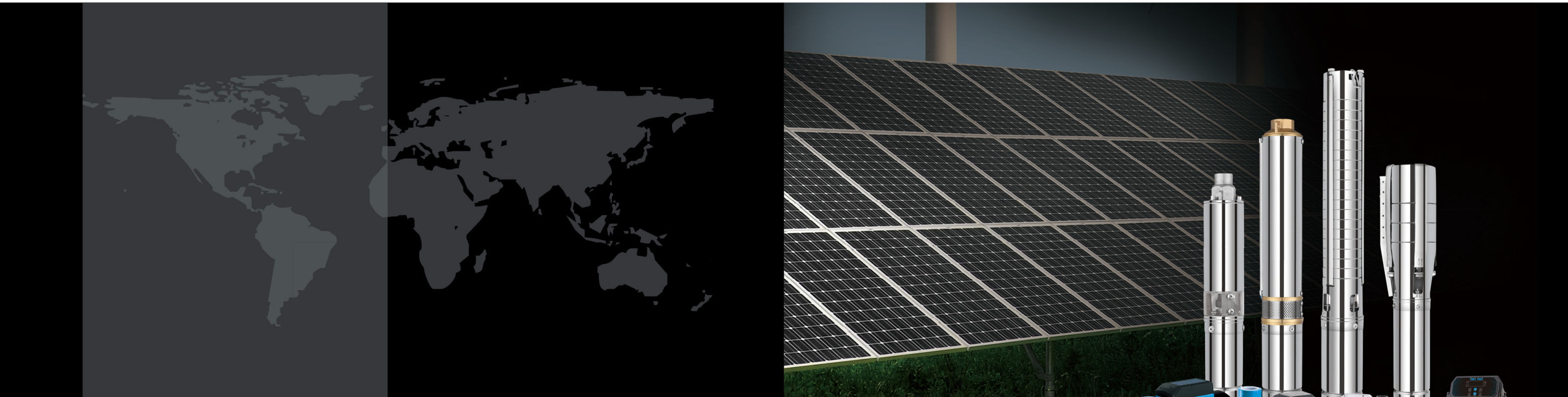




NELSON SOLAR
Submersible Borehole Pump
Surface Pump

SOLAR PUMPING SYSTEM HELPS A LOT

Reduce the distance between us and clean water

Lift fresh water from deep underground to irrigate fruit, contributes to better fruit quality

Providing much more reliable and efficient water supply for livestock

Very economical & Worry-free way to circulate pool water



Solar Pumping Technology is Making The World Better



Solar Pump Inverter

Features

- High efficiency with MPPT function
- Specially designed for solar pumping system
- Easy installation & Low installation cost
- Easy operation & Low maintenance cost
- Protection class: IP55

Multi Functions

- MPPT: Increase the solar power utilization rate
- LED Screen displays Real time working condition:
Output Power, Output Voltage, Current, Pump speed & Error code
- Auto Frequency Conversion function:
Can automatically adjust the speed/rpm according to solar power strength, user can adjust the pump speed/rpm manually.
- Auto On/Off (with float switch)
- Soft Start: No impulse current, protect pump motor.
No water hammer, protect the whole plumbing system.
- Multi-protection: Dry-run protection, Over-voltage protection, Over-current protection. High-temperature protection (reduce rpm when the inner temperature got 79℃), Output phase lose protection.



DC



High Reliability



MPPT



IP55



Cost Saving

Working Environment and Electrical Property

Controller Model	Adaptable Pump Rated Voltage	Max.Input Current	Max.Open Circuit Voltage	MPPT Voltage Range	Working Temperature	Inverter Dimension	Net Weight
DC-12	12V	17A	48V	30-48V	-15~+60℃	23.8x18x9.5mm	1.5kg
DC-24	24V	17A	48V	30-48V			
DC-36	36V	17A	48V	30-48V			
DC-48	48V	17A	100V	60-90V			
DC-72	72V	17A	150V	90-120V			
DC-110	110V	17A	200V	110-150V			



Applications

- Agriculture irrigation, livestock feeding, Domestic water lifting
- Clear water supply from wells or reservoirs
- Off grid solar pumping system

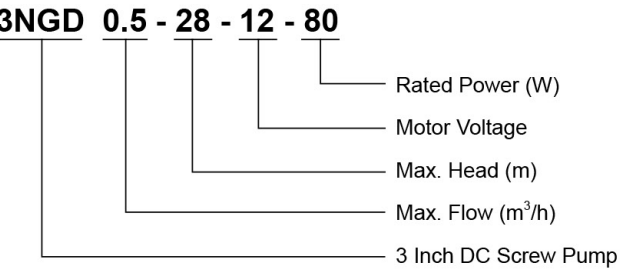
Pump Features

- With MPPT DC controller
- High-precision AISI304 screw get higher efficiency
- AISI304 oil chamber and pump barrel
- NSK bearing
- High efficiency PMSM brushless motor
(PMSM: Permanent Magnet Synchronous Motor)

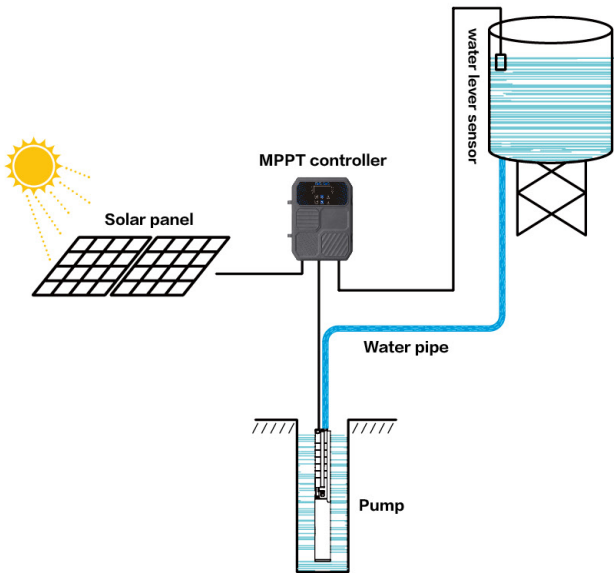
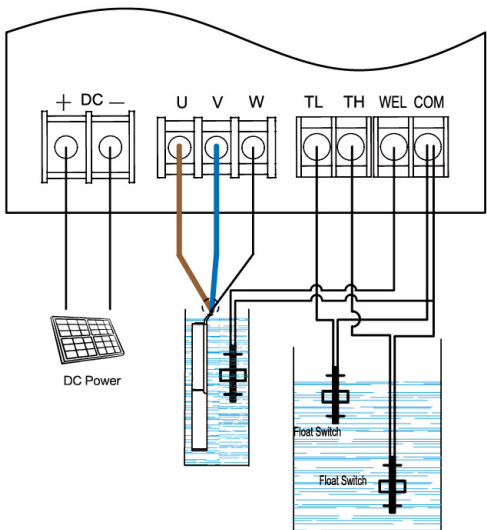
MPPT DC Controller

- Protection class: IP55
- Ambient temperature: -15 ~ 60℃
- LED Displays working conditions & Fault code
- Auto Start & Stop
- Soft start & VFD function

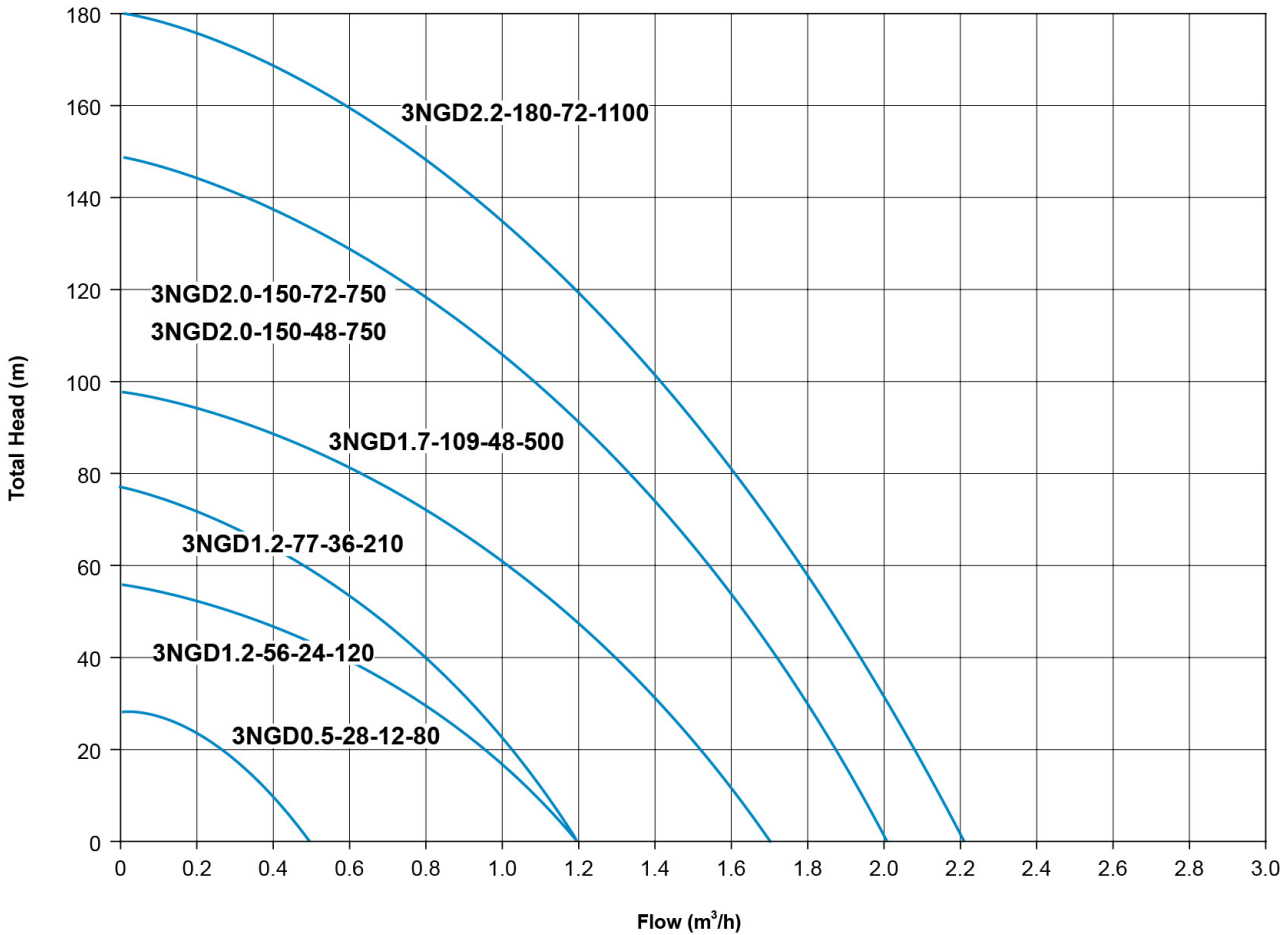
Identification Codes



Wiring Diagram



3" DC Solar Screw Pump



Technical Data

Model	Power (W)	Rated Voltage (V)	Optimum Input Voltage (V)	Max. Flow (m³/h)	Max. Head (m)	Outlet (inch)	Cable (m)	Recommended Solar Panel	
								Open Circuit Voltage(VOC)	Power
3NGD0.5-28-12-80	80	12	20-36	0.5	28	3/4"	2	< 50	≥1.3*Pump Power
3NGD1.2-56-24-120	120	24	30-48	1.2	56	3/4"	2	< 50	≥1.3*Pump Power
3NGD1.2-77-36-210	210	36	30-48	1.2	77	3/4"	2	< 50	≥1.3*Pump Power
3NGD1.7-109-48-500	500	48	60-90	1.7	109	3/4"	2	< 100	≥1.3*Pump Power
3NGD2.0-150-48-750	750	48	60-90	2	150	3/4"	2	< 100	≥1.3*Pump Power
3NGD2.0-150-72-750	750	72	90-120	2	150	3/4"	2	< 150	≥1.3*Pump Power
3NGD2.2-180-72-1100	1100	72	90-120	2.2	180	3/4"	2	< 150	≥1.3*Pump Power



