

## Specifications (IVPS Series)

| Line Mode Specifications           |                                                    |          |          |                       |          |          |           |
|------------------------------------|----------------------------------------------------|----------|----------|-----------------------|----------|----------|-----------|
| Model                              | IVPS2512                                           | IVPS2524 | IVPS3524 | IVPS5024              | IVPS5048 | IVPS7548 | IVPS10048 |
| Rated Output Power(VA)             | 2500VA                                             | 2500VA   | 3500VA   | 5000VA                | 5000VA   | 7500VA   | 10000VA   |
| Rated Output Power(W)              | 2000W                                              | 2000W    | 2800W    | 4000W                 | 4000W    | 6000W    | 8000W     |
| Nominal DC Input Voltage           | 12V                                                | 24V      |          |                       | 48V      |          |           |
| Input Voltage Waveform             | Sinusoidal(Utility or generator)                   |          |          |                       |          |          |           |
| Nominal Input Voltage              | 220Vac                                             |          |          |                       |          |          |           |
| Low Line Disconnect                | 170±7Vac(UPS) 90±7Vac(APL)                         |          |          |                       |          |          |           |
| Low Line Re-connectAC Input Range  | 180±7Vac(UPS) 100±7Vac(APL)                        |          |          |                       |          |          |           |
| High Line Disconnect               | 280±7Vac                                           |          |          |                       |          |          |           |
| High Line Re-connect               | 270±7Vac                                           |          |          |                       |          |          |           |
| Max AC Input Voltage               | 280Vrms                                            |          |          |                       |          |          |           |
| Nominal Input Frequency            | 50Hz/60Hz                                          |          |          |                       |          |          |           |
| Low Line Frequency Disconnect      | 40±1Hz                                             |          |          |                       |          |          |           |
| Low Line Frequency Re-connect      | 42±1Hz                                             |          |          |                       |          |          |           |
| High Line Frequency Disconnect     | 65±1Hz                                             |          |          |                       |          |          |           |
| High Line Frequency Re-connect     | 63±1Hz                                             |          |          |                       |          |          |           |
| Output Voltage Waveform            | As same as input waveform                          |          |          |                       |          |          |           |
| Over-Load Protection(SMPS load)    | AC 30A                                             |          |          | Air switch protection |          |          |           |
| Output Short Circuit Protection    | AC 30A                                             |          |          | Air switch protection |          |          |           |
| Efficiency(Line mode)              | ≥ 95% (Rated R load, and battery is fully charged) |          |          |                       |          |          |           |
| Transfer Time (AC to DC)           | 15ms (typical)                                     |          |          |                       |          |          |           |
| Transfer Time (DC to AC)           | 15ms (typical)                                     |          |          |                       |          |          |           |
| Pass Through Without Battery       | No                                                 |          |          |                       |          |          |           |
| Max Bypass Overload Current        | AC 30A                                             |          |          | AC 63A                |          |          |           |
| Utility Charge Mode Specifications |                                                    |          |          |                       |          |          |           |
| Nominal Input Voltage              | 220Vac                                             |          |          |                       |          |          |           |
| Input Voltage Range                | 90~280Vac                                          |          |          |                       |          |          |           |
| Nominal Output Voltage             | Dependent on battery type                          |          |          |                       |          |          |           |
| Max Charge Current                 | 40A                                                |          |          | 50A                   |          | 60A      | 80A       |
| Charge Current Regulation          | 0A~40A                                             |          |          | 0A~50A                |          | 0A~60A   | 0A~80A    |
| Battery Initial Voltage            | Circuit breaker                                    |          |          |                       |          |          |           |
| Charger Short Circuit              | AC 30A                                             |          |          | AC 63A                |          |          |           |
| Breaker Size                       | Dependent on battery type or Self-defined          |          |          |                       |          |          |           |
| Over Charge Protection             | Yes                                                |          |          |                       |          |          |           |

