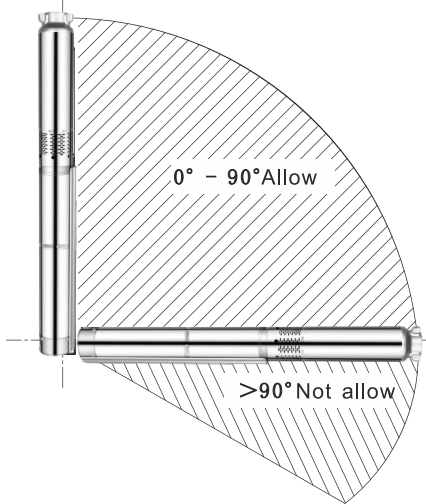


fig.4-5

4.3 Filter net selection and installation

4.3.1 Selection

When the submersible pump is used in the water harsh environment with sludge, sand etc., in order not to make the inlet of the pump blocked, the factory filter net is recommended to installed, see fig. 4-6.

4.3.2 Position installation instruction

1. Before installing the filter net, please check the rubber at two ends of filter net is not damaged.
2. Filter net cannot be installed to the part of motor, the installation instruction for lower end, see fig. 4-7 b.
3. Open the filter net, cover the part a (water inlet), close up the filter net, firm the two up and down points by screws, fig. 4-8.

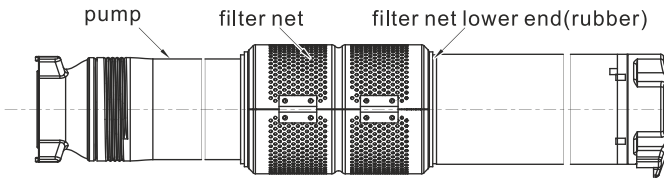


fig.4-6

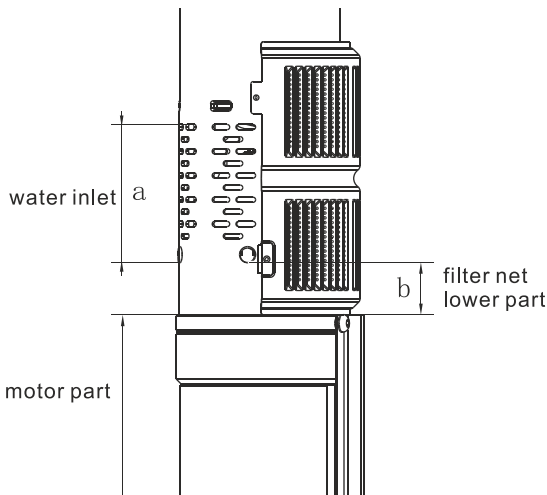


fig.4-7

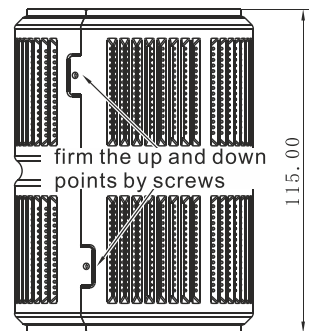


fig.4-8

4.4 Pump downhole requirements

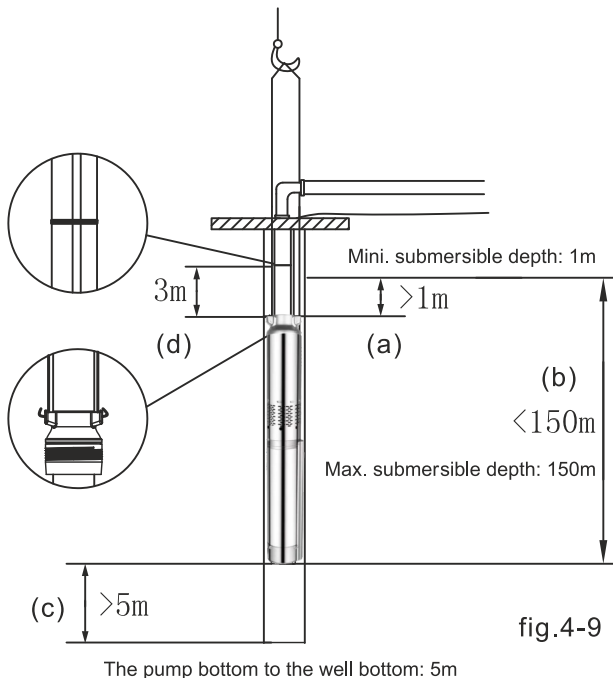
4.4.1 The rope for hoisting the pump must be strong and durable, when the water pump goes down the well, do not collide or rub against the well wall.

4.4.2 Prevent dry running, the minimum submersible depth cannot be less than 1m, see fig. 4-9(a).

4.4.3 To prevent the pump damaged, the maximum submersible depth cannot be more than 150m (some models are 70m max, please read the nameplate on pump), see fig. 4-9(b).

4.4.4 To prevent the sludge and sand being suck, damage the sealing parts and impeller, etc., the bottom of the pump should keep distant of more 5m from the well bottom, see fig. 4-9(c).

4.4.5 To prevent the cable damaged, the cable should be clipped on the pipe by each 3m, the cable between the clips must be in relaxation state, see fig. 4-9(d).



4.4.6 Table for pump size matching well size

Pump size model	H65	H80	H100	H125
Mini. well size(mm)	70	90	110	150

4.5 Pump downhole procedures

4.5.1 Use raw material tape or thread to fasten the water pipe connection, use the professional tools for going down the well, secure the safety rope and cable.

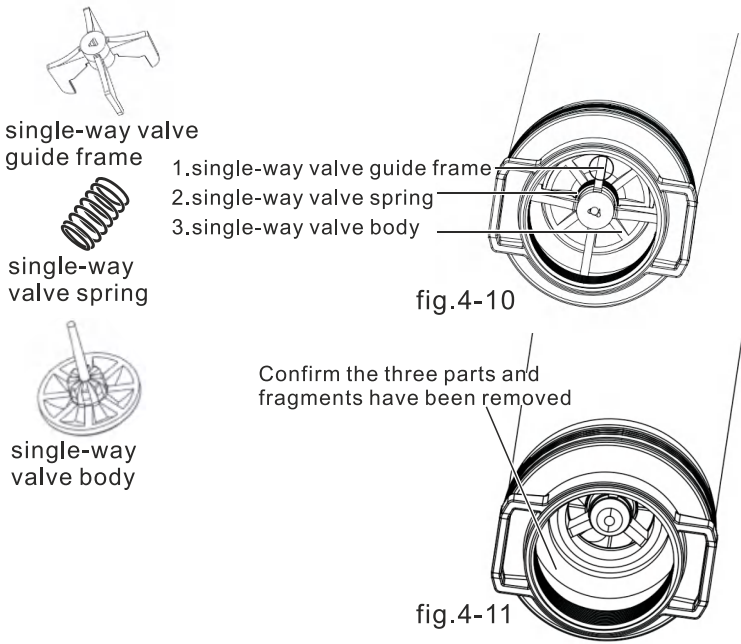
4.5.2 Do not get close during the pump working, prevent the electric shock or other accidents happened.