Applications

- Agriculture irrigation, livestock feeding, Domestic water lifting
- Clear water supply from wells or reservoirs
- Off grid solar pumping system

Pump Features

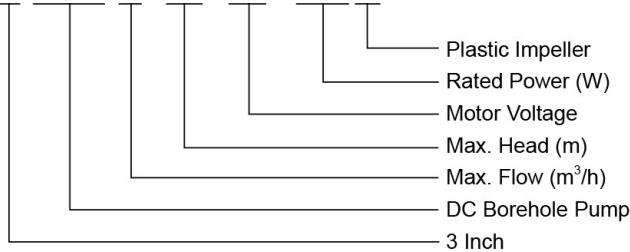
- With MPPT DC controller
- Plastic impeller and diffuser
- Copper oil chamber & outlet
- NSK bearing
- High efficiency PMSM brushless motor
(PMSM: Permanent Magnet Synchronous Motor)

MPPT DC Controller

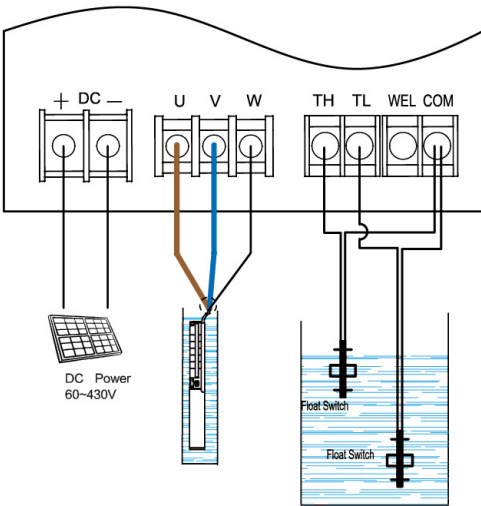
- Protection class: IP55
- Ambient temperature: -15 ~ 60°C
- LED Displays working conditions & Fault code
- Auto Start & Stop
- Soft start & VFD function

Identification Codes

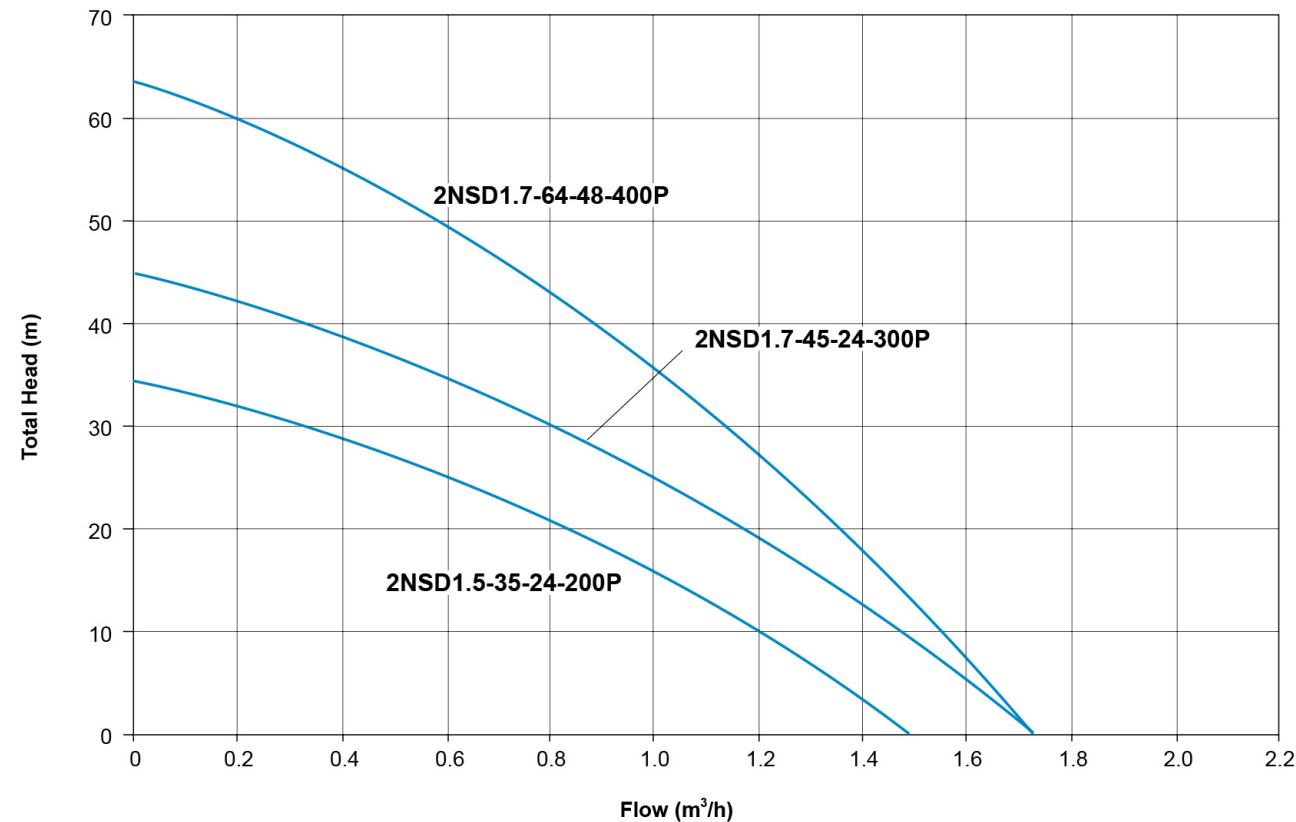
3 NSD 5 - 45 - 48 - 500 P



Wiring Diagram



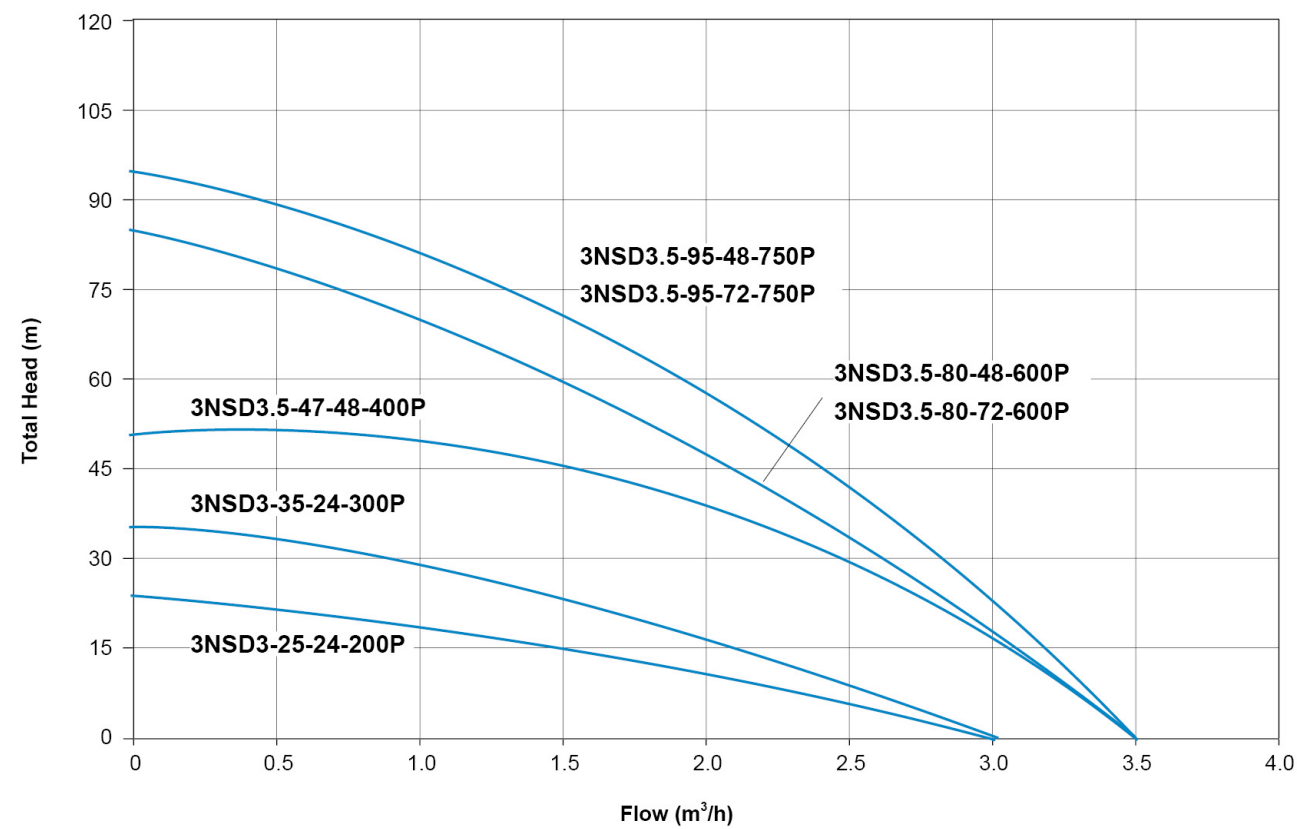
2" DC Solar Pump with Plastic Impeller



Technical Data

Model	Power (W)	Rated Voltage (V)	Optimum Input Voltage (V)	Max. Flow (m³/h)	Max. Head (m)	Outlet (inch)	Cable (m)	Recommended Solar Panel	
								Open Circuit Voltage(VOC)	Power
2NSD1.5-35-24-200P	200	24	30-48	1.5	35	3/4"	2	< 50	≥1.3*Pump Power
2NSD1.7-45-24-300P	300	24	30-48	1.7	45	3/4"	2	< 50	≥1.3*Pump Power
2NSD1.7-64-48-400P	400	48	60-90	1.7	64	3/4"	2	< 100	≥1.3*Pump Power

