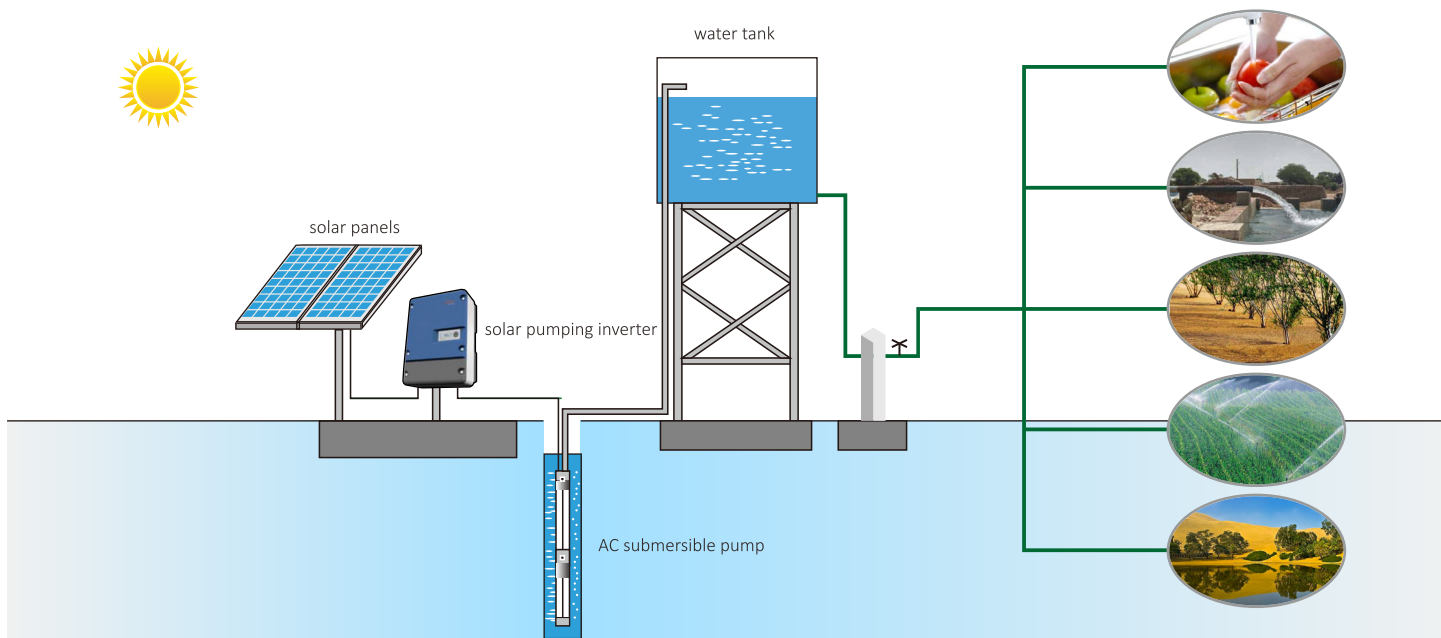


# **AMEC SOLAR**



## **Solar AC Pumping System**



◆ **System Introduction (AC system)**

Solar pumping system consists of four parts: solar panels, solar pumping inverter, three-phase AC pump and water storage device. The solar pumping inverter converts DC power produced by solar panels to AC power which drives AC pump to pump water from borehole, river, lake etc. to the storage device. The inverter applies high efficiency MPPT algorithm to maximize power harvested from solar panels. It will make the system to maximize efficiency to get the water as much as possible. The solar pumping system fulfills concept of low carbon, energy conservation, environmental protection to improve the living standard in water-deficient area.

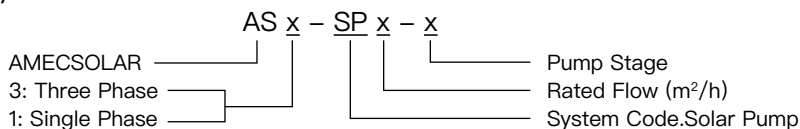
◆ **System Features**

- Reliable solution for agricultural irrigation, daily water, desert control in non-electricity and water deficient area.
- Wide application with all kinds of PV modules and 3-phase AC pumps
- IP 65 for outdoors application
- Max. operation temperature 60°C
- GPRS remote monitoring for real time operation status and control on/off
- Excellent performance during cloudy weather with 5% more water output compared to competitors
- ROI is only less than 2 years compared to diesel generator
- Full automatic unattended operation with perfect protection functions for long lifespan 25 years
- 3 years warranty for complete system, 10 years for PV modules

◆ **Remarks**

- Polycrystalline 265W (Voc=37V, I<sub>sc</sub>=8A) solar panels are used in system configuration.
- The configuration is designed under environment temperature -20 + 60 C. We suggest to reduce number of solar panels of each string 21 pieces to 20 pieces if temperature is below 25°C.
- Configuration is designed with radiation 1000W / m<sup>2</sup> and rated working time of 5 hours and non-rated time of 3.2 hours.
- When single string exceeds 19 pieces, Please contact AMEGSOLAR engineer for system configuration.
- The design head should be considered to be 1.2-1.5 times more than the real head according to varied location.

◆ **Definition of system model**



◆ **Daily water requirement: 5~10 m<sup>3</sup>**

| System Model | Pump<br>kW | Inverter<br>kW | Solar Panels<br>kW | Array | Rated Flow<br>m <sup>3</sup> /h | Rated Head<br>m | Rated Daily Water Output<br>m <sup>3</sup> /day | Daily Water Output Range |   |     |                     |     |   |    |
|--------------|------------|----------------|--------------------|-------|---------------------------------|-----------------|---|--------------------------|---|-----|---------------------|-----|---|----|
|              |            |                |                    |       |                                 |                 |   | m <sup>3</sup> /h        |   |     | m <sup>3</sup> /day |     |   |    |
| AS3-SP1-21   | 1.1        | 1.1            | 1.50               | 6*1   | 1                               | 108             | 7   | 0.8                      | ~ | 1.8 | 112                 | 80  | 7 | 10 |
| AS3-SP1-25   | 1.1        | 1.1            | 1.60               | 6*1   |                                 | 129             | 7   |                          |   |     | 134                 | 95  | 6 | 10 |
| AS3-SP1-28   | 1.5        | 1.5            | 2.00               | 8*1   |                                 | 145             | 7   |                          |   |     | 150                 | 107 | 7 | 10 |
| AS3-SP1-32   | 1.5        | 1.5            | 2.00               | 8*1   |                                 | 165             | 6   |                          |   |     | 171                 | 122 | 6 | 9  |
| AS3-SP1-36   | 1.5        | 1.5            | 2.25               | 9*1   |                                 | 186             | 6   |                          |   |     | 192                 | 137 | 6 | 9  |
| AS3-SP1-39   | 2.2        | 2.2            | 3.00               | 6*2   |                                 | 202             | 8   |                          |   |     | 209                 | 149 | 7 | 11 |
| AS3-SP1-42   | 2.2        | 2.2            | 3.00               | 6*2   |                                 | 217             | 7   |                          |   |     | 225                 | 160 | 7 | 10 |
| AS3-SP1-46   | 2.2        | 2.2            | 3.50               | 7*2   |                                 | 238             | 8   |                          |   |     | 246                 | 176 | 7 | 11 |
| AS3-SP1-50   | 2.2        | 2.2            | 3.50               | 7*2   |                                 | 260             | 7   |                          |   |     | 269                 | 192 | 6 | 10 |

