

 **100%**  
Copper Coil

**SAMSUN<sup>®</sup>**  
**SOLAR**

**ALPHA**

**SERIES**

**PURE SINE WAVE UPS**



Support  
Surge Load



LCD and LED  
Indication



Lightning  
Protection



Solar Compact  
Design



**3.5kVA/48V**

## ALPHA SERIES TECHNICAL SPECIFICATIONS

| Connection Type               | Single Phase                                                                                          |
|-------------------------------|-------------------------------------------------------------------------------------------------------|
| Inverter output power         | 3.5KVA/48V                                                                                            |
| Power Factor                  | 0.8                                                                                                   |
| Battery input voltage         | 12V DC- 48V DC (Various models)                                                                       |
| Mains input voltage           | 230V AC, 50Hz                                                                                         |
| Mains input range             | 0V-270V, 45Hz to 65Hz                                                                                 |
| Mains high voltage withstand  | Up to 440V                                                                                            |
| AC output (Inverter)          | 230V $\pm$ 3%, 50Hz                                                                                   |
| Battery full Cut-off          | 14.5V                                                                                                 |
| Inverter output waveform      | Pure sine wave (harmonic distortion less than 1%)                                                     |
| Inverter topology             | Bridge type center aligned switching MOSFET based                                                     |
| Battery charging voltage      | Intelligent 4 stage charger constant current/constant voltage SMPS charging with full charge cut off. |
| Charging current              | Settable from 1A to 15A                                                                               |
| Charging working range        | 120V-270V AC Mains input                                                                              |
| Inverter high cut-off voltage | 270v                                                                                                  |
| Inverter low cut-off voltage  | 100v                                                                                                  |
| UPS high cut-off voltage      | 265v                                                                                                  |
| UPS low cut-off voltage       | 180v                                                                                                  |
| Battery low warning           | 10.5v                                                                                                 |
| Battery low cut-off           | 10V                                                                                                   |
| Operating temperature         | 00C TO 55°C                                                                                           |
| Cooling fan auto-ON temp.     | 70°C                                                                                                  |
| Cooling fan auto-OFF temp.    | 60°C                                                                                                  |
| Storage temperature           | -15°C TO 60°C                                                                                         |
| Humidity                      | 5% to 95% Relative humidity (Non-condensing)                                                          |
| Inverter protection           | Overload, short circuit, battery deep discharging                                                     |

| Specification                       | Inverter Mode         | UPS Mode              |
|-------------------------------------|-----------------------|-----------------------|
| Input voltage Range                 | 100V - 270V $\pm$ 10V | 180V - 265V $\pm$ 10V |
| Changeover time (Inverter to mains) | Approx $\leq$ 10msec  | Approx $\leq$ 10msec  |
| Changeover time (Mains to Inverter) | Approx $\leq$ 40msec  | Approx $\leq$ 30msec  |

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