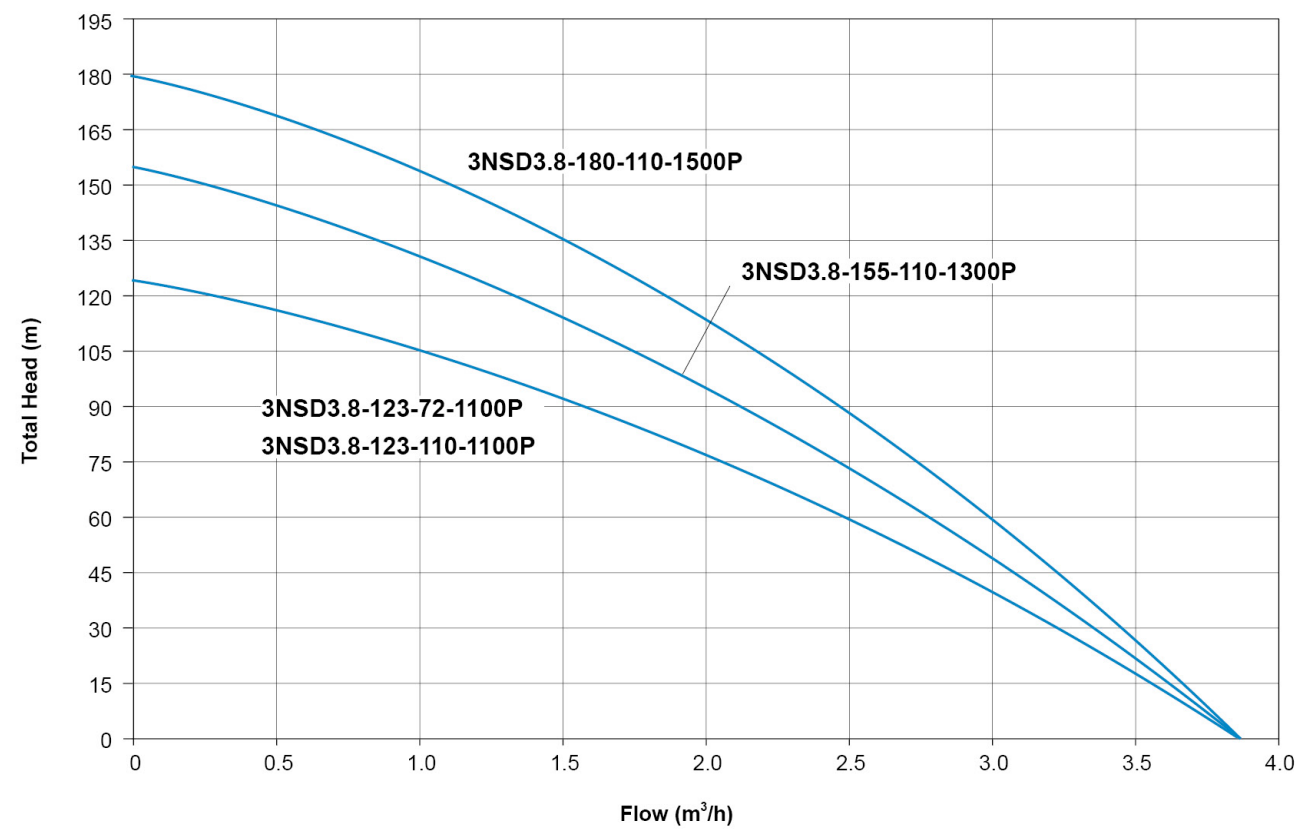
3" DC Solar Pump with Plastic Impeller



Technical Data

Model	Power (W)	Rated Voltage (V)	Optimum Input Voltage (V)	Max. Flow (m³/h)	Max. Head (m)	Outlet (inch)	Cable (m)	Recommended Solar Panel	
								Open Circuit Voltage(VOC)	Power
3NSD3.5-25-24-200P	200	24	30-48	3	25	1 1/4"	2	< 50	≥1.3*Pump Power
3NSD3.5-35-24-300P	300	24	30-48	3	35	1 1/4"	2	< 50	≥1.3*Pump Power
3NSD3.5-47-48-400P	400	48	60-90	3.5	47	1 1/4"	2	< 100	≥1.3*Pump Power
3NSD3.5-80-48-600P	600	48	60-90	3.5	80	1 1/4"	2	< 100	≥1.3*Pump Power
3NSD3.5-80-72-600P	600	72	90-120	3.5	80	1 1/4"	2	< 150	≥1.3*Pump Power
3NSD3.5-95-48-750P	750	48	60-90	3.5	95	1 1/4"	2	< 100	≥1.3*Pump Power
3NSD3.5-95-72-750P	750	72	90-120	3.5	95	1 1/4"	2	< 150	≥1.3*Pump Power

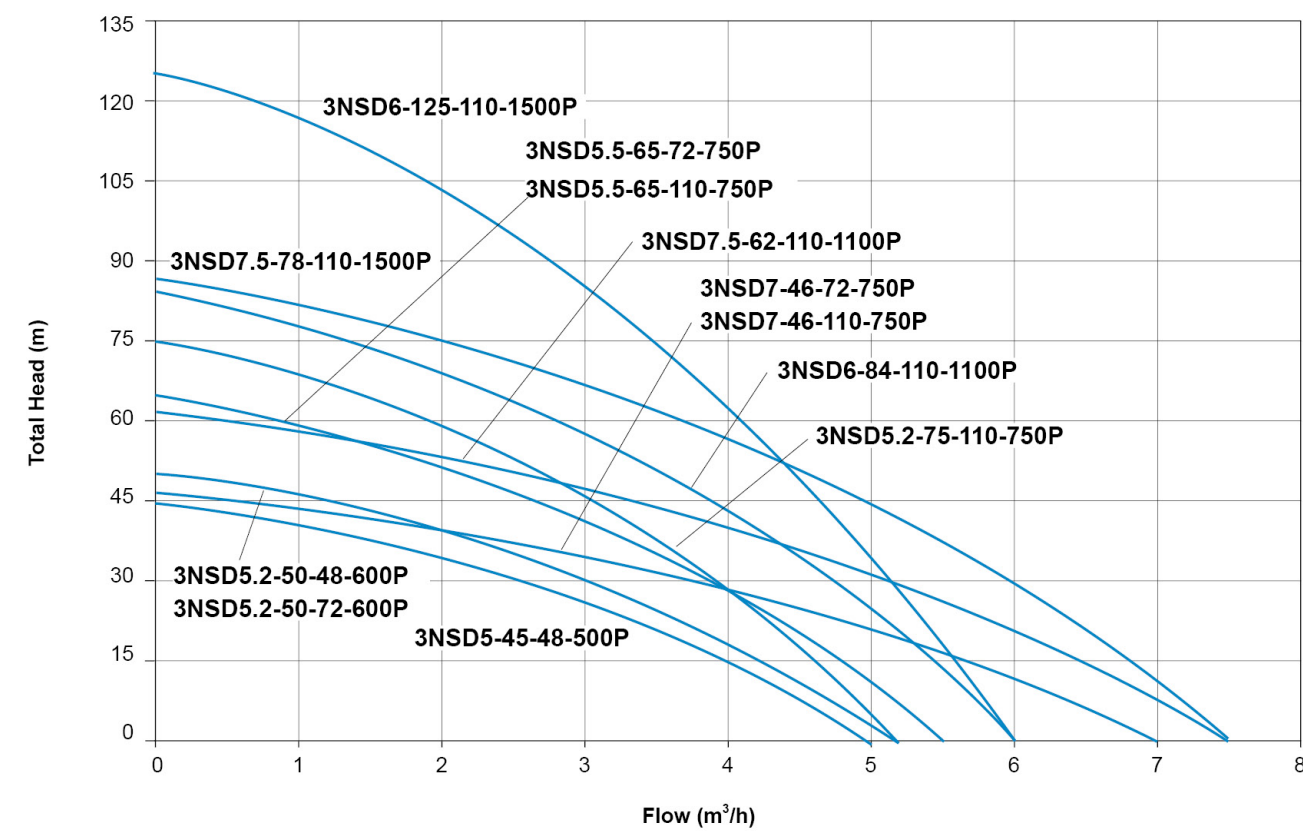
3" DC Solar Pump with Plastic Impeller



Technical Data

Model	Power (W)	Rated Voltage (V)	Optimum Input Voltage (V)	Max. Flow (m³/h)	Max. Head (m)	Outlet (inch)	Cable (m)	Recommended Solar Panel	
								Open Circuit Voltage(VOC)	Power
3NSD3.8-123-72-1100P	1100	72	90-120	3.8	123	1 1/4"	2	< 150	≥1.3*Pump Power
3NSD3.8-123-110-1100P	1100	110	110-150	3.8	123	1 1/4"	2	< 200	≥1.3*Pump Power
3NSD3.8-155-110-1300P	1300	110	110-150	3.8	155	1 1/4"	2	< 200	≥1.3*Pump Power
3NSD3.8-180-110-1500P	1500	110	110-150	3.8	180	1 1/4"	2	< 200	≥1.3*Pump Power

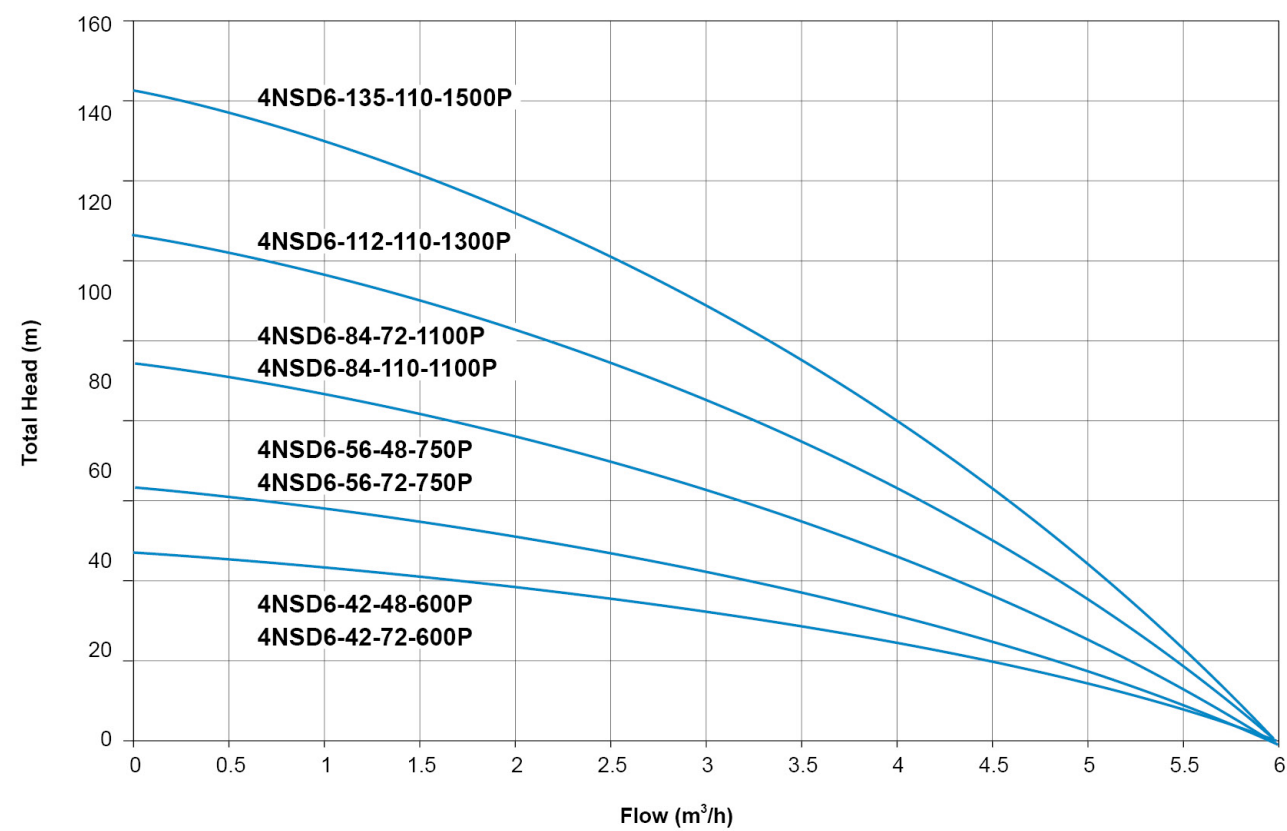
3" DC Solar Pump with Plastic Impeller



Technical Data

Model	Power (W)	Rated Voltage (V)	Optimum Input Voltage (V)	Max. Flow (m³/h)	Max. Head (m)	Outlet (inch)	Cable (m)	Recommended Solar Panel	
								Open Circuit Voltage(VOC)	Power
3NSD5-45-48-500P	500	48	60-90	5	45	1 1/2"	2	< 100	≥1.3*Pump Power
3NSD5.2-50-48-600P	600	48	60-90	5.2	50	1 1/2"	2	< 100	≥1.3*Pump Power
3NSD5.2-50-72-600P	600	72	90-120	5.2	50	1 1/2"	2	< 150	≥1.3*Pump Power
3NSD5.2-75-110-750P	750	110	110-150	5.2	75	1 1/2"	2	< 200	≥1.3*Pump Power
3NSD5.5-65-72-750P	750	72	90-120	5.5	65	1 1/2"	2	< 150	≥1.3*Pump Power
3NSD5.5-65-110-750P	750	110	110-150	5.5	65	1 1/2"	2	< 200	≥1.3*Pump Power
3NSD6-84-110-1100P	1100	110	110-150	6	84	1 1/2"	2	< 200	≥1.3*Pump Power
3NSD6-125-110-1500P	1500	110	110-150	6	125	1 1/2"	2	< 200	≥1.3*Pump Power
3NSD7-46-72-750P	750	72	90-120	7	46	1 1/2"	2	< 150	≥1.3*Pump Power
3NSD7-46-110-750P	750	110	110-150	7	46	1 1/2"	2	< 200	≥1.3*Pump Power
3NSD7.5-62-110-1100P	1100	110	110-150	7.5	62	1 1/2"	2	< 200	≥1.3*Pump Power
3NSD7.5-78-110-1500P	1500	110	110-150	7.5	78	1 1/2"	2	< 200	≥1.3*Pump Power