◆ Daily water requirement: 10~30 m<sup>3</sup>

| System Model | Pump | Inverter | Solar Panels | Array | Rated Flow        | Rated Head | Rated Daily Water Output | Daily Water Output Range |   |     |     |                     |    |    |
|--------------|------|----------|--------------|-------|-------------------|------------|--------------------------|--------------------------|---|-----|-----|---------------------|----|----|
|              | kW   | kW       | kW           |       | m <sup>3</sup> /h | m          | m <sup>3</sup> /day      | m <sup>3</sup> /h        |   | m   |     | m <sup>3</sup> /day |    |    |
| AS3-SP5-12   | 1.1  | 1.1      | 1.50         | 6*1   | 5                 | 45         | 24                       | 3                        | ~ | 5.5 | 59  | 38                  | 18 | 26 |
| AS3-SP5-17   | 1.5  | 1.5      | 2.00         | 8*1   |                   | 64         | 22                       |                          |   |     | 84  | 54                  | 17 | 24 |
| AS3-SP5-21   | 2.2  | 2.2      | 3.00         | 6*2   |                   | 79         | 27                       |                          |   |     | 104 | 67                  | 20 | 29 |
| AS3-SP5-25   | 2.2  | 2.2      | 3.50         | 7*2   |                   | 94         | 26                       |                          |   |     | 124 | 80                  | 20 | 29 |
| AS3-SP5-29   | 3.0  | 3.0      | 4.00         | 8*2   |                   | 108        | 26                       |                          |   |     | 144 | 92                  | 19 | 29 |
| AS3-SP5-33   | 3.0  | 3.0      | 4.50         | 9*2   |                   | 123        | 26                       |                          |   |     | 163 | 105                 | 19 | 28 |
| AS3-SP5-38   | 4.0  | 4.0      | 5.60         | -     |                   | 142        | 28                       |                          |   |     | 188 | 121                 | 21 | 30 |
| AS3-SP5-43   | 4.0  | 4.0      | 6.00         | -     |                   | 161        | 26                       |                          |   |     | 213 | 137                 | 20 | 29 |

◆ Daily water requirement: 30~60 m<sup>3</sup>

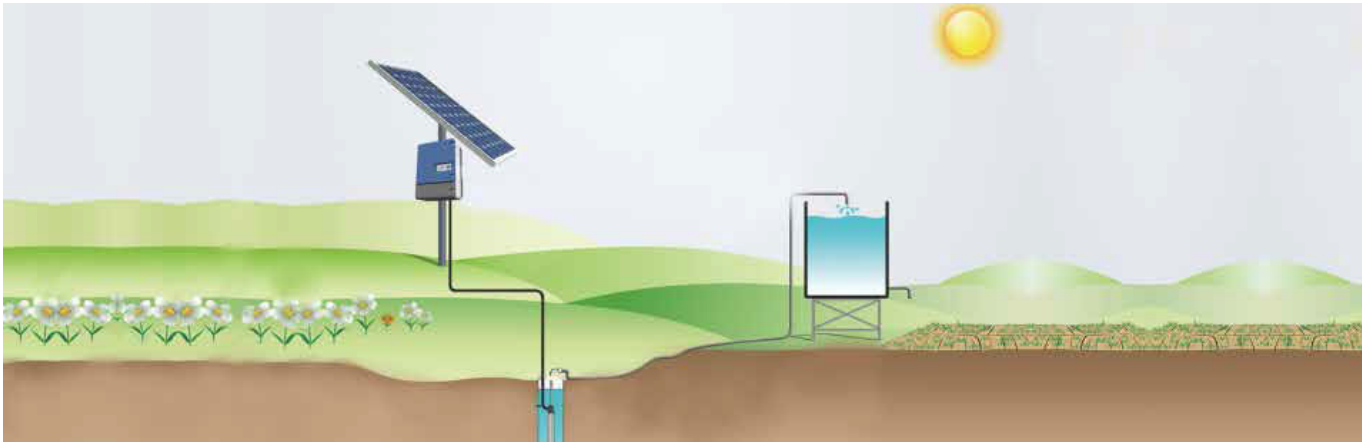
| System Model | Pump | Inverter | Solar Panels | Array | Rated Flow        | Rated Head | Rated Daily Water Output | Daily Water Output Range |    |    |     |                     |    |    |
|--------------|------|----------|--------------|-------|-------------------|------------|--------------------------|--------------------------|----|----|-----|---------------------|----|----|
|              | kW   | kW       | kW           |       | m <sup>3</sup> /h | m          | m <sup>3</sup> /day      | m <sup>3</sup> /h        |    | m  |     | m <sup>3</sup> /day |    |    |
| AS3-SP8-7    | 1.1  | 1.1      | 1.50         | 6*1   | 8                 | 27         | 41                       | 6                        | ~  | 10 | 31  | 20                  | 33 | 53 |
| AS3-SP8-10   | 1.5  | 1.5      | 2.00         | 8*1   |                   | 39         | 38                       |                          |    |    | 45  | 29                  | 31 | 49 |
| AS3-SP8-12   | 2.2  | 2.2      | 3.00         | 6*2   |                   | 47         | 47                       |                          |    |    | 54  | 35                  | 38 | 61 |
| AS3-SP8-15   | 2.2  | 2.2      | 3.50         | 7*2   |                   | 59         | 43                       |                          |    |    | 68  | 44                  | 35 | 56 |
| AS3-SP8-18   | 3.0  | 3.0      | 4.00         | 8*2   |                   | 71         | 41                       |                          |    |    | 81  | 53                  | 34 | 53 |
| AS3-SP8-21   | 4.0  | 4.0      | 5.60         | -     |                   | 83         | 49                       |                          |    |    | 95  | 62                  | 41 | 64 |
| AS3-SP8-25   | 4.0  | 4.0      | 6.00         | -     |                   | 99         | 44                       |                          |    |    | 113 | 74                  | 37 | 57 |
| AS3-SP8-30   | 5.5  | 5.5      | 7.50         | 15*2  |                   | 119        | 49                       |                          |    |    | 136 | 88                  | 40 | 64 |
| AS3-SP8-37   | 5.5  | 5.5      | 8.00         | 16*2  |                   | 147        | 40                       |                          |    |    | 167 | 109                 | 33 | 52 |
| AS3-SP8-44   | 7.5  | 7.5      | 10.50        | 20*2  |                   | 174        | 44                       |                          |    |    | 199 | 129                 | 36 | 58 |
| AS3-SP8-50   | 7.5  | 7.5      | 11.00        | 21*2  | 198               | 41         | 226                      | 147                      | 34 | 53 |     |                     |    |    |

