

# ABOUT US

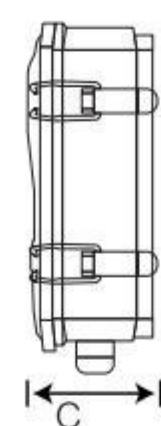
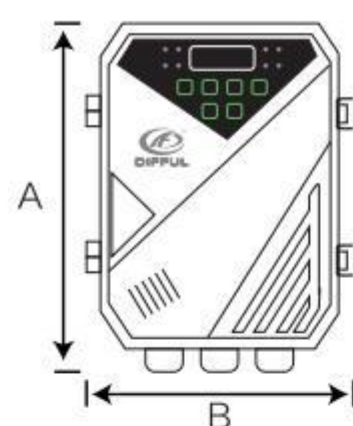
Zhejiang Dingfeng Electrical Appliance Co.,Ltd is a professional manufactory for DC solar pumps,AC/DC hybrid solar pumps, wide voltage solar pumps and water-filled motor solar pumps. Our head office is located in Wenling, Zhejiang, which is established in 1989. And we found our branch plant with 8900m<sup>2</sup> specially for solar pumps in 2016 in Ningbo,Zhejiang. 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 electronic circuit board workshop to make sure every production process is under control. During the last year, we have exported nearly 190000 pcs of solar pumps all over the world, and got countless buyer praise. We never stop the steps to improve and innovate our solar pumps to reach the different market requirements.



## CONTROLLER



DC controller



Wide Voltage HV Controller



AC/DC auto-switching controller (≤2.2KW)



AC/DC auto-switching controller (3KW~4KW)



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

## TECHNICAL DATA

| Model                                     | Dimensions (cm) |      |     | Weight(kg) |
|-------------------------------------------|-----------------|------|-----|------------|
|                                           | A               | B    | C   |            |
| DC controller                             | 23.8            | 18   | 9.5 | 1.5        |
| Wide voltage HV controller                | 24.3            | 23.5 | 11  | 2.2        |
| AC/DC auto-switching controller (≤2.2KW)  | 24.3            | 23.5 | 11  | 2.3        |
| AC/DC auto-switching controller (3KW~4KW) | 32              | 23   | 11  | 2.5        |

## WORKING ENVIRONMENT AND ELECTRICAL PROPERTY

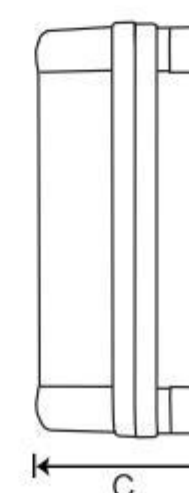
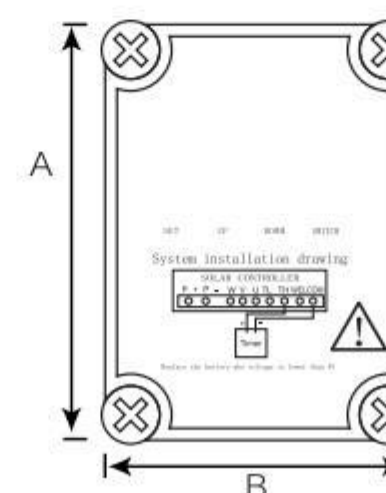
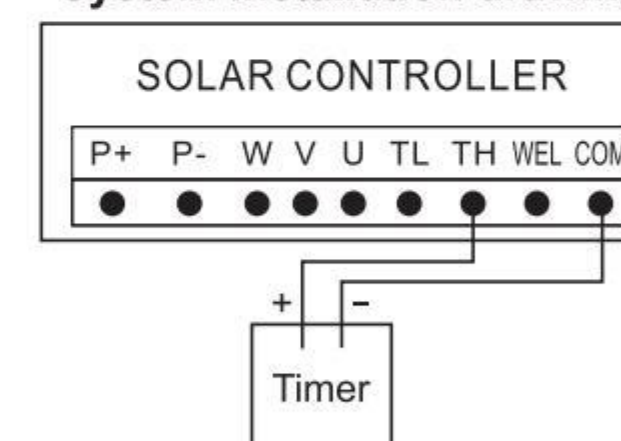
| Controller and Pump Matching Method |                     |                       |                              |                        |                          |
|-------------------------------------|---------------------|-----------------------|------------------------------|------------------------|--------------------------|
| Controller Model                    | Adaptable Pump      | Max.Input Current (A) | Max.Open Circuit Voltage (V) | MPPT Voltage Range (V) | Working Temperature (°C) |
| DF-12                               | Rated 12V Pump      | 17                    | <55                          | 30~48                  | -15 ~ 60                 |
| DF-24                               | Rated 24V Pump      | 17                    | <55                          | 30~48                  | -15 ~ 60                 |
| DF-36                               | Rated 36V Pump      | 17                    | <55                          | 30~48                  | -15 ~ 60                 |
| DF-48                               | Rated 48V Pump      | 17                    | <105                         | 60~90                  | -15 ~ 60                 |
| DF-72                               | Rated 72V Pump      | 17                    | <160                         | 90~120                 | -15 ~ 60                 |
| DF-110                              | Rated 110V Pump     | 17                    | <210                         | 110~150                | -15 ~ 60                 |
| DF-72-A/D                           | Rated 72V-A/D Pump  | 17                    | <430                         | 100~400                | -15 ~ 60                 |
| DF-110-A/D                          | Rated 110V-A/D Pump | 17                    | <430                         | 110~400                | -15 ~ 60                 |
| DF-150-A/D                          | Rated 150V-A/D Pump | 17                    | <430                         | 150~400                | -15 ~ 60                 |
| DF-200-A/D                          | Rated 200V-A/D Pump | 17                    | <430                         | 200~400                | -15 ~ 60                 |
| DF-300-A/D                          | Rated 300V-A/D Pump | 17                    | <430                         | 300~400                | -15 ~ 60                 |
| DF-380-A/D                          | Rated 380V-A/D Pump | 17                    | <780                         | 480~750                | -15 ~ 60                 |
| DF-110-HV                           | Rated 110V-HV Pump  | 17                    | <430                         | 110~400                | -15 ~ 60                 |
| DF-150-HV                           | Rated 150V-HV Pump  | 17                    | <430                         | 150~400                | -15 ~ 60                 |
| DF-200-HV                           | Rated 200V-HV Pump  | 17                    | <430                         | 200~400                | -15 ~ 60                 |
| DF-300-HV                           | Rated 300V-HV Pump  | 17                    | <430                         | 300~400                | -15 ~ 60                 |

## TIMER FOR SOLAR PUMP

Set the startup and shutdown time to intelligently control the operation of the solar pump. Can be matched with other factory's controllers.