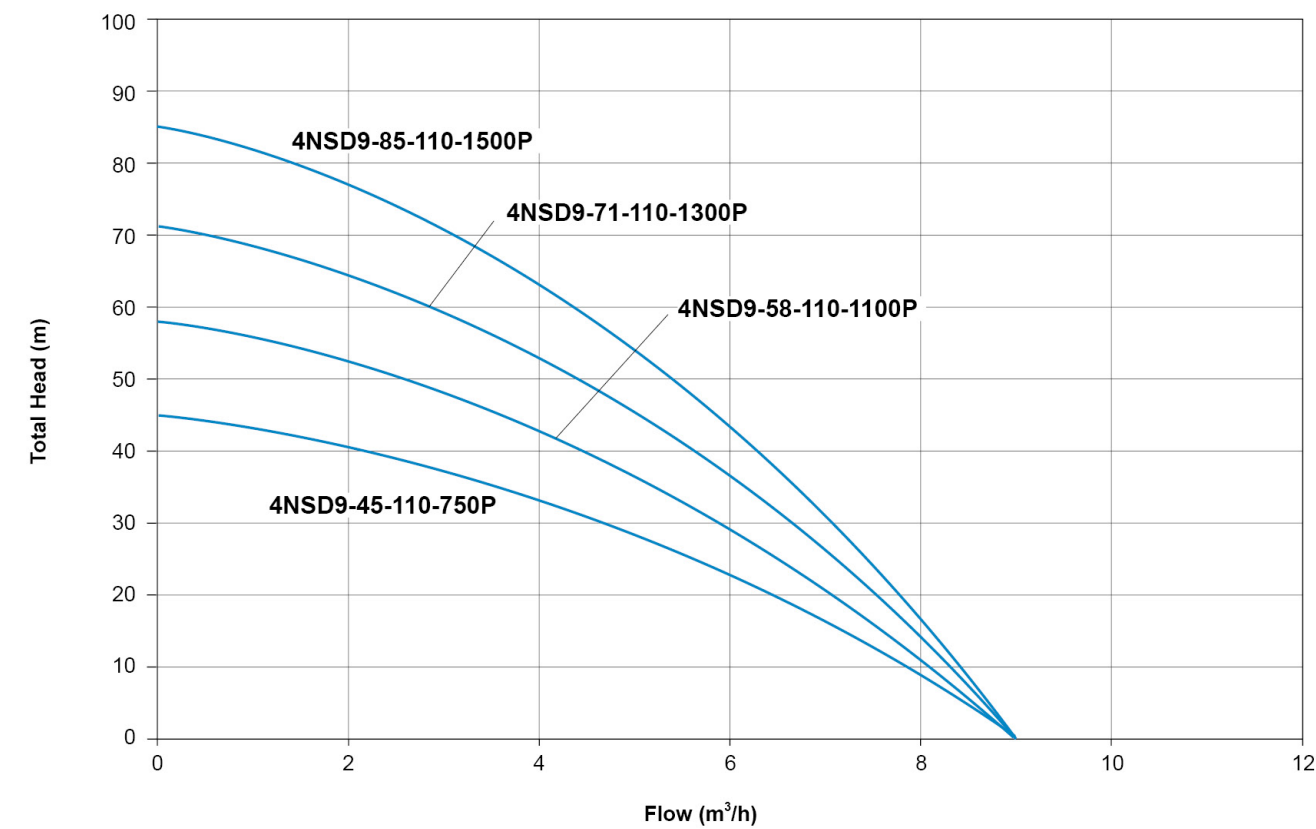
4" DC Solar Pump with Plastic Impeller



Technical Data

Model	Power (W)	Rated Voltage (V)	Optimum Input Voltage (V)	Max. Flow (m³/h)	Max. Head (m)	Outlet (inch)	Cable (m)	Recommended Solar Panel	
								Open Circuit Voltage(VOC)	Power
4NSD6-42-48-600P	600	48	60-90	6	42	1 1/4"	2	< 100	≥1.3*Pump Power
4NSD6-42-72-600P	600	72	90-120	6	42	1 1/4"	2	< 150	≥1.3*Pump Power
4NSD6-56-48-750P	750	48	60-90	6	56	1 1/4"	2	< 100	≥1.3*Pump Power
4NSD6-56-72-750P	750	72	90-120	6	56	1 1/4"	2	< 150	≥1.3*Pump Power
4NSD6-84-72-1100P	1100	72	90-120	6	84	1 1/4"	2	< 150	≥1.3*Pump Power
4NSD6-84-110-1100P	1100	110	110-150	6	84	1 1/4"	2	< 200	≥1.3*Pump Power
4NSD6-112-110-1300P	1300	110	110-150	6	112	1 1/4"	2	< 200	≥1.3*Pump Power
4NSD6-135-110-1500P	1500	110	110-150	6	135	1 1/4"	2	< 200	≥1.3*Pump Power

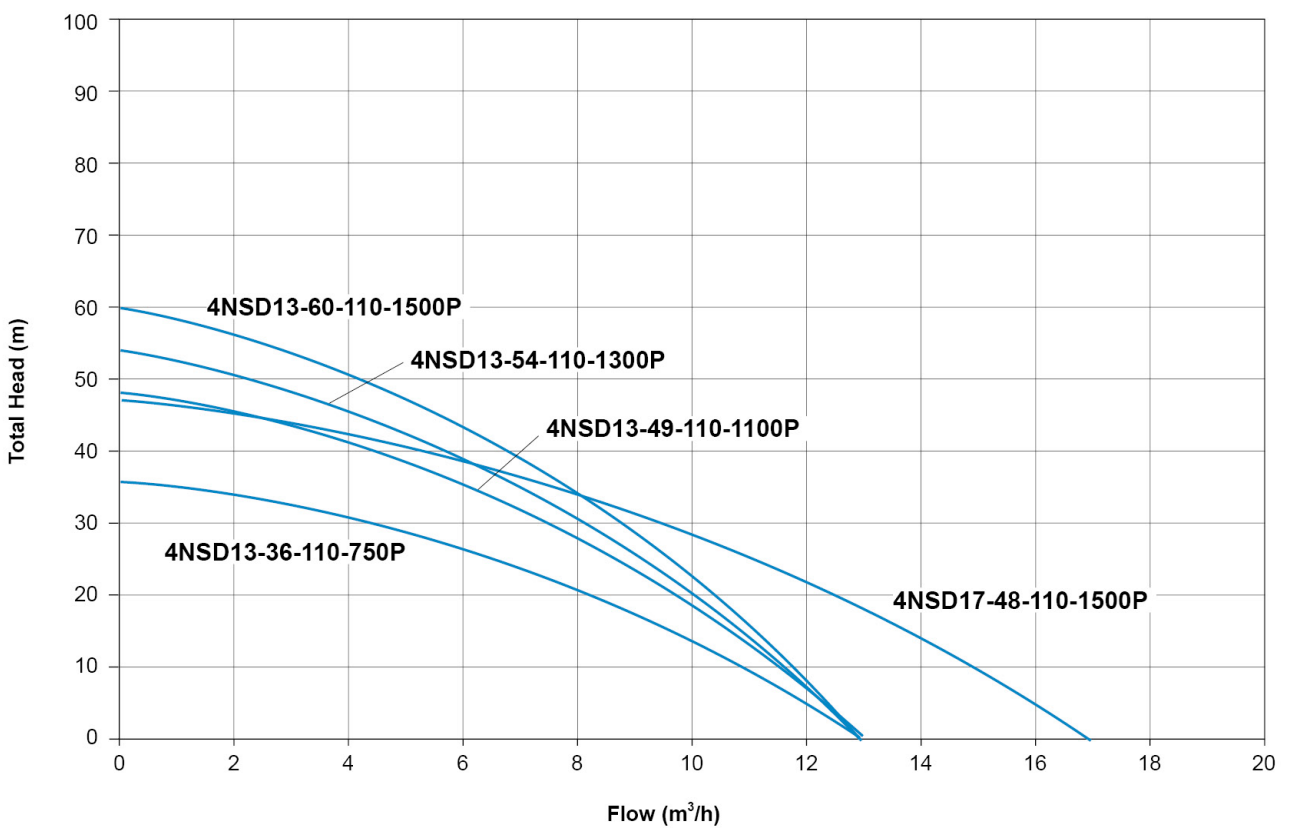
4" DC Solar Pump with Plastic Impeller



Technical Data

Model	Power (W)	Rated Voltage (V)	Optimum Input Voltage (V)	Max. Flow (m³/h)	Max. Head (m)	Outlet (inch)	Cable (m)	Recommended Solar Panel	
								Open Circuit Voltage(VOC)	Power
4NSD9-45-110-750P	750	110	110-150	9	45	2"	2	< 200	≥1.3*Pump Power
4NSD9-58-110-1100P	1100	110	110-150	9	58	2"	2	< 200	≥1.3*Pump Power
4NSD9-71-110-1300P	1300	110	110-150	9	71	2"	2	< 200	≥1.3*Pump Power
4NSD9-85-110-1500P	1500	110	110-150	9	85	2"	2	< 200	≥1.3*Pump Power