4.6 One-way valve disassembly

4.6.1 When pumping water with big particles, may cut the guide frames of the valve by cutting piers or similar tools, see fig. 4-10, total four pieces of frames.

4.6.2 After cutting the guide frames, place the pump upside down, take out the three parts (shown in fig. 4-10) from the pump body.

4.6.3 Clean all fragments from the pump body, see fig. 4-11.



4.7 Start and operation for submersible pump Before using, ensure the power type matching the marking on the nameplate, and use a 500V MΩ meter to measure the insulation resistance of the controller to ground, the resistance value should be greater than 50MΩ, see fig. 4-12.

4.7.1 The startup and operation of submersible pumps with external controllers

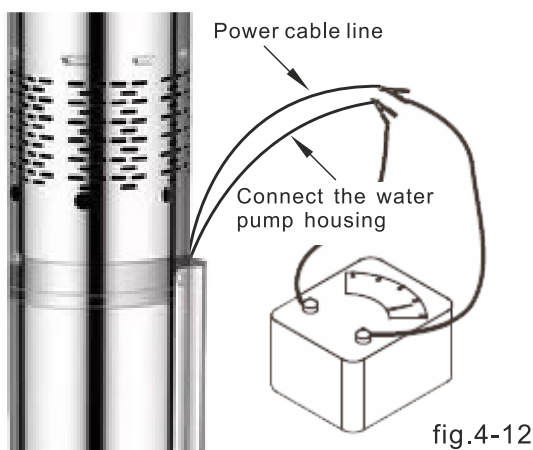
1. Pump start: connect the power with the controller, after the screen on, voltage value stable, and no fault code appeared, press the button of “start/stop”, the pump is on operation when the screen shows “operation”.
2. Turn the speed adjusting button to the expecting speed.
3. Pump stop: press the button of “start/stop”, screen shows “stop”, cut off the power when the speed declines to 0.

4.7.2 Start and operation for submersible pump with built-in controller

4.7.2.1 Built-in controller without controlling cable

1. Pump start: connect the power
2. Pump stop: disconnect the power

Immediately check whether the particles contained is under the standard when the water pumped out, stop the pump if it exceeds the standard, then restart the pump after some minutes, replace the pump by special cleaning well pump if the particles contained is still unchanged. Re-use the pump for pumping water after cleaning the well, prohibit to clean the well, or pump turbid water by this submergible pump.



5. Maintenances

5.1 If the submersible pump is out of use for a long time, please run the pump in clean water for some minutes, make the pump clean, remove the pipeline from the pump, etc., put the pump in a dry-ventilated place. If the submersible pump is difficult to be removed from the well, please run the pump for half an hour in each month.

5.2 When the pump being transported or installed, prevent the casing deformation due to collision, and prevent the cable line being damaged.

5.3 Regularly examine whether the cable is in good condition.

5.4 Regularly examine whether pipeline is in good condition, no leakage.

6. Common faults and troubleshooting methods

Symptom	Cause	Solution
No water out after running the pump	The inlet is blocked	Clean the inlet or filter net
	Defective soft hose or pipeline	Change the defective parts
	Water level is lower than water inlet	Submerge the pump into water
	Outlet pipe is blocked	Examine and clean the outlet pipe
	One-way valve is closed	Flush the one-way valve with clean water from the direction of the water outlet
Small flow	Built-out controller	Check whether the colors of the phase wires of the pump is in correct connection
	Foreign body blockage	Clean the pipe, filter net, one-way valve, etc.
	Too low voltage,too long cable	Test the voltage at the end of voltage, correct the cable into suitable one
	Wrong model selected	Change and select the right one
	Outlet pipeline leakage	Examine and fix the outlet pipeline
	The inlet is blocked	Clean the inlet or filter net
The running data is out of standard	The valve in the outlet pressure pipe is closed	Completely open the valve and monitor
	Impellers are blocked	Run the pump in clean water for half an hour
	Wrong rotation(built-outcontroller)	Swap any two wires at the motor output end of the controller
	Defective soft hose or pipeline	Change the defective parts
	Phase loss running	Must call professional for checking and make correction
	Outlet pipe is too small or parts of pipe is blocked	Change to use a bigger outlet pipe or examine the pipe
Abnormal vibration or noise of the pump	Rubbing between the mechanical parts	Examine and fix the pump
	Phase loss running	Must call professional for checking and make correction
	Wrong rotation(built-out controller)	Swap any two wires at the motor output end of the controller