◆ Daily water requirement: 50~90 m<sup>3</sup>

| System Model | Pump | Inverter | Solar Panels | Array | Rated Flow        | Rated Head | Rated Daily Water Output | Daily Water Output Range |   |    |     |                     |    |    |
|--------------|------|----------|--------------|-------|-------------------|------------|--------------------------|--------------------------|---|----|-----|---------------------|----|----|
|              | kW   | kW       | kW           |       | m <sup>3</sup> /h | m          | m <sup>3</sup> /day      | m <sup>3</sup> /h        |   | m  |     | m <sup>3</sup> /day |    |    |
| AS3-SP12-5   | 1.5  | 1.5      | 2.00         | 8*1   | 12                | 25         | 55                       | 8                        | ~ | 16 | 29  | 18                  | 51 | 74 |
| AS3-SP12-7   | 2.2  | 2.2      | 3.00         | 6*2   |                   | 35         | 58                       |                          |   |    | 40  | 25                  | 56 | 80 |
| AS3-SP12-10  | 3.0  | 3.0      | 4.00         | 8*2   |                   | 50         | 55                       |                          |   |    | 58  | 36                  | 51 | 74 |
| AS3-SP12-13  | 4.0  | 4.0      | 5.60         | -     |                   | 66         | 58                       |                          |   |    | 76  | 48                  | 55 | 78 |
| AS3-SP12-15  | 5.5  | 5.5      | 7.50         | 15*2  |                   | 76         | 78                       |                          |   |    | 88  | 55                  | 53 | 97 |
| AS3-SP12-18  | 5.5  | 5.5      | 8.00         | 16*2  |                   | 91         | 60                       |                          |   |    | 105 | 66                  | 57 | 81 |
| AS3-SP12-21  | 7.5  | 7.5      | 10.00        | 19*2  |                   | 106        | 68                       |                          |   |    | 123 | 77                  | 64 | 91 |
| AS3-SP12-25  | 7.5  | 7.5      | 11.60        | 20*2  |                   | 126        | 60                       |                          |   |    | 146 | 92                  | 56 | 80 |

◆ Daily water requirement: 60~150 m<sup>3</sup>

| System Model | Pump | Inverter | Solar Panels | Array | Rated Flow        | Rated Head | Rated Daily Water Output | Daily Water Output Range |   |    |      |                     |    |     |
|--------------|------|----------|--------------|-------|-------------------|------------|--------------------------|--------------------------|---|----|------|---------------------|----|-----|
|              | kW   | kW       | kW           |       | m <sup>3</sup> /h | m          | m <sup>3</sup> /day      | m <sup>3</sup> /h        |   | m  |      | m <sup>3</sup> /day |    |     |
| AS3-SP17-2   | 1.1  | 1.1      | 1.50         | 6*1   | 17                | 13.5       | 96                       | 10                       | ~ | 20 | 19   | 10                  | 63 | 112 |
| AS3-SP17-3   | 2.2  | 2.2      | 3.00         | 6*2   |                   | 20.5       | 127                      |                          |   |    | 28.5 | 16                  | 84 | 146 |
| AS3-SP17-4   | 2.2  | 2.2      | 3.50         | 7*2   |                   | 28.0       | 109                      |                          |   |    | 38   | 22                  | 73 | 124 |
| AS3-SP17-5   | 3.0  | 3.0      | 4.00         | 8*2   |                   | 35.0       | 99                       |                          |   |    | 48   | 28                  | 66 | 112 |
| AS3-SP17-6   | 4.0  | 4.0      | 5.60         | -     |                   | 42.0       | 116                      |                          |   |    | 58   | 34                  | 77 | 129 |
| AS3-SP17-7   | 4.0  | 4.0      | 6.00         | -     |                   | 49.0       | 106                      |                          |   |    | 67   | 40                  | 71 | 117 |
| AS3-SP17-8   | 5.5  | 5.5      | 7.50         | 15*2  |                   | 57.0       | 121                      |                          |   |    | 77   | 45                  | 80 | 136 |
| AS3-SP17-9   | 5.5  | 5.5      | 7.50         | 15*2  |                   | 64.0       | 108                      |                          |   |    | 87   | 52                  | 71 | 118 |
| AS3-SP17-10  | 5.5  | 5.5      | 8.00         | 16*2  |                   | 72.0       | 96                       |                          |   |    | 97   | 58                  | 65 | 108 |
| AS3-SP17-11  | 7.5  | 7.5      | 10.50        | 19*2  |                   | 79.0       | 115                      |                          |   |    | 106  | 64                  | 79 | 128 |
| AS3-SP17-12  | 7.5  | 7.5      | 10.50        | 20*2  |                   | 87.0       | 105                      |                          |   |    | 115  | 60                  | 72 | 117 |
| AS3-SP17-13  | 7.5  | 7.5      | 11.00        | 20*2  |                   | 95.0       | 101                      |                          |   |    | 125  | 75                  | 70 | 115 |
| AS3-SP17-14  | 9.2  | 11.0     | 13.50        | 18*3  |                   | 102.0      | 115                      |                          |   |    | 134  | 81                  | 80 | 130 |
| AS3-SP17-15  | 9.2  | 11.0     | 13.50        | 18*3  |                   | 109.0      | 108                      |                          |   |    | 144  | 87                  | 74 | 121 |
| AS3-SP17-16  | 9.2  | 11.0     | 14.25        | 19*3  |                   | 116.0      | 107                      |                          |   |    | 154  | 92                  | 73 | 121 |
| AS3-SP17-17  | 9.2  | 11.0     | 14.25        | 19*3  |                   | 123.0      | 101                      |                          |   |    | 163  | 98                  | 69 | 114 |
| AS3-SP17-18  | 11.0 | 11.0     | 15.00        | 19*3  |                   | 130.0      | 105                      |                          |   |    | 173  | 104                 | 72 | 118 |
| AS3-SP17-19  | 11.0 | 11.0     | 15.10        | 20*3  |                   | 138.0      | 99                       |                          |   |    | 182  | 110                 | 69 | 112 |
| AS3-SP17-20  | 11.0 | 11.0     | 16.00        | 20*3  |                   | 145.0      | 99                       |                          |   |    | 192  | 116                 | 68 | 111 |
| AS3-SP17-21  | 13.0 | 15.0     | 18.00        | 18*4  |                   | 152.0      | 103                      |                          |   |    | 202  | 121                 | 71 | 116 |
| AS3-SP17-22  | 13.0 | 15.0     | 18.00        | 18*4  |                   | 160.0      | 98                       |                          |   |    | 211  | 127                 | 68 | 111 |
| AS3-SP17-23  | 13.0 | 15.0     | 19.00        | 19*4  |                   | 167.0      | 99                       |                          |   |    | 221  | 133                 | 68 | 112 |
| AS3-SP17-24  | 13.0 | 15.0     | 19.00        | 19*4  |                   | 174.0      | 95                       |                          |   |    | 230  | 139                 | 66 | 107 |
| AS3-SP17-25  | 15.0 | 15.0     | 21.00        | 20*4  |                   | 181.0      | 101                      |                          |   |    | 240  | 145                 | 69 | 113 |
| AS3-SP17-26  | 15.0 | 15.0     | 21.20        | 20*4  |                   | 189.0      | 101                      |                          |   |    | 250  | 150                 | 70 | 115 |



