

## 8.2 Extra Smart Long-Run Series (Tower, EPII-L ver.) 1100VA~3000VA

### General Features:

- ◆ Smart backup time estimation for any kind of battery
- ◆ Adjustable voltage sensitivity
- ◆ Adjustable voltage-transfer points
- ◆ Adjustable charging voltage
- ◆ Generator compatible
- ◆ Automatic restart of load after UPS shutdown
- ◆ Smart AVR function (Two buck / boost modes)
- ◆ Cold-start capable
- ◆ Audible alarm
- ◆ Hot-swappable batteries for rack models
- ◆ Network manageable (SNMP optional)
- ◆ Full function of LCD display (LED display optional)
- ◆ Smart battery management
- ◆ Intelligent double stages of charging control, Wet battery compatible
- ◆ Thermal control cooling fan

### Output

|   | 115V Models   | 230V Models                    |
|---|---|--------------------------------|
| Power Levels crated at nominal inputs       | 1100VA, 660W<br>2200VA, 1350W<br>3000VA, 1800W  |                                |
| Output Voltage                              | 100V/110V/115V/120V Selectable  | 200V/220V/230V/240V Selectable |
| Voltage Waveform                            | Sine wave   |                                |
| Crest Factor                                | 3 : 1   |                                |
| Output Frequency<br>(Synchronized to Mains) | Auto Select for 50/60Hz<br>47Hz ~ 55Hz for 50Hz nominal<br>56Hz ~ 65Hz for 60Hz nominal                                       |                                |
| Regulation (Nominal)                        | ±5% typical of nominal voltage (optional at ±8% AVR for wide I/P up to ±35%)  |                                |
| Regulation<br>(Battery mode)                | ±3% of selected output voltage (adjustable by using the remote set-up software)   |                                |
| Transfer time                               | Blackout 3ms typical<br>Brownout 1ms typical<br>Battery mode to Normal mode : 1ms typical                                     |                                |
| Over current protection                     | Over load alarm level 100% ~ 120%<br>Over load shutdown level 120% ~ 190%<br>(Adjustable by using the remote set-up software) |                                |

## ☐ Input

|                                  | 115V Models  | 230V Models   |
|----------------------------------|--|---|
| Nominal Voltage                  | 100V/110V/115V/120V Selectable   | 200V/220V/230V/240V Selectable  |
| Input Frequency                  | 47Hz ~ 65Hz, 50/60Hz auto-sensing  |   |
| Efficiency (Normal mode)         | 97%  |   |
| Noise Filtering                  | Full time EMI/RFI filtering  |   |
| Over current protection          | 1100VA : by AC fuse<br>2200VA ~ 3000VA :<br>by re-settable over current protector  | 1100VA ~ 2200VA : by AC fuse<br>3000VA :<br>by re-settable over current protector |
| Voltage Range                    | -20% ~ +24% for selected nominal voltage.<br>-29% ~ +33% adjustable by using the remote set-up software  |   |
| AVR Range<br>(2 Bucks, 2 Boosts) | Enhanced Buck: +15% of selected nominal voltage<br>Buck mode: +5% of selected nominal voltage<br>Boost mode: -5% of selected nominal voltage<br>Enhanced Boost: -12.5% of selected nominal voltage |   |
| Surge Protection                 | 1100VA : 216 Joules<br>2200VA ~ 3000VA : 324 Joules  | 1100VA : 220 Joules<br>2200VA : 440 Joules<br>3000VA : 660 Joules                 |

## ☐ Battery

|   |   |
|---|---|
| Battery type                              | Lead-Acid 25Ah ~ 250Ah  |
| Voltage                                   | 1100VA : 24Vdc (48Vdc optional)<br>2200VA : 48Vdc<br>3000