



# DIFFUL

**HIGH SPEED DEEP WELL PUMP**  
PROFESSIONAL PUMP MANUFACTURER



**ZHEJIANG DINGFENG  
ELECTRICAL APPLIANCE CO., LTD.**

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**ZHEJIANG DINGFENG ELECTRICAL APPLIANCE CO., LTD.**



## ABOUT US

Zhejiang Dingfeng Electrical Appliance Co.,Ltd(Difful) is an innovative technology-leading solar pump manufactory for high speed deep well pump, DC solar pumps, AC/DC hybrid solar pumps, and water-filled motor solar pumps. Since our founding in 1989, we have been 100% focused on this area, and we have exported nearly 190000 pcs of solar pumps during the last year. We have high-precision and fully automatic processing machines, advanced assembling lines and testing machines to improve the quality and efficiency. And we set up our own controller production and R&D workshop to ensure that every production process is under control. Difful produces controllers and imporant parts of solar pumps independently. Better cost control provides customers with greater profit margins. We have a professional team that has been working in the field of solar pumps for more than 10 years. Our production team is very rigorous and professional, and every product they manufacture maintains a high quality and high standard. We want to provide the best products to the world. Get energy from sunlight, move water from nature and serve life. This has always been the vision of Difful.

**1989**

Founded in 1989

**8000**

8000m<sup>2</sup> branch plant

**190000**

Annual output of 190000 pcs



[www.diffulpump.com](http://www.diffulpump.com)

# DIFFUL WORKSHOP

KEEP IMPROVING, PURSUE PERFECT QUALITY



Our production team is very rigorous and professional  
Every product they manufacture maintains high quality and high standards.



- Exquisite production technology
- Strict testing procedures
- Rigorous service attitude

DIFFUL  
PUMP



# HIGH SPEED DEEP WELL PUMP

CORROSION RESISTANCE AND LONG SERVICE LIFE

- Complete stainless steel pump body
- Japanese NSK bearing
- 304 S/S rotor shaft
- 180°C high temperature resistant copper wire



Permanent magnet DC brushless synchronous motor  
**The efficiency is increased by 15%-20%**

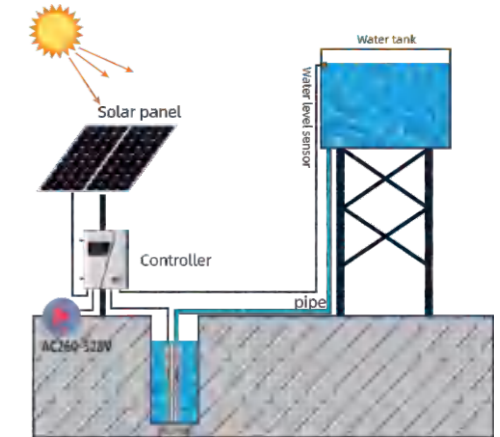


## CONTROLLER

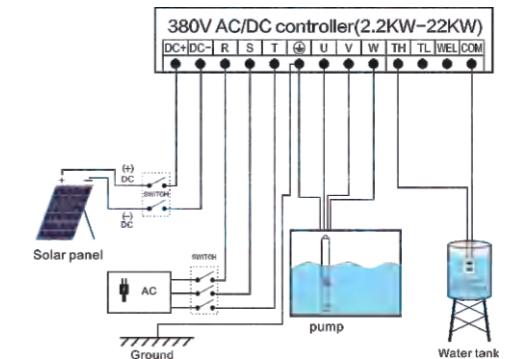
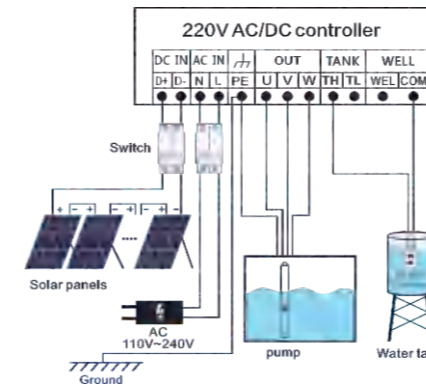


Model	Dimensions (cm)			Weight (kg)
	A	B	C	
220V AC/DC auto-switching controller (2.2KW)	24	23	11	2.3
380V AC/DC auto-switching controller (2.2KW-4KW)	29	23	11	2.5
380V AC/DC auto-switching controller (5.5KW-22KW)	30.5	25.5	16	5.5