◆ Daily water requirement: 100~250 m<sup>3</sup>

| System Model | Pump<br>kW | Inverter<br>kW | Solar Panels<br>kW | Array | Rated Flow<br>m <sup>3</sup> /h | Rated Head<br>m | Rated Daily Water Output<br>m <sup>3</sup> /day | Daily Water Output Range |   |    |     |                     |     |     |
|--------------|------------|----------------|--------------------|-------|---------------------------------|-----------------|---|--------------------------|---|----|-----|---------------------|-----|-----|
|              |            |                |                    |       |                                 |                 |   | m <sup>3</sup> /h        |   | m  |     | m <sup>3</sup> /day |     |     |
| AS3-SP30-1   | 1.1        | 1.1            | 1.50               | 6*1   | 30                              | 7.5             | 181   | 16                       | ~ | 36 | 10  | 5.5                 | 121 | 237 |
| AS3-SP30-2   | 2.2        | 2.2            | 3.00               | 6*2   |                                 | 15.0            | 181   |                          |   |    | 20  | 10.5                | 121 | 248 |
| AS3-SP30-3   | 3.0        | 3.0            | 4.00               | 8*2   |                                 | 22.0            | 165   |                          |   |    | 30  | 16                  | 107 | 217 |
| AS3-SP30-4   | 4.0        | 4.0            | 5.30               | 20*1  |                                 | 29.0            | 175   |                          |   |    | 40  | 21                  | 113 | 232 |
| AS3-SP30-5   | 5.5        | 5.5            | 7.50               | 15*2  |                                 | 37.0            | 195   |                          |   |    | 50  | 27                  | 121 | 246 |
| AS3-SP30-6   | 5.5        | 5.5            | 8.00               | 16*2  |                                 | 44.0            | 165   |                          |   |    | 60  | 32                  | 107 | 217 |
| AS3-SP30-7   | 7.5        | 7.5            | 10.00              | 20*2  |                                 | 52.0            | 183   |                          |   |    | 70  | 37                  | 121 | 246 |
| AS3-SP30-8   | 7.5        | 7.5            | 11.00              | 20*2  |                                 | 59.0            | 169   |                          |   |    | 80  | 43                  | 111 | 222 |
| AS3-SP30-9   | 9.2        | 11.0           | 13.50              | 18*3  |                                 | 66.0            | 185   |                          |   |    | 90  | 48                  | 121 | 244 |
| AS3-SP30-10  | 9.2        | 11.0           | 13.50              | 18*3  |                                 | 74.0            | 165   |                          |   |    | 100 | 53                  | 109 | 221 |
| AS3-SP30-11  | 9.2        | 11.0           | 14.25              | 19*3  |                                 | 81.0            | 159   |                          |   |    | 110 | 59                  | 104 | 210 |
| AS3-SP30-12  | 11.0       | 11.0           | 15.00              | 19*3  |                                 | 88.0            | 162   |                          |   |    | 120 | 64                  | 106 | 214 |
| AS3-SP30-13  | 11.0       | 11.0           | 15.00              | 19*3  |                                 | 96.0            | 156   |                          |   |    | 129 | 69                  | 103 | 208 |
| AS3-SP30-14  | 13.0       | 15.0           | 18.00              | 18*4  |                                 | 103.0           | 158   |                          |   |    | 139 | 74                  | 104 | 211 |
| AS3-SP30-15  | 13.0       | 15.0           | 19.00              | 19*4  |                                 | 110.0           | 156   |                          |   |    | 149 | 80                  | 103 | 206 |
| AS3-SP30-16  | 15.0       | 15.0           | 21.00              | 20*4  |                                 | 118.0           | 161   |                          |   |    | 159 | 85                  | 106 | 214 |
| AS3-SP30-17  | 15.0       | 15.0           | 22.00              | 22*4  |                                 | 125.0           | 159   |                          |   |    | 169 | 90                  | 105 | 212 |
| AS3-SP30-18  | 18.5       | 18.5           | 25.20              | 19*5  |                                 | 132.0           | 180   |                          |   |    | 179 | 96                  | 118 | 237 |
| AS3-SP30-19  | 18.5       | 18.5           | 25.20              | 19*5  |                                 | 140.0           | 170   |                          |   |    | 189 | 101                 | 112 | 226 |
| AS3-SP30-20  | 18.5       | 18.5           | 26.50              | 20*5  |                                 | 147.0           | 169   |                          |   |    | 199 | 106                 | 111 | 225 |
| AS3-SP30-21  | 18.5       | 18.5           | 26.50              | 20*5  |                                 | 155.0           | 161   |                          |   |    | 209 | 112                 | 106 | 213 |
| AS3-SP30-22  | 22.0       | 22.0           | 31.50              | 20*6  |                                 | 162.0           | 176   |                          |   |    | 219 | 117                 | 116 | 234 |
| AS3-SP30-23  | 22.0       | 22.0           | 31.50              | 20*6  |                                 | 169.0           | 169   |                          |   |    | 229 | 122                 | 111 | 224 |
| AS3-SP30-24  | 22.0       | 22.0           | 33.00              | 21*6  |                                 | 177.0           | 169   |                          |   |    | 239 | 128                 | 111 | 224 |
| AS3-SP30-25  | 22.0       | 22.0           | 33.00              | 21*6  |                                 | 184.0           | 162   |                          |   |    | 249 | 133                 | 107 | 215 |