7. Exception codes built-out controller

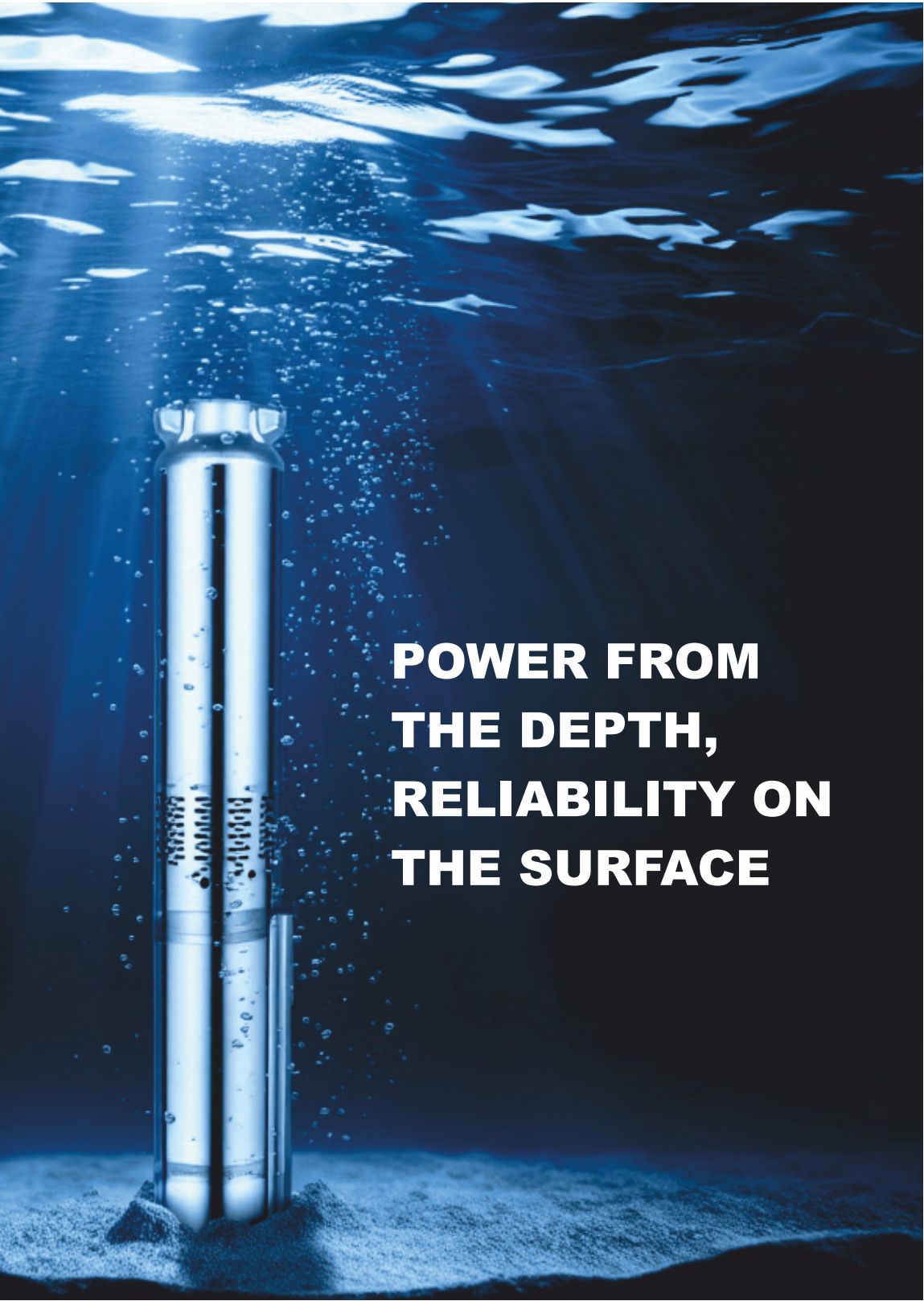
Fault code	Description	Cause	Solution
E001	System error	Hardware fault or software fault in controller	Power on again
E004	Grounded fault	Grounded resistance value exception,electricity leakage	1/Use a 500V M Ω meter to measure the insulation resistance of the controller to ground,whether the resistance value is greater than 50M Ω 2/Check whether the motor withstand voltage is normal
E005	Grounded short circuit	Grounded short circuit	Check whether the motor withstand voltage is normal
E006	Output short circuit	When the current output of controller is 250%more than rated value,the controller would cut off the current output	1/Check whether the motor output ends connection is correct 2/Check whether the motor withstand voltage is normal
E007	Output over current	When the current output of controller is 250%more than rated value,the controller would cut off the output	1/Check whether the motor output ends connection is correct 2/Check whether the motor withstand voltage is normal
E014	U phase loss	Output U phase loss	Check whether the motor output end U phase connection is correct
E015	V phase loss	Output V phase loss	Check whether the motor output end V phase connection is correct
E016	W phase loss	Output W phase loss	Check whether the motor output end W phase connection is correct
E020	Input phase loss	Input power loss phase	Check whether the input power connection is correct
E021	Inverter overload	When the current output of controller is(150%, 1minute)more than rated value,the controller would cut off the output	1/Check whether the motor matches the right controller 2/Check whether the motor or pump is stuck
E049	Rotor locked protection	When the output frequency of controller is 1/3 less than the rated value,the output current assault the peak value,controller would cut off the output	1/Check whether the motor matches the right controller 2/Check whether the motor or pump is stuck

Fault code	Description	Cause	Solution
E064	Less voltage in controller	Input voltage of controller is too low	Adjust the input voltage to rated value
E065	Controller overload	The output phase current of controller is more than the setting value	1/Check whether the motor matches the right controller 2/Check whether the motor or pump is stuck
E066	Controller no load	When the output current is too low,controller stops working,then restart in each two hours	1/Check whether the water source is sufficient 2/Check whether pump body and motor is separated
E067	Controller overtemperature	Controller module's temperature is too high	Put the controller in a well-heating dissipation place

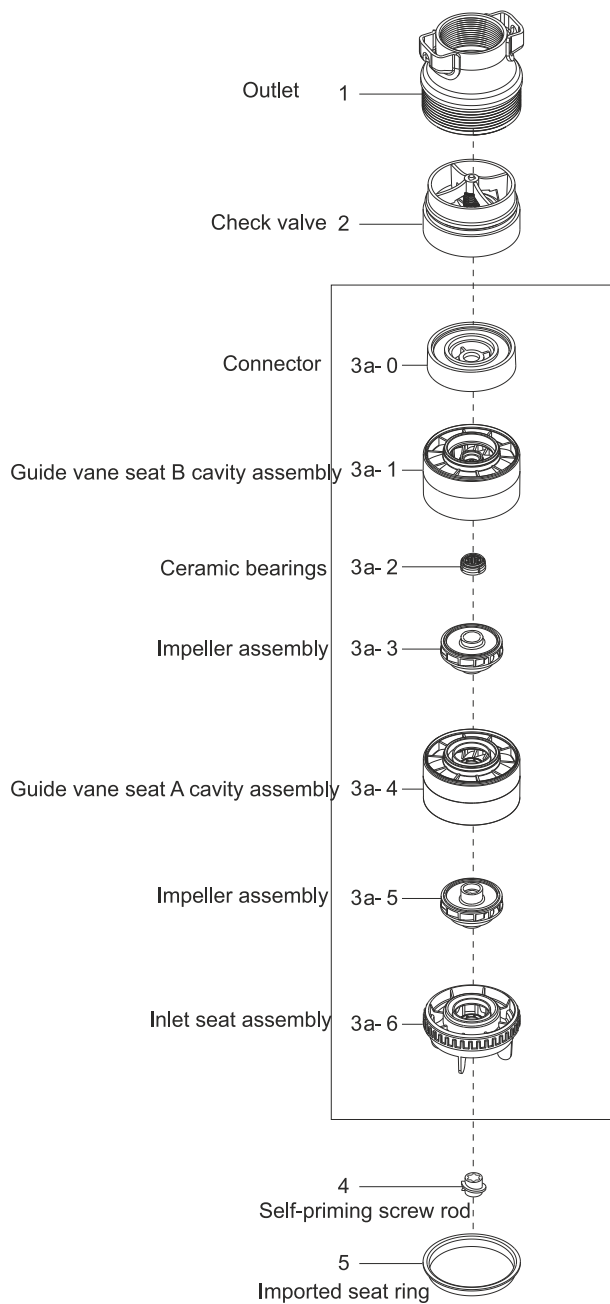
When the built-out controller fails, firstly disconnect the power, wait until the display is off, then reconnect the power, the fault code will be eliminated. If necessary, please call professional for help.