System installation drawing

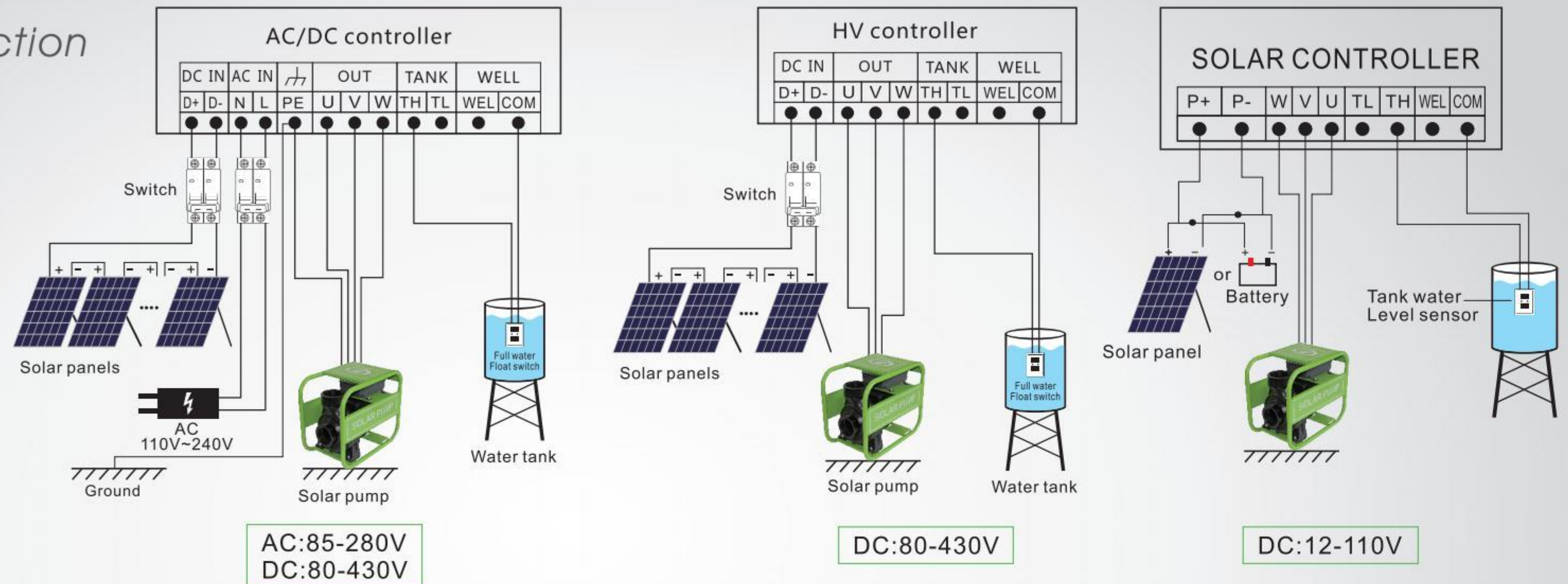


## TECHNICAL DATA

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

# SOLAR SURFACE PUMP

*Environmental protection  
and energy saving*



# DCPM / DCPM-A/D DCPM-HV

DC & AC/DC & WIDE VOLTAGE BRUSHLESS  
CENTRIFUGAL SOLAR PUMP



DC controller



AC/DC auto-  
switching controller  
( $\leq 2.2\text{KW}$ )