◆ Daily water requirement: 160~600 m<sup>3</sup>

| System Model | Pump<br>kW | Inverter<br>kW | Solar Panels<br>kW | Array | Rated Flow<br>m <sup>3</sup> /h | Rated Head<br>m | Rated Daily Water Output<br>m <sup>3</sup> /day | Daily Water Output Range |   |    |      |                     |     |     |
|--------------|------------|----------------|--------------------|-------|---------------------------------|-----------------|---|--------------------------|---|----|------|---------------------|-----|-----|
|              |            |                |                    |       |                                 |                 |   | m <sup>3</sup> /h        |   | m  |      | m <sup>3</sup> /day |     |     |
| AS3-SP42-1   | 2.2        | 2.2            | 3.00               | 6*2   | 17                              | 8.5             | 328   | 30                       | ~ | 60 | 10.5 | 4                   | 248 | 595 |
| AS3-SP42-2   | 3.0        | 3.0            | 4.00               | 8*2   |                                 | 17.0            | 219   |                          |   |    | 21.5 | 8.5                 | 162 | 374 |
| AS3-SP42-3   | 5.5        | 5.5            | 7.50               | 15*2  |                                 | 26.5            | 274   |                          |   |    | 32.5 | 13                  | 210 | 496 |
| AS3-SP42-4   | 7.5        | 7.5            | 10.50              | 21*2  |                                 | 36.0            | 271   |                          |   |    | 43   | 18                  | 212 | 463 |
| AS3-SP42-5   | 7.5        | 7.5            | 11.00              | 22*2  |                                 | 45.0            | 227   |                          |   |    | 54   | 23                  | 177 | 380 |
| AS3-SP42-6   | 9.2        | 11.0           | 13.50              | 18*3  |                                 | 54.0            | 233   |                          |   |    | 66   | 28                  | 178 | 383 |
| AS3-SP42-7   | 11.0       | 11.0           | 15.75              | 20*3  |                                 | 63.0            | 233   |                          |   |    | 77   | 32                  | 178 | 391 |
| AS3-SP42-8   | 13.0       | 15.0           | 18.00              | 18*4  |                                 | 72.0            | 233   |                          |   |    | 87   | 36                  | 180 | 397 |
| AS3-SP1-9    | 15.0       | 15.0           | 20.00              | 19*4  |                                 | 80.0            | 244   |                          |   |    | 97   | 40                  | 188 | 417 |
| AS3-SP1-10   | 15.0       | 15.0           | 21.00              | 20*4  |                                 | 89.0            | 230   |                          |   |    | 108  | 45                  | 177 | 388 |
| AS3-SP1-11   | 18.5       | 18.5           | 25.20              | 19*5  |                                 | 98.0            | 249   |                          |   |    | 119  | 49                  | 192 | 425 |
| AS3-SP1-12   | 18.5       | 18.5           | 26.50              | 20*5  |                                 | 107.0           | 239   |                          |   |    | 130  | 54                  | 184 | 404 |
| AS3-SP1-13   | 22.0       | 22.0           | 31.50              | 20*6  |                                 | 116.0           | 253   |                          |   |    | 141  | 58                  | 194 | 431 |
| AS3-SP1-14   | 22.0       | 22.0           | 31.50              | 20*6  |                                 | 125.0           | 234   |                          |   |    | 152  | 63                  | 180 | 397 |
| AS3-SP1-15   | 22.0       | 22.0           | 33.00              | 21*6  |                                 | 134.0           | 229   |                          |   |    | 163  | 67                  | 176 | 391 |
| AS3-SP1-16   | 25.0       | 30.0           | 35.00              | 19*7  |                                 | 143.0           | 228   |                          |   |    | 174  | 72                  | 175 | 386 |
| AS3-SP1-17   | 25.0       | 30.0           | 36.75              | 20*7  |                                 | 152.0           | 225   |                          |   |    | 184  | 77                  | 173 | 379 |
| AS3-SP1-18   | 30.0       | 30.0           | 42.75              | 19*9  |                                 | 161.0           | 247   |                          |   |    | 195  | 81                  | 190 | 419 |
| AS3-SP1-19   | 30.0       | 30.0           | 42.75              | 19*9  |                                 | 170.0           | 234   |                          |   |    | 206  | 86                  | 180 | 395 |
| AS3-SP1-20   | 30.0       | 30.0           | 45.00              | 20*9  |                                 | 179.0           | 234   |                          |   |    | 217  | 90                  | 180 | 397 |
| AS3-SP1-21   | 37.0       | 37.0           | 52.25              | 19*11 |                                 | 188.0           | 259   |                          |   |    | 228  | 95                  | 199 | 437 |
| AS3-SP1-22   | 37.0       | 37.0           | 55.00              | 20*11 |                                 | 197.0           | 260   |                          |   |    | 238  | 99                  | 201 | 441 |