| Charge Algorithm                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                       |                       |          |               |                 |                 |     |                       |                       |         |                       |                       |              |                                   |  |
|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|----------|---------------|-----------------|-----------------|-----|-----------------------|-----------------------|---------|-----------------------|-----------------------|--------------|-----------------------------------|--|
| Charging way                           | Three phases:<br>Boost CC (constant current level) → boost CV (constant voltage level)<br>→Float (constant pressure level)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                       |                       |          |               |                 |                 |     |                       |                       |         |                       |                       |              |                                   |  |
| Charge Stage<br>Transition Definitions | <p>(1)Boost CC Stage: If A/C input is applied, the charger will run at full current in CC mode until the charger reaches the boost voltage.</p> <p>(2)Boost CV Stage: the charger will keep the boost voltage in Boost CV mode until the T1 timer has run out. Then drop the voltage down to the float voltage, when the charging current is lower than 20% setting value.</p> <p>(3)Float Stage: In float mode, the voltage will stay at the float voltage. If the A/C is reconnected or the battery voltage drops below 12Vdc/24Vdc/48Vdc, the charger will reset the cycle above.</p>  |                       |                       |          |               |                 |                 |     |                       |                       |         |                       |                       |              |                                   |  |
| Battery Type Setting                   | <table><tr><td>Battery Type</td><td>Boost CC, CV</td><td>Float</td></tr><tr><td></td><td>12V / 24V / 48V</td><td>12V / 24V / 48V</td></tr><tr><td>AGM</td><td>14.4V / 28.8V / 57.6V</td><td>13.6V / 27.2V / 54.4V</td></tr><tr><td>Flooded</td><td>14.6V / 29.2V / 58.4V</td><td>13.8V / 27.6V / 55.2V</td></tr><tr><td>Self Defined</td><td colspan="2">Adjustable, up to 16V/31.5V/61.0V</td></tr></table>                                                                                                                                                                                                                                                                 | Battery Type          | Boost CC, CV          | Float    |               | 12V / 24V / 48V | 12V / 24V / 48V | AGM | 14.4V / 28.8V / 57.6V | 13.6V / 27.2V / 54.4V | Flooded | 14.6V / 29.2V / 58.4V | 13.8V / 27.6V / 55.2V | Self Defined | Adjustable, up to 16V/31.5V/61.0V |  |
|                                        | Battery Type                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Boost CC, CV          | Float                 |          |               |                 |                 |     |                       |                       |         |                       |                       |              |                                   |  |
|                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 12V / 24V / 48V       | 12V / 24V / 48V       |          |               |                 |                 |     |                       |                       |         |                       |                       |              |                                   |  |
|                                        | AGM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 14.4V / 28.8V / 57.6V | 13.6V / 27.2V / 54.4V |          |               |                 |                 |     |                       |                       |         |                       |                       |              |                                   |  |
| Flooded                                | 14.6V / 29.2V / 58.4V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 13.8V / 27.6V / 55.2V |                       |          |               |                 |                 |     |                       |                       |         |                       |                       |              |                                   |  |
| Self Defined                           | Adjustable, up to 16V/31.5V/61.0V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                       |                       |          |               |                 |                 |     |                       |                       |         |                       |                       |              |                                   |  |
| Inverter Mode Specifications           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                       |                       |          |               |                 |                 |     |                       |                       |         |                       |                       |              |                                   |  |
| Model                                  | IVPS2512                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | IVPS2524              | IVPS3524              | IVPS5024 | IVPS5048      | IVPS7548        | IVPS10048       |     |                       |                       |         |                       |                       |              |                                   |  |
| Output Voltage Waveform                | Pure sine wave                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                       |                       |          |               |                 |                 |     |                       |                       |         |                       |                       |              |                                   |  |
| Nominal Output Voltage                 | 220Vac±5%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                       |                       |          |               |                 |                 |     |                       |                       |         |                       |                       |              |                                   |  |
| Nominal Output Frequency(Hz)           | 50±0.3Hz/60Hz±0.3Hz (Adjustable)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                       |                       |          |               |                 |                 |     |                       |                       |         |                       |                       |              |                                   |  |
| Output Voltage Regulation              | ±5%rms                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                       |                       |          |               |                 |                 |     |                       |                       |         |                       |                       |              |                                   |  |
| Peak Efficiency                        | 90%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                       |                       |          |               |                 |                 |     |                       |                       |         |                       |                       |              |                                   |  |
| Over-Load Protection (SMPS load)       | 5s@≥150% load; 10s@105%~150% load                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                       |                       |          |               |                 |                 |     |                       |                       |         |                       |                       |              |                                   |  |
| Surge rating                           | 2* rated power for 5 seconds                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                       |                       |          |               |                 |                 |     |                       |                       |         |                       |                       |              |                                   |  |
| Capable of Starting Electric           | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                       |                       |          |               |                 |                 |     |                       |                       |         |                       |                       |              |                                   |  |
| Output Short Circuit Protection        | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                       |                       |          |               |                 |                 |     |                       |                       |         |                       |                       |              |                                   |  |
| Cold Start Voltage                     | 11.5V/23V/46V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                       |          |               |                 |                 |     |                       |                       |         |                       |                       |              |                                   |  |
| Low Battery Alarm                      | Load < 50% , 11.5V/23V/46V / Load ≥ 50% , 11V/22V/44V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                       |                       |          |               |                 |                 |     |                       |                       |         |                       |                       |              |                                   |  |
| Low Battery Recovery                   | Load < 50% , 11.75V/23.5V/47V / Load ≥ 50% , 11.5V/23V/46V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                       |                       |          |               |                 |                 |     |                       |                       |         |                       |                       |              |                                   |  |
| Low DC Input Shut-down                 | Load < 50% , 10.75V/21.5V/43V / Load ≥ 50% , 10.5V/21V/42V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                       |                       |          |               |                 |                 |     |                       |                       |         |                       |                       |              |                                   |  |
| High DC Input Alarm & Fault            | 15.75±0.4V/31.5V±0.4V/63V±0.4V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                       |                       |          |               |                 |                 |     |                       |                       |         |                       |                       |              |                                   |  |
| High DC Input Recovery                 | 15.5±0.4V/31.0V±0.4V/62V±0.4V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                       |          |               |                 |                 |     |                       |                       |         |                       |                       |              |                                   |  |
| General Specifications                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                       |                       |          |               |                 |                 |     |                       |                       |         |                       |                       |              |                                   |  |
| Operating temperature                  | 0℃~40℃                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                       |                       |          |               |                 |                 |     |                       |                       |         |                       |                       |              |                                   |  |
| Storage temperature                    | -15℃~60℃                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                       |                       |          |               |                 |                 |     |                       |                       |         |                       |                       |              |                                   |  |
| Package Dimension                      | 552x408x290mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 552x408x295mm         | 607x540x290mm         |          | 670x470x355mm |                 |                 |     |                       |                       |         |                       |                       |              |                                   |  |