



PUMPS&SEALS

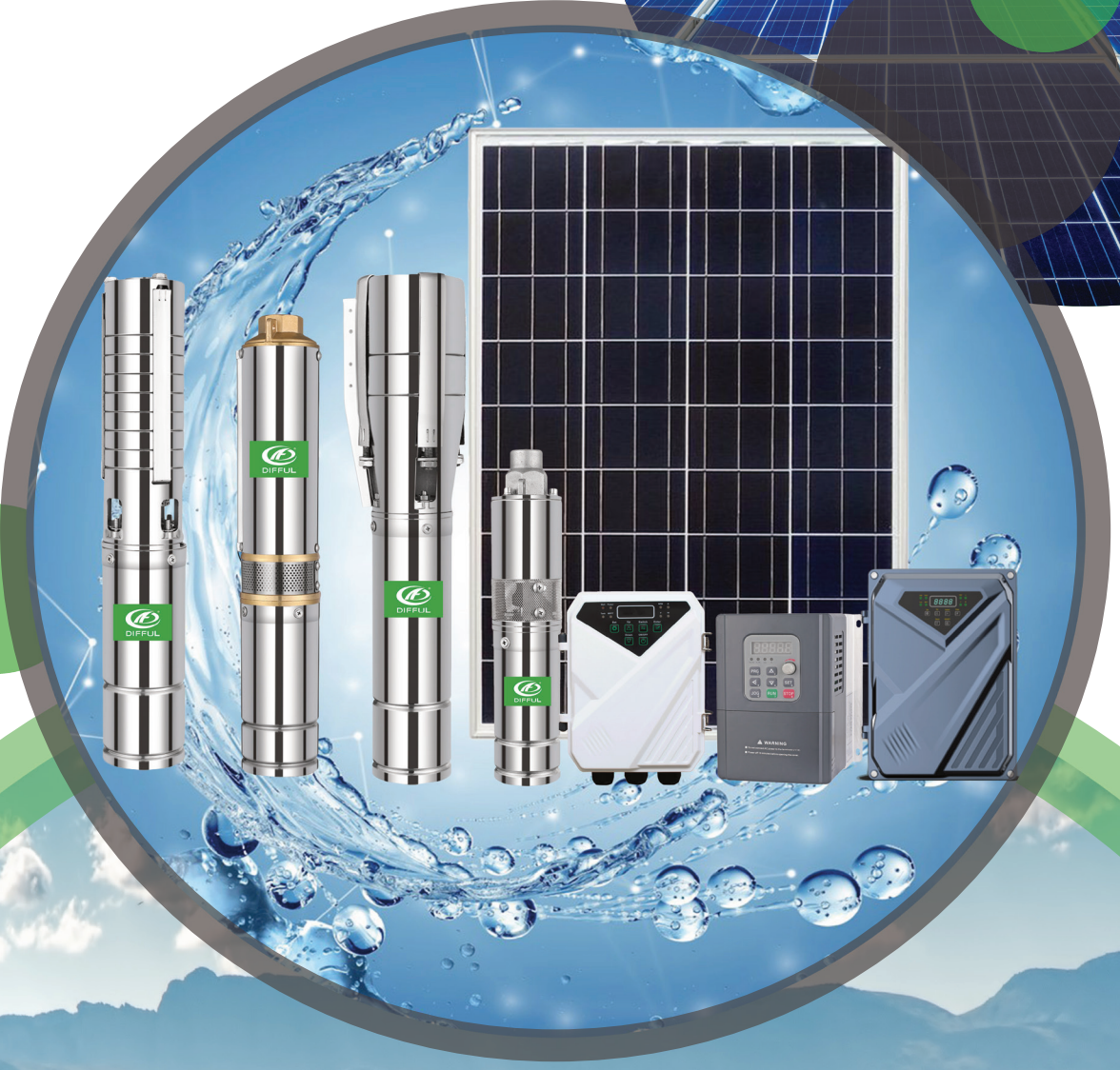
SOLAR PUMPS

BRUSCHLESS DC SOLAR PUMPS





PUMPS&SEALS



MODEL DESCRIPTION

SUBMERSIBLE BOREHOLE RANGE

3DSS	3" Brushless Screw Solar Pump
3DPC	3" Brushless Plastic Impeller Solar Pump
4DPC	4" Brushless Plastic Impeller Solar Pump
4DLR	4" Brushless Plastic Impeller Solar Pump
4DCS	4" Brushless Stainless Steel Impeller Solar Pump

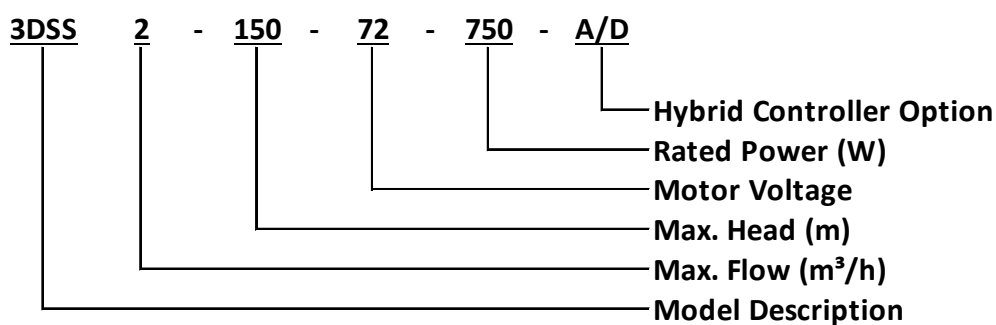
SURFACE & DRAINAGE PUMP RANGE

DJET	Brushless Self-Priming Jet Solar Pump
DQB	Brushless Peripheral Solar Pump
DLP	Brushless Swimming Pool Solar Pump
DCPM	Brushless Centrifugal Solar Pump
DQD	Brushless Drainage Solar Pump

SOLAR CONTROLLERS

DC & Hybrid Solar Controllers

MODEL SPECIFICATION



Application:

- Domestic water supply
- Agricultural irrigation
- Livestock drinking water
- Deep-well and borehole

Pump Features:

- Permanent magnet DC brushless motor
- CU Japanese bearing structure
- Double mechanical seals
- Sacrificial anode
- 3" & 4" Screw pump

DC Controller:

- Protection class: IP65
- Ambient temperature: -15°C ~ 60°C
- LED displays working conditions & fault codes
- Auto start & stop
- Soft start



Positive displacement Rotor & Stator



CU / NSK Bearings double bearing arrangement



Stainless steel oil cylinder

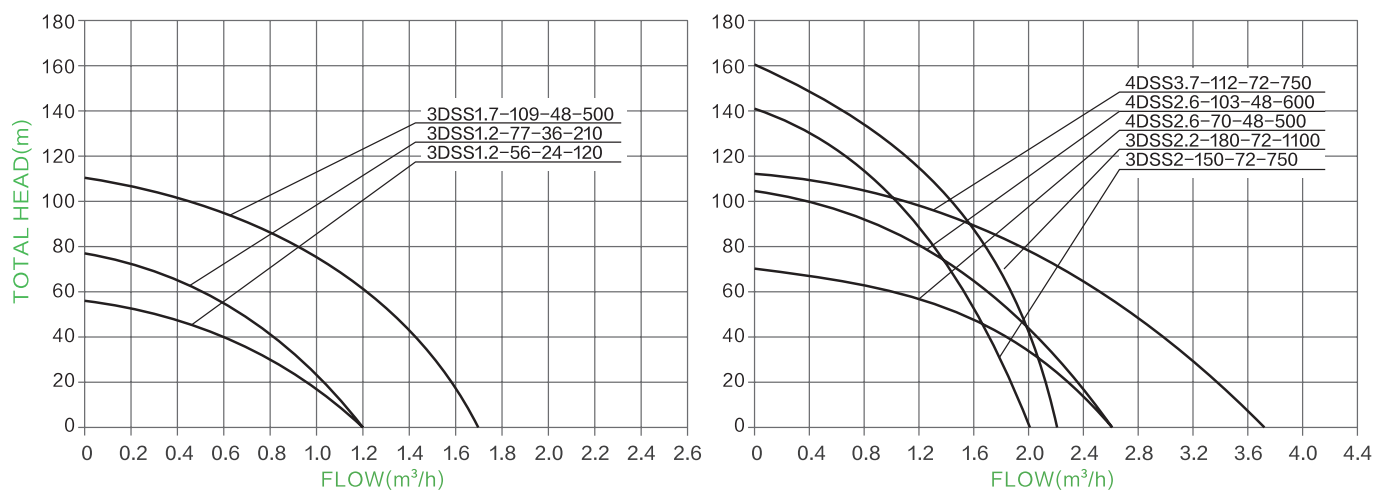
Technical Data:

Item	Voltage	Optimum input voltage (DC)	Power	Max. Flow	Max. Head	Outlet	Cable	Solar panel	
								Open circuit voltage (VOC)	Power
3DSS1.2-56-24-120	24V	30V-48V	120W	1.2m³/h	56m	3/4"	2m	<60V	>1.3 x Pump Power
3DSS1.2-77-36-210	36V	30V-48V	210W	1.2m³/h	77m	3/4"	2m	<60V	>1.3 x Pump Power
3DSS1.7-109-48-500	48V	60V-90V	500W	1.7m³/h	109m	3/4"	2m	<110V	>1.3 x Pump Power
3DSS2.0-150-72-750	72V	90V-120V	750W	2.0m³/h	150m	3/4"	2m	<170V	>1.3 x Pump Power
3DSS2.2-180-72-1100	72V	90V-120V	1100W	2.2m³/h	180m	3/4"	2m	<170V	>1.3 x Pump Power
4DSS2.6-70-48-500	48V	60V-90V	500W	2.6m³/h	70m	1"	2m	<110V	>1.3 x Pump Power
4DSS2.6-103-48-600	48V	60V-90V	600W	2.6m³/h	103m	1"	2m	<110V	>1.3 x Pump Power
4DSS3.7-112-72-750	72V	90V-120V	750W	3.7m³/h	112m	1"	2m	<170V	>1.3 x Pump Power

Kit Includes:

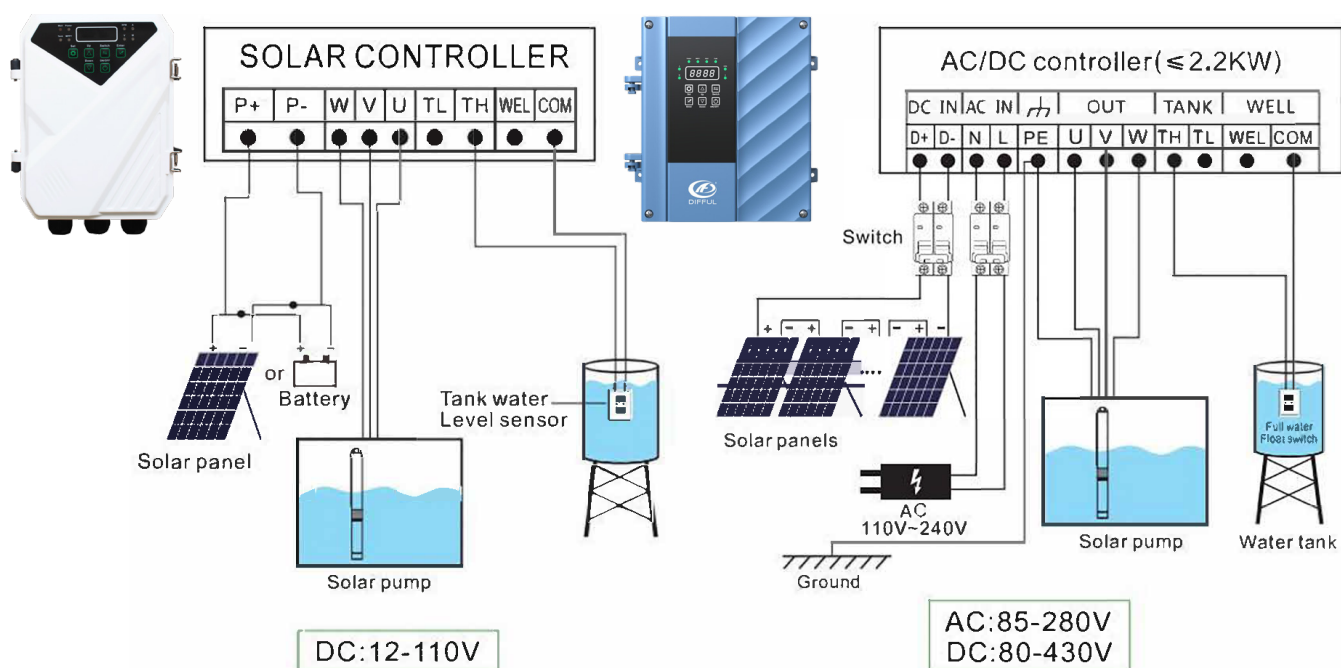


● Performance Curve:



● Performance Table:

Model	Power kW	l/min m³/h	0	3	7	10	13	17	20	23	27	30	33	37	40
			0.0	0.2	0.4	0.6	0.8	1.0	1.2	1.4	1.6	1.8	2.0	2.2	2.4
3DSS1.2-56-24-120	0.12	H(m)	56	46	42	40	26	18	2	-	-	-	-	-	-
3DSS1.2-77-36-210	0.21		77	76	70	56	40	24	2	-	-	-	-	-	-
3DSS1.7-109-48-500	0.50		109	102	100	90	82	78	60	40	20	-	-	-	-
3DSS2.0-150-72-750	0.75		140	130	122	118	104	95	80	62	44	22	-	-	-
3DSS2.2-180-72-1100	1.10		160	154	144	140	130	118	102	82	64	44	22	-	-
4DSS2.6-70-48-500	0.50		70	64	62	60	55	50	48	42	40	30	28	20	12
4DSS2.6-103-48-600	0.60		103	101	100	95	90	85	80	71	62	51	40	30	20
4DSS3.7-112-72-750	0.75		112	109	106	104	102	101	100	94	88	84	80	70	60



Application:

- Domestic water supply
- Agricultural irrigation
- Livestock drinking water
- Deep-well and borehole

Pump Features:

- Permanent magnet DC brushless motor
- CU Japanese bearing structure
- 3" Plastic Impeller pump

DC Controller:

- Protection class: IP65
- Ambient temperature: -15°C ~ 60°C
- LED displays working conditions & fault codes
- Auto start & stop
- Soft start



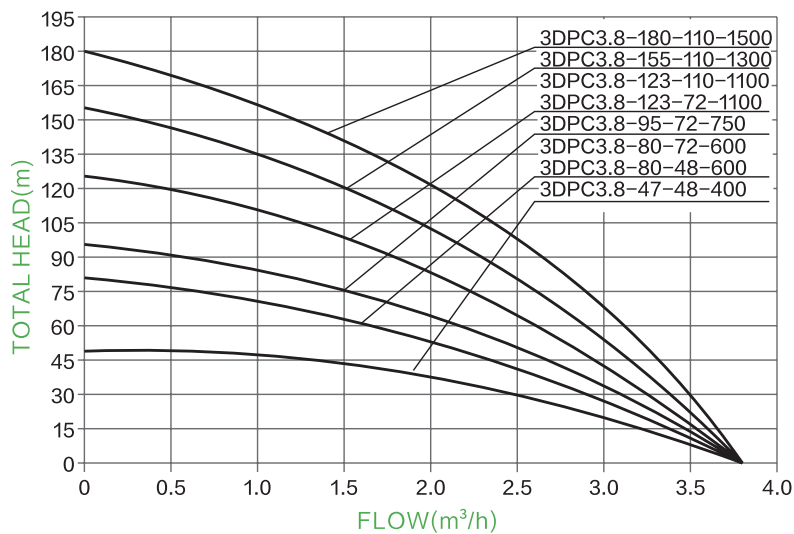
- **Technical Data:**

Item	Voltage	Optimum input voltage (DC)	Power	Max. Flow	Max. Head	Outlet	Cable	Solar panel	
								Open circuit voltage (VOC)	Power
3DPC3.8-47-48-400	48V	60V-90V	400W	3.8m³/h	47m	1.25"	2m	<110V	>1.3 x Pump Power
3DPC3.8-80-48-600	48V	60V-90V	600W	3.8m³/h	80m	1.25"	2m	<110V	>1.3 x Pump Power
3DPC3.8-80-72-600	72V	90V-120V	600W	3.8m³/h	80m	1.25"	2m	<170V	>1.3 x Pump Power
3DPC3.8-95-72-750	72V	90V-120V	750W	3.8m³/h	95m	1.25"	2m	<170V	>1.3 x Pump Power
3DPC3.8-123-110-1100	110V	110V-150V	1100W	3.8m³/h	123m	1.25"	2m	<220V	>1.3 x Pump Power
3DPC3.8-155-110-1300	110V	110V-150V	1300W	3.8m³/h	155m	1.25"	2m	<220V	>1.3 x Pump Power
3DPC3.8-180-110-1500	110V	110V-150V	1500W	3.8m³/h	180m	1.25"	2m	<220V	>1.3 x Pump Power

- **Kit Includes:**

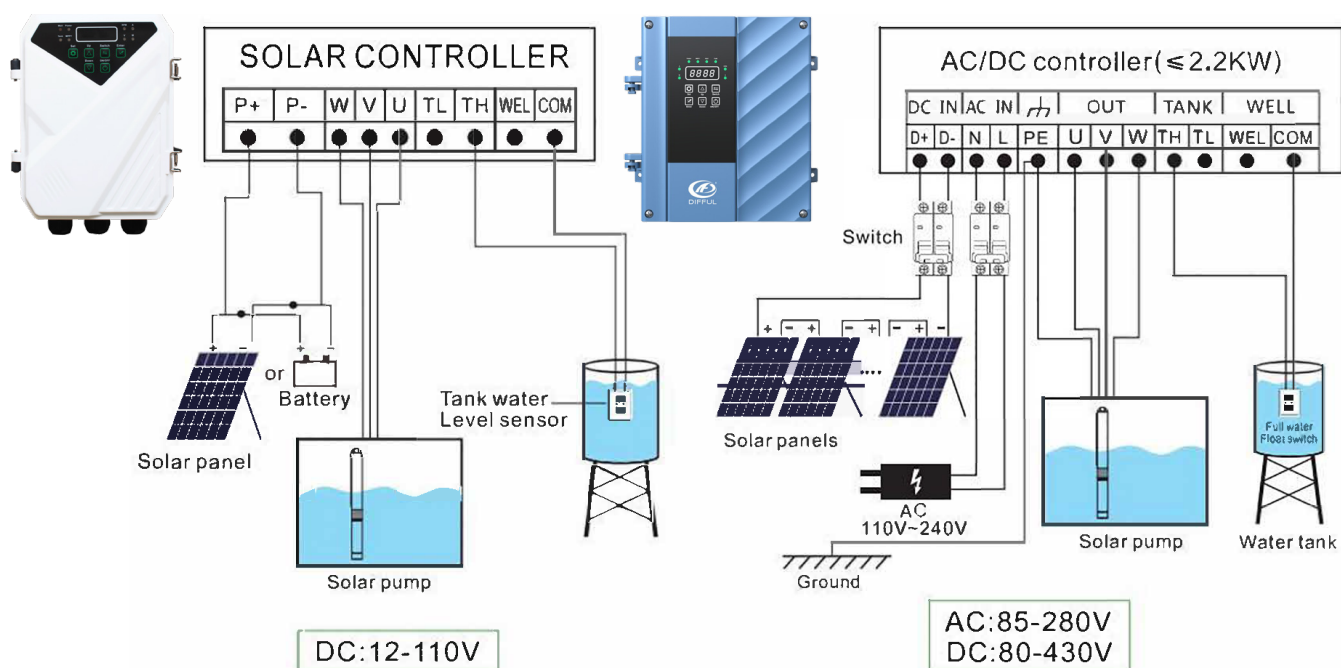


● Performance Curve:



● Performance Table:

Model	Power	l/min	0	8	17	25	33	42	50	58	67	75
	kW	m³/h	0.0	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5
3DPC3.8-47-48-400	0.40	H(m)	47	46	45	42	38	28	15	-	-	-
3DPC3.8-80-48-600	0.60		80	76	70	60	46	35	16	-	-	-
3DPC3.8-80-72-600	0.60		80	76	70	60	46	35	16	-	-	-
3DPC3.8-95-72-750	0.75		95	90	80	70	58	42	25	-	-	-
3DPC3.8-123-110-1100	1.10		123	118	110	98	82	62	42	20	-	-
3DPC3.8-155-110-1300	1.30		155	140	130	112	95	72	50	20	-	-
3DPC3.8-180-110-1500	1.50		180	167	154	137	120	98	68	30	-	-



Application:

- Domestic water supply
- Agricultural irrigation
- Livestock drinking water
- Deep-well and borehole

Pump Features:

- Permanent magnet DC brushless motor
- CU Japanese bearing structure
- 4" Plastic Impeller pump

DC Controller:

- Protection class: IP65
- Ambient temperature: -15°C ~ 60°C
- LED displays working conditions & fault codes
- Auto start & stop
- Soft start