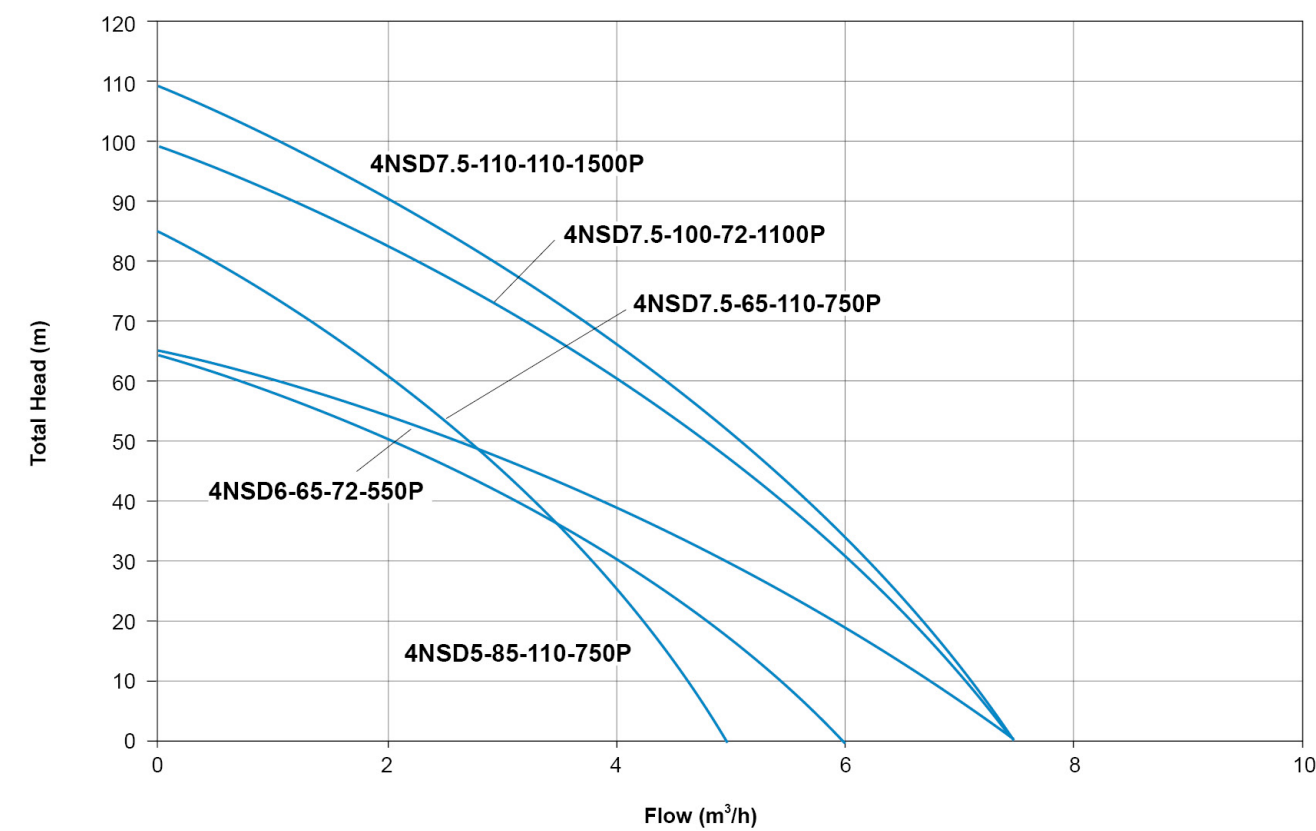
4" DC Solar Pump with Plastic Impeller



Technical Data

Model	Power (W)	Rated Voltage (V)	Optimum Input Voltage (V)	Max. Flow (m³/h)	Max. Head (m)	Outlet (inch)	Cable (m)	Recommended Solar Panel	
								Open Circuit Voltage(VOC)	Power
4NSD13-36-110-750P	750	110	110-150	13	36	2"	2	< 200	≥1.3*Pump Power
4NSD13-49-110-1100P	1100	110	110-150	13	49	2"	2	< 200	≥1.3*Pump Power
4NSD13-54-110-1300P	1300	110	110-150	13	54	2"	2	< 200	≥1.3*Pump Power
4NSD13-60-110-1500P	1500	110	110-150	13	60	2"	2	< 200	≥1.3*Pump Power
4NSD17-48-110-1500P	1500	110	110-150	17	48	2"	2	< 200	≥1.3*Pump Power

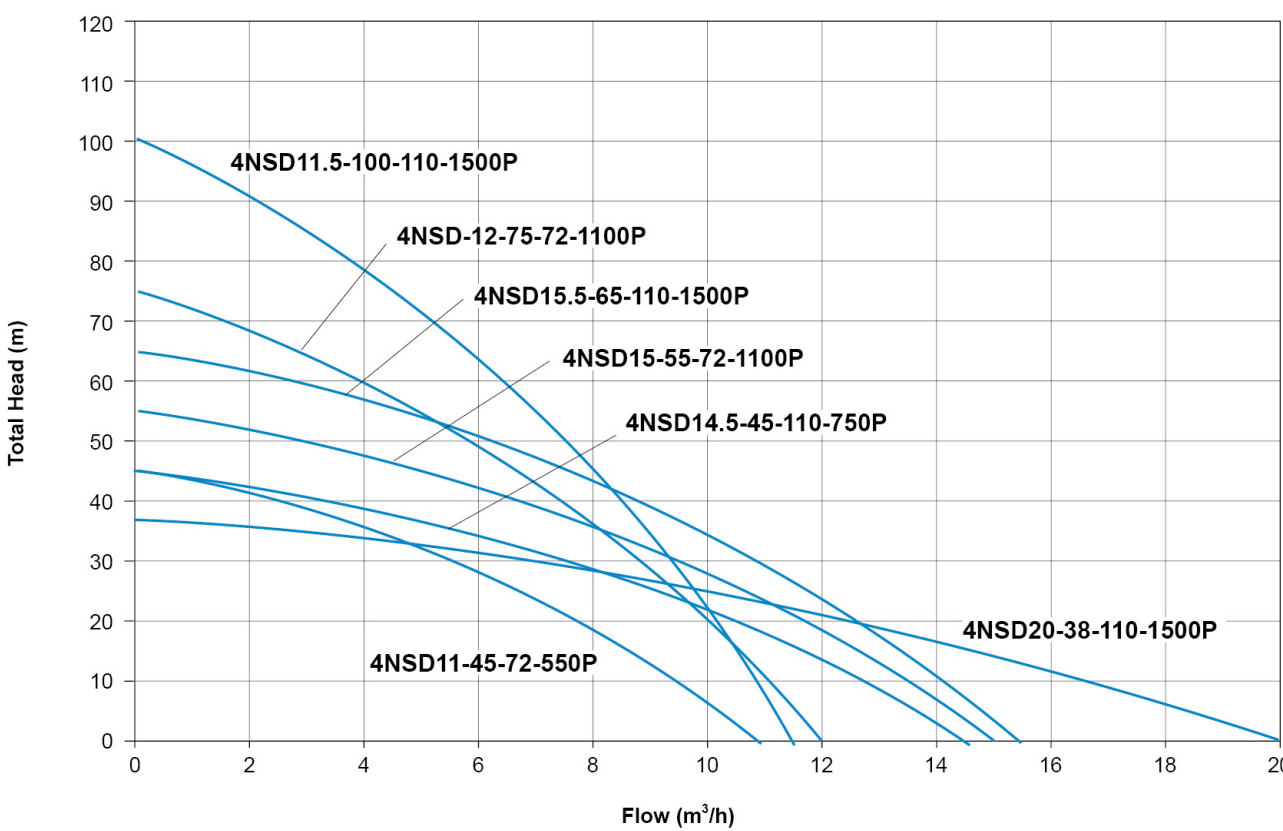
4" DC Solar Pump with Plastic Impeller



Technical Data

Model	Power (W)	Rated Voltage (V)	Optimum Input Voltage (V)	Max. Flow (m³/h)	Max. Head (m)	Outlet (inch)	Cable (m)	Recommended Solar Panel	
								Open Circuit Voltage(VOC)	Power
4NSD5-85-110-750P	750	110	110-150	5	85	1 1/4"	2	< 200	≥1.3*Pump Power
4NSD6-65-72-550P	550	72	90-120	6	65	1 1/4"	2	< 150	≥1.3*Pump Power
4NSD7.5-65-110-750P	750	110	110-150	7.5	65	2"	2	< 200	≥1.3*Pump Power
4NSD7.5-100-72-1100P	1100	72	90-120	7.5	100	2"	2	< 150	≥1.3*Pump Power
4NSD7.5-110-110-1500P	1500	110	110-150	7.5	110	2"	2	< 200	≥1.3*Pump Power

4" DC Solar Pump with Plastic Impeller



Technical Data

Model	Power (W)	Rated Voltage (V)	Optimum Input Voltage (V)	Max. Flow (m³/h)	Max. Head (m)	Outlet (inch)	Cable (m)	Recommended Solar Panel	
								Open Circuit Voltage(VOC)	Power
4NSD11-45-72-550P	550	72	90-120	11	45	2"	2	< 150	≥1.3*Pump Power
4NSD12-75-72-1100P	1100	72	90-120	12	75	2"	2	< 150	≥1.3*Pump Power
4NSD11.5-100-110-1500P	1500	110	110-150	11.5	100	2"	2	< 200	≥1.3*Pump Power
4NSD14.5-45-110-750P	750	110	110-150	14.5	45	2"	2	< 200	≥1.3*Pump Power
4NSD15-55-72-1100P	1100	72	90-120	15	55	2"	2	< 150	≥1.3*Pump Power
4NSD15.5-65-110-1500P	1500	110	110-150	15.5	65	2"	2	< 200	≥1.3*Pump Power
4NSD20-38-110-1500P	1500	110	110-150	20	38	2"	2	< 200	≥1.3*Pump Power

Applications

- Agriculture irrigation, livestock feeding, Domestic water lifting
- Clear water supply from wells or reservoirs
- Off grid solar pumping system

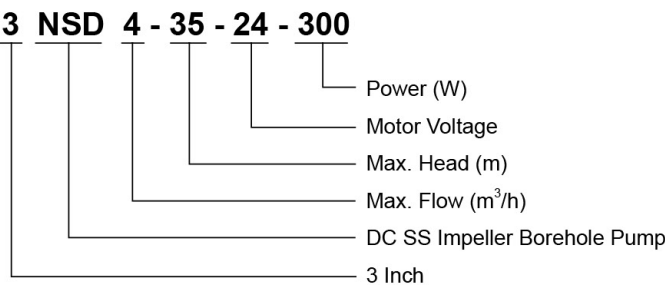
Pump Features

- With MPPT DC controller
- AISI304 impeller and diffuser
- AISI304 oil chamber & outlet
- NSK bearing
- High efficiency PMSM brushless motor
(PMSM: Permanent Magnet Synchronous Motor)

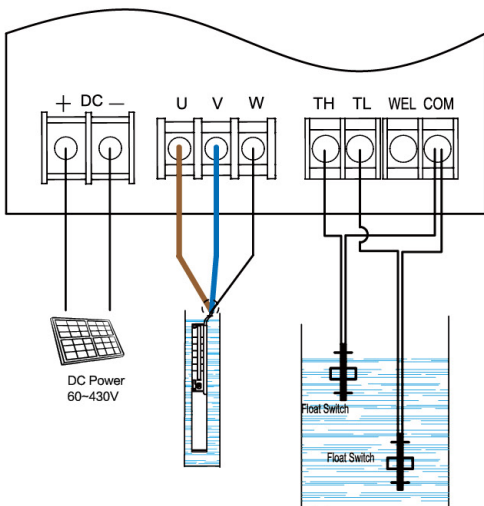
MPPT DC Controller

- Protection class: IP55
- Ambient temperature: -15 ~ 60°C
- LED Displays working conditions & Fault code
- Auto Start & Stop
- Soft start & VFD function