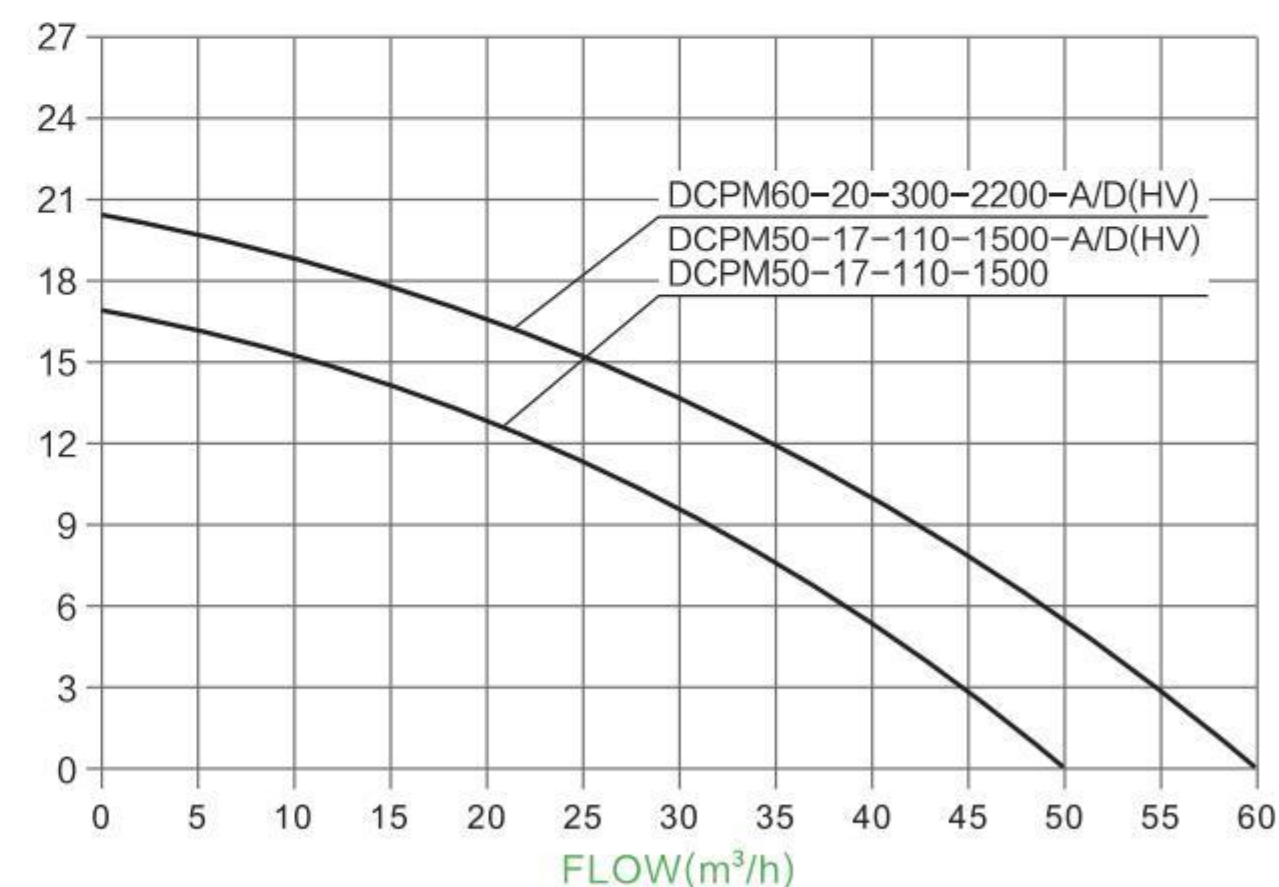
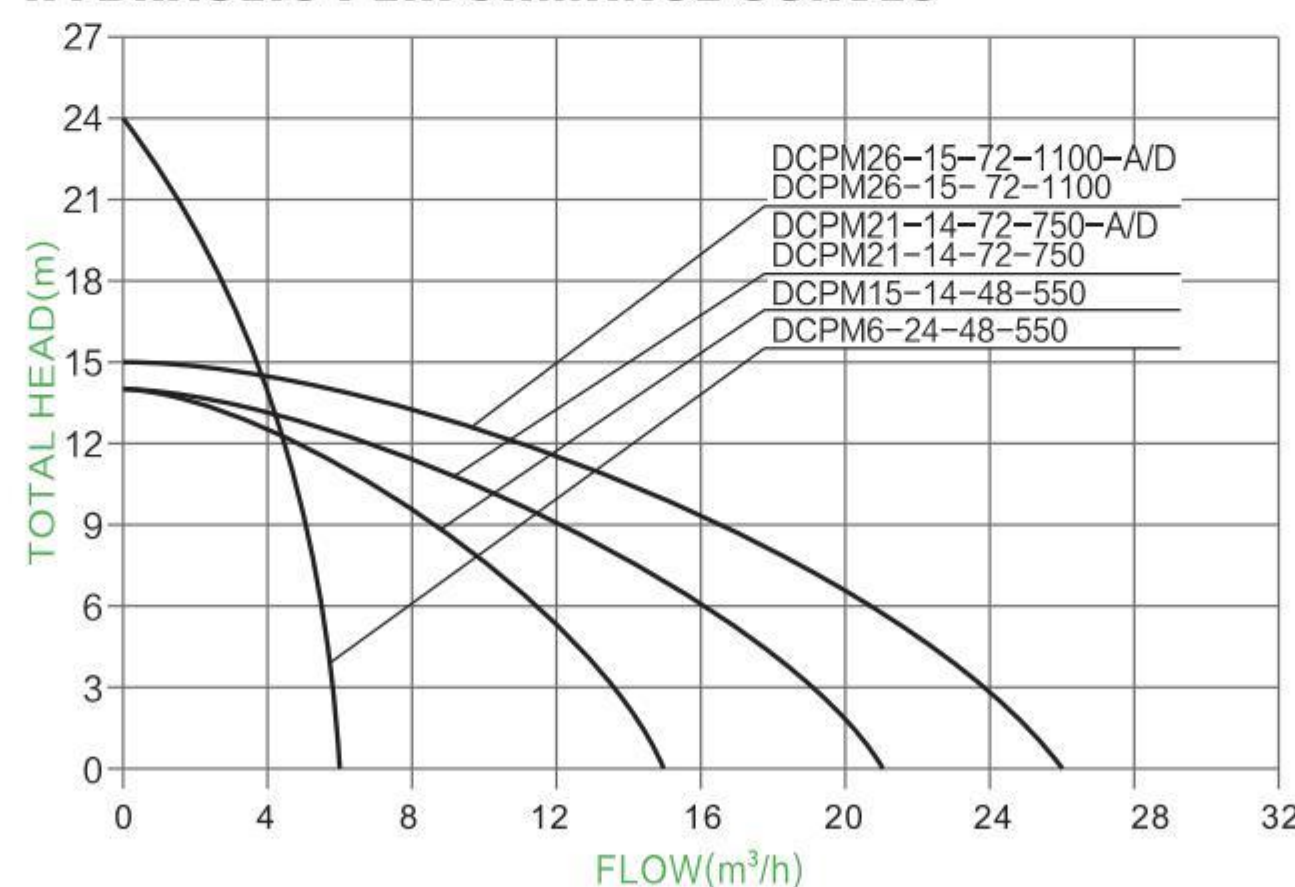
Wide Voltage HV  
Controller

## TECHNICAL DATA

| ITEM               | Voltage | Optimum input<br>voltage (DC) | Power | Max.<br>Flow        | Max.<br>Head | Outlet | Cable | Solar panel                  |                                     |
|--------------------|---------|-------------------------------|-------|---------------------|--------------|--------|-------|------------------------------|-------------------------------------|
|                    |         |                               |       |                     |              |        |       | Open circuit<br>voltage(VOC) | Power                               |
| DCPM6-24-48-550    | 48V     | 60V-90V                       | 550W  | 6m <sup>3</sup> /h  | 24m          | 1"     | 0.6m  | <105V                        | $\geq 1.3 \times \text{PUMP POWER}$ |
| DCPM15-14-48-550   | 48V     | 60V-90V                       | 550W  | 15m <sup>3</sup> /h | 14m          | 1.5"   | 0.6m  | <105V                        | $\geq 1.3 \times \text{PUMP POWER}$ |
| DCPM21-14-72-750   | 72V     | 90V-120V                      | 750W  | 21m <sup>3</sup> /h | 14m          | 2"     | 0.6m  | <160V                        | $\geq 1.3 \times \text{PUMP POWER}$ |
| DCPM26-15-72-1100  | 72V     | 90V-120V                      | 1100W | 26m <sup>3</sup> /h | 15m          | 2"     | 0.6m  | <160V                        | $\geq 1.3 \times \text{PUMP POWER}$ |
| DCPM50-17-110-1500 | 110V    | 110V-150V                     | 1500W | 50m <sup>3</sup> /h | 17m          | 3"     | 0.6m  | <210V                        | $\geq 1.3 \times \text{PUMP POWER}$ |

