



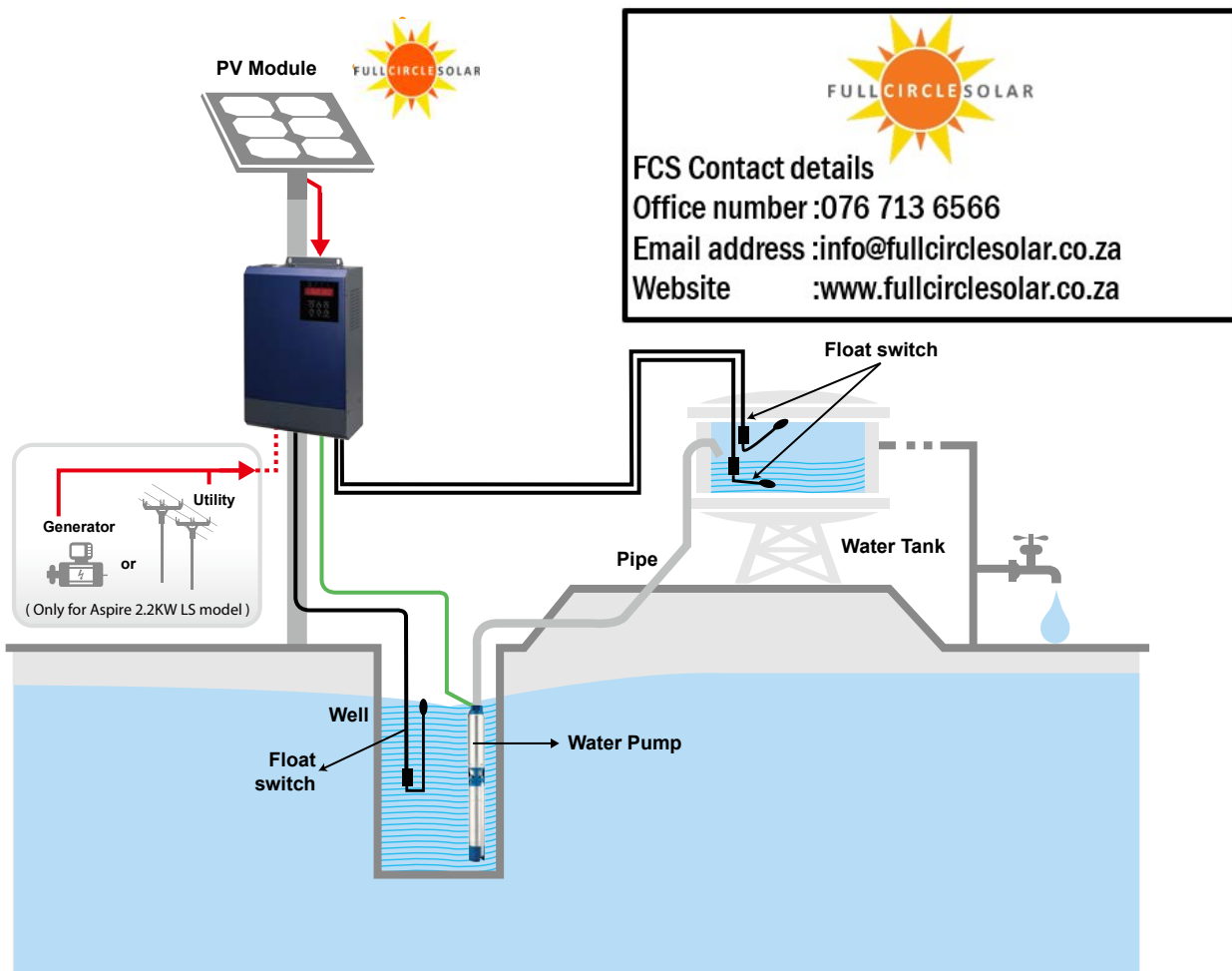
## FCS 220V ASPIRE BHC



- Built-in MPPT solar charger
- Supports single phase or three-phase asynchronous motor depending on models
- Supports single phase AC input when PV energy is not sufficient (only for Aspire 2.2KW LS model)
- Built-in full protection and self-diagnosis
- Soft start function prevents water hammer effect and extends system lifecycle
- Comprehensive LEDs and display screen for real-time system status
- Remote monitoring through RS-485
- Optional remote panel available

WATER PUMP INVERTER

Aspire solar inverter is specially designed for water pump application. This solar inverter is built-in with MPPT solar charger to maximize solar power. Besides, it is easy to install with low maintenance cost. It becomes an eco-friendly solution for the rural areas where grid power is expensive and unreliable.