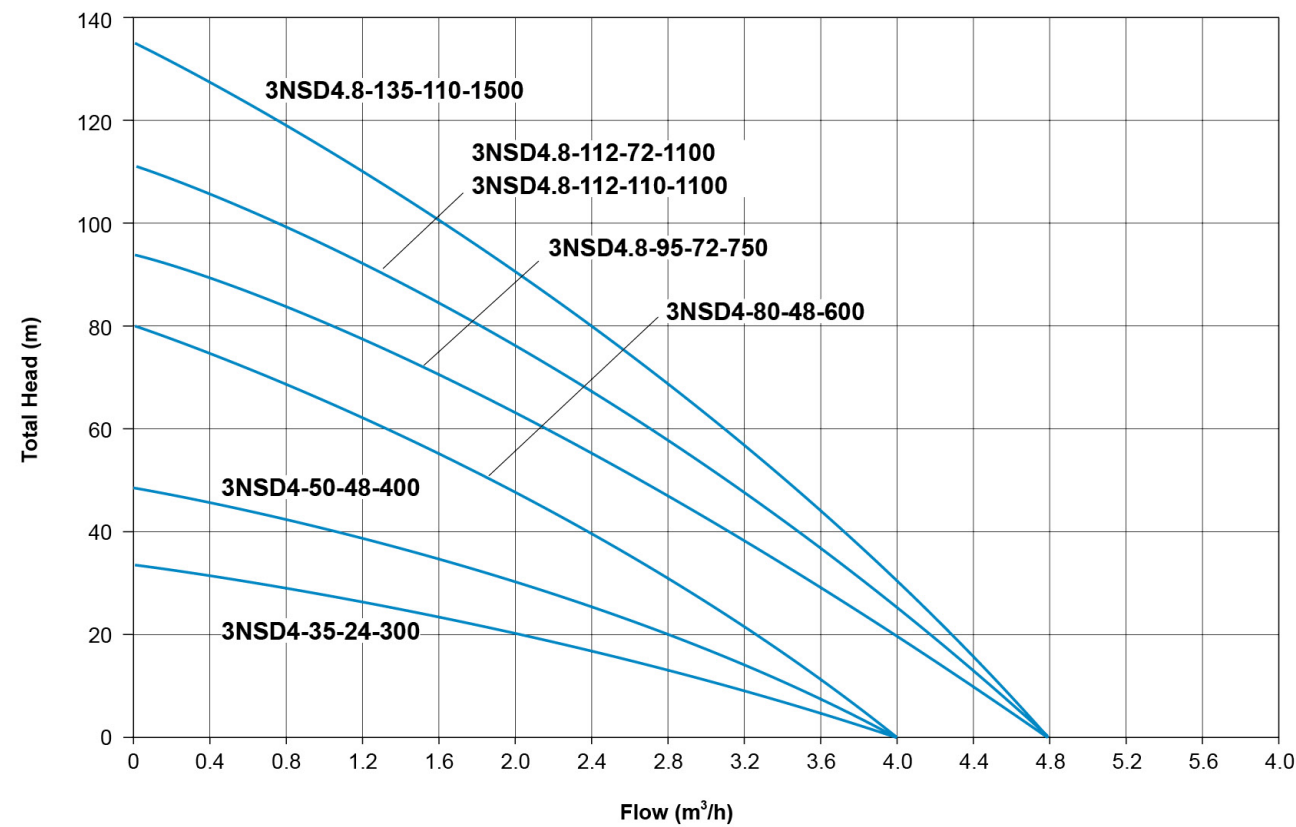
Identification Codes



Wiring Diagram



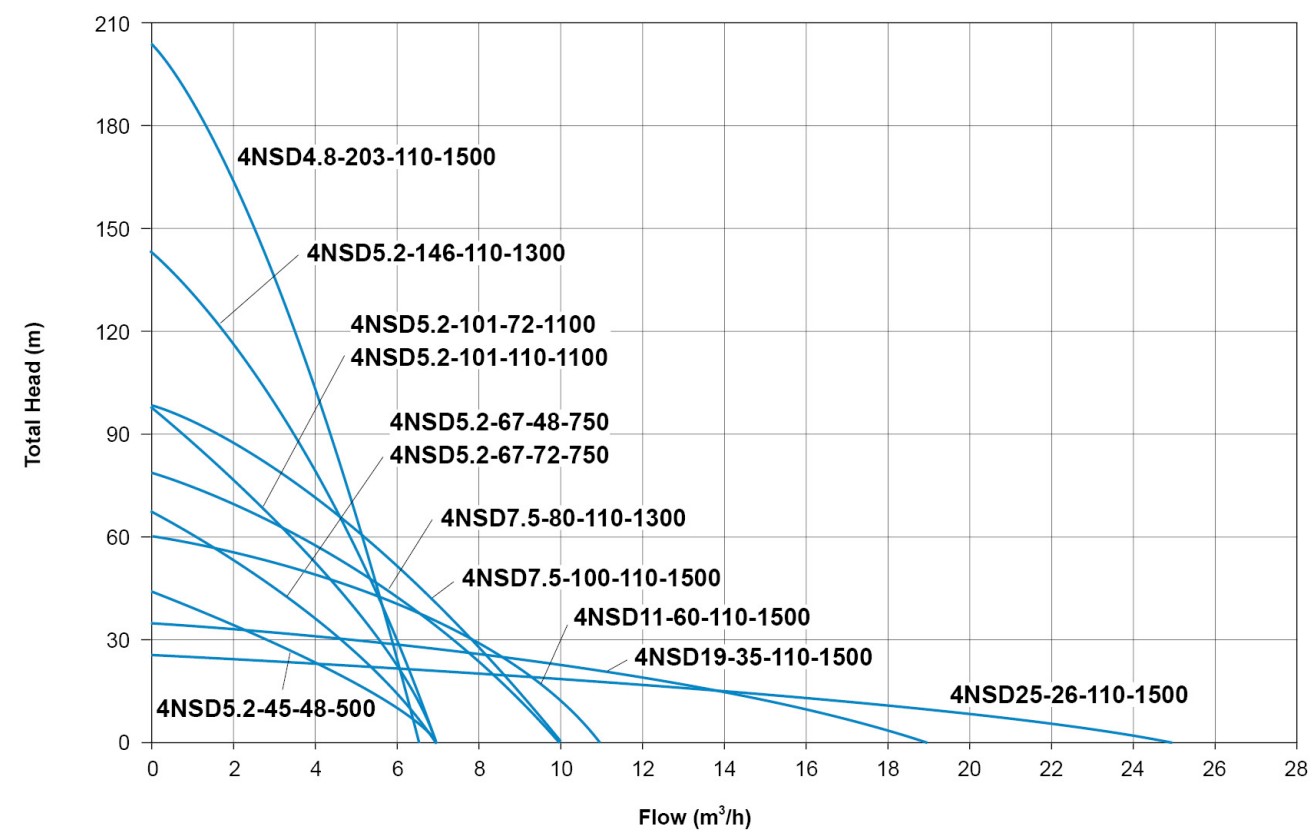
3" DC Solar Pump with SS Impeller



Technical Data

Model	Power (W)	Rated Voltage (V)	Optimum Input Voltage (V)	Max. Flow (m³/h)	Max. Head (m)	Outlet (inch)	Cable (m)	Recommended Solar Panel	
								Open Circuit Voltage(VOC)	Power
3NSD4-35-24-300	300	24	30-48	4	35	1 1/4"	2	< 50	≥1.3*Pump Power
3NSD4-50-48-400	400	48	60-90	4	50	1 1/4"	2	< 100	≥1.3*Pump Power
3NSD4-80-48-600	600	48	60-90	4	80	1 1/4"	2	< 100	≥1.3*Pump Power
3NSD4.8-95-72-750	750	72	90-120	4.8	95	1 1/4"	2	< 150	≥1.3*Pump Power
3NSD4.8-112-72-1100	1100	72	90-120	4.8	112	1 1/4"	2	< 150	≥1.3*Pump Power
3NSD4.8-112-110-1100	1100	110	110-150	4.8	112	1 1/4"	2	< 200	≥1.3*Pump Power
3NSD4.8-135-110-1500	1500	110	110-150	4.8	135	1 1/4"	2	< 200	≥1.3*Pump Power

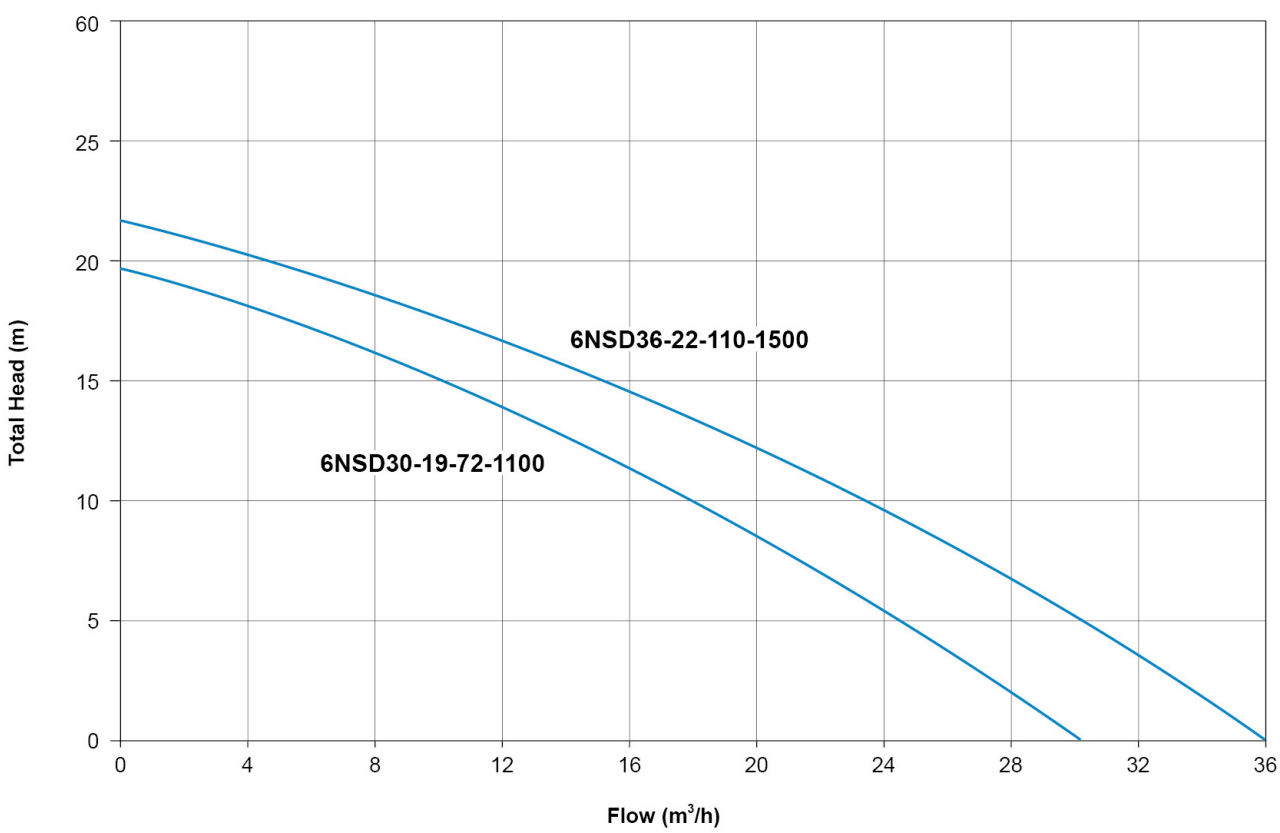
4" DC Solar Pump with SS Impeller



Technical Data

Model	Power (W)	Rated Voltage (V)	Optimum Input Voltage (V)	Max. Flow (m³/h)	Max. Head (m)	Outlet (inch)	Cable (m)	Recommended Solar Panel	
								Open Circuit Voltage(VOC)	Power
4NSD5.2-45-48-500	500	48	60-90	5.5	45	1 1/4"	2	< 100	≥1.3*Pump Power
4NSD5.2-67-48-750	750	48	60-90	5.5	67	1 1/4"	2	< 100	≥1.3*Pump Power
4NSD5.2-67-72-750	750	72	90-120	5.5	67	1 1/4"	2	< 150	≥1.3*Pump Power
4NSD5.2-101-72-1100	1100	72	90-120	5.5	101	1 1/4"	2	< 150	≥1.3*Pump Power
4NSD5.2-101-110-1100	1100	110	110-150	5.5	101	1 1/4"	2	< 200	≥1.3*Pump Power
4NSD5.2-146-110-1300	1300	110	110-150	5.2	146	1 1/4"	2	< 200	≥1.3*Pump Power
4NSD4.8-203-110-1500	1500	110	110-150	4.8	203	1 1/4"	2	< 200	≥1.3*Pump Power
4NSD7.5-80-110-1300	1300	110	110-150	7.5	80	1 1/4"	2	< 200	≥1.3*Pump Power
4NSD7.5-100-110-1500	1500	110	110-150	7.5	100	1 1/4"	2	< 200	≥1.3*Pump Power
4NSD11-60-110-1500	1500	110	110-150	11	60	2"	2	< 200	≥1.3*Pump Power
4NSD19-35-110-1500	1500	110	110-150	19	35	2"	2	< 200	≥1.3*Pump Power
4NSD25-26-110-1500	1500	110	110-150	25	26	2"	2	< 200	≥1.3*Pump Power