| ITEM                   | (AC) Voltage | (DC) Voltage | Power | Max.<br>Flow        | Max.<br>Head | Outlet | Cable | Solar panel                  |                                     |
|------------------------|--------------|--------------|-------|---------------------|--------------|--------|-------|------------------------------|-------------------------------------|
|                        |              |              |       |                     |              |        |       | Open circuit<br>voltage(VOC) | Power                               |
| DCPM21-14-72-750-A/D   | 85V-280V     | 80V-430V     | 750W  | 21m <sup>3</sup> /h | 14m          | 2"     | 0.6m  | <430V                        | $\geq 1.3 \times \text{PUMP POWER}$ |
| DCPM26-15-72-1100-A/D  | 85V-280V     | 80V-430V     | 1100W | 26m <sup>3</sup> /h | 15m          | 2"     | 0.6m  | <430V                        | $\geq 1.3 \times \text{PUMP POWER}$ |
| DCPM50-17-110-1500-A/D | 85V-280V     | 80V-430V     | 1500W | 50m <sup>3</sup> /h | 17m          | 3"     | 0.6m  | <430V                        | $\geq 1.3 \times \text{PUMP POWER}$ |
| DCPM50-17-110-1500-HV  | /            | /            | /     | /                   | /            | /      | /     | /                            | /                                   |
| DCPM60-20-300-2200-A/D | 85V-280V     | 80V-430V     | 2200W | 60m <sup>3</sup> /h | 20m          | 4"     | 0.6m  | <430V                        | $\geq 1.3 \times \text{PUMP POWER}$ |
| DCPM60-20-300-2200-HV  | /            | /            | /     | /                   | /            | /      | /     | /                            | /                                   |

## HYDRAULIC PERFORMANCE CURVES



## FREE SPARE PARTS



# DQB/DQB-A/D DZB/DZB-A/D

DC AND AC/DC BRUSHLESS SURFACE  
SOLAR PUMP



DQB



DZB



DC controller



AC/DC auto-  
switching controller  
( $\leq 2.2\text{KW}$ )