## Aspire Water Pump Solar Inverter Selection Guide

| MODEL                          | Aspire 2.2KW LS   | Aspire 2.2KW                                  | Aspire 7.5KW                                 | Aspire 11KW                                    |
|--------------------------------|---|---|--|--|
| <b>RATED OUTPUT POWER</b>      | 2200 W(3HP)<br>(supports 0.75~3HP water pump)   | 2200 W(3HP)<br>(supports 0.75~3HP water pump) | 7500 W(10HP)<br>(supports 3~10HP water pump) | 11000 W(15HP)<br>(supports 10~15HP water pump) |
| <b>PV INPUT (DC)</b>           |   |   |  |  |
| Maximum DC Voltage             | 450 VDC   |   | 800 VDC                                      |  |
| Start-up Voltage               | 120 VDC   |   | 250 VDC                                      |  |
| Recommended MPPT Voltage Range | 120 VDC ~ 450 VDC   |   | 500 VDC ~ 600VDC                             |  |
| Number of MPP Trackers         |   |   | 1  |  |
| <b>AC INPUT</b>                |   |   |  |  |
| Input Voltage                  | 220/230/240 VAC<br>(-15% ~ +10%)  |   | N/A  |  |
| Input Frequency                | 1   |   |  |  |
| <b>OUTPUT</b>                  |   |   |  |  |
| Nominal Voltage                | 220/230/240 VAC   |   | 3 x 380/400/415/440 VAC                      |  |
| Efficiency                     | 47 Hz ~ 63 Hz   |   | > 97%  |  |
| Nominal Output Current         | 14 A  | 10 A  | 5.0 A  | 15 A   |
| Motor Type                     | Single-phase motor  | Three-phase asynchronous motor                |  |  |
| Frequency Precision            |   |   | ±0.2%  |  |
| <b>PROTECTION</b>              |   |   |  |  |
| Full Protection                | Phase lost, dry pumping, motor locked, weak sunlight, over-voltage, under-voltage, over-current, surge, over-temperature and short circuit protection |   |  |  |
| <b>PHYSICAL</b>                |   |   |  |  |
| Dimension, D X W X H (mm)      | 110 x 230 x 342   |   |  |  |
| Net Weight (kgs)               | 5   | 5.5   | 6  | 6.5  |
| IP Protection                  | IP20  |   |  |  |
| <b>INTERACE</b>                |   |   |  |  |
| Communication Port             | RS-232/RS-485   |   |  |  |
| <b>ENVIRONMENT</b>             |   |   |  |  |
| Humidity                       | < 95% RH (Non-condensing)   |   |  |  |
| Operating Temperature          | -20°C~45°C at 100% full load, 46°C~60°C power derating  |   |  |  |

Product specifications are subject to change without further notice.

## Recommended Solar Panel Selection

Below are popular solar panel specifications in the market:

- A. 75-A: 75W, Vmp=17.46V, Imp=4.3A, Voc=21.96V      C. 140-A: 140W, Vmp=17.9V, Imp=7.82A, Voc=22.0V  
 B. 75-B: 75W, Vmp=13.3V, Imp=5.64A, Voc=16.94V      D. 250-A: 250W, Vmp=30.64, Imp=8.16A, Voc=37.38V

| Inverter Model<br>Solar Panel | 2.2KW LS for<br>single-phase output                     | 2.2KW LS for<br>three-phase output                      | 2.2KW                                    | 7.5KW   | 11KW   |
|-------------------------------|---|---|--|---|--|
| PV Panel 75-A                 | 19 pieces in Series<br>x 4 Strings<br>(5700W PV Panels) | 19 pieces in Series<br>x 2 Strings<br>(2850W PV Panels) | 32 pieces in Series<br>(2400W PV Panels) | N/A   | N/A  |
| PV Panel 75-B                 | 25 pieces in Series<br>x 3 Strings<br>(5625W PV Panels) | 25 pieces in Series<br>x 2 Strings<br>(3750W PV Panels) | 42 pieces in Series<br>(3150W PV Panels) | N/A   | N/A  |
| PV Panel 140-A                | 19 pieces in Series<br>x 2 Strings<br>(5320W PV Panels) | 19 pieces in Series<br>(2660W PV Panels)                | N/A                                      | 32 pieces in Series<br>x 2 Strings<br>(8960W PV Panels) | 32 pieces in Series<br>x 3 Strings<br>(13440W PV Panels) |
| PV Panel 250-A                | 11 pieces in Series<br>x 2 Strings<br>(5500W PV Panels) | 11 pieces in Series<br>(2750W PV Panels)                | N/A                                      | 19 pieces in Series<br>x 2 Strings<br>(9500W PV Panels) | 19 pieces in Series<br>x 3 Strings<br>(14250W PV Panels) |