6" DC Solar Pump with SS Impeller



Technical Data

Model	Power (W)	Rated Voltage (V)	Optimum Input Voltage (V)	Max. Flow (m³/h)	Max. Head (m)	Outlet (inch)	Cable (m)	Recommended Solar Panel	
								Open Circuit Voltage(VOC)	Power
6NSD30-19-72-1100	1100	72	90-120	30	19	3"	2	< 200	≥1.3*Pump Power
6NSD36-22-110-1500	1500	110	110-150	36	22	3"	2	< 200	≥1.3*Pump Power

Applications

- Transfer clean water or other liquids similar to water in physical and chemical properties
- Farm irrigation & Domestic water lifting for no electricity area
- Off grid solar irrigation system

Pump Features

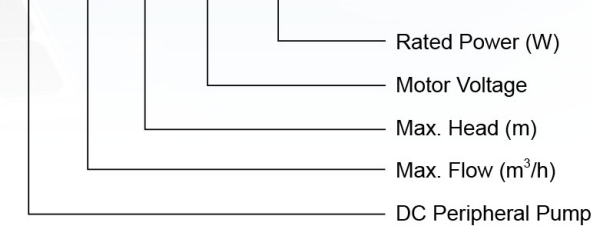
- 100% Copper winding
- High efficiency PMSM brushless motor (PMSM: Permanent Magnet Synchronous Motor)
- High efficiency synchronous motor
- Cast iron pump body with e-coating treatment
- Brass impeller

MPPT Inverter Features

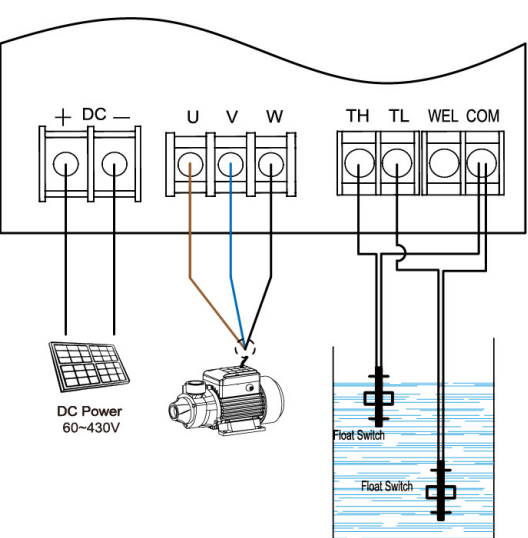
- Can be used for both AC and DC power supply
- Ambient temperature: -15 ~ 60℃
- LED Displays working parameter & Fault code
- Auto Start & Stop (with float switch)
- Soft start & Auto frequency conversion function
- Protection class: IP55

Identification Codes

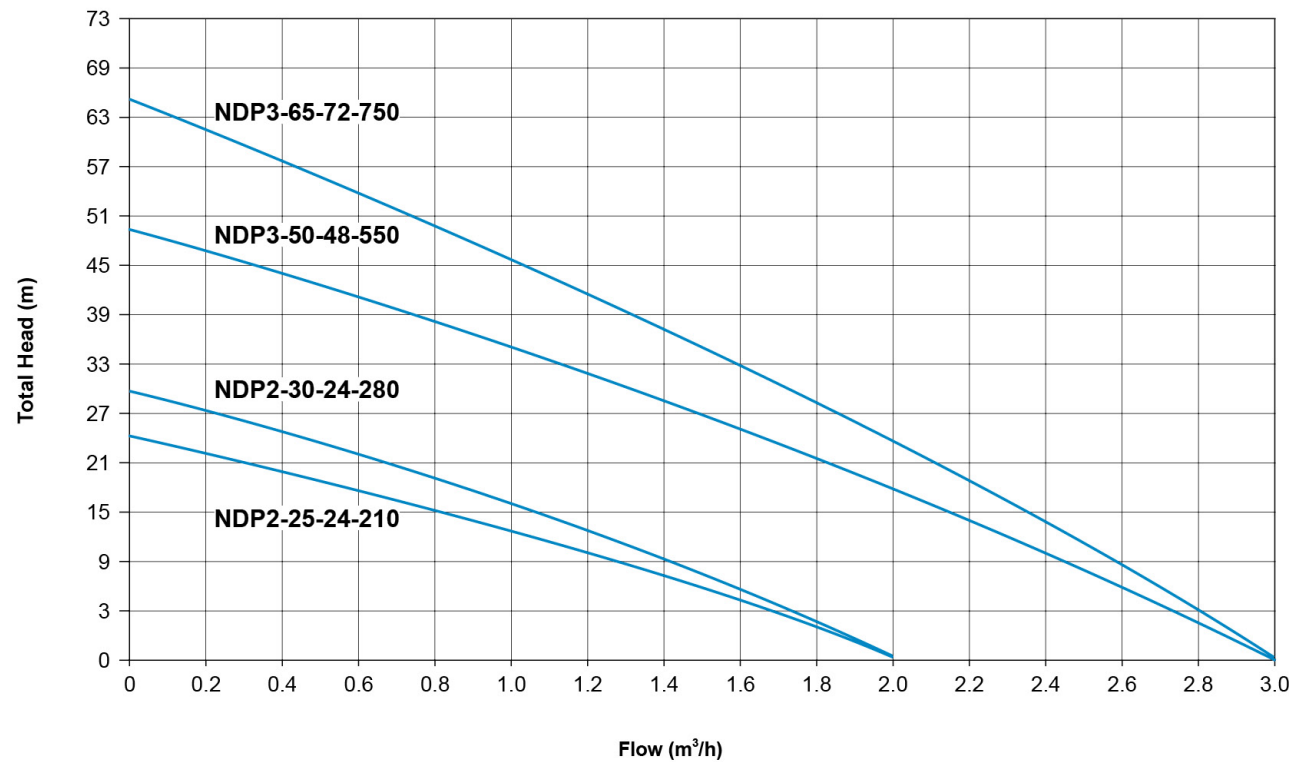
NDP 2 - 25 - 24 - 210



Wiring Diagram



Hydraulic Performance Curves



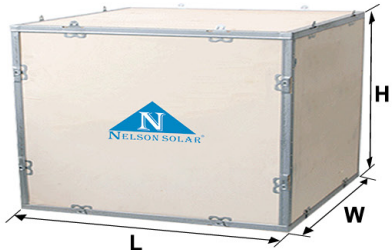
Technical Data

Model	Power (W)	Rated Voltage (V)	Optimum Input Voltage (V)	Max. Flow (m³/h)	Max. Head (m)	Outlet (inch)	Cable (m)	Recommended Solar Panel	
								Open Circuit Voltage(VOC)	Power
NDP2-25-24-210	210	24	30-48	2	25	1x1"	2	< 50	≥1.3*Pump Power
NDP2-30-24-280	280	24	30-48	2	30	1x1"	2	< 50	≥1.3*Pump Power
NDP3-50-48-550	550	48	60-90	3	50	1x1"	2	< 100	≥1.3*Pump Power
NDP3-65-72-750	750	72	90-120	3	65	1x1"	2	< 150	≥1.3*Pump Power

Package Information

Model	G.W (kg)	L (mm)	W (mm)	H (mm)
NDP2-25-24-210	9	1050	240	140
NDP2-30-24-280	9.3	1050	240	140
NDP3-50-48-550	11.5	1100	240	140
NDP3-65-72-750	11.8	360	330	250

* Pump and controller packaged together inside of one box



Applications

- Transfer clean water or other liquids similar to water in physical and chemical properties
- Farm irrigation & Domestic water lifting for no electricity area
- Off grid solar irrigation system

Pump Features

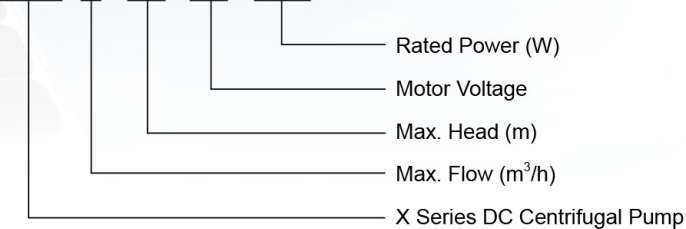
- 100% Copper winding
- High efficiency PMSM brushless motor (PMSM: Permanent Magnet Synchronous Motor)
- High efficiency synchronous motor
- Cast iron pump body with e-coating treatment
- Brass impeller

MPPT Inverter Features

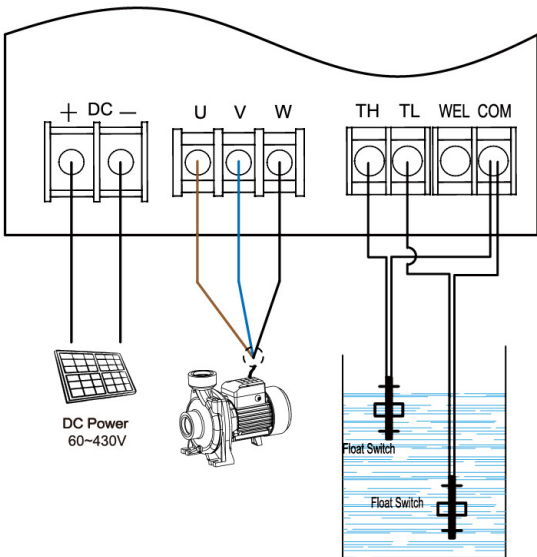
- Protection class: IP55
- Ambient temperature: -15 ~ 60℃
- LED Displays working conditions & Fault code
- Auto Start & Stop (with float switch)
- Soft start & VFD function