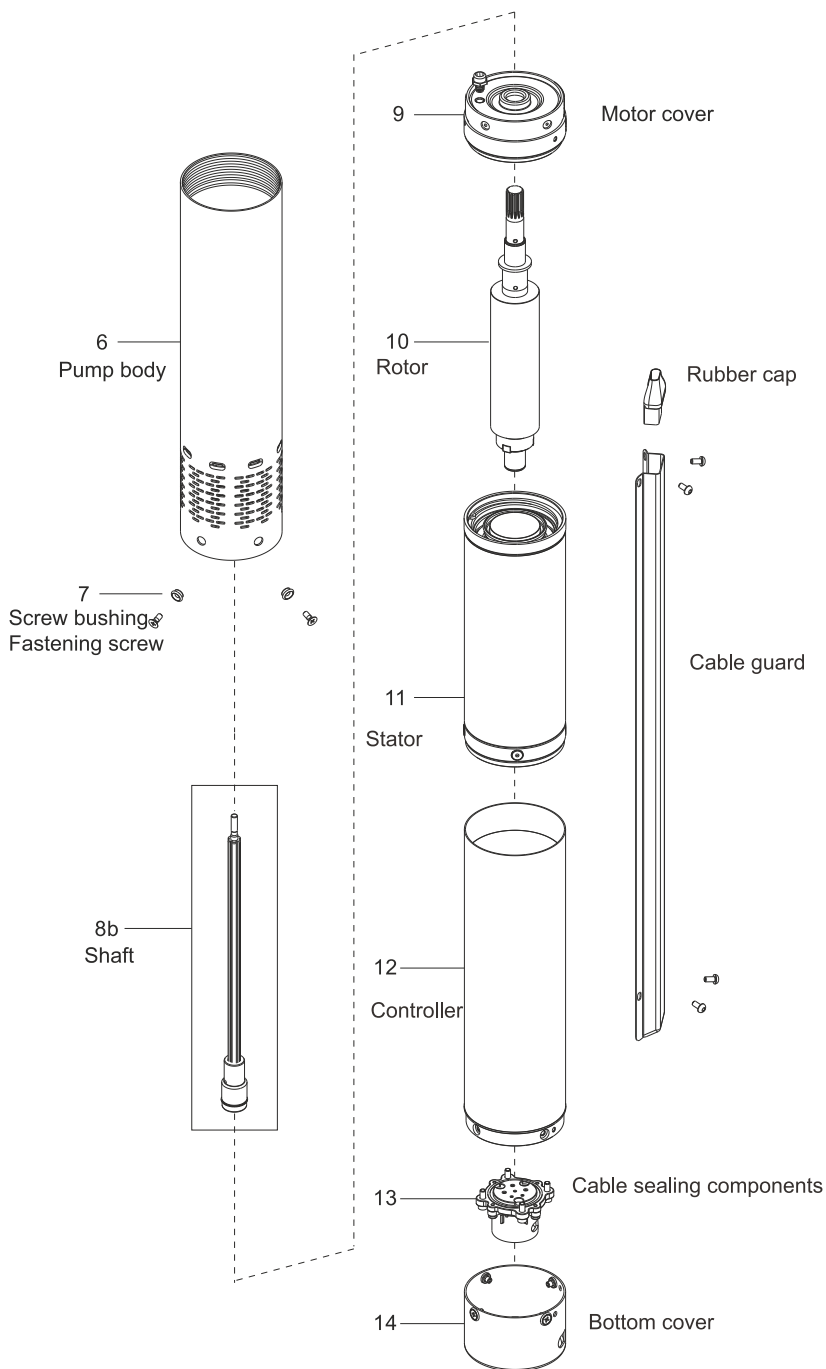
8. Warranty

During the warranty, suppose it is indeed caused by quality problems, problem case should be supplied by buyer in detailed report for our analysis. We would undertake the problem-quantity by supplying parts for fixing or replacing new ones. The submersible pump failures or damage caused by improper transportation, improper installation, improper usage, improper repairing and improper maintenance are not covered by the warranty. For instance, causing pump damaged during the transportation, application fields and limits are out of conditions stated in this manual, overload running, pump frozen (crack), etc. Unprofessional fixing for the pump is not covered by warranty. The performance of the pump is changed or damaged due to the user's own modification or disassembly, it is not covered by warranty. Force majeure factors, such as war, typhoon, earthquake, etc., causing the failures or damage for the pumps are not covered by warranty.



**POWER FROM
THE DEPTH,
RELIABILITY ON
THE SURFACE**





Application Limits



Medium PH: 5 to 9



Max. submersible depth: 70m



Storage ambient temperature:
-10°C to +60°C



Content of hydrogen sulfide: $\leq 1.5\text{mg/l}$
Content of chloridon: $\leq 400\text{mg/l}$

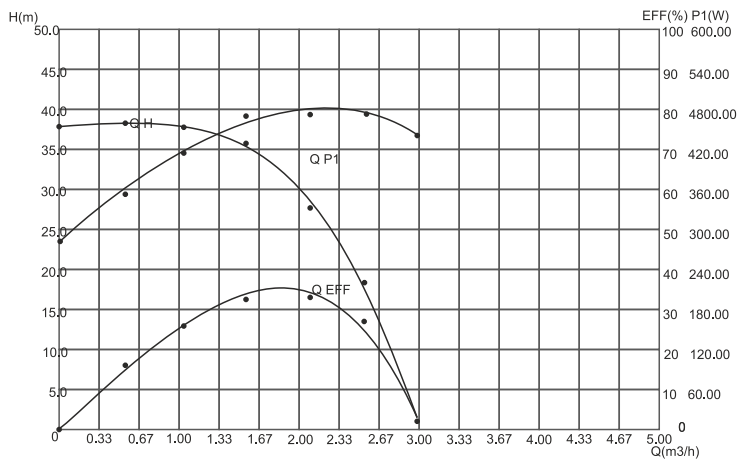


Medium temperature: 1°C to 40°C



Max permissible quantity of sand: 100g/m³

Model	Rated Flow (m ³ /h)	Rated Head (m)	Max. Flow (m ³ /h)	Max. Head (m)	Power kW	Controller	Piping inner diameter	Min. well diameter mm	Impeller number	Product dimionsions (L*W*H) mm	Weight kg	Supply voltage V
DWH1-25-0.37SI	1	25	2.7	35	0.37	Built-in	1	90	2	Φ6*36	3	220



VFD ULTRA-HIGH SPEED DEEP WELL PUMP														
NO.				Model			DWH65-1-25-0.37SI			V/Hz:				
CLIEN				DIA.	IN		25			P1(W)				
					OUT		25			I (A)				
FLOW(m3/h)							IMPELLER						COS Φ	
HEAD (m)													PHASE	1
Remark	Q (m3/h)	0	1.5	2	3	4	5	6.5	8.5	n (R.P.M)	10800			
	h(m)	38	36	27	1					I.CL				
										(m)	1			
No.	Flow: Q(m3/h)	Head: H(m)	Volt: V(V)	AMPS: I(A)	Power: P1(W)	Factor (COSΦ)	Speed: n (rpm)			Eff (%)				
1	2.99	1.000	228.4	3.390	443.70	0.57	0.0			1.80				
2	2.55	18.510	229.5	3.530	474.60	0.59	0.0			27.10				
3	2.09	27.780	228.5	3.530	473.60	0.59	0.0			33.30				
4	1.56	36.020	231.4	3.510	473.20	0.58	0.0			32.30				
5	1.04	38.080	231.9	3.240	416.80	0.55	0.0			25.90				
6	0.55	38.560	231.7	2.830	355.00	0.54	0.0			16.40				
7	0.00	38.080	231.8	2.370	283.70	0.52	0.0			0.00				