## TECHNICAL DATA

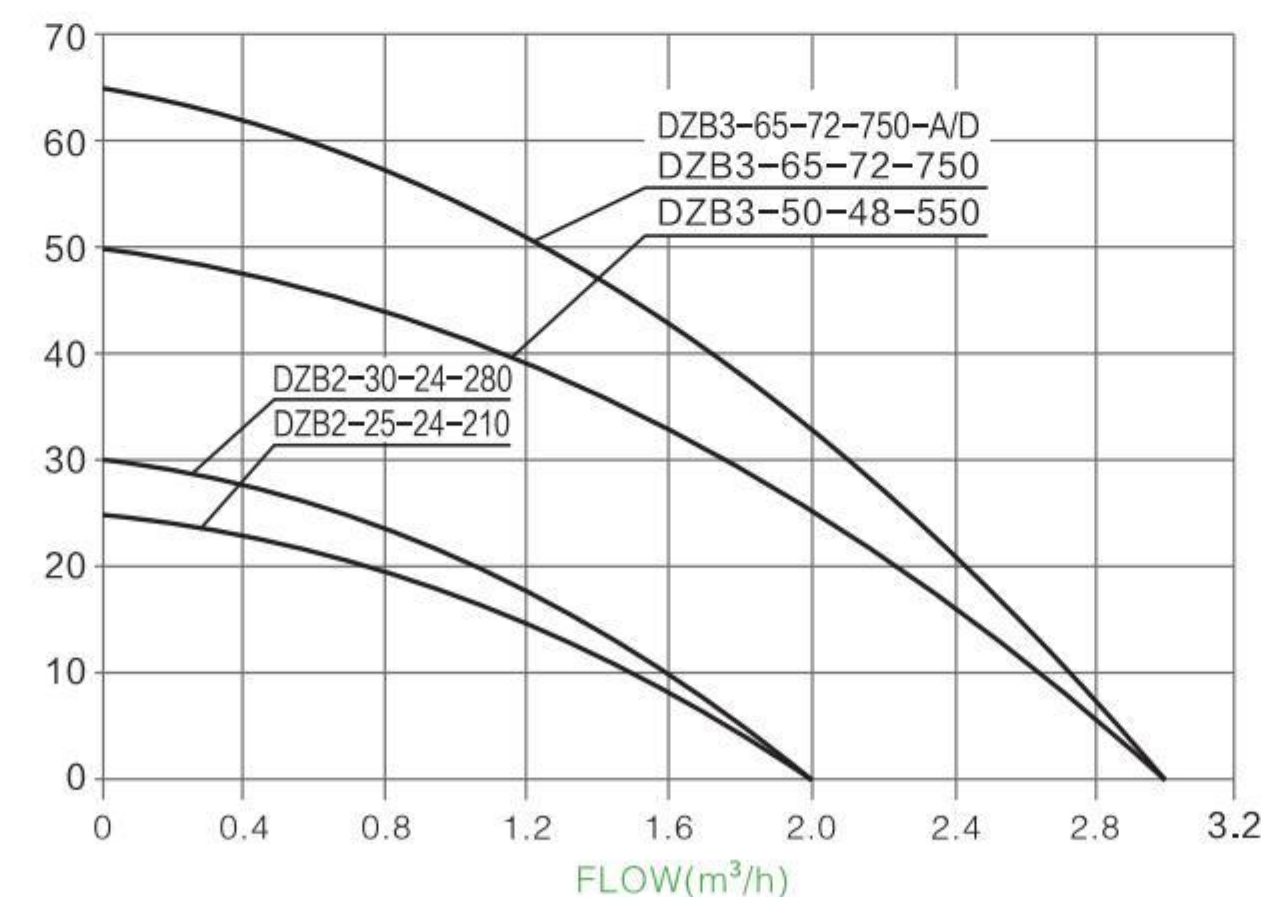
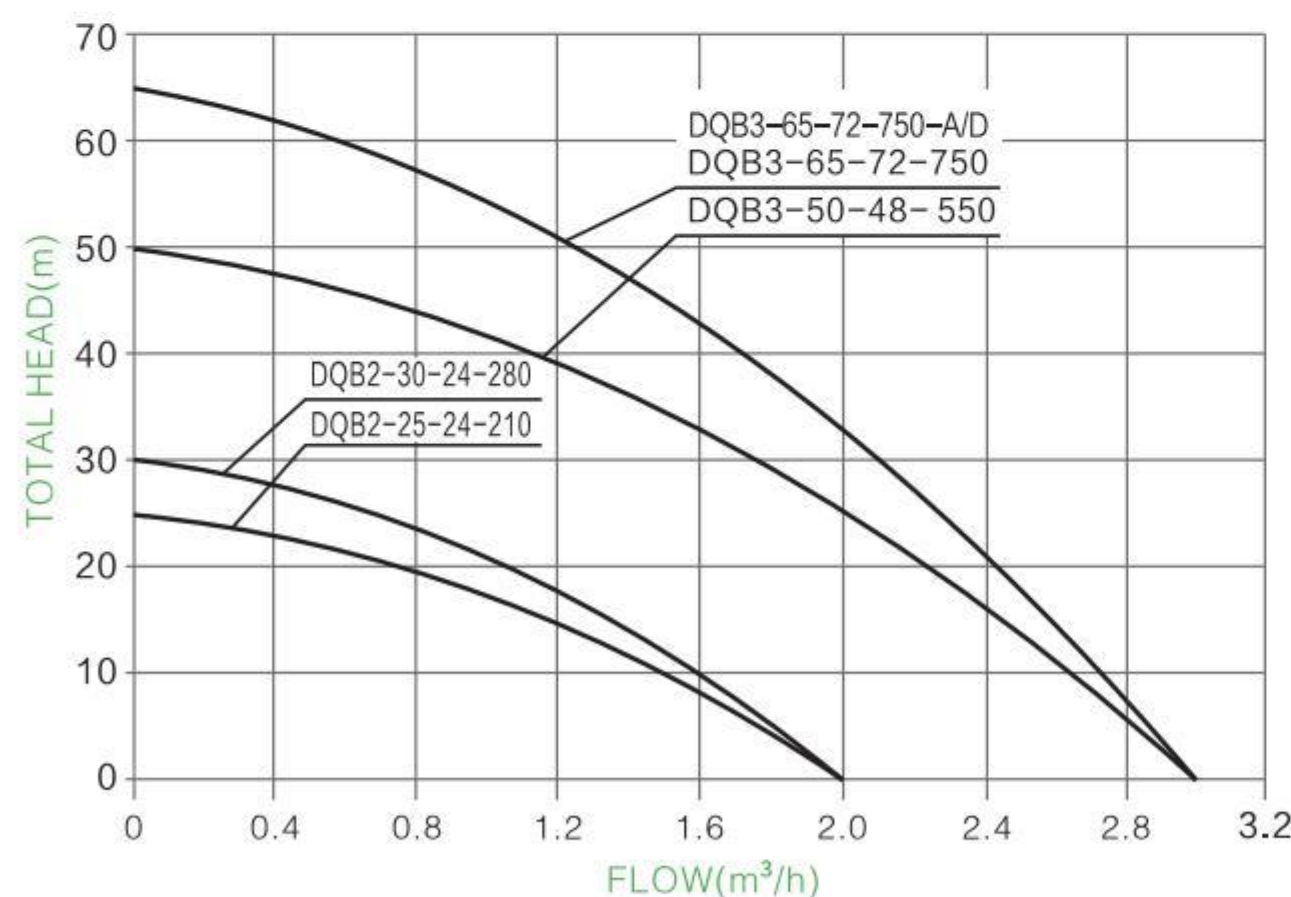
| ITEM           | Voltage | Optimum input<br>voltage (DC) | Power | Max.<br>Flow       | Max.<br>Head | Outlet | Cable | Solar panel                  |                                     |
|----------------|---------|-------------------------------|-------|--------------------|--------------|--------|-------|------------------------------|-------------------------------------|
|                |         |                               |       |                    |              |        |       | Open circuit<br>voltage(VOC) | Power                               |
| DQB2-25-24-210 | 24V     | 30V-48V                       | 210W  | 2m <sup>3</sup> /h | 25m          | 1 × 1" | 2m    | <55V                         | $\geq 1.3 \times \text{PUMP POWER}$ |
| DQB2-30-24-280 | 24V     | 30V-48V                       | 280W  | 2m <sup>3</sup> /h | 30m          | 1 × 1" | 2m    | <55V                         | $\geq 1.3 \times \text{PUMP POWER}$ |
| DQB3-50-48-550 | 48V     | 60V-90V                       | 550W  | 3m <sup>3</sup> /h | 50m          | 1 × 1" | 2m    | <105V                        | $\geq 1.3 \times \text{PUMP POWER}$ |
| DQB3-65-72-750 | 72V     | 90V-120V                      | 750W  | 3m <sup>3</sup> /h | 65m          | 1 × 1" | 2m    | <160V                        | $\geq 1.3 \times \text{PUMP POWER}$ |

| ITEM               | (AC) Voltage | (DC) Voltage | Power | Max.<br>Flow       | Max.<br>Head | Outlet | Cable | Solar panel                  |                                     |
|--------------------|--------------|--------------|-------|--------------------|--------------|--------|-------|------------------------------|-------------------------------------|
|                    |              |              |       |                    |              |        |       | Open circuit<br>voltage(VOC) | Power                               |
| DQB3-65-72-750-A/D | 85V-280V     | 80V-430V     | 750W  | 3m <sup>3</sup> /h | 65m          | 1 × 1" | 2m    | <430V                        | $\geq 1.3 \times \text{PUMP POWER}$ |