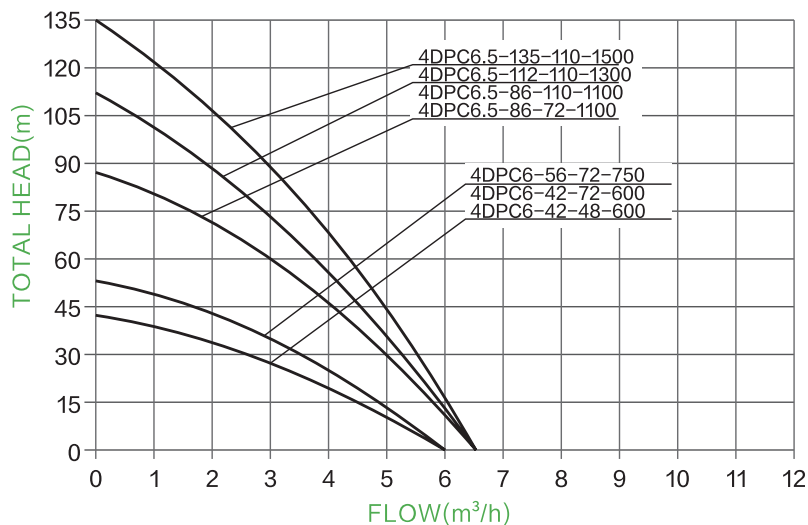
• Technical Data:

Item	Voltage	Optimum input voltage (DC)	Power	Max. Flow	Max. Head	Outlet	Cable	Solar panel	
								Open circuit voltage (VOC)	Power
4DPC6-42-48-600	48V	60V-90V	600W	6.0m³/h	42m	1.25"	2m	<110V	>1.3 x Pump Power
4DPC6-42-72-600	72V	90V-120V	600W	6.0m³/h	42m	1.25"	2m	<110V	>1.3 x Pump Power
4DPC6-56-72-750	72V	90V-120V	750W	6.0m³/h	56m	1.25"	2m	<170V	>1.3 x Pump Power
4DPC6-84-110-1100	110V	110V-150V	1100W	6.0m³/h	84m	1.25"	2m	<220V	>1.3 x Pump Power
4DPC6-112-110-1300	110V	110V-150V	1300W	6.0m³/h	112m	1.25"	2m	<220V	>1.3 x Pump Power
4DPC6-135-110-1500	110V	110V-150V	1500W	6.0m³/h	135m	1.25"	2m	<220V	>1.3 x Pump Power

• Kit Includes:

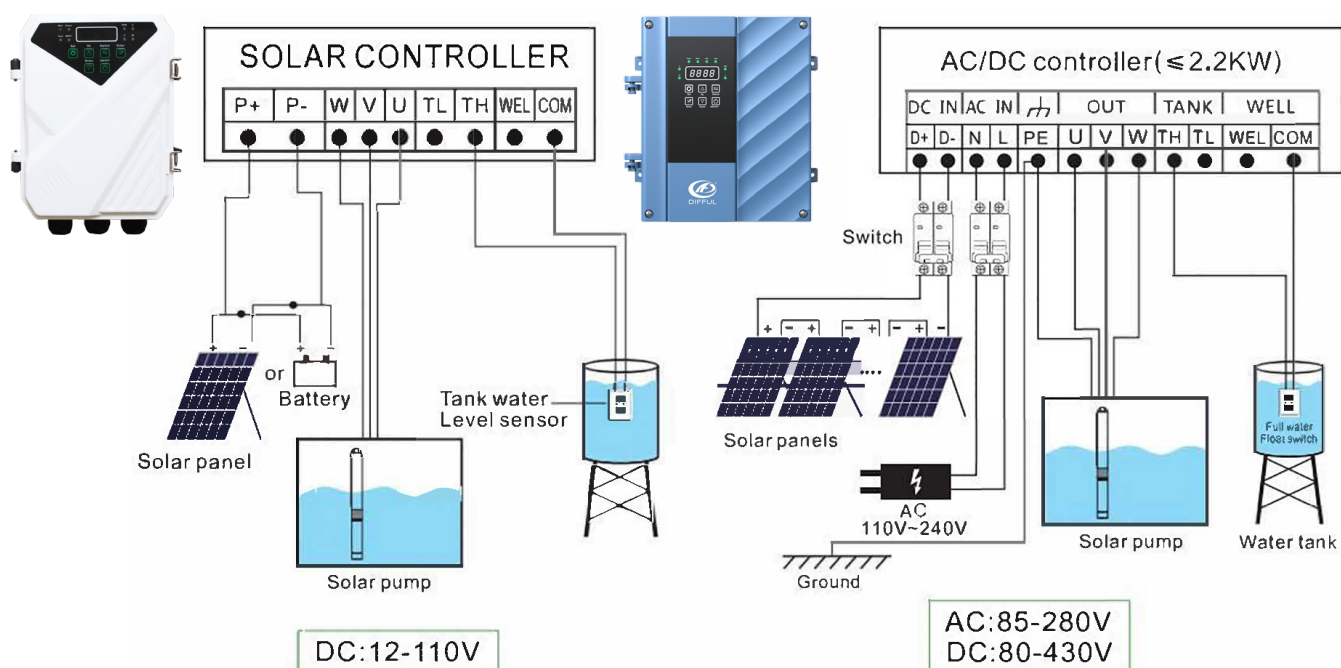


● Performance Curve:



● Performance Table:

Model	Power	l/min	0	8	17	25	33	42	50	58	67	75	83	92	100
	kW	m³/h	0.0	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0
4DPC6-42-48-600	0.60	H(m)	42	40	39	38	35	30	28	25	20	18	10	8	-
4DPC6-42-72-600	0.60		42	40	39	38	35	30	28	25	20	18	10	8	-
4DPC6-56-72-750	0.75		56	52	50	48	43	41	39	32	29	21	18	10	-
4DPC6-84-110-1100	1.10		86	80	79	71	69	61	58	50	40	30	21	10	-
4DPC6-112-110-1300	1.30		112	110	101	99	91	82	71	68	58	43	30	12	-
4DPC6-135-110-1500	1.50		142	140	130	125	118	108	98	84	70	58	40	20	-



Applications:

- Large area irrigation
- Domestic water supply
- Agricultural irrigation
- Livestock drinking water
- Deep-well and borehole

Pump Features:

- Permanent magnet DC brushless motor
- CU Japanese bearing structure
- 4" Plastic Impeller pump

DC Controller:

- Protection class: IP65
- Ambient temperature: -15°C ~ 60°C
- LED displays working conditions & fault codes
- Auto start & stop
- Soft start



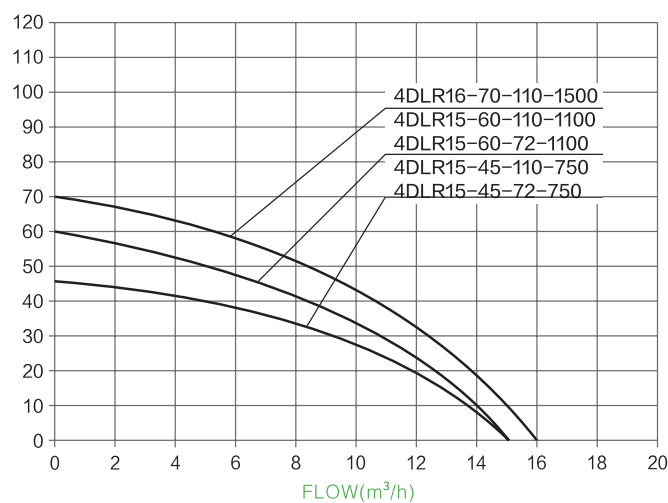
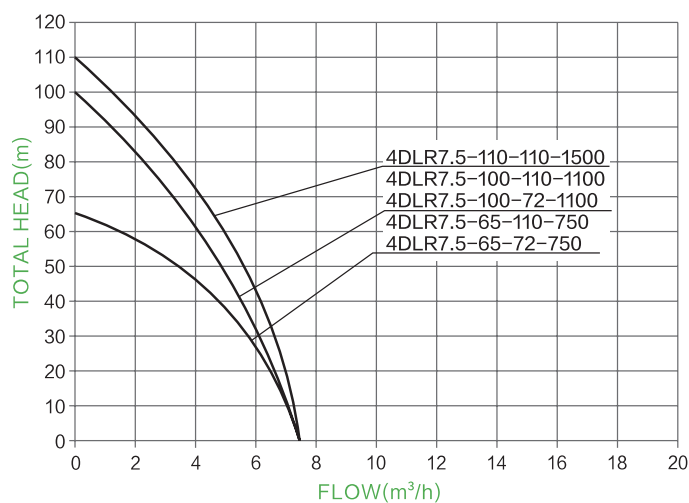
Technical Data:

Item	Voltage	Optimum input voltage (DC)	Power	Max. Flow	Max. Head	Outlet	Cable	Solar panel	
								Open circuit voltage (VOC)	Power
4DLR7.5-65-72-750	72V	90V-120V	750W	7.5m³/h	65m	2"	2m	<170V	>1.3 x Pump Power
4DLR7.5-100-110-1100	110V	110V-150V	1100W	7.5m³/h	100m	2"	2m	<220V	>1.3 x Pump Power
4DLR7.5-110-110-1500	110V	110V-150V	1500W	7.5m³/h	110m	2"	2m	<220V	>1.3 x Pump Power
4DLR14.5-45-72-750	72V	90V-120V	750W	14.5m³/h	45m	2"	2m	<170V	>1.3 x Pump Power
4DLR15-55-110-1100	110V	110V-150V	1100W	15m³/h	55m	2"	2m	<220V	>1.3 x Pump Power
4DLR16-70-110-1500	110V	110V-150V	1500W	16m³/h	70m	2"	2m	<220V	>1.3 x Pump Power

Kit Includes:



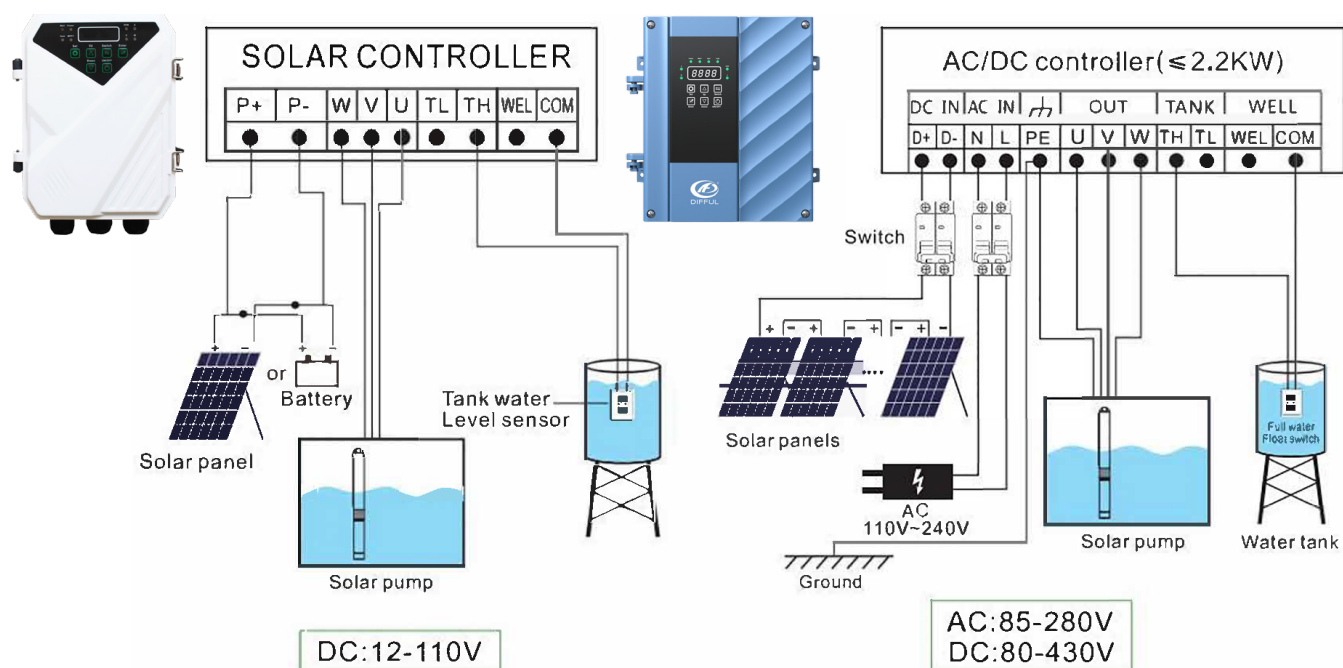
● Performance Curve:



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● Performance Table:

Model	Power	l/min	0	17	33	50	67	83	100	117	133	150	167	183	200
	kW	m³/h	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0
4DLR7.5-65-72-750	0.75	H(m)	65	58	51	46	40	32	20	10	-	-	-	-	-
4DLR7.5-100-110-1100	1.10		100	90	81	70	60	50	30	10	-	-	-	-	-
4DLR7.5-110-110-1500	1.50		110	102	95	82	70	55	41	20	-	-	-	-	-
4DLR14.5-45-72-750	0.75		45	43	41	39	37	35	32	30	28	25	21	17	12
4DLR15-55-110-1100	1.10		55	54	51	49	47	45	41	38	35	31	29	25	19
4DLR16-70-110-1500	1.50		70	69	68	65	62	60	58	55	52	47	42	37	32



- Large area irrigation
- Domestic water supply
- Agricultural irrigation
- Livestock drinking water
- Deep-well and borehole

- Permanent magnet DC brushless motor
- CU Japanese bearing structure
- 4" Stainless Steel Impeller pump

- Protection class: IP65
- Ambient temperature: -15°C ~ 60°C
- LED displays working conditions & fault codes
- Auto start & stop
- Soft start



Stainless steel outlet



Stainless steel
impeller



Stainless steel oil
cylinder



CU / NSK Bearings
double bearing
arrangement

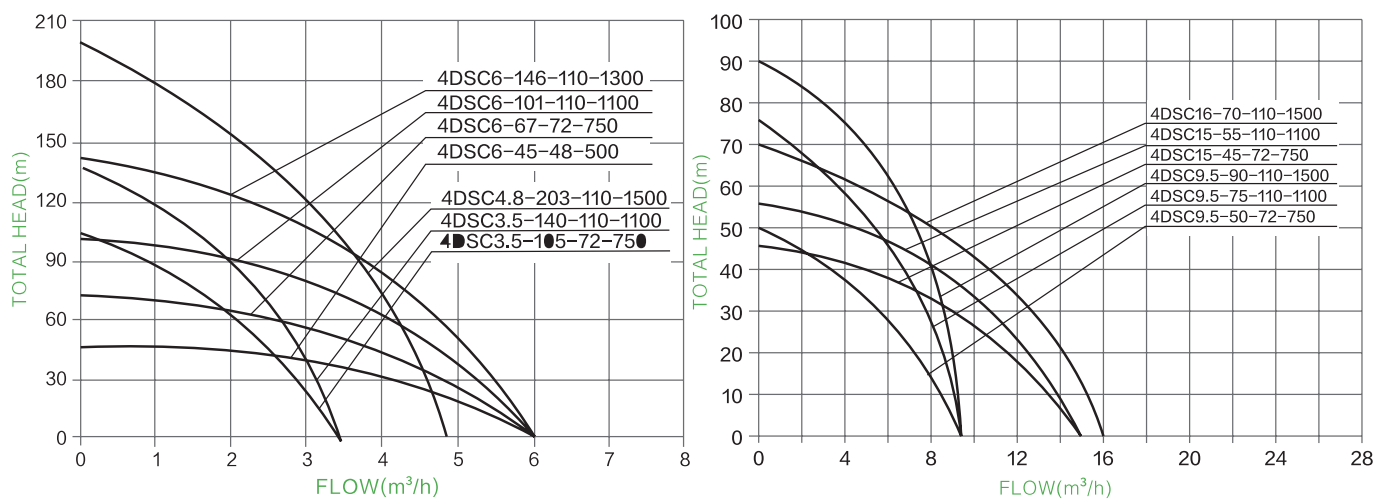


Stainless steel
connecting fitting



Item	Voltage	Optimum input voltage (DC)	Power	Max. Flow	Max. Head	Outlet	Cable	Solar panel	
								Open circuit voltage (VOC)	Power
4DSC3.5-105-72-750	72V	90V-120V	750W	3.5m³/h	105m	1.25"	2m	<170V	>1.3 x Pump Power
4DSC3.5-140-110-1100	110V	110V-150V	1100W	3.5m³/h	140m	1.25"	2m	<220V	>1.3 x Pump Power
4DSC4.8-203-110-1500	110V	110V-150V	1500W	4.8m³/h	203m	1.25"	2m	<220V	>1.3 x Pump Power
4DSC6-45-48-500	48V	60V-90V	500W	6m³/h	45m	1.25"	2m	<110V	>1.3 x Pump Power
4DSC6-67-72-750	72V	90V-120V	750W	6m³/h	67m	1.25"	2m	<170V	>1.3 x Pump Power
4DSC6-101-110-1100	110V	110V-150V	1100W	6m³/h	101m	1.25"	2m	<220V	>1.3 x Pump Power
4DSC6-146-110-1300	110V	110V-150V	1300W	6m³/h	146m	1.25"	2m	<220V	>1.3 x Pump Power
4DSC9.5-50-72-750	72V	90V-120V	750W	9.5m³/h	50m	2"	2m	<170V	>1.3 x Pump Power
4DSC9.5-75-110-1100	110V	110V-150V	1100W	9.5m³/h	75m	2"	2m	<220V	>1.3 x Pump Power
4DSC9.5-90-110-1500	110V	110V-150V	1500W	9.5m³/h	90m	2"	2m	<220V	>1.3 x Pump Power
4DSC15-45-72-750	72V	90V-120V	750W	15m³/h	45m	2"	2m	<170V	>1.3 x Pump Power
4DSC15-55-110-1100	110V	110V-150V	1100W	15m³/h	55m	2"	2m	<220V	>1.3 x Pump Power
4DSC16-70-110-1500	110V	110V-150V	1500W	16m³/h	70m	2"	2m	<220V	>1.3 x Pump Power

● Performance Curve:



● Performance Table:

Model	Power	l/min	0	8	17	14	33	42	50	58	67	75	83	92	100
	kW	m³/h	0.0	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0
4DSC3.5-105-72-750	0.75	H(m)	105	98	90	76	62	46	30	0	-	-	-	-	-
4DSC3.5-140-110-1100	1.10		140	130	120	105	90	68	45	0	-	-	-	-	-
4DSC4.8-203-110-1500	1.50		203	205	180	165	150	135	120	90	60	5	-	-	-
4DSC6-45-48-500	0.50		45	42	40	39	38	37	36	33	30	24	18	12	0
4DSC6-67-72-750	0.75		67	66	64	63	62	60	58	52	45	37	29	15	0
4DSC6-101-110-1100	1.10		101	98	94	92	90	84	78	69	60	47	34	17	0
4DSC6-146-110-1300	1.30		146	141	135	129	122	114	105	97	88	69	50	25	0

Model	Power	l/min	0	33	67	100	133	167	200	233	267	300	333	367	400
	kW	m³/h	0.0	2.0	4.0	6.0	8.0	10.0	12.0	14.0	16.0	18.0	20.0	22.0	24.0
4DSC9.5-50-72-750	0.75	H(m)	50	45	37	28	14	0	-	-	-	-	-	-	-
4DSC9.5-75-110-1100	1.10		75	68	58	45	25	0	-	-	-	-	-	-	-
4DSC9.5-90-110-1500	1.50		90	82	74	60	40	0	-	-	-	-	-	-	-
4DSC15-45-72-750	0.75		45	43	40	38	32	25	20	5	0	-	-	-	-
4DSC15-55-110-1100	1.10		55	53	50	45	40	34	24	10	0	-	-	-	-
4DSC16-70-110-1500	1.50		70	65	60	55	50	42	32	20	0	-	-	-	-

Applications:

- Small area area irrigation
- Domestic water supply
- Sprinkling irrigation
- Pressure boosting

Pump Features:

- Stainless steel pump body
- Stainless steel impeller
- Max. liquid temperature: +60°C



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DC Controller:

- Protection class: IP65
- Ambient temperature: -15°C ~ 60°C
- LED displays working conditions & fault codes
- Auto start & stop
- Soft start



Plastic Impeller



Carbon/Ceramic
Mechanical Seal



Stainless Steel
Volute Casing



CU / NSK Bearings

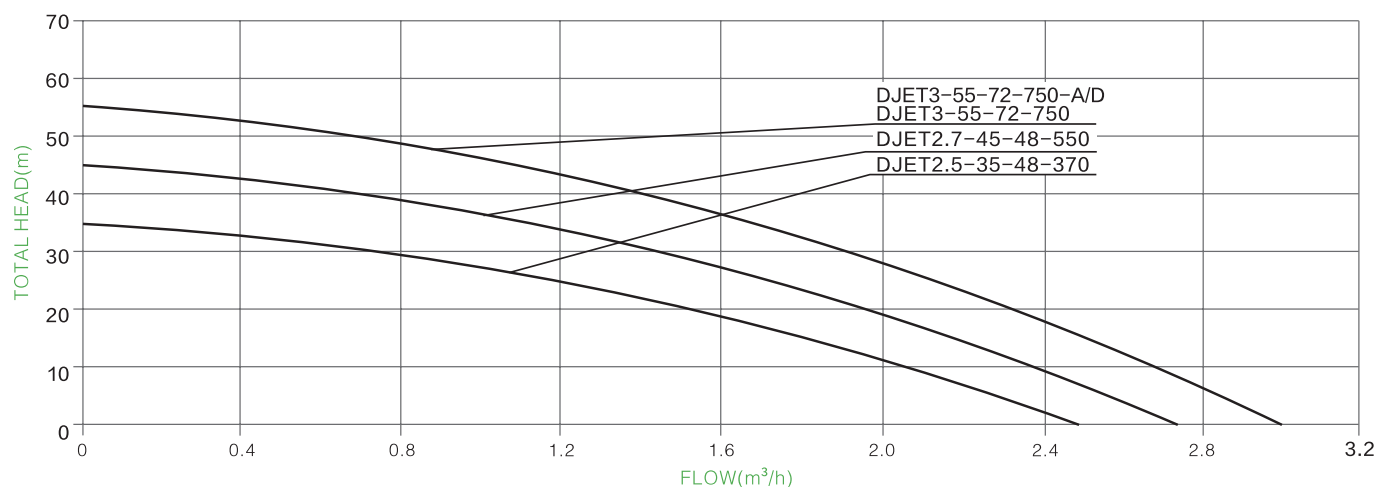
• Technical Data:

Item	Voltage	Optimum input voltage (DC)	Power	Max. Flow	Max. Head	Outlet	Cable	Solar panel	
								Open circuit voltage (VOC)	Power
DJET2.5-35-48-370	48V	60V-90V	370W	2.5m³/h	35m	1X1"	2m	<110V	>1.3 x Pump Power
DJET2.7-45-48-550	48V	60V-90V	550W	2.5m³/h	45m	1X1"	2m	<110V	>1.3 x Pump Power
DJET3-55-72-750	72V	90V-120V	750W	3m³/h	55m	1X1"	2m	<170V	>1.3 x Pump Power

• Kit Includes:

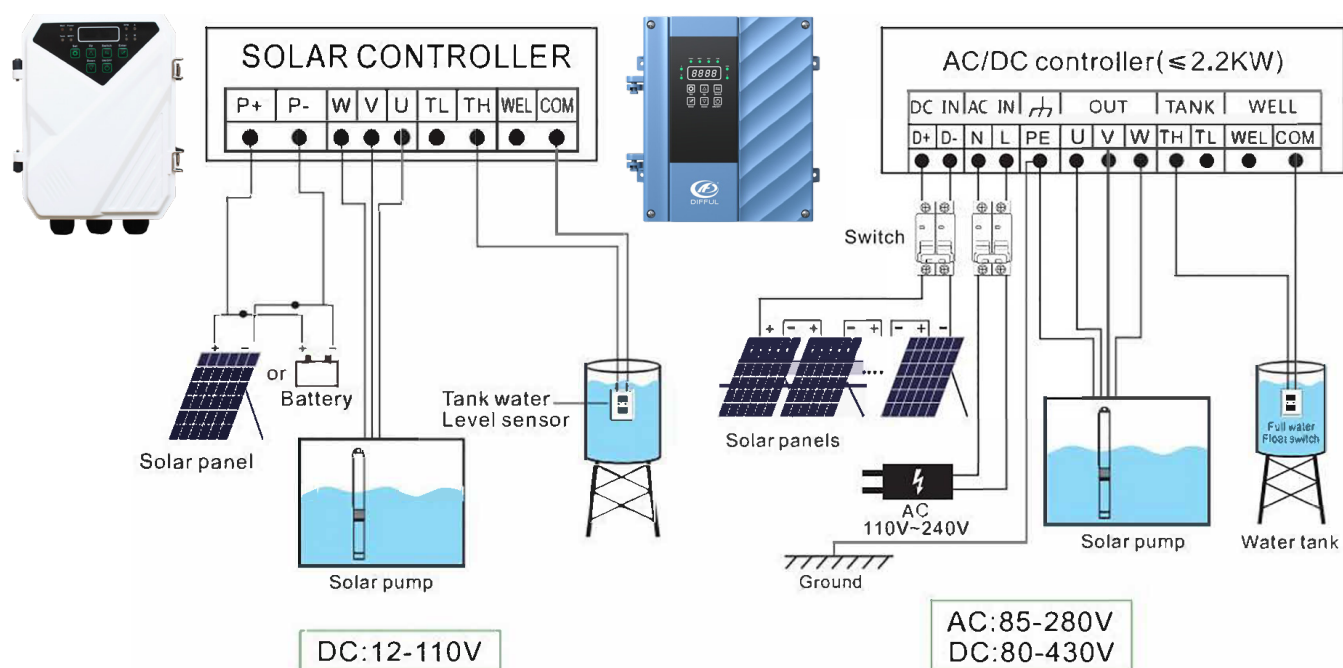


● Performance Curve:



● Performance Table:

Model	Power	l/min	0	7	13	20	27	33	40	47	53
	kW	m³/h	0.0	0.4	0.8	1.2	1.6	2.0	2.4	2.8	3.2
DJET2.5-35-48-370	0.37	H(m)	35	32	29	25	19	11	2	-	-
DJET2.7-45-48-550	0.55		45	42	39	34	28	19	9	-	-
DJET3-55-72-750	0.75		55	52	49	43	36	28	18	7	-



Applications:

- Small area area irrigation
- Domestic water supply
- Sprinkling irrigation
- Pressure boosting

Pump Features:

- Brass impeller
- Ambient temperatur: -15°C ~ 60°C
- High efficiency synchronous motor



DC Controller:

- Protection class: IP65
- Ambient temperature: -15°C ~ 60°C
- LED displays working conditions & fault codes
- Auto start & stop
- Soft start



Brass Impeller



Carbon/Ceramic
Mechanical Seal



Cast Iron Casing



CU / NSK Bearings

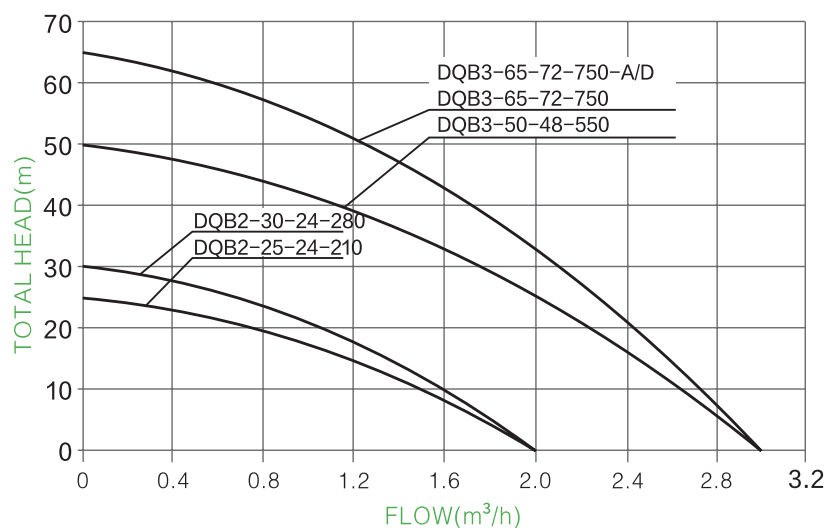
Technical Data:

Item	Voltage	Optimum input voltage (DC)	Power	Max. Flow	Max. Head	Outlet	Cable	Solar panel	
								Open circuit voltage (VOC)	Power
DQB2-25-24-210	24V	30V-48V	210W	2m³/h	25m	1X1"	2m	<60V	>1.3 x Pump Power
DQB2-30-24-280	24V	30V-48V	280W	2m³/h	30m	1X1"	2m	<60V	>1.3 x Pump Power
DQB3-50-48-550	48V	60V-90V	550W	3m³/h	50m	1X1"	2m	<110V	>1.3 x Pump Power
DQB3-65-72-750	72V	90V-120V	750W	3m³/h	65m	1X1"	2m	<170V	>1.3 x Pump Power

Kit Includes:

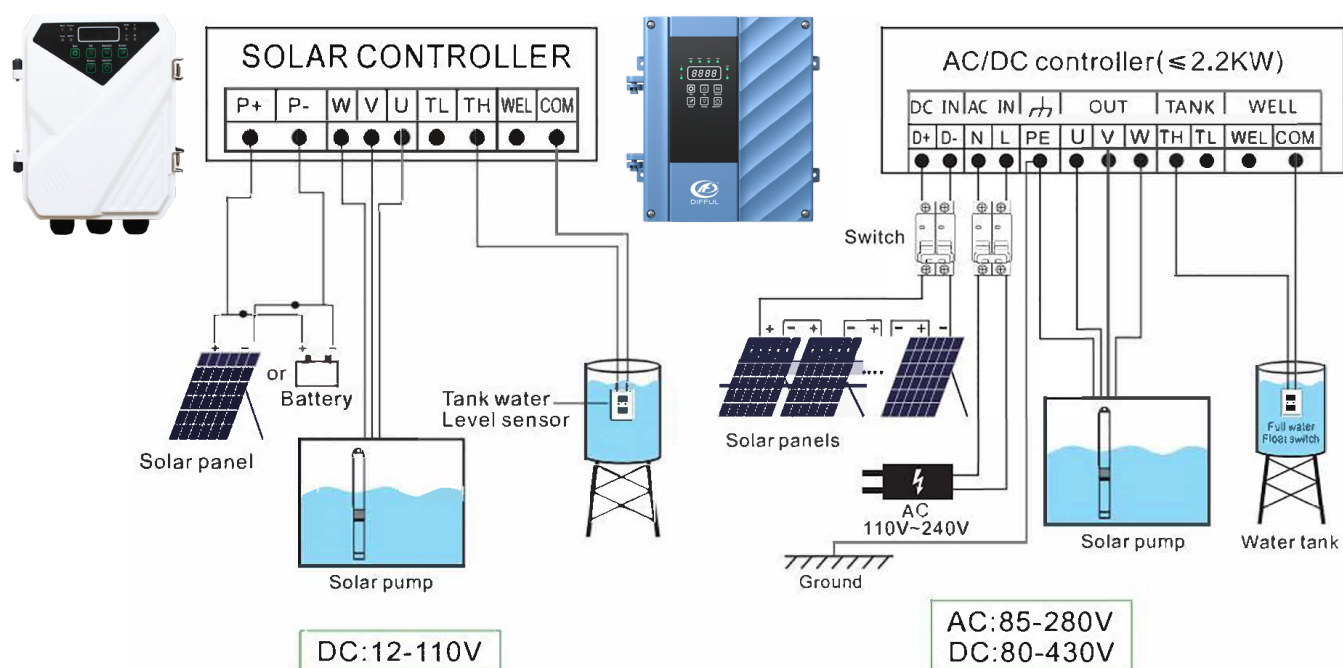


● Performance Curve:



● Performance Table:

Model	Power	l/min	0	7	13	20	27	33	40	47	53
	kW	m³/h	0.0	0.4	0.8	1.2	1.6	2.0	2.4	2.8	3.2
DQB2-25-24-210	0.21	H(m)	25	23	20	15	8	-	-	-	-
DQB2-30-24-280	0.28		30	27	25	18	10	-	-	-	-
DQB3-50-48-550	0.55		50	48	44	39	32	25	15	5	-
DQB3-65-72-750	0.75		65	62	57	50	42	33	21	8	-



Applications:

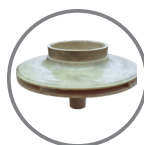
- Residential and commercial swimming pools
- Spa's
- Filtration

Pump Features:

- High efficiency brushless motor
- High efficiency synchronous motor
- Copper winding

DC Controller:

- Protection class: IP55
- Ambient temperature: -15°C ~ 60°C
- LED displays working conditions & fault codes
- Auto start & stop
- Soft start



Plastic Impeller



Carbon/Ceramic Mechanical Seal



High Density Plastic Casing



CU / NSK Bearings

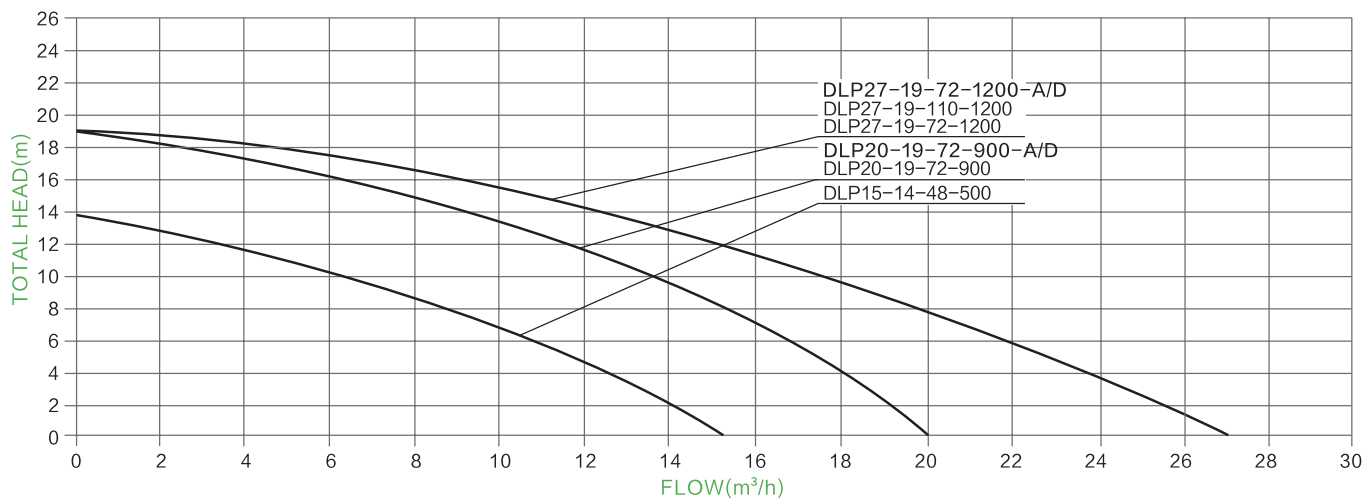
Technical Data:

Item	Voltage	Optimum input voltage (DC)	Power	Max. Flow	Max. Head	Outlet	Cable	Solar panel	
								Open circuit voltage (VOC)	Power
DLP15-14-48-500	48V	60V-90V	500W	15m³/h	14m	2X2"	2m	<110V	>1.3 x Pump Power
DLP20-19-72-900	72V	90V-120V	900W	20m³/h	19m	2X2"	2m	<170V	>1.3 x Pump Power
DLP27-19-72-1200	72V	90V-120V	1200W	27m³/h	19m	3X3"	2m	<170V	>1.3 x Pump Power
DLP27-19-110-1200	110V	110V-150V	1200W	27m³/h	19m	3X3"	2m	<220V	>1.3 x Pump Power

Kit Includes:

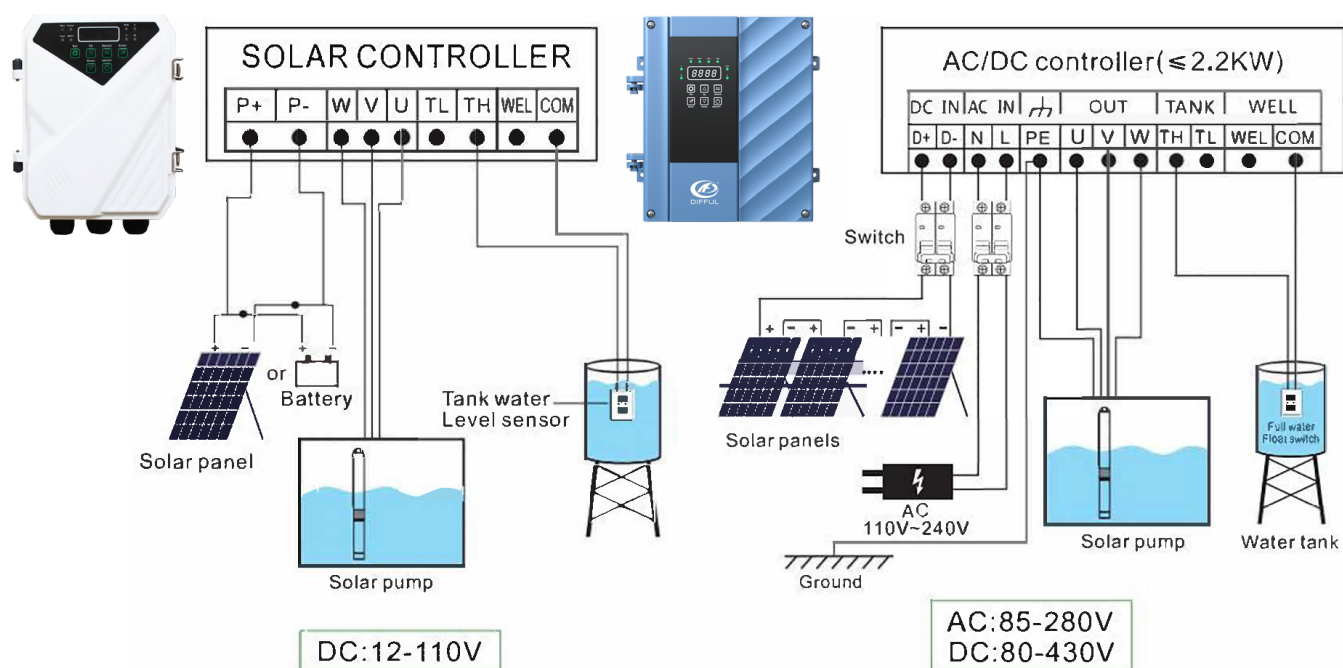


● Performance Curve:



● Performance Table:

Model	Power	l/min	0	33	67	100	133	167	200	233	267	300	333	367	400	433
	kW	m³/h	0.0	2.0	4.0	6.0	8.0	10.0	12.0	14.0	16.0	18.0	20.0	22.0	24.0	26.0
DLP15-14-48-500	0.50	H(m)	14	13	11	10	9	7	5	2	-	-	-	-	-	-
DLP20-19-72-900	0.90		19	18	17	16	15	13	11	9	7	4	-	-	-	-
DLP27-19-72-1200	1.20		19	19	18	17	16	15	14	13	11	9	7	6	3	-
DLP27-19-110-1200	1.20		19	19	18	17	16	15	14	13	11	9	7	6	3	-

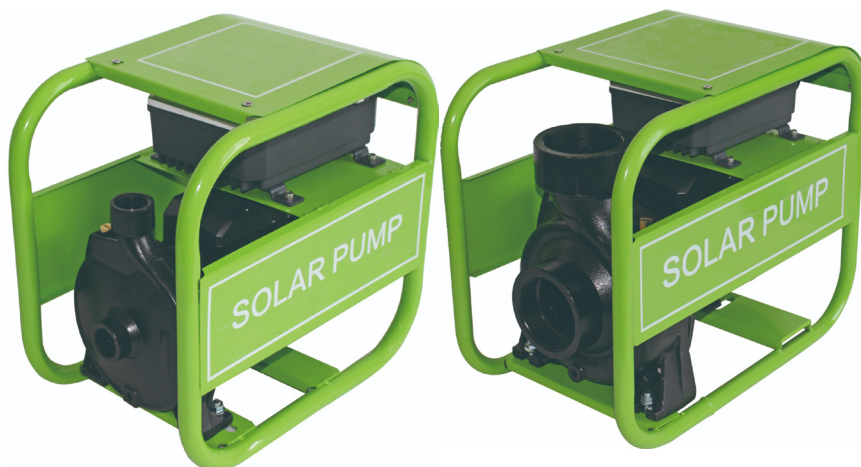


Applications:

- Small area area irrigation
- Domestic water supply
- Sprinkling irrigation
- Pressure boosting

Pump Features:

- Cast Iron steel pump body
- Brass steel impeller
- Max. liquid temperature: +60°C



DC Controller:

- Protection class: IP65
- Ambient temperature: -15°C ~ 60°C
- LED displays working conditions & fault codes
- Auto start & stop
- Soft start

DIFFUL

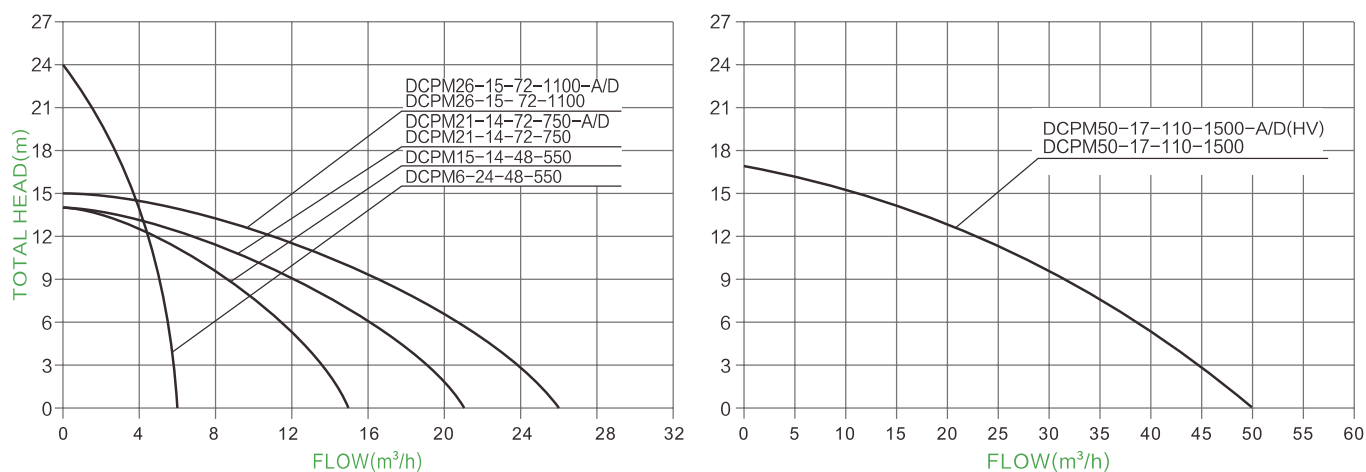
• Technical Data:

Item	Voltage	Optimum input voltage (DC)	Power	Max. Flow	Max. Head	Outlet	Cable	Solar panel	
								Open circuit voltage (VOC)	Power
DCPM6-24-48-550	48V	60V-90V	550W	6m³/h	24m	1"	0.6m	<110V	>1.3 x Pump Power
DCPM15-14-48-550	48V	60V-90V	550W	15m³/h	14m	1.5"	0.6m	<110V	>1.3 x Pump Power
DCPM21-14-72-750	72V	90V-120V	750W	21m³/h	14m	2"	0.6m	<170V	>1.3 x Pump Power
DCPM26-15-72-1100	72V	90V-120V	1100W	26m³/h	15m	2"	0.6m	<170V	>1.3 x Pump Power
DCPM50-17-110-1500	110V	110V-150V	1500W	50m³/h	17m	3"	0.6m	<220V	>1.3 x Pump Power

• Kit Includes:



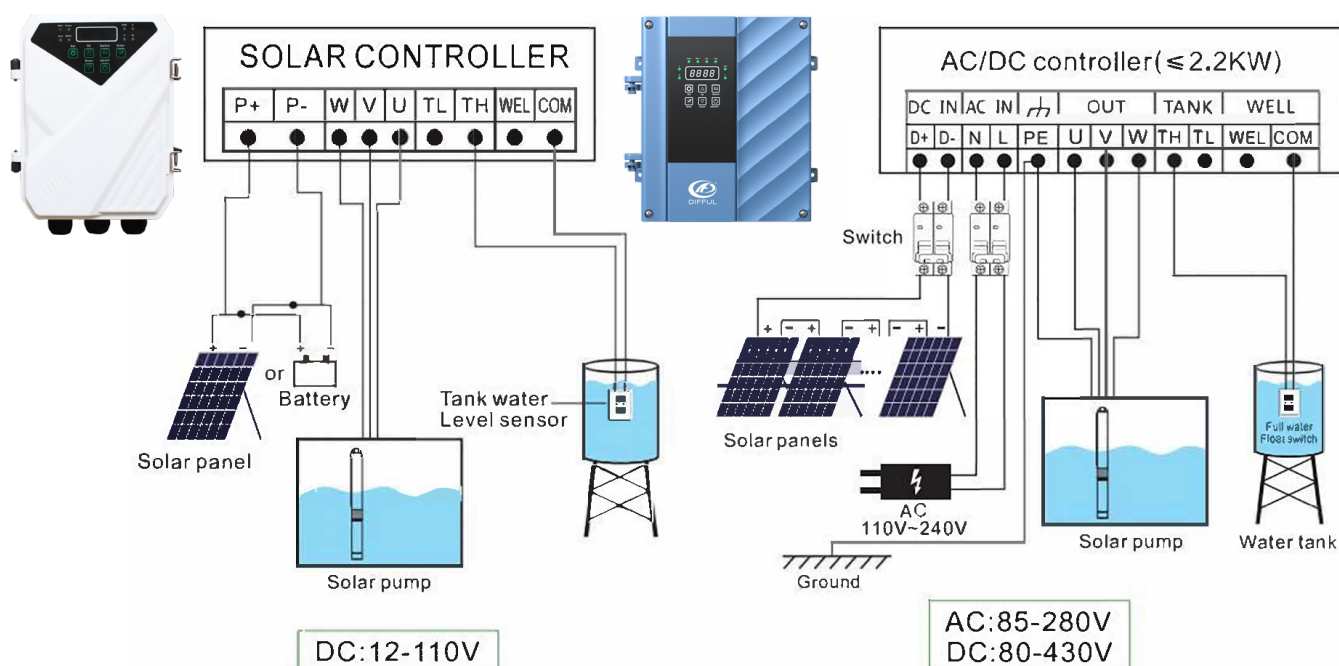
● Performance Curve:



● Performance Table:

Model	Power	l/min	0	67	133	200	267	333	400	467
	kW	m³/h	0.0	4.0	8.0	12.0	16.0	20.0	24.0	28.0
DCPM6-24-48-550	0.55	H(m)	24	14	-	-	-	-	-	-
DCPM15-14-48-550	0.55		14	13	9	5	-	-	-	-
DCPM21-14-72-750	0.75		14	13	11	9	6	2	-	-
DCPM26-15-72-1100	1.10		15	14	13	12	9	6	3	-

Model	Power	l/min	0	83	167	250	333	417	500	583	667	750	833
	kW	m³/h	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0
DCPM50-17-110-1500	1.50	I	17	16	15	13	13	11	10	7	6	3	0



Applications:

- Waste water drainage
- Drainage in residential quarters
- Field irrigation

Pump Features:

- Copper winding
- Built-in thermal protector
- Insulation class: B

DC Controller:

- Protection class: IP65
- Ambient temperature: -15°C ~ 60°C
- LED displays working conditions & fault codes
- Auto start & stop
- Soft start



DIFFUL

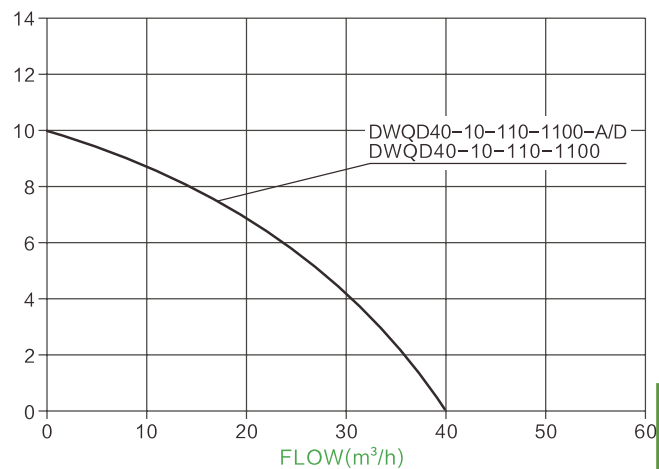
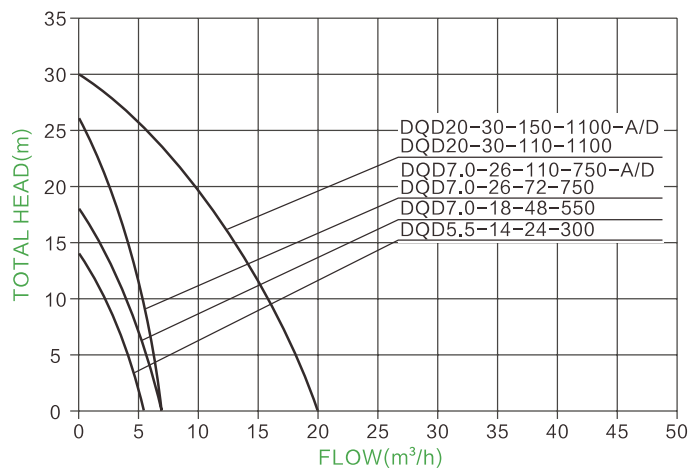
• Technical Data:

Item	Voltage	Optimum input voltage (DC)	Power	Max. Flow	Max. Head	Outlet	Cable	Solar panel	
								Open circuit voltage (VOC)	Power
DQD5.5-14-24-300	24V	30V-48V	300W	5.5m³/h	14m	1"	5m	<60V	>1.3 x Pump Power
DQD7-18-48-550	48V	60V-90V	550W	7m³/h	18m	1"	5m	<110V	>1.3 x Pump Power
DQD7-26-72-750	72V	90V-120V	750W	7m³/h	26m	1"	5m	<170V	>1.3 x Pump Power
DQD20-30-110-1100	110V	110V-150V	1100W	20m³/h	30m	2"	5m	<220V	>1.3 x Pump Power
DQD40-10-110-1100	110V	110V-150V	1100W	40m³/h	10m	3"	5m	<220V	>1.3 x Pump Power

• Kit Includes:



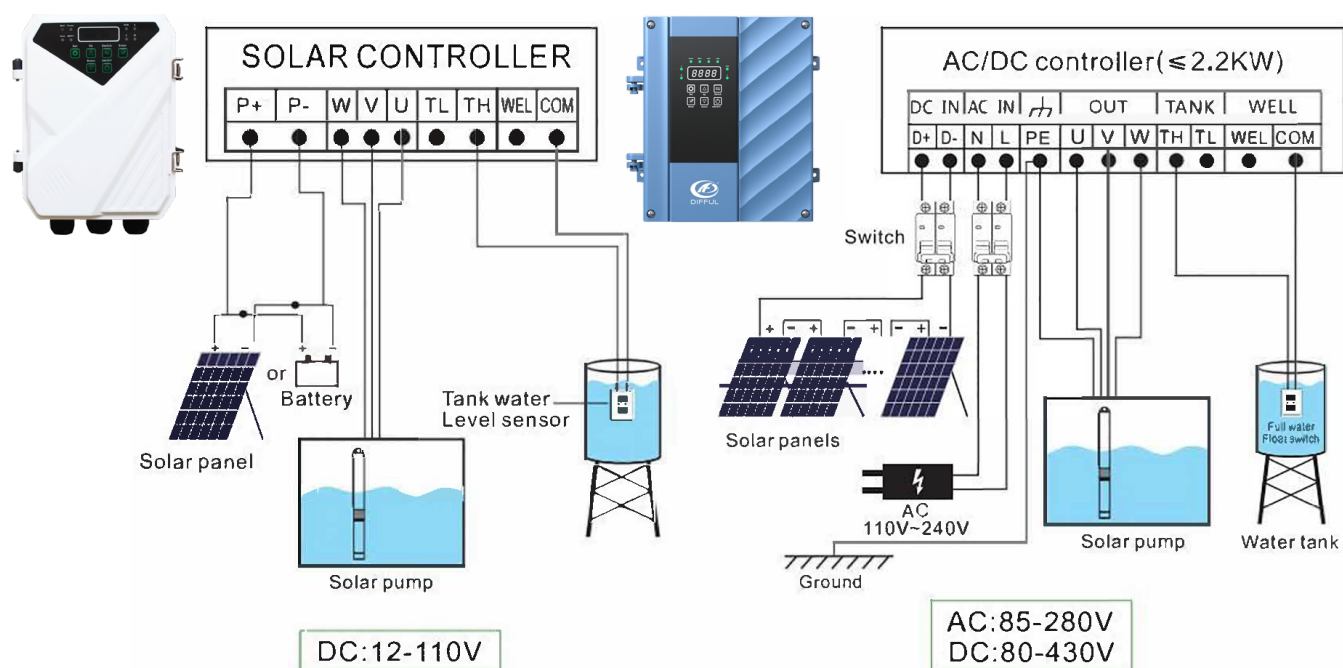
● Performance Curve:



DIFUL

● Performance Table:

Model	Power	l/min	0	83	167	250	333	417	500	583	667
	kW	m³/h	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
DQD5.5-14-24-300	0.30	H(m)	14	3	-	-	-	-	-	-	-
DQD7-18-48-550	0.55		18	7	-	-	-	-	-	-	-
DQD7-26-72-750	0.75		26	12	-	-	-	-	-	-	-
DQD20-30-110-1100	1.10		30	26	20	12	-	-	-	-	-
DQD40-10-110-1100	1.10		10	9	8.5	7	6.5	5	4	-	-





DC CONTROLLER
Connect normal DC power



WIDE VOLTAGE HV CONTROLLER
Connect DC power with wide voltage.