Application Limits



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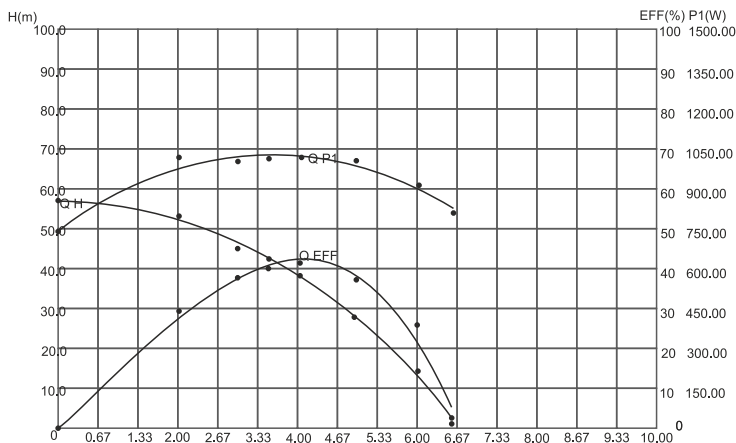


Medium temperature: 1°C to 40°C



Max permissible quantity of sand: 100g/m³

Model	Rated Flow (m ³ /h)	Rated Head (m)	Max. Flow (m ³ /h)	Max. Head (m)	Power (kW)	Controller	Piping inner diameter	Min. well diameter (mm)	Impeller number	Product dimmions (L*W*H) mm	Weight (kg)	Supply voltage (V)
DWH3-45-0.75SI	3	45	6,5	55	0.75	Built-in	1.5	90	3	Φ7,5*48	3.7	220



VFD ULTRA-HIGH SPEED DEEP WELL PUMP											
NO.				Model			DWH80-3-45-0.75SI			V/Hz:	
CLIEN				DIA.	IN	40			P1(W)		
					OUT	40			I (A)		
FLOW(m3/h)				IMPELLER						COS Φ	
HEAD (m)										PHASE	
Remark	Q (m3/h)	0	1,5	2	3	4	5	6,5	8,5	n (R.P.M)	10800
	h(m)	56	54	53	45	38	27	1		I.CL	
										(m)	1
No.	Flow: Q(m3/h)	Head: H(m)	Volt: V(V)	AMPS: I(A)	Power: P1(W)	Factor (COSΦ)	Speed: n (rpm)		Eff (%)		
1	6.59	1.200	228.2	7.080	812.60	0.50	0.0		2.70		
2	6.02	14.390	227.4	7.920	912.80	0.51	0.0		25.90		
3	4.97	27.780	228.3	8.470	1005.80	0.52	0.0		37.50		
4	4.06	38.080	229.2	8.620	1011.20	0.51	0.0		41.60		
5	3.52	42.200	228.3	8.680	1009.00	0.51	0.0		40.10		
6	3.02	45.290	229.6	8.140	998.70	0.53	0.0		37.40		
7	2.05	53.020	229.4	8.300	1010.00	0.53	0.0		29.30		
8	0.00	56.620	229.8	6.290	738.20	0.51	0.0		0.00		

Application Limits



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-10°C to +60°C



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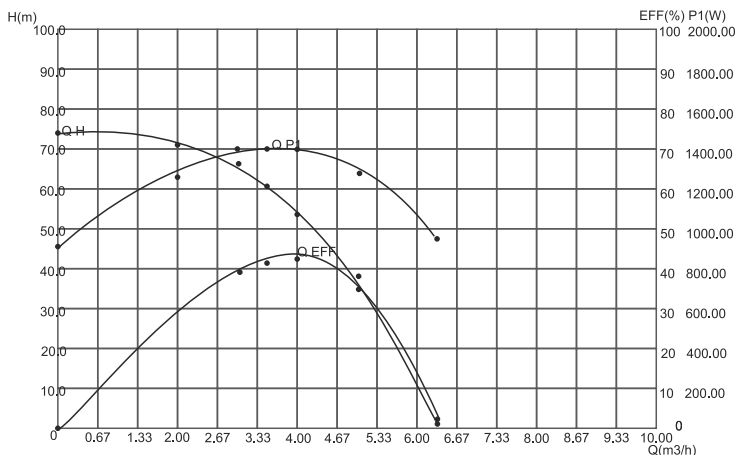


Medium temperature: 1°C to 40°C



Max permissible quantity of sand: 100g/m³

Model	Rated Flow (m ³ /h)	Rated Head (m)	Max. Flow (m ³ /h)	Max. Head (m)	Power kW	Controller	Piping inner diameter	Min. well diameter mm	Impeller number	Product dimions (L*W*H) mm	Weight kg	Supply voltage V
DWH3-60-1.1SI	3	60	6,5	70	1.1	Built-in	1.5	90	3	Φ7,5*67	4,5	220



VFD ULTRA-HIGH SPEED DEEP WELL PUMP											
NO.				Model			DWH80-3-60-1.1SI			V/Hz:	
CLIE				DIA.	IN		40			P1(W)	
FLOW(m3/h)					OUT		40			I (A)	
HEAD (m)				IMPELLER						COS Φ	
Remark	Q (m3/h)	0	1,5	2	3	4	5	6,5	8,5	n (R.P.M)	10800
	h(m)	74	72	71	65	53	35	1		I.CL	
										(m)	1
No.	Flow: Q(m3/h)	Head: H(m)	Volt: V(V)	AMPS: I(A)	Power: P1(W)	Factor (COSΦ)	Speed: n (rpm)		Eff (%)		
1	6.35	1.000	226.1	6.880	943.70	0.61	2814.0		1.80		
2	5.05	34.990	226.1	8.900	1271.40	0.63	2813.0		37.90		
3	4.03	53.530	225.9	9.530	1390.40	0.65	2812.0		42.30		
4	3.52	60.740	225.9	9.480	1402.70	0.66	2814.0		41.60		
5	3.05	65.890	226.3	9.510	1396.30	0.65	2813.0		39.20		
6	2.02	71.040	225.7	8.750	1258.20	0.64	2815.0		31.10		
7	0.00	74.130	226.5	6.700	917.80	0.60	2815.0		0.00		

Application Limits



Medium PH: 5 to 9



Max. submersible depth: 70m



Storage ambient temperature:
-10°C to +60°C



Content of hydrogen sulfide: $\leq 1.5\text{mg/l}$
Content of chloridion: $\leq 400\text{mg/l}$