| ITEM           | Voltage | Optimum input<br>voltage (DC) | Power | Max.<br>Flow       | Max.<br>Head | Outlet | Cable | Solar panel                  |                                     |
|----------------|---------|-------------------------------|-------|--------------------|--------------|--------|-------|------------------------------|-------------------------------------|
|                |         |                               |       |                    |              |        |       | Open circuit<br>voltage(VOC) | Power                               |
| DZB2-25-24-210 | 24V     | 30V-48V                       | 210W  | 2m <sup>3</sup> /h | 25m          | 1 × 1" | 2m    | <55V                         | $\geq 1.3 \times \text{PUMP POWER}$ |
| DZB2-30-24-280 | 24V     | 30V-48V                       | 280W  | 2m <sup>3</sup> /h | 30m          | 1 × 1" | 2m    | <55V                         | $\geq 1.3 \times \text{PUMP POWER}$ |
| DZB3-50-48-550 | 48V     | 60V-90V                       | 550W  | 3m <sup>3</sup> /h | 50m          | 1 × 1" | 2m    | <105V                        | $\geq 1.3 \times \text{PUMP POWER}$ |
| DZB3-65-72-750 | 72V     | 90V-120V                      | 750W  | 3m <sup>3</sup> /h | 65m          | 1 × 1" | 2m    | <160V                        | $\geq 1.3 \times \text{PUMP POWER}$ |

| ITEM               | (AC) Voltage | (DC) Voltage | Power | Max.<br>Flow       | Max.<br>Head | Outlet | Cable | Solar panel                  |                                     |
|--------------------|--------------|--------------|-------|--------------------|--------------|--------|-------|------------------------------|-------------------------------------|
|                    |              |              |       |                    |              |        |       | Open circuit<br>voltage(VOC) | Power                               |
| DZB3-65-72-750-A/D | 85V-280V     | 80V-430V     | 750W  | 3m <sup>3</sup> /h | 65m          | 1"x1"  | 2m    | <430V                        | $\geq 1.3 \times \text{PUMP POWER}$ |

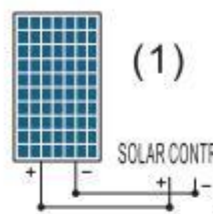
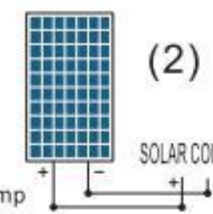
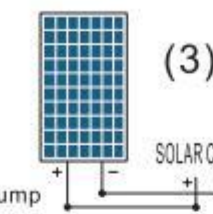
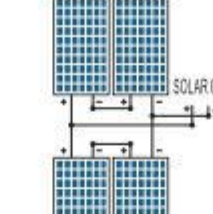
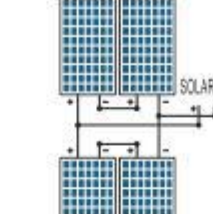
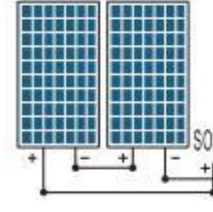
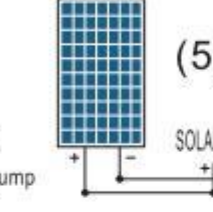
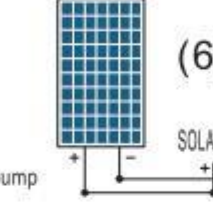
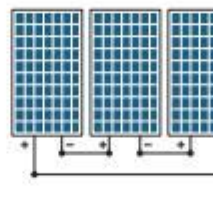
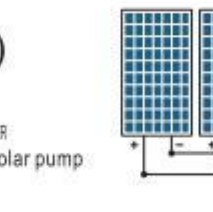
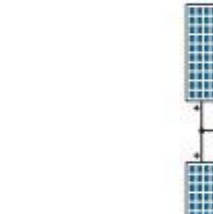
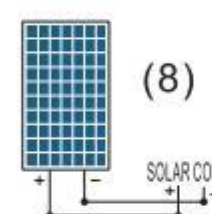
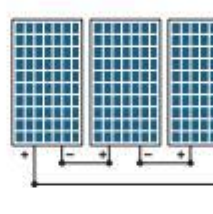
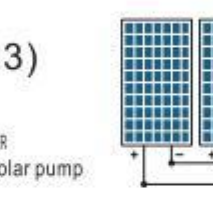
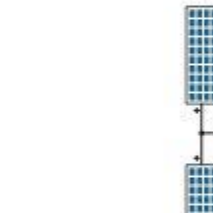
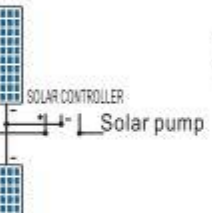
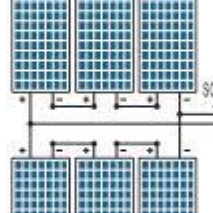
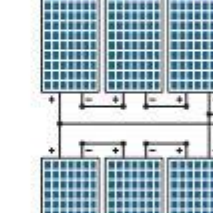
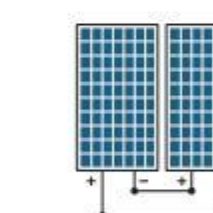
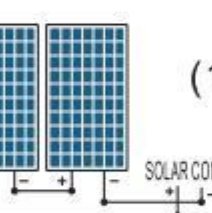
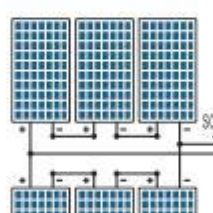
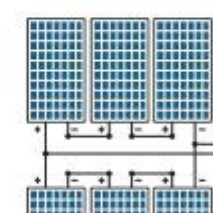
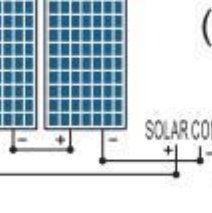
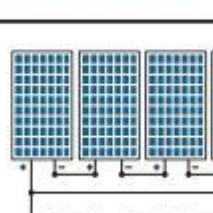
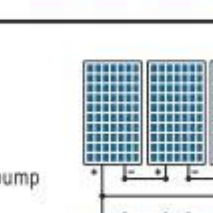
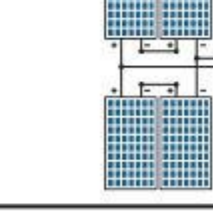
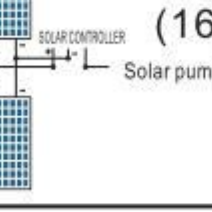
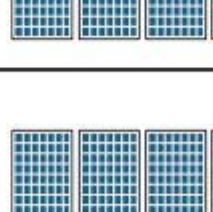
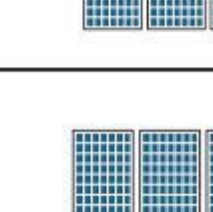
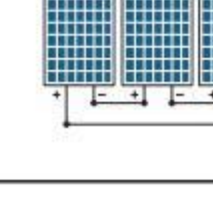
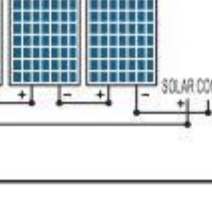
## HYDRAULIC PERFORMANCE CURVES