## WIRING DIAGRAM



## WIRING DIAGRAM



# 4DGS-A/D

## 4" HIGH SPEED DEEP WELL PUMP

1. Permanent magnet DC brushless synchronous motor: The efficiency is increased by 15% - 20%, saving energy consumption.
2. The whole 304 stainless steel rotor shaft avoids the risk of shaft breakage.
3. 304 Stainless steel outlet/connector/ oil cylinder, with better corrosion resistance.
4. Japanese NSK bearing, longer working life.
5. Two deep groove ball bearings are used at the upper end, and two angular contact bearings are used at the lower end, which can withstand greater radial force and axial force.
6. Two silicon carbide-impregnated graphite mechanical seal of Italian brand, longer service life and deeper submerging depth.
7. 180°C high temperature resistant copper wire, insulation class F.
8. Cold rolled 600 silicon steel sheet stator and rotor.
9. The magnet is made of 40SH NdFeB(neodymium iron boron), with a temperature resistance of 150°C.
10. 304 S/S pump shaft, impellers adopt whole-stage floating wear-resistant and sand-resistant structure.
11. The whole pump is small volume and strong power, saving the pump installation cost into the well.
12. Controller:
  - (1) Waterproof grade: IP65
  - (2) Wide open circuit voltage range. AC: 260-528V; DC: 200-780V
  - (3) Ambient temperature: -15°C~60°C
  - (4) MPPT function, the solar power utilization rate is higher.
  - (5) LED displays the power, voltage, current, speed etc working condition.
  - (6) It can automatically adjust the speed for operation according to the sunlight power, and can also manually adjust the speed for operation according to the actual demand.
  - (7) Automatic startup and shutdown, without personnel on duty.
  - (8) Soft start: No impulse current, protect the pump motor.
  - (9) Over-voltage/undervoltage/over-current/phase loss/short circuit/water shortage/ high temperature protection etc.
  - (10) Both AC and DC can be used, AC and DC automatic switching function.



220V AC/DC auto-switching controller (2.2KW)

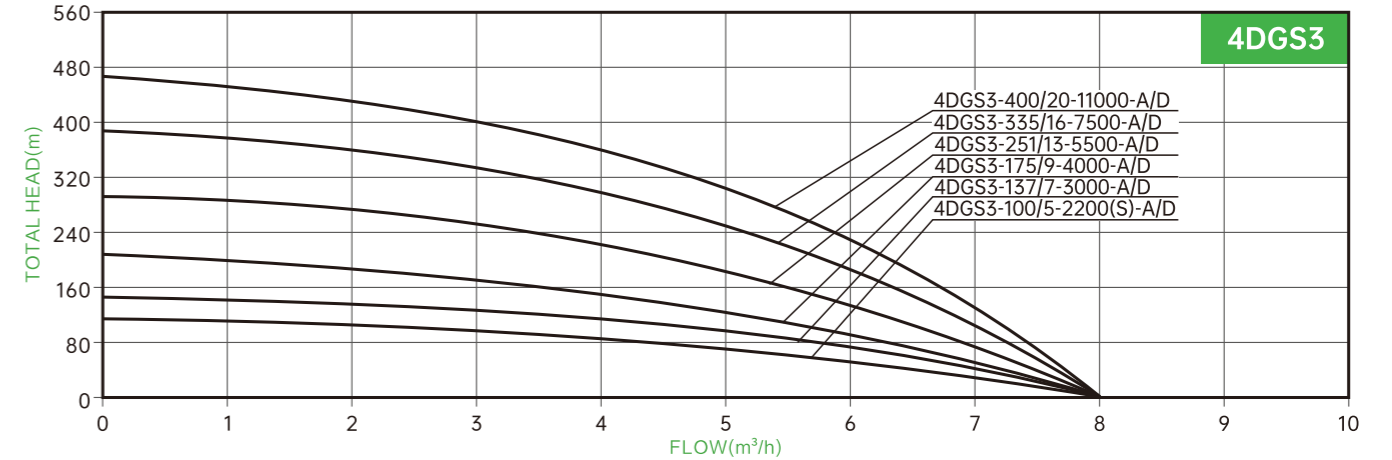
380V AC/DC auto-switching controller (2.2KW-4KW)

380V AC/DC auto-switching controller (5.5KW-22KW)