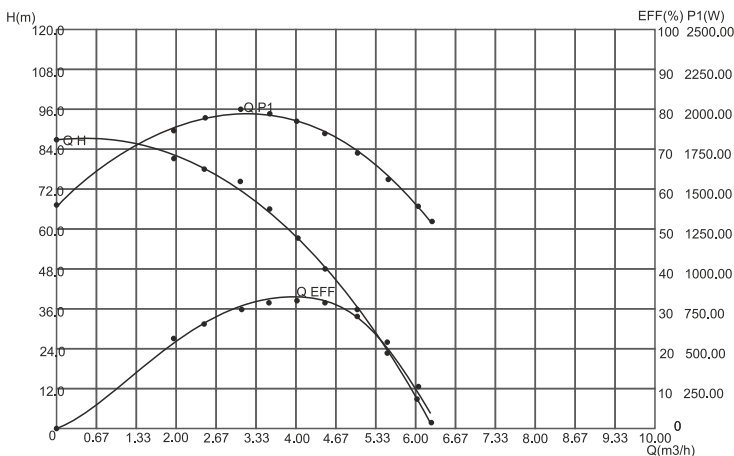


Medium temperature: 1°C to 40°C



Max permissible quantity of sand: 100g/m³

Model	Rated Flow (m ³ /h)	Rated Head (m)	Max. Flow (m ³ /h)	Max. Head (m)	Power (kW)	Controller	Piping inner diameter	Min. well diameter (mm)	Impeller number	Product dimensions (L*W*H) mm	Weight (kg)	Supply voltage (V)
DWH3-75-1.5SI	3	75	6,5	88	1.5	Built-in	1.5	90	5	Φ7,5*70	6,3	220



VFD ULTRA-HIGH SPEED DEEP WELL PUMP													
NO.				Model			DWH80-3-75-1.5SI			V/Hz:			
CLIEN				DIA.	IN		40			P1(W)			
					OUT		40			I (A)			
FLOW(m3/h)				IMPELLER			5			COS Φ			
HEAD (m)										PHASE		1	
Remark	Q (m3/h)	0	1.5	2	3	4	5	6.5	8.5	n (R.P.M)	10800		
	h(m)	88	84	81	75	58	36	1		I.CL			
										(m)	1		
No.	Flow: Q(m3/h)		Head: H(m)		Volt: V(V)		AMPS: I(A)		Power: P1(W)		Factor (COSΦ)	Speed: n (rpm)	Eff (%)
1	6.27		1.410		235.6		9.420		1304.10		0.59	6.0	1.60
2	6.04		8.960		234.0		10.090		1398.90		0.59	6.5	10.50
3	5.54		23.030		235.2		11.240		1573.40		0.60	7.3	21.80
4	5.02		36.190		233.1		12.520		1737.20		0.60	8.0	28.50
5	4.46		48.840		232.8		13.060		1861.00		0.61	8.6	31.90
6	4.00		58.020		233.3		13.470		1938.70		0.62	9.0	32.60
7	3.53		66.480		232.7		13.860		1987.20		0.62	9.2	32.20
8	3.06		74.910		232.9		14.010		2017.60		0.62	9.3	30.10
9	2.46		78.520		232.3		13.660		1959.00		0.62	9.1	27.00
10	1.95		82.190		233.3		13.140		1880.00		0.61	8.8	23.20
11	0.00		87.800		233.5		10.360		1427.80		0.59	6.6	0.00

Application Limits



Medium PH: 5 to 9



Max. submersible depth: 70m



Storage ambient temperature:
-10°C to +60°C



Content of hydrogen sulfide: $\leq 1.5\text{mg/l}$
Content of chloridion: $\leq 400\text{mg/l}$

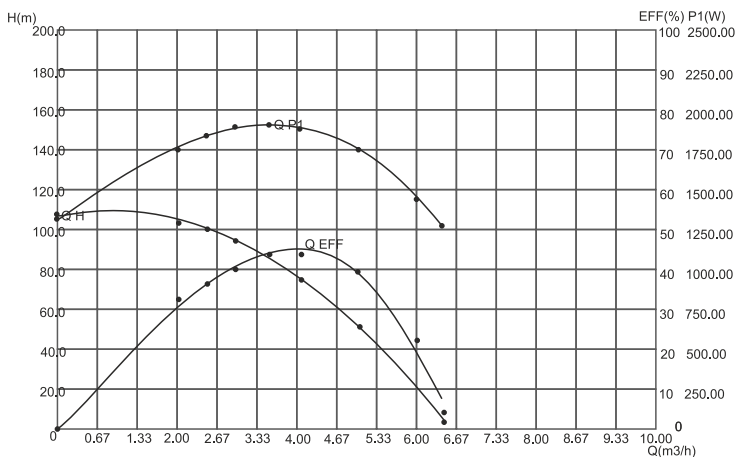


Medium temperature: 1°C to 40°C



Max permissible quantity of sand: 100g/m^3

Model	Rated Flow (m ³ /h)	Rated Head (m)	Max. Flow (m ³ /h)	Max. Head (m)	Power (kW)	Controller	Piping inner diameter	Min. well diameter (mm)	Impeller number	Product dimionsions (L*W*H) mm	Weight (kg)	Supply voltage (V)
DWH3-90-1.8SI	3	90	6,5	106	1.8	Built-in	1.5	90	3	Φ7.5*73	7,3	220



VFD ULTRA-HIGH SPEED DEEP WELL PUMP											
NO.				Model		DWH80-3-90-1.8SI			V/Hz:		
CLIEN				DIA.	IN	32			P1(W)		
					OUT	32			I (A)		
FLOW(m3/h)				IMPELLER					COS Φ		
HEAD (m)									PHASE	1	
Remark	Q (m3/h)	0	1.5	2	3	4	5	6.5	8.5	n (R.P.M)	10800
	h(m)	108	106	105	95	75	51	2		I.CL	
										(m)	1
No.	Flow: Q(m3/h)	Head: H(m)	Volt: V(V)	AMPS: I(A)	Power: P1(W)		Factor (COSΦ)	Speed: n (rpm)		Eff (%)	
1	6.44	2.630	232.7	10.000	1277.80		0.55	0.0		3.60	
2	6.01	19.460	232.6	11.160	1449.10		0.56	0.0		22.00	
3	5.02	51.080	232.2	13.090	1768.60		0.58	0.0		39.50	
4	4.05	75.770	232.4	13.830	1896.60		0.59	0.0		44.10	
5	3.54	88.110	232.6	14.100	1930.60		0.59	0.0		44.00	
6	2.98	95.350	232.6	14.010	1909.30		0.59	0.0		40.60	
7	2.50	101.670	232.9	13.590	1851.80		0.59	0.0		36.80	
8	2.03	105.040	233.0	12.980	1769.10		0.58	0.0		32.90	
9	0.00	108.710	233.2	10.470	1344.10		0.55	0.0		0.00	

Application Limits



Medium PH: 5 to 9



Max. submersible depth: 70m



Storage ambient temperature:
-10°C to +60°C



Content of hydrogen sulfide: $\leq 1.5\text{mg/l}$
Content of chloridion: $\leq 400\text{mg/l}$