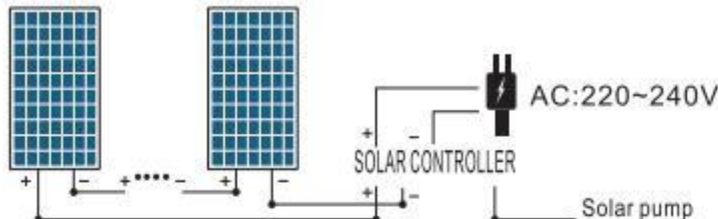
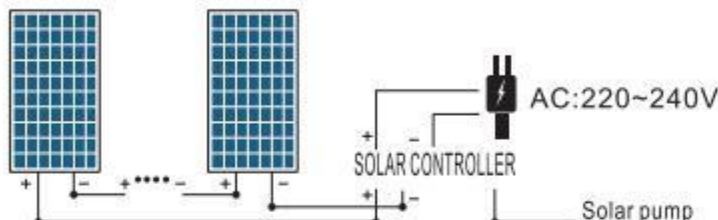
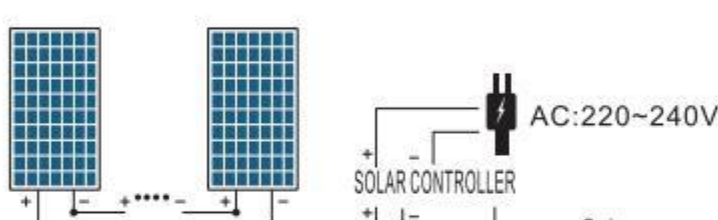
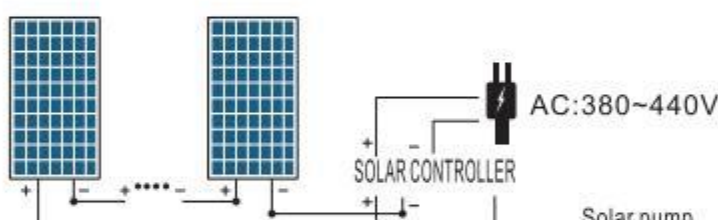
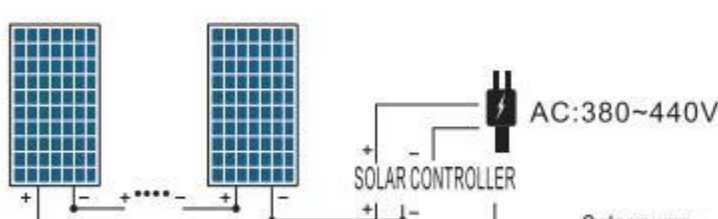
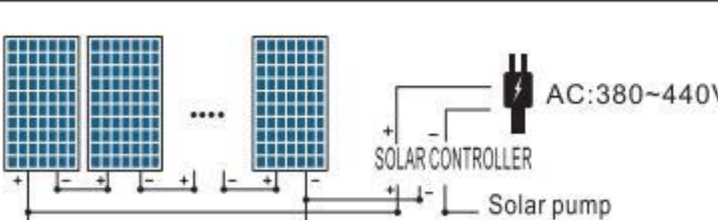
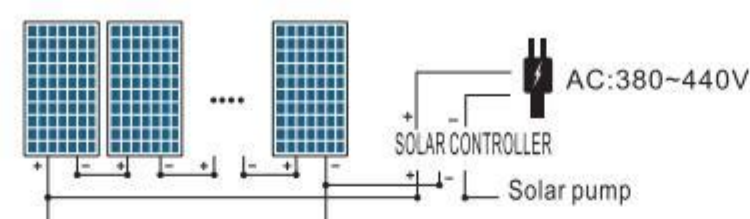
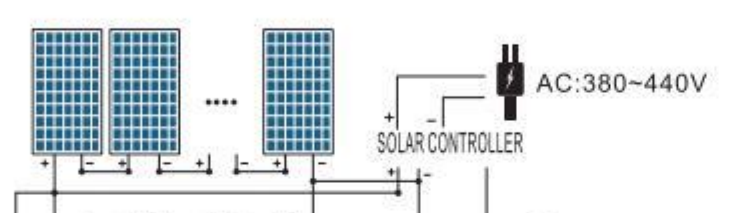
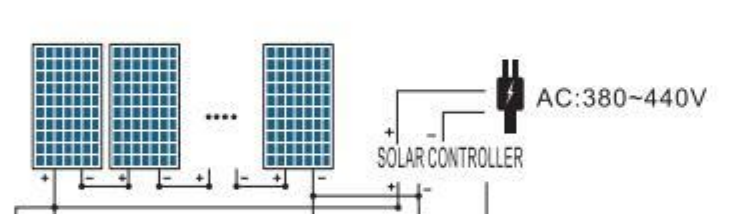
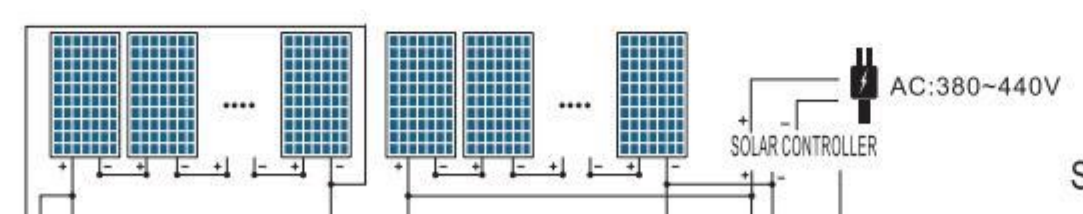
## FREE SPARE PARTS