Identification Codes

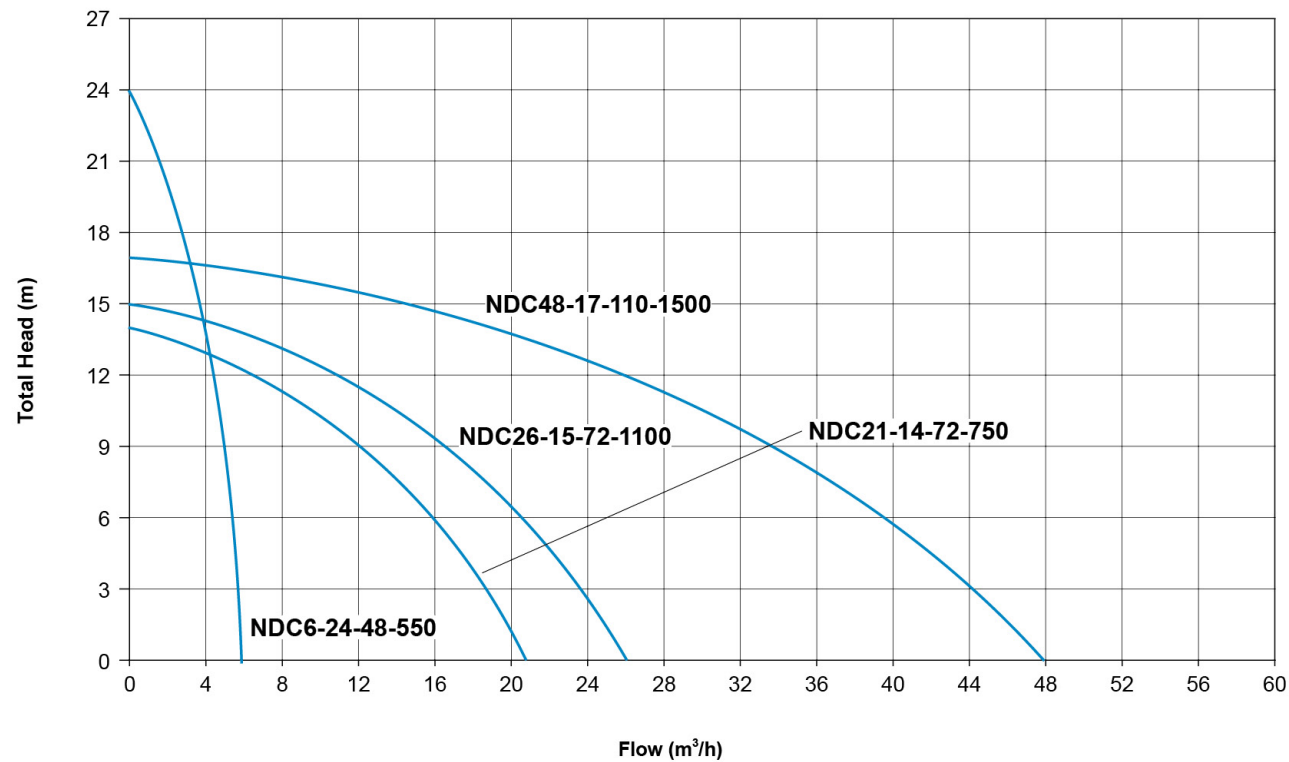
NDC 6 - 24 - 48 - 550



Wiring Diagram



Hydraulic Performance Curves



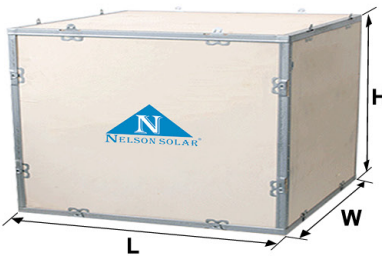
Technical Data

Model	Power (W)	Rated Voltage (V)	Optimum Input Voltage (V)	Max. Flow (m³/h)	Max. Head (m)	Outlet (inch)	Cable (m)	Recommended Solar Panel	
								Open Circuit Voltage(VOC)	Power
NDC6-24-48-550	550	48	60-90	6	24	1"	0.6	< 100	≥1.3*Pump Power
NDC21-14-72-750	750	72	90-120	21	14	2"	0.6	< 150	≥1.3*Pump Power
NDC26-15-72-1100	1100	72	90-120	26	15	2"	0.6	< 150	≥1.3*Pump Power
NDC48-17-110-1500	1500	110	110-150	45	17	3"	0.6	< 200	≥1.3*Pump Power

Package Information

Model	G.W (kg)	L (mm)	W (mm)	H (mm)
NDC6-24-48-550	18.5	410	390	300
NDC21-14-72-750	26	510	420	300
NDC26-15-72-1100	36	510	420	300
NDC48-17-110-1500	36	610	450	350

* Pump and controller packaged together inside of one box



Applications

- Transfer clean water or other liquids similar to water in physical and chemical properties
- Farm irrigation & Domestic water lifting for no electricity area
- Off grid solar irrigation system

Pump Features

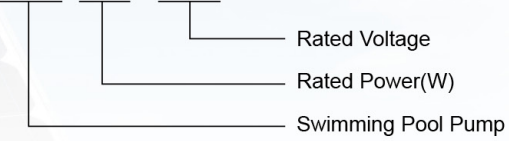
- 100% Copper winding
- High efficiency PMSM brushless motor (PMSM: Permanent Magnet Synchronous Motor)
- High efficiency Synchronous Motor

MPPT Inverter Features

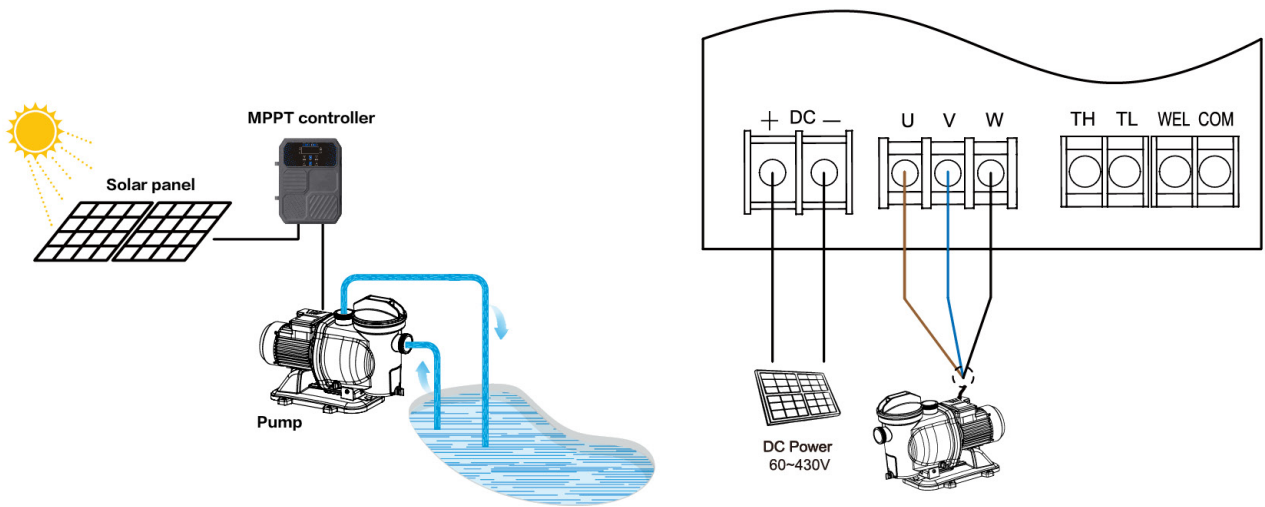
- Can be used for both AC and DC power supply
- Ambient temperature: -15 ~ 60℃
- LED Displays working parameter & Fault code
- Soft start & Auto frequency conversion function
- Protection class: IP55

Identification Codes

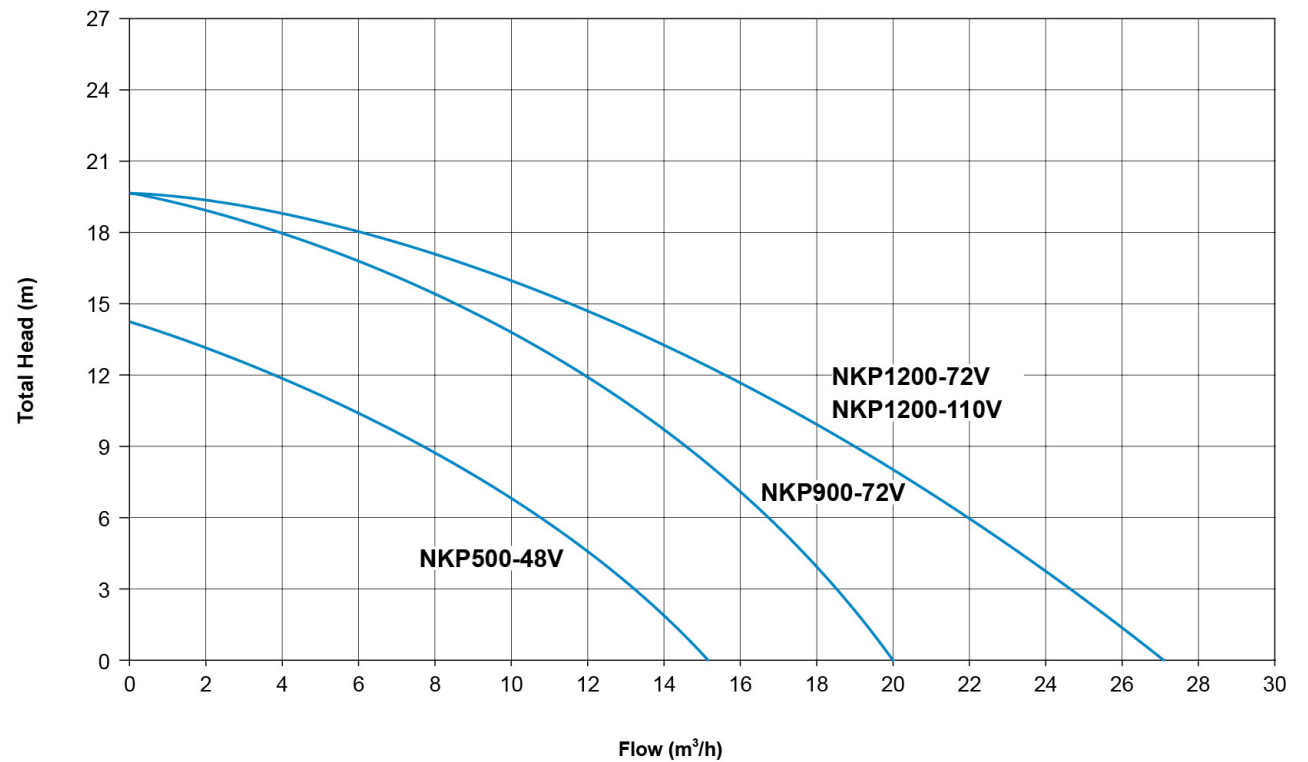
NKP 500 - 48V



Wiring Diagram



Hydraulic Performance Curves



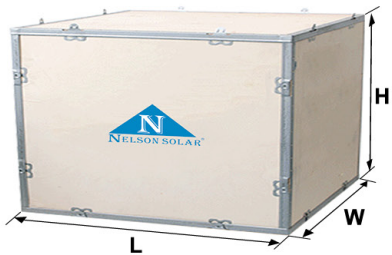
Technical Data

Model	Power (W)	Rated Voltage (V)	Optimum Input Voltage (V)	Max. Flow (m³/h)	Max. Head (m)	Outlet (inch)	Cable (m)	Recommended Solar Panel	
								Open Circuit Voltage(VOC)	Power
NKP500-48V	500	48	60-90	15	14	2x2"	2	< 100	≥1.3*Pump Power
NKP900-72V	900	72	90-120	20	19	2x2"	2	< 150	≥1.3*Pump Power
NKP1200-72V	1200	72	90-120	27	19	3x3"	2	< 150	≥1.3*Pump Power
NKP1200-110V	1200	110	110-150	27	19	3x3"	2	< 200	≥1.3*Pump Power

Package Information

Model	G.W (kg)	L (mm)	W (mm)	H (mm)
NKP500-48V	14	570	420	320
NKP900-72V	15.5	570	420	320
NKP1200-72V	21.2	650	500	290
NKP1200-110V	21.2	650	500	290

* Pump and controller packaged together inside of one box





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