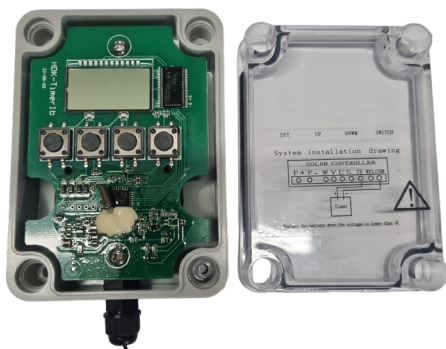


AC/DC HYBRID CONTROLLER
Automatically switch between AC and DC power.

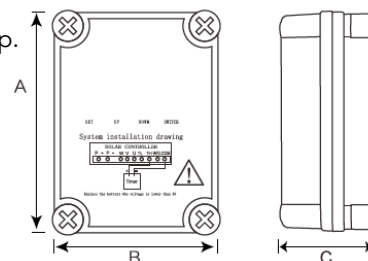
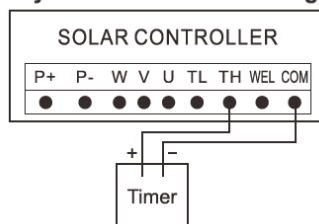
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TIMER FOR SOLAR PUMP

Set the startup and shutdown time to intelligently control the operation of the solar pump.



System installation drawing



TECHNICAL DATA

Model	Dimensions (cm)			Weight(kg)
	A	B	C	
TIMER	11	8	4.5	0.25

WORKING ENVIRONMENT AND ELECTRICAL PROPERTY

Controller and Pump Matching Method					
Controller Model	Adaptable Pump	Max. Input Current (A)	Max. Open Circuit Voltage (V)	Optimum MPP Voltage (V)	Working Temperature (°C)
DF-12	Rated 12V Pump	17	<60	30-48	-15 ~ 60
DF-24	Rated 24V Pump	17	<60	30-48	-15 ~ 60
DF-36	Rated 36V Pump	17	<60	30-48	-15 ~ 60
DF-48	Rated 48V Pump	17	<110	60-90	-15 ~ 60
DF-72	Rated 72V Pump	17	<170	90-120	-15 ~ 60
DF-110	Rated 110V Pump	17	<220	110-150	-15 ~ 60
DF-72-A/D	Rated 72V-A/D Pump	17	<430	100-190	-15 ~ 60
DF-110-A/D	Rated 110V-A/D Pump	17	<430	110-190	-15 ~ 60
DF-150-A/D	Rated 150V-A/D Pump	17	<430	150-220	-15 ~ 60
DF-200-A/D	Rated 200V-A/D Pump	17	<430	200-290	-15 ~ 60
DF-300-A/D	Rated 300V-A/D Pump	17	<430	300-390	-15 ~ 60



Model	Protection Voltage (V)
DF-12	20
DF-24	20
DF-36	20
DF-48	40
DF-72	60
DF-110	80

DC CONTROLLER

Connect normal DC Power

DC Controller Fault Types			
Fault Code	Fault Description	Causes and Solutions of Fault	Recovery Procedure
P0	Hardware Overcurrent	Motor model is mismatched, please choose matching pumps	Automatically remove after 30s
		UVW three-phase short-circuit connection, please rewire to ensure the normal installation of UVW	
P43	Phase -lack Protection	UVW three-phase open circuit please rewiring to ensure it reliable contact.	Automatically remove after 30s
P46	Stall Protection	Motor model is mismatched , please choose matching pumps	Automatically remove after 30s
		Pump extension cord is too long, please reduce the extension cord	
		Power is too low, increase the power supply	
		Pump bearing is stuck, please clean pump bearings	
P49	Software Overcurrent	Water pump bearing stuck, clean pump bearings	Automatically remove after 30s
		UVW three phase short-circuit connection, please rewire to ensure the normal installation of UVW	
P50	Low Voltage Protection	The input voltage is too low, please distribute power refer to the electrical characteristics.	Voltage return to normal, remove the fault immediately
P51	High Voltage Protection	The input voltage is too high, please distribute power refer to the electrical characteristics.	Voltage return to normal, remove the fault immediately
P48	Dry-run Protection	Not all of air in the pump is exhausted, cut off the power, re-power and start the pump drainage after 30 seconds	Automatically clear after 30 minutes or re-power to clear
		There is no water in the water tank waiting for water, it will restart	
P60	High Temperature Protection	The temperature of controller MCU is more than 90° C	Automatically clear after the temperature is normal
E8	Current Sampling Failure	Cut of the power and restart after 30 seconds	Restart the power
PL	Power Shortage	No sunlight, waiting for the sunlight to restart	At the first 5 times, it will remove after
		Solar panel matching error, refer to the recommendation to match correctly	30 seconds, and then 30 minutes to remove

AC/DC CONTROLLER



Model	Low Voltage Protection Voltage	Voltage Switching to Solar DC Power	Power Switching to AC Power	Waiting time for switching to solar DC power
A110-750W	84V	> 90V	< 250W	15
A150-1100W/1300W	126V	> 110V	< 250W	15
A200-1500W	168V	> 150V	< 250W	15
A300-2200W	210V	> 200V	< 250W	15

AC/DC HYBRID CONTROLLER

Automatically switch between
AC and DC power

DIFFUL

AC/DC controller Fault type			
Fault code	Fault description	Causes and solutions of fault.	Recovery procedure
PO	Hardware overcurrent	Motor model is mismatched, please choose matching pumps. UVW three-phase short-circuit connection, please rewire to ensure the normal installation of UVW.	Automatically cleared after 30s, try 5 times
P43	Output phase loss protection	UVW three-phase open circuit. Please rewire to ensure it reliable contact.	Automatically cleared after 30s at the first 5 times, then try to start again after 30 minutes
P44	Boot failure	Check whether the motor wire is connected well and whether it is stuck.	
P46	Stall protection	Motor model is mismatched. Please choose matching pumps. Pump extension cord is too long, please reduce the extension cord. The power is too low, please increase the power supply. Pump bearing is stuck, please clean pump bearings.	Automatically cleared after 30s at the first 5 times, then try to start again after 10 minutes
P51	High voltage protection	The input voltage is too high, please distribute power refer to the electrical characteristics.	After voltage returns to normal, cleared the fault immediately
P48	Dry-run protection	Not all of the air in the pump is exhausted, cut off the power, re-power and start the pump drainage after 30 seconds. There is no water in the water tank waiting for water, it will restart.	Automatically cleared after 10s at the first 3 times, then try to start again after 10 minutes
P60	High temperature protection	The temperature of controller MCU is more than 90°C.	Automatically cleared after the temperature is normal
PL	Low voltage protection/Power shortage	The voltage input is too low, please refer to the electrical characteristics of the corresponding model for normal power distribution..	First 5 times, clear after 30 seconds; And the next, cleared after 30 minutes

CABLE SELECTION CHART

Voltage & Power	Cable lenght (m)														
	m	10	20	30	40	50	60	70	80	90	100	110	120	130	140
24V-120W	Metric Cable Size (m ²)	2.5	2.5	4	4	6	6	6							
36V-210W		2.5	2.5	2.5	4	4	6	6	6						
48V-400W		2.5	2.5	2.5	4	4	6	6	6	10					
48V-500W		2.5	2.5	4	4	6	6	10	10	10	10				
48V-600W		2.5	2.5	4	6	6	10	10	10	10	16	16			
72V-750W		2.5	2.5	2.5	2.5	4	4	6	6	6	6	10	10		
72V-1100W		2.5	2.5	4	4	6	6	10	10	10	10	10	16	16	16
110V-750W		2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	4	4	4	4	4
110V-1100W		2.5	2.5	2.5	2.5	2.5	2.5	4	4	4	4	6	6	6	6
110V-1300W		2.5	2.5	2.5	2.5	2.5	4	4	4	4	6	6	6	6	10
110V-1500W		2.5	2.5	2.5	2.5	4	4	4	6	6	6	6	10	10	10

SOLAR PANEL RECOMMENDATION FOR 12V-110V DC SOLAR PUMP

PUMP POWER 80W-12V Voc: 18V-55V	(1) (2) (3)	Solar panel:150W*1PCS Solar panel:270W*1PCS Solar panel:330W*1PCS
PUMP POWER 120W-24V 180W-24V 200W-24V 210W-24V 210W-36V Voc: 18V-55V	(1) (2) (3)	Solar panel:150W*2PCS Solar panel:270W*1PCS Solar panel:330W*1PCS
PUMP POWER 280W-24V 300W-24V Voc: 18V-55V	(1) (2)	Solar panel:270W*2PCS Solar panel:330W*1PCS
PUMP POWER 400W-36V Voc: 18V-55V	(1) (2)	Solar panel:270W*2PCS Solar panel:330W*2PCS
PUMP POWER 370W-48V 400W-48V Voc: 30V-105V	(1) (2)	Solar panel:270W*2PCS Solar panel:330W*2PCS
PUMP POWER 500W-48V 550W-48V Voc: 30V-105V	(1) (2)	Solar panel:270W*4PCS Solar panel:330W*2PCS
PUMP POWER 600W-48V Voc: 30V-105V	(1) (2)	Solar panel:270W*4PCS Solar panel:330W*4PCS
PUMP POWER 600W-72V Voc: 55V-160V	(1) (2)	Solar panel:270W*3PCS Solar panel:330W*3PCS
PUMP POWER 750W-48V Voc: 30V-105V	(1) (2)	Solar panel:270W*4PCS Solar panel:330W*4PCS
PUMP POWER 750W-72V Voc: 55V-160V	(1) (2)	Solar panel:270W*4PCS Solar panel:330W*3PCS
PUMP POWER 900W-72V Voc: 55V-160V	(1) (2)	Solar panel:270W*4PCS Solar panel:330W*3PCS
PUMP POWER 1100W-72V Voc: 55V-160V	(1) (2)	Solar panel:270W*6PCS Solar panel:330W*6PCS
PUMP POWER 1100W-110V Voc: 60V-210V	(1) (2)	Solar panel:270W*6PCS Solar panel:330W*6PCS
PUMP POWER 1300W-110V Voc: 60V-210V	(1) (2)	Solar panel:270W*8PCS Solar panel:330W*6PCS
PUMP POWER 1500W-110V Voc: 60V-210V	(1) (2)	Solar panel:270W*8PCS Solar panel:330W*8PCS



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