Max. running speed:  
**6000RPM**

## HYDRAULIC PERFORMANCE CURVES



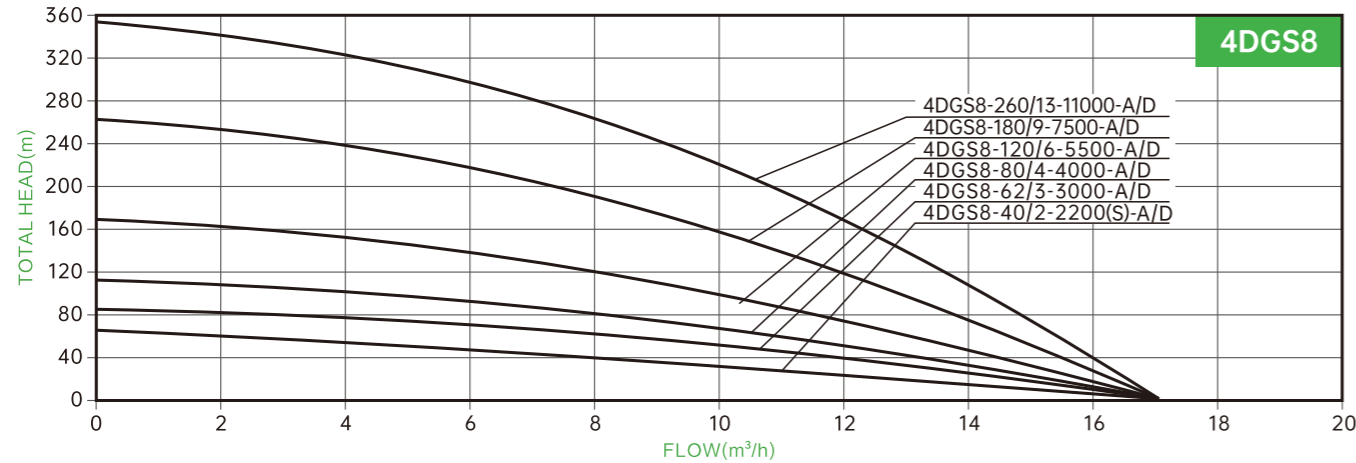
## TECHNICAL DATA

ITEM	Rated flow (m³/h)	Rated head (m)	Max. flow (m³/h)	Max. head (m)	AC voltage (V)	Optimum DC voltage (V)	Open circuit voltage (VOC)	Power (kw)	Outlet (inch)	Outer diameter (mm)	Cable (m)	Pump height (mm)	Pump weight (KG)
4DGS3-100/5-2200S-A/D	3	100	8	117	220	300-400	< 430	2.2	1.25	100	2	618	8.9
4DGS3-100/5-2200-A/D	3	100	8	117	380	520-750	< 780	2.2	1.25	100	2	618	8.9
4DGS3-137/7-3000-A/D	3	137	8	156	380	520-750	< 780	3	1.25	100	2	698	10.4
4DGS3-175/9-4000-A/D	3	175	8	206	380	520-750	< 780	4	1.25	100	2	779	11.9
4DGS3-251/13-5500-A/D	3	251	8	294	380	520-750	< 780	5.5	1.25	100	2	919	14.0
4DGS3-335/16-7500-A/D	3	335	8	385	380	520-750	< 780	7.5	1.25	100	2	1121	18.2
4DGS3-400/20-11000-A/D	3	400	8	473	380	520-750	< 780	11	1.25	100	2	1292	21.9