◆ Daily water requirement: 190~670 m<sup>3</sup>

| System Model | Pump<br>kW | Inverter<br>kW | Solar Panels<br>kW | Array | Rated Flow<br>m <sup>3</sup> /h | Rated Head<br>m | Rated Daily Water Output<br>m <sup>3</sup> /day | Daily Water Output Range |     |     |      |                     |     |     |
|--------------|------------|----------------|--------------------|-------|---------------------------------|-----------------|---|--------------------------|-----|-----|------|---------------------|-----|-----|
|              |            |                |                    |       |                                 |                 |   | m <sup>3</sup> /h        |     | m   |      | m <sup>3</sup> /day |     |     |
|              |            |                |                    |       |                                 |                 |   | 40                       | ~   | 70  | ~    | ~                   | ~   |     |
| AS3-SP60-1   | 2.2        | 2.2            | 3.00               | 6*2   | 60                              | 6.0             | 484   | 40                       | ~   | 70  | 8.5  | 4                   | 298 | 670 |
| AS3-SP60-2-2 | 3.0        | 3.0            | 4.00               | 8*2   |                                 | 10.5            | 369   |                          |     |     | 15.5 | 6.5                 | 218 | 550 |
| AS3-SP60-2   | 4.0        | 4.0            | 5.60               |       |                                 | 12.5            | 433   |                          |     |     | 19   | 9                   | 249 | 556 |
| AS3-SP60-3   | 5.5        | 5.5            | 7.50               | 15*2  |                                 | 20.0            | 387   |                          |     |     | 29   | 14                  | 238 | 510 |
| AS3-SP60-4   | 7.5        | 7.5            | 10.50              | 21*2  |                                 | 29.0            | 350   |                          |     |     | 40   | 21                  | 221 | 446 |
| AS3-SP60-5   | 9.2        | 11.0           | 13.50              | 18*3  |                                 | 37.0            | 353   |                          |     |     | 51   | 28                  | 223 | 431 |
| AS3-SP60-6   | 11.0       | 11.0           | 15.75              | 19*3  |                                 | 45.0            | 339   |                          |     |     | 62   | 34                  | 214 | 414 |
| AS3-SP60-7   | 13.0       | 15.0           | 18.00              | 18*4  |                                 | 53.0            | 329   |                          |     |     | 73   | 39                  | 208 | 412 |
| AS3-SP60-8-2 | 13.0       | 15.0           | 19.00              | 19*4  |                                 | 56.0            | 328   |                          |     |     | 78   | 41                  | 205 | 414 |
| AS3-SP60-8   | 15.0       | 15.0           | 21.00              | 20*4  |                                 | 61.0            | 333   |                          |     |     | 84   | 45                  | 211 | 417 |
| AS3-SP60-9-2 | 15.0       | 15.0           | 21.20              | 20*4  |                                 | 64.0            | 333   |                          |     |     | 89   | 47                  | 208 | 418 |
| AS3-SP60-9   | 18.5       | 18.5           | 26.25              | 19*5  |                                 | 69.0            | 368   |                          |     |     | 96   | 52                  | 231 | 451 |
| AS3-SP60-10  | 18.5       | 18.5           | 27.50              | 19*5  |                                 | 77.0            | 345   |                          |     |     | 106  | 58                  | 219 | 423 |
| AS3-SP60-11  | 22.0       | 22.0           | 31.50              | 20*6  |                                 | 85.0            | 358   |                          |     |     | 117  | 64                  | 227 | 439 |
| AS3-SP60-12  | 22.0       | 22.0           | 31.50              | 20*6  |                                 | 93.0            | 328   |                          |     |     | 127  | 70                  | 209 | 402 |
| AS3-SP60-13  | 22.0       | 22.0           | 33.00              | 21*6  |                                 | 100.0           | 319   |                          |     |     | 139  | 75                  | 200 | 393 |
| AS3-SP60-14  | 25.0       | 30.0           | 35.00              | 20*7  |                                 | 106.0           | 319   |                          |     |     | 149  | 80                  | 198 | 391 |
| AS3-SP60-15  | 25.0       | 30.0           | 36.75              | 20*7  |                                 | 114.0           | 312   |                          |     |     | 159  | 85                  | 195 | 386 |
| AS3-SP60-16  | 30.0       | 30.0           | 42.75              | 19*9  |                                 | 122.0           | 339   |                          |     |     | 170  | 91                  | 212 | 419 |
| AS3-SP60-17  | 30.0       | 30.0           | 42.75              | 19*9  |                                 | 130.0           | 318   |                          |     |     | 181  | 98                  | 199 | 390 |
| AS3-SP60-18  | 30.0       | 30.0           | 45.00              | 20*9  |                                 | 140.0           | 311   |                          |     |     | 194  | 105                 | 196 | 383 |
| AS3-SP60-19  | 37.0       | 37.0           | 52.25              | 19*11 | 148.0                           | 342             | 204   | 112                      | 216 | 417 |      |                     |     |     |
| AS3-SP60-20  | 37.0       | 37.0           | 52.25              | 19*11 | 155.0                           | 326             | 214   | 118                      | 206 | 395 |      |                     |     |     |
| AS3-SP60-21  | 37.0       | 37.0           | 55.00              | 20*11 | 163.0                           | 326             | 226   | 123                      | 205 | 399 |      |                     |     |     |

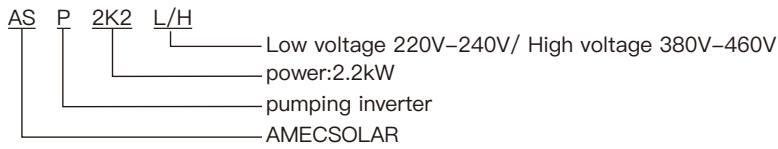
◆ Daily water requirement: 280~570 m<sup>3</sup>

| System Model | Pump<br>kW | Inverter<br>kW | Solar Panels<br>kW | Array | Rated Flow<br>m <sup>3</sup> /h | Rated Head<br>m | Rated Daily Water Output<br>m <sup>3</sup> /day | Daily Water Output Range |   |    |      |                     |     |     |
|--------------|------------|----------------|--------------------|-------|---------------------------------|-----------------|---|--------------------------|---|----|------|---------------------|-----|-----|
|              |            |                |                    |       |                                 |                 |   | m <sup>3</sup> /h        |   | m  |      | m <sup>3</sup> /day |     |     |
|              |            |                |                    |       |                                 |                 |   | 50                       | ~ | 95 | ~    | ~                   | ~   |     |
| AS3-SP75-1   | 4.0        | 4.0            | 5.60               | -     | 75                              | 12.0            | 463   | 50                       | ~ | 95 | 15.5 | 9                   | 323 | 563 |
| AS3-SP75-2   | 7.5        | 7.5            | 10.50              | 20*2  |                                 | 25.0            | 417   |                          |   |    | 32   | 19                  | 293 | 500 |
| AS3-SP75-3   | 11.0       | 11.0           | 15.75              | 19*3  |                                 | 38.0            | 411   |                          |   |    | 49   | 29                  | 287 | 492 |
| AS3-SP75-4   | 15.0       | 15.0           | 21.00              | 19*4  |                                 | 52.0            | 401   |                          |   |    | 66.5 | 40                  | 282 | 475 |
| AS3-SP75-5   | 18.5       | 18.5           | 26.25              | 21*5  |                                 | 65.0            | 401   |                          |   |    | 83   | 51                  | 282 | 466 |
| AS3-SP75-6   | 22.0       | 22.0           | 31.50              | 21*6  |                                 | 79.0            | 396   |                          |   |    | 100  | 62                  | 281 | 460 |
| AS3-SP75-7   | 30.0       | 30.0           | 42.75              | 19*9  |                                 | 93.0            | 456   |                          |   |    | 118  | 73                  | 324 | 530 |
| AS3-SP75-8   | 30.0       | 30.0           | 45.00              | 20*9  |                                 | 107.0           | 417   |                          |   |    | 135  | 85                  | 298 | 479 |
| AS3-SP75-9   | 37.0       | 37.0           | 52.25              | 19*11 |                                 | 121.0           | 428   |                          |   |    | 152  | 96                  | 307 | 493 |
| AS3-SP75-10  | 37.0       | 37.0           | 55.00              | 20*11 |                                 | 135.0           | 404   |                          |   |    | 169  | 107                 | 291 | 465 |
| AS3-SP75-11  | 45.0       | 45.0           | 63.00              | 18*14 |                                 | 148.0           | 422   |                          |   |    | 185  | 118                 | 304 | 483 |
| AS3-SP75-12  | 45.0       | 45.0           | 66.50              | 19*14 |                                 | 162.0           | 407   |                          |   |    | 202  | 129                 | 294 | 467 |
| AS3-SP75-13  | 55.0       | 55.0           | 76.50              | 18*17 |                                 | 175.0           | 434   |                          |   |    | 220  | 139                 | 311 | 498 |
| AS3-SP75-14  | 55.0       | 55.0           | 76.50              | 18*17 |                                 | 188.0           | 404   |                          |   |    | 238  | 149                 | 287 | 465 |
| AS3-SP75-15  | 55.0       | 55.0           | 80.75              | 19*17 |                                 | 201.0           | 399   |                          |   |    | 256  | 159                 | 282 | 460 |
| AS3-SP75-16  | 63.0       | 75.0           | 85.50              | 19*18 |                                 | 215.0           | 395   |                          |   |    | 274  | 169                 | 279 | 458 |
| AS3-SP75-17  | 63.0       | 75.0           | 90.25              | 19*19 |                                 | 229.0           | 391   |                          |   |    | 292  | 179                 | 276 | 456 |
| AS3-SP75-18  | 75.0       | 75.0           | 104.50             | 19*22 |                                 | 243.0           | 427   |                          |   |    | 309  | 190                 | 302 | 498 |
| AS3-SP75-19  | 75.0       | 75.0           | 104.50             | 19*22 |                                 | 257.0           | 403   |                          |   |    | 327  | 201                 | 285 | 471 |
| AS3-SP75-20  | 75.0       | 75.0           | 110.00             | 20*22 |                                 | 271.0           | 403   |                          |   |    | 345  | 212                 | 285 | 470 |