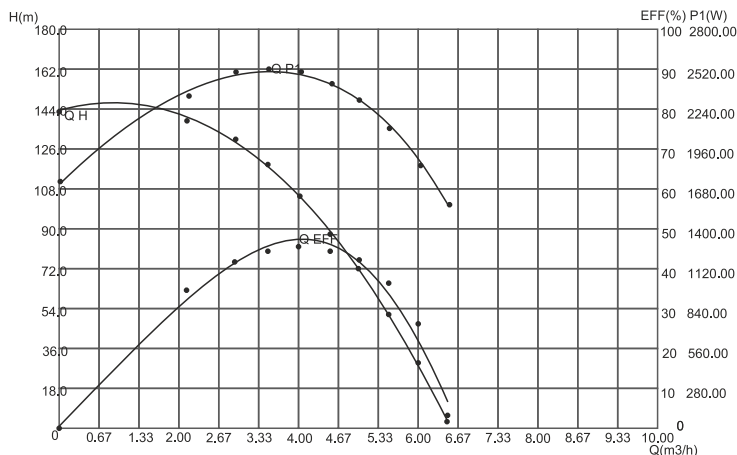


Medium temperature: 1°C to 40°C



Max permissible quantity of sand: 100g/m³

Model	Rated Flow (m ³ /h)	Rated Head (m)	Max. Flow (m ³ /h)	Max. Head (m)	Power kW	Controller	Piping inner diameter	Min. well diameter mm	Impeller number	Product dimmions (L*W*H) mm	Weight kg	Supply voltage V
DWH3-125-2.2SI	3	125	6,5	150	2.2	Built-in	1.25	90	8	Φ7,5*98	8	220



VFD ULTRA-HIGH SPEED DEEP WELL PUMP											
NO.				Model			DWH80-3-125-2.2SI			V/Hz:	
CLIEIN				DIA.	IN		32			P1(W)	
					OUT		32			I (A)	
FLOW(m3/h)				IMPELLER			8			COS Φ	
HEAD (m)										PHASE	
Remark	Q (m3/h)	0	1,5	2	3	4	5	6,5	8,5	n (R.P.M)	10800
	h(m)	144	137	135	125	99	65	2		I.C.L	
											(m)
No.	Flow: Q(m3/h)	Head: H(m)	Volt: V(V)	AMPS: I(A)	Power: P1(W)	Factor (COSΦ)	Speed: n (rpm)			Eff (%)	
1	6.53	2.630	235.4	11.760	1586.50	0.57	0.0			3.00	
2	6.04	29.460	236.7	13.270	1863.40	0.59	0.0			26.20	
3	5.53	51.490	237.2	14.400	2120.90	0.62	0.0			36.50	
4	5.00	72.090	235.3	15.630	2318.80	0.63	0.0			42.40	
5	4.54	87.900	235.1	16.440	2440.60	0.63	0.0			44.60	
6	4.00	105.550	235.1	17.070	2522.80	0.63	0.0			45.60	
7	3.46	120.030	235.3	16.940	2540.90	0.64	0.0			44.50	
8	2.92	130.850	235.5	16.480	2507.60	0.65	0.0			41.60	
9	2.13	139.210	235.6	15.530	2346.50	0.64	0.0			34.40	
10	0.00	144.510	236.4	12.240	1736.70	0.60	0.0			0.00	

Application Limits



Medium PH: 5 to 9



Max. submersible depth: 70m



Storage ambient temperature:
-10°C to +60°C



Content of hydrogen sulfide: $\leq 1.5\text{mg/l}$
Content of chloridion: $\leq 400\text{mg/l}$

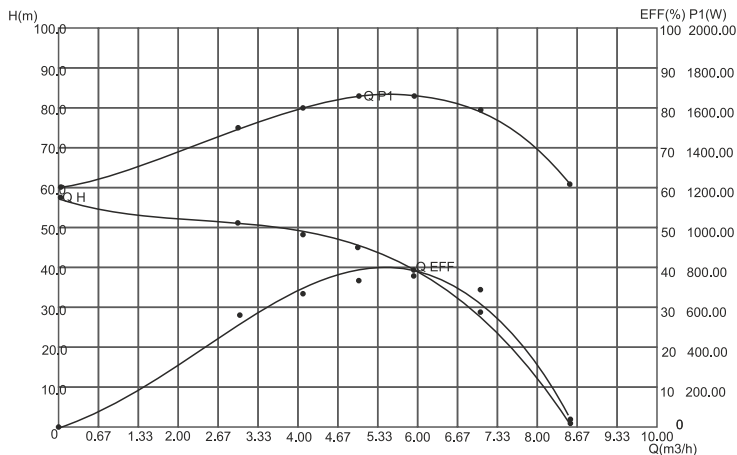


Medium temperature: 1°C to 40°C



Max permissible quantity of sand: 100g/m³

Model	Rated Flow (m ³ /h)	Rated Head (m)	Max. Flow (m ³ /h)	Max. Head (m)	Power kW	Controller	Piping inner diameter	Min. well diameter mm	Impeller number	Product dimionsions (L*W*H) mm	Weight kg	Supply voltage V
DWH5-48-1.5SI	5	48	8.5	60	1.5	Built-in	1.5	90		Φ7.5*89	6,5	220



VFD ULTRA-HIGH SPEED DEEP WELL PUMP											
NO.				Model			DWH80-5-48-1.5SI			V/Hz:	
CLIEN				DIA.	IN		40			P1(W)	
					OUT		40			I (A)	
FLOW(m3/h)				IMPELLER						COS Φ	
HEAD (m)										PHASE	1
Remark	Q (m3/h)	0	1,5	2	3	4	5	6,5	8,5	n (R.P.M)	10800
	h(m)	57	53	52	51	48	44	31	1	I.CL	
											(m)
No.	Flow: Q(m3/h)	Head: H(m)	Volt: V(V)	AMPS: I(A)	Power: P1(W)	Factor (COSΦ)	Speed: n (rpm)		Eff (%)		
1	8.50	1.000	227.3	9.480	1217.20	0.56	0.0		1.90		
2	7.02	28.810	226.3	12.200	1582.90	0.57	0.0		34.80		
3	5.93	39.110	226.2	12.590	1649.70	0.58	0.0		38.30		
4	4.99	44.780	226.3	12.710	1651.20	0.57	0.0		36.90		
5	4.05	48.380	226.3	12.170	1590.30	0.58	0.0		33.60		
6	2.99	51.470	225.7	11.760	1496.00	0.56	0.0		28.00		
7	0.00	57.650	225.7	9.530	1197.40	0.56	0.0		0.00		

Application Limits



Medium PH: 5 to 9



Max. submersible depth: 70m



Storage ambient temperature:
-10°C to +60°C



Content of hydrogen sulfide: $\leq 1.5\text{mg/l}$
Content of chlorine: $\leq 400\text{mg/l}$