## FREE SPARE PARTS



### HYDRAULIC PERFORMANCE CURVES



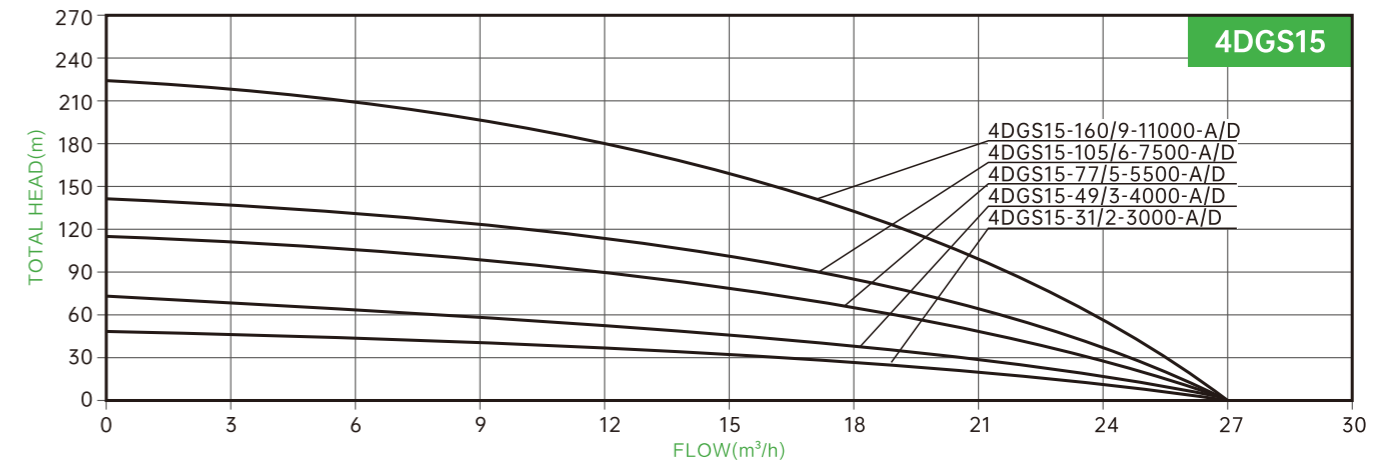
### TECHNICAL DATA

ITEM	Rated flow (m³/h)	Rated head (m)	Max.flow (m³/h)	Max.head (m)	AC voltage (V)	Optimum DC voltage (V)	Open circuit voltage (VOC)	Power (kw)	Outlet (inch)	Outer diameter (mm)	Cable (m)	Pump height (mm)	Pump weight (KG)
4DGS8-40/2-2200S-A/D	8	40	17	54	220	300-400	< 430	2.2	2	100	2	532	8.3
4DGS8-40/2-2200-A/D	8	40	17	54	380	520-750	< 780	2.2	2	100	2	532	8.3
4DGS8-62/3-3000-A/D	8	62	17	82	380	520-750	< 780	3.0	2	100	2	585	9.4
4DGS8-80/4-4000-A/D	8	80	17	108	380	520-750	< 780	4.0	2	100	2	639	10.8
4DGS8-120/6-5500-A/D	8	120	17	165	380	520-750	< 780	5.5	2	100	2	720	12.2
4DGS8-180/9-7500-A/D	8	180	17	256	380	520-750	< 780	7.5	2	100	2	935	16.8
4DGS8-260/13-11000-A/D	8	260	17	354	380	520-750	< 780	11	2	100	2	1119	20.3

### FREE SPARE PARTS



### HYDRAULIC PERFORMANCE CURVES



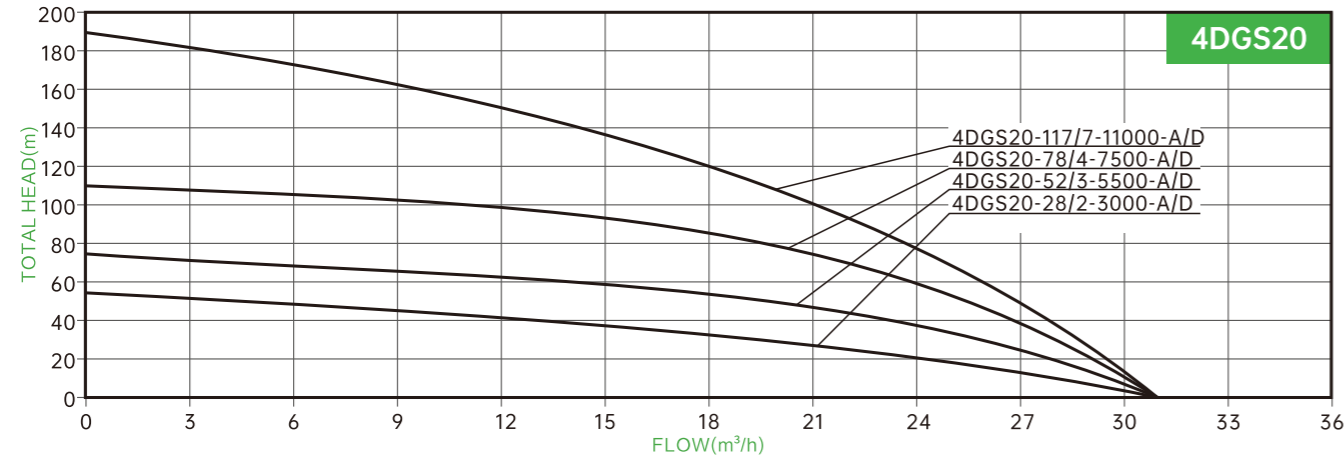
### TECHNICAL DATA

ITEM	Rated flow (m³/h)	Rated head (m)	Max.flow (m³/h)	Max.head (m)	AC voltage (V)	Optimum DC voltage (V)	Open circuit voltage (VOC)	Power (kw)	Outlet (inch)	Outer diameter (mm)	Cable (m)	Pump height (mm)	Pump weight (KG)
4DGS15-31/2-3000-A/D	15	31	27	46	380	520-750	< 780	3.0	2	100	2	608	9.5
4DGS15-49/3-4000-A/D	15	49	27	70	380	520-750	< 780	4.0	2	100	2	687	11.1
4DGS15-77/5-5500-A/D	15	77	27	117	380	520-750	< 780	5.5	2	100	2	820	12.9
4DGS15-105/6-7500-A/D	15	105	27	145	380	520-750	< 780	7.5	2	100	2	991	17.0
4DGS15-160/9-11000-A/D	15	160	27	219	380	520-750	< 780	11	2	100	2	1217	20.7