◆ Daily water requirement: 380~680m<sup>3</sup>

| System Model | Pump<br>kW | Inverter<br>kW | Solar Panels<br>kW | Array | Rated Flow<br>m <sup>3</sup> /h | Rated Head<br>m | Rated Daily Water Output<br>m <sup>3</sup> /day | Daily Water Output Range |   |     |      |                     |     |     |
|--------------|------------|----------------|--------------------|-------|---------------------------------|-----------------|---|--------------------------|---|-----|------|---------------------|-----|-----|
|              |            |                |                    |       |                                 |                 |   | m <sup>3</sup> /h        |   | m   |      | m <sup>3</sup> /day |     |     |
|              |            |                |                    |       |                                 |                 |   | 60                       | ~ | 100 | ~    | ~                   | ~   |     |
| AS3-SP95-1   | 4.0        | 4.0            | 5.60               | -     | 95                              | 9.5             | 570   | 60                       | ~ | 100 | 15.5 | 8                   | 327 | 599 |
| AS3-SP95-2   | 9.2        | 9.2            | 13.50              | 18*3  |                                 | 20.0            | 653   |                          |   |     | 32   | 17                  | 382 | 680 |
| AS3-SP95-3   | 13.0       | 13.0           | 18.00              | 18*4  |                                 | 30.0            | 580   |                          |   |     | 48.5 | 26                  | 336 | 592 |
| AS3-SP95-4   | 18.5       | 18.5           | 26.25              | 21*5  |                                 | 41.0            | 619   |                          |   |     | 65   | 36                  | 366 | 624 |
| AS3-SP95-5   | 22.0       | 22.0           | 31.50              | 20*6  |                                 | 51.5            | 592   |                          |   |     | 81.5 | 46                  | 350 | 586 |
| AS3-SP95-6   | 25.0       | 25.0           | 35.00              | 20*7  |                                 | 62.0            | 546   |                          |   |     | 98   | 55                  | 323 | 545 |
| AS3-SP95-7   | 30.0       | 30.0           | 42.75              | 19*9  |                                 | 73.0            | 567   |                          |   |     | 115  | 65                  | 337 | 563 |
| AS3-SP95-8   | 37.0       | 37.0           | 52.25              | 19*11 |                                 | 84.0            | 602   |                          |   |     | 131  | 75                  | 361 | 596 |
| AS3-SP95-9   | 37.0       | 37.0           | 55.00              | 20*11 |                                 | 95.0            | 560   |                          |   |     | 148  | 85                  | 336 | 554 |
| AS3-SP95-10  | 45.0       | 45.0           | 63.00              | 18*14 |                                 | 106.0           | 575   |                          |   |     | 165  | 95                  | 346 | 567 |
| AS3-SP95-11  | 45.0       | 45.0           | 66.50              | 19*14 |                                 | 117.0           | 550   |                          |   |     | 182  | 105                 | 331 | 542 |
| AS3-SP95-12  | 55.0       | 55.0           | 76.50              | 18*17 |                                 | 129.0           | 574   |                          |   |     | 199  | 116                 | 348 | 564 |
| AS3-SP95-13  | 55.0       | 55.0           | 76.50              | 18*17 |                                 | 141.0           | 525   |                          |   |     | 216  | 127                 | 321 | 515 |
| AS3-SP95-14  | 55.0       | 55.0           | 80.75              | 19*17 |                                 | 153.0           | 511   |                          |   |     | 233  | 138                 | 314 | 501 |
| AS3-SP95-15  | 63.0       | 75.0           | 85.50              | 19*18 |                                 | 166.0           | 498   |                          |   |     | 250  | 149                 | 310 | 491 |
| AS3-SP95-16  | 63.0       | 75.0           | 90.25              | 19*19 |                                 | 178.0           | 490   |                          |   |     | 267  | 160                 | 306 | 483 |
| AS3-SP95-17  | 75.0       | 75.0           | 104.50             | 19*22 |                                 | 190.0           | 532   |                          |   |     | 284  | 171                 | 333 | 523 |
| AS3-SP95-18  | 75.0       | 75.0           | 110.00             | 20*22 |                                 | 202.0           | 527   |                          |   |     | 302  | 182                 | 330 | 517 |