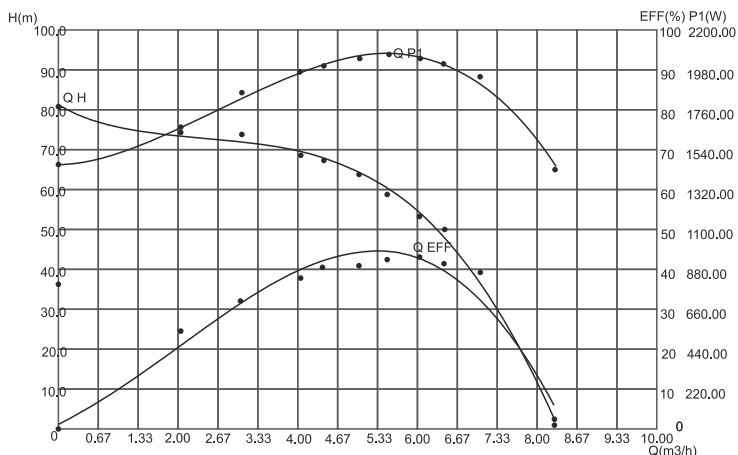


Medium temperature: 1°C to 40°C



Max permissible quantity of sand: 100g/m³

Model	Rated Flow (m ³ /h)	Rated Head (m)	Max. Flow (m ³ /h)	Max. Head (m)	Power (kW)	Controller	Piping inner diameter	Min. well diameter (mm)	Impeller number	Product dimensions (L*W*H) mm	Weight (kg)	Supply voltage (V)
DWH5-64-1.8SI	5	64	8.5	80	1.8	Built-in	1.5	90	4	Φ7.5*92	7,1	220



VFD ULTRA-HIGH SPEED DEEP WELL PUMP											
NO.				Model			DWH80-5-64-1.8SI			V/Hz:	
CLIEN				DIA.	IN		40			P1(W)	
					OUT		40			I (A)	
FLOW(m3/h)				IMPELLER			4			COS Φ	
HEAD (m)										PHASE	
Remark	Q (m3/h)	0	1.5	2	3	4	5	6.5	8.5	n (R.P.M)	10800
	h(m)	80	76	74	73	68	64	50	1 <th>I.CL</th> <th></th>	I.CL	
										(m)	1
No.	Flow: Q(m3/h)		Head: H(m)	Volt: V(V)	AMPS: I(A)		Power: P1(W)		Factor (COSΦ)	Speed: n (rpm)	Eff (%)
1	8.31		1.710	232.3	10.990		1445.30		0.57	0.0	2.70
2	7.05		39.560	231.8	14.320		1951.00		0.59	0.0	38.90
3	6.45		50.270	231.5	14.770		2015.90		0.59	0.0	41.90
4	6.04		53.630	230.9	14.990		2049.20		0.59	0.0	43.50
5	5.50		59.140	230.6	15.310		2067.10		0.59	0.0	42.90
6	5.02		63.930	231.0	15.150		2049.40		0.59	0.0	41.40
7	4.42		67.400	231.1	14.750		2009.50		0.59	0.0	40.40
8	4.03		68.830	231.1	14.650		1975.00		0.58	0.0	38.30
9	3.06		73.930	231.6	13.680		1850.00		0.58	0.0	32.50
10	2.04		74.540	231.1	12.480		1661.80		0.58	0.0	24.90
11	0.00		80.870	231.3	11.100		1461.90		0.57	0.0	0.00

Application Limits



Medium PH: 5 to 9



Max. submersible depth: 70m



Storage ambient temperature:
-10°C to +60°C



Content of hydrogen sulfide: $\leq 1.5\text{mg/l}$
Content of chloridion: $\leq 400\text{mg/l}$

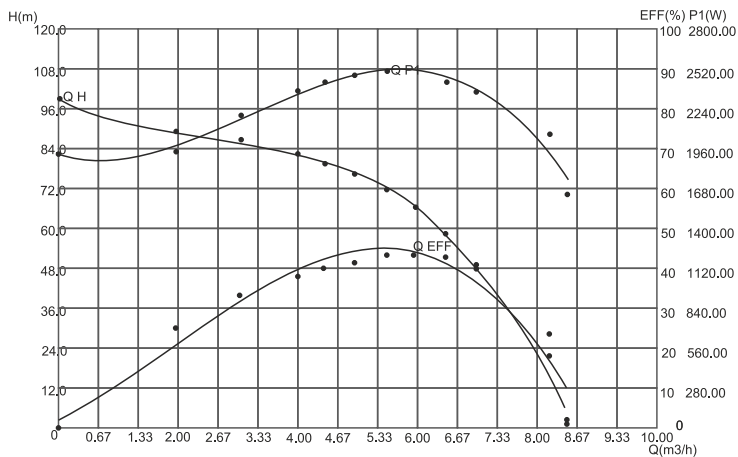


Medium temperature: 1°C to 40°C



Max permissible quantity of sand: 100g/m³

Model	Rated Flow (m ³ /h)	Rated Head (m)	Max. Flow (m ³ /h)	Max. Head (m)	Power kW	Controller	Piping inner diameter	Min. well diameter mm	Impeller number	Product dimensions (L*W*H) mm	Weight kg	Supply voltage V
DWH5-80-2.2SI	5	80	8.5	95	1.8	Built-in	2.2	90	5	Φ7.5*100	7,8	220



VFD ULTRA-HIGH SPEED DEEP WELL PUMP											
NO.				Model			DWH80-5-80-2.2SI		V/Hz:	220/50	
CLIEN				DIA.	IN		40		P1(W)		
					OUT		40		I (A)		
FLOW(m3/h)	5			IMPELLER			5		COS Φ		
HEAD (m)	75								PHASE		1
Remark	Q (m3/h)	0	1.5	2	3	4	5	6.5	8.5	n (R.P.M)	10800
	h(m)	98	90	88	85	81	75	58	1	I.CL	
	(m)										1
No.	Flow: Q(m3/h)	Head: H(m)	Volt: V(V)	AMPS: I(A)		Power: P1(W)		Factor (COSΦ)	Speed: n (rpm)	Eff (%)	
1	8.50	1.100	229.5	11.410		1629.90		0.62	0.0	1.60	
2	8.22	21.300	228.3	14.090		2041.20		0.63	0.0	23.40	
3	7.00	48.530	228.5	15.830		2344.70		0.65	0.0	39.50	
4	6.49	58.120	228.3	16.150		2422.40		0.66	0.0	42.40	
5	5.97	65.970	227.8	16.640		2488.10		0.66	0.0	43.20	
6	5.50	71.180	227.6	16.600		2494.50		0.66	0.0	42.80	
7	4.95	75.660	228.2	16.450		2462.90		0.66	0.0	41.40	
8	4.45	78.930	227.9	16.320		2411.80		0.65	0.0	39.80	
9	4.00	81.780	228.0	15.890		2348.00		0.65	0.0	37.90	
10	3.05	85.860	229.2	14.800		2172.80		0.64	0.0	32.80	
11	1.97	88.310	229.3	13.290		1926.00		0.63	0.0	24.70	
12	0.00	98.410	229.7	13.170		1910.90		0.63	0.0	0.00	

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