### FREE SPARE PARTS



### HYDRAULIC PERFORMANCE CURVES



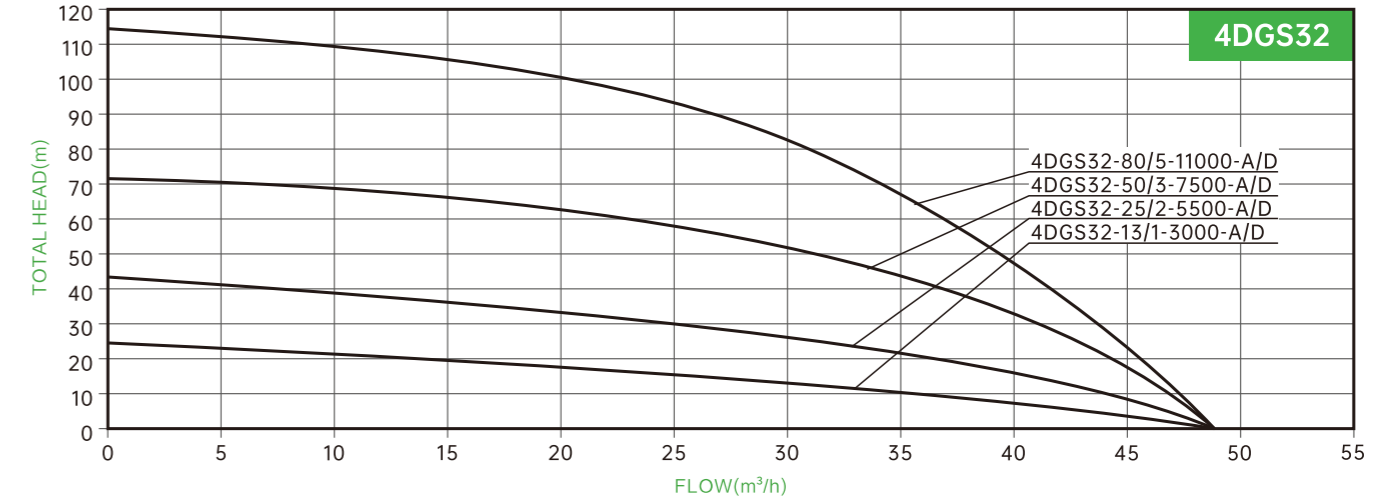
### TECHNICAL DATA

ITEM	Rated flow (m³/h)	Rated head (m)	Max.flow (m³/h)	Max.head (m)	AC voltage (V)	Optimum DC voltage (V)	Open circuit voltage (VOC)	Power (kw)	Outlet (inch)	Outer diameter (mm)	Cable (m)	Pump height (mm)	Pump weight (KG)
4DGS20-28/2-3000-A/D	20	28	31	52	380	520-750	< 780	3.0	2	100	2	642	9.8
4DGS20-52/3-5500-A/D	20	52	31	75	380	520-750	< 780	5.5	2	100	2	751	12.3
4DGS20-78/4-7500-A/D	20	78	31	108	380	520-750	< 780	7.5	2	100	2	936	16.5
4DGS20-117/7-11000-A/D	20	117	31	188	380	520-750	< 780	11	2	100	2	1207	20.5

### FREE SPARE PARTS



### HYDRAULIC PERFORMANCE CURVES



### TECHNICAL DATA

ITEM	Rated flow (m³/h)	Rated head (m)	Max.flow (m³/h)	Max.head (m)	AC voltage (V)	Optimum DC voltage (V)	Open circuit voltage (VOC)	Power (kw)	Outlet (inch)	Outer diameter (mm)	Cable (m)	Pump height (mm)	Pump weight (KG)
4DGS32-13/1-3000-A/D	32	13	49	24	380	520-750	< 780	3.0	3	100	2	600	9.8
4DGS32-25/2-5500-A/D	32	25	49	43	380	520-750	< 780	5.5	3	100	2	721	12.6
4DGS32-50/3-7500-A/D	32	50	49	71	380	520-750	< 780	7.5	3	100	2	918	16.5
4DGS32-80/5-11000-A/D	32	80	49	116	380	520-750	< 780	11	3	100	2	1139	20.2

### FREE SPARE PARTS