## Solar panel recommendation for 12V-110V DC solar pump

|                                                                                                            |                                                                                                                                                                                                                                                                   |                                                                                  |                                                           |                                                                                                                                                                                       |                                                        |
|------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|-----------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|
| <p>PUMP POWER<br/>80W-12V</p> <p>Voc:<br/>18V~55V</p>                                                      |  (1)  (2)  (3) | <p>Solar panel:150W*1PCS<br/>Solar panel:270W*1PCS<br/>Solar panel:330W*1PCS</p> | <p>PUMP POWER<br/>750W-48V</p> <p>Voc:<br/>30V~105V</p>   |  (19)  (20)     | <p>Solar panel:270W*4PCS<br/>Solar panel:330W*4PCS</p> |
| <p>PUMP POWER<br/>120W-24V<br/>180W-24V<br/>200W-24V<br/>210W-24V<br/>210W-36V</p> <p>Voc:<br/>18V~55V</p> |  (4)  (5)  (6) | <p>Solar panel:150W*2PCS<br/>Solar panel:270W*1PCS<br/>Solar panel:330W*1PCS</p> | <p>PUMP POWER<br/>750W-72V</p> <p>Voc:<br/>55V~160V</p>   |  (21)  (22)     | <p>Solar panel:270W*4PCS<br/>Solar panel:330W*3PCS</p> |
| <p>PUMP POWER<br/>280W-24V<br/>300W-24V</p> <p>Voc:<br/>18V~55V</p>                                        |  (7)  (8)                                                                                       | <p>Solar panel:270W*2PCS<br/>Solar panel:330W*1PCS</p>                           | <p>PUMP POWER<br/>900W-72V</p> <p>Voc:<br/>55V~160V</p>   |  (23)  (24)     | <p>Solar panel:270W*4PCS<br/>Solar panel:330W*3PCS</p> |
| <p>PUMP POWER<br/>400W-36V</p> <p>Voc:<br/>18V~55V</p>                                                     |  (9)  (10)                                                                                    | <p>Solar panel:270W*2PCS<br/>Solar panel:330W*2PCS</p>                           | <p>PUMP POWER<br/>1100W-72V</p> <p>Voc:<br/>55V~160V</p>  |  (25)  (26)   | <p>Solar panel:270W*6PCS<br/>Solar panel:330W*6PCS</p> |
| <p>PUMP POWER<br/>370W-48V<br/>400W-48V</p> <p>Voc:<br/>30V~105V</p>                                       |  (11)  (12)                                                                                 | <p>Solar panel:270W*2PCS<br/>Solar panel:330W*2PCS</p>                           | <p>PUMP POWER<br/>1100W-110V</p> <p>Voc:<br/>60V~210V</p> |  (27)  (28) | <p>Solar panel:270W*6PCS<br/>Solar panel:330W*6PCS</p> |
| <p>PUMP POWER<br/>500W-48V<br/>550W-48V</p> <p>Voc:<br/>30V~105V</p>                                       |  (13)  (14)                                                                                 | <p>Solar panel:270W*4PCS<br/>Solar panel:330W*2PCS</p>                           | <p>PUMP POWER<br/>1300W-110V</p> <p>Voc:<br/>60V~210V</p> |  (29)  (30) | <p>Solar panel:270W*8PCS<br/>Solar panel:330W*6PCS</p> |
| <p>PUMP POWER<br/>600W-48V</p> <p>Voc:<br/>30V~105V</p>                                                    |  (15)  (16)                                                                                 | <p>Solar panel:270W*4PCS<br/>Solar panel:330W*4PCS</p>                           | <p>PUMP POWER<br/>1500W-110V</p> <p>Voc:<br/>60V~210V</p> |  (31)  (32) | <p>Solar panel:270W*8PCS<br/>Solar panel:330W*8PCS</p> |
| <p>PUMP POWER<br/>600W-72V</p> <p>Voc:<br/>55V~160V</p>                                                    |  (17)  (18)                                                                                 | <p>Solar panel:270W*3PCS<br/>Solar panel:330W*3PCS</p>                           |                                                           |                                                                                                                                                                                       |                                                        |

## Solar panel recommendation for 220V-380V AC/DC & HV solar pump

|                                                                                   |                                                                                       |                                                     |
|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----------------------------------------------------|
| <b>PUMP POWER</b><br>750W-220V<br>AC:85V~280V<br>DC:80V~430V                      |      | Solar panel:270W*3~7PCS<br>Solar panel:330W*4~6PCS  |
| <b>PUMP POWER</b><br>1100W-220V<br>1200W-220V<br>AC:85V~280V<br>DC:80V~430V       |      | Solar panel:270W* 6~8PCS<br>Solar panel:330W*5~7PCS |
| <b>PUMP POWER</b><br>1300W-220V<br>1500W-220V<br>AC:85V~280V<br>DC:80V~430V       |      | Solar panel:270W*8~9PCS<br>Solar panel:330W*6~8PCS  |
| <b>PUMP POWER</b><br>2200W-220V<br>AC:85V~280V<br>DC:80V~430V                     |     | Solar panel:270W*10PCS<br>Solar panel:330W*8~9PCS   |
| <b>PUMP POWER</b><br>3000W-380V<br>AC Vol .<br>380V~440V<br>Dc vol.<br>480V~780V  |    | Solar panel:270W*15PCS<br>Solar panel:330W*12PCS    |
| <b>PUMP POWER</b><br>4000W-380V<br>AC Vol .<br>380V~440V<br>Dc vol.<br>480V~780V  |    | Solar panel:270W*19PCS<br>Solar panel:330W*15PCS    |
| <b>PUMP POWER</b><br>5500W-380V<br>AC Vol .<br>380V~440V<br>Dc vol.<br>480V~780V  |    | Solar panel:270W*26PCS<br>Solar panel:330W*22PCS    |
| <b>PUMP POWER</b><br>7500W-380V<br>AC Vol .<br>380V~440V<br>Dc vol.<br>480V~780V  |    | Solar panel:270W*36PCS<br>Solar panel:330W*30PCS    |
| <b>PUMP POWER</b><br>9200W-380V<br>AC Vol .<br>380V~440V<br>Dc vol.<br>480V~780V  |    | Solar panel:270W*45PCS<br>Solar panel:330W*36PCS    |
| <b>PUMP POWER</b><br>11000W-380V<br>AC Vol .<br>380V~440V<br>Dc vol.<br>480V~780V |  | Solar panel:270W*54PCS<br>Solar panel:330W*42PCS    |
| <b>PUMP POWER</b><br>15000W-380V<br>AC Vol .<br>380V~440V<br>Dc vol.<br>480V~780V |  | Solar panel:270W*76PCS<br>Solar panel:330W*60PCS    |



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