**Definition of Model**



**Technical Parameters**

| Model                    | ASP1K1L                 | ASP1K5L | ASP2K2L | ASP3KL        | ASP3K7L | ASP4KL | ASP2K2H                 | ASP3KH     | ASP3K7H | ASP4KH | ASP5K5H | ASP7K5H |  |
|--------------------------|-------------------------|---------|---------|---------------|---------|--------|-------------------------|------------|---------|--------|---------|---------|--|
| <b>d.c.Input</b>         |                         |         |         |               |         |        |                         |            |         |        |         |         |  |
| d.c.Max.Input Voltage    | 440Vdc                  |         |         |               |         |        | 750Vdc                  | 880Vdc     |         |        |         |         |  |
| Recommended Mppt Voltage | 150-400Vdc              |         |         |               |         |        | 280-600Vdc              | 460-850Vdc |         |        |         |         |  |
| d.c.Max.Input Current    | 8A                      | 10A     | 14.6A   | 21A           | 24.6A   | 15A    | 5A                      | 6.9A       | 9A      | 9A     | 12A     | 16.3A   |  |
| Max.Mppt Efficiency      | 99%                     |         |         |               |         |        |                         |            |         |        |         |         |  |
| Number of String         | 1                       | 1       | 2       | 2             | 2       | 2      | 2                       | 2          | 2       | 2      | 2       | 3       |  |
| <b>a.c.Output</b>        |                         |         |         |               |         |        |                         |            |         |        |         |         |  |
| Max.Motor Output Power   | 1.1kW                   | 1.5kW   | 2.2kW   | 3kW           | 3.7kW   | 4kW    | 2.2kW                   | 3kW        | 3.7kW   | 4kW    | 5.5kW   | 7.5kW   |  |
| Rated Output Voltage     | 220-240Vac, three phase |         |         |               |         |        | 380-460Vac, three phase |            |         |        |         |         |  |
| Output Frequency Range   | 0-50/60Hz               |         |         |               |         |        |                         |            |         |        |         |         |  |
| Rated Output Current     | 5.5A                    | 7A      | 11A     | 14A           | 17A     | 20A    | 6A                      | 7A         | 9A      | 10A    | 13A     | 18A     |  |
| <b>Other Parameters</b>  |                         |         |         |               |         |        |                         |            |         |        |         |         |  |
| Weight                   | 9.5kg                   | 9.5kg   | 9.5kg   | 14.5kg        | 14.5kg  | 13.9kg | 13.9kg                  | 13.9kg     | 13.9kg  | 13.9kg | 13.9kg  | 13.9kg  |  |
| Dimension(L*W*h)         | 350*278*179mm           |         |         | 420*310*211mm |         |        | 420*310*229mm           |            |         |        |         |         |  |



**Technical Parameters**

| Model                    | ASP11KH                 | ASP15KH | ASP18K5H | ASP22KH | ASP30KH       | ASP37KH | ASP45KH | ASP55KH |
|--------------------------|-------------------------|---------|----------|---------|---------------|---------|---------|---------|
| <b>d.c.Input</b>         |                         |         |          |         |               |         |         |         |
| d.c.Max.Input Voltage    | 880Vdc                  |         |          |         |               |         |         |         |
| Recommended Mppt Voltage | 460-850Vdc              |         |          |         |               |         |         |         |
| d.c.Max.Input Current    | 24.4A                   | 33.3A   | 41.1A    | 49A     | 67A           | 82A     | 100A    | 122A    |
| Max.Mppt Efficiency      | 99%                     |         |          |         |               |         |         |         |
| Number of String         | 3                       | 3       | 3        | 1       | 1             | 1       | 1       | 1       |
| <b>a.c.Output</b>        |                         |         |          |         |               |         |         |         |
| Max.Motor Output Power   | 11kW                    | 15kW    | 18.5kW   | 22kW    | 30kW          | 37kW    | 45kW    | 55kW    |
| Rated Output Voltage     | 380-460Vac, three phase |         |          |         |               |         |         |         |
| Output Frequency Range   | 0-50/60Hz               |         |          |         |               |         |         |         |
| Rated Output Current     | 21A                     | 29A     | 36A      | 42A     | 57A           | 71A     | 86A     | 104A    |
| <b>Other Parameters</b>  |                         |         |          |         |               |         |         |         |
| Weight                   | 19.9kg                  | 19.9kg  | 19.9kg   | 31.5kg  | 31.5kg        | 31.5kg  | 32.5kg  | 32.5kg  |
| Dimension(L*W*h)         | 350*278*179mm           |         |          |         | 460*580*251mm |         |         |         |



**Technical Parameters**

| Model                    | ASP75KH                 | ASP90KH | ASP110KH | ASP132KH |
|--------------------------|-------------------------|---------|----------|----------|
| <b>d.c.Input</b>         |                         |         |          |          |
| d.c.Max.Input Voltage    | 880Vdc                  |         |          |          |
| Recommended Mppt Voltage | 460-850Vdc              |         |          |          |
| d.c.Max.Input Current    | 166A                    | 205A    | 251A     | 287A     |
| Max.Mppt Efficiency      | 99%                     |         |          |          |
| Number of String         | 2                       | 2       | 2        | 2        |
| <b>a.c.Output</b>        |                         |         |          |          |
| Max.Motor Output Power   | 75kW                    | 90kW    | 110kW    | 132kW    |
| Rated Output Voltage     | 380-460Vac, three phase |         |          |          |
| Output Frequency Range   | 0-50/60Hz               |         |          |          |
| Rated Output Current     | 142A                    | 171A    | 209A     | 251A     |
| <b>Other Parameters</b>  |                         |         |          |          |
| Weight                   | 190kg                   | 220kg   | 220kg    | 220kg    |
| Dimension(L*W*h)         | 654*1210*465mm          |         |          |          |



**Technical Parameters**

| Model                    | ASP370LS           | ASP550LS  | ASP750LS   | ASP1K1LS   |
|--------------------------|--------------------|-----------|------------|------------|
| <b>d.c.Input</b>         |                    |           |            |            |
| d.c.Max.Input Voltage    | 450Vdc             |           |            |            |
| Recommended Mppt Voltage | 80-400Vdc          | 80-400Vdc | 120-400Vdc | 150-400Vdc |
| d.c.Max.Input Current    | 5.6A               | 8.3A      | 7.5A       | 8.8A       |
| Max.Mppt Efficiency      | >99%               |           |            |            |
| Number of String         | 1                  |           |            |            |
| <b>a.c.Output</b>        |                    |           |            |            |
| Max.Motor Output Power   | 370W               | 550W      | 750W       | 1100W      |
| Rated Output Voltage     | 220V, single phase |           |            |            |
| Output Frequency Range   | 0-50/60Hz          |           |            |            |
| Rated Output Current     | 4A                 | 5.5A      | 7.2A       | 10A        |
| <b>Other Parameters</b>  |                    |           |            |            |
| Weight                   | 9.5kg              | 9.5kg     | 9.5kg      | 9.5kg      |
| Dimension(L*W*h)         | 350*278*179mm      |           |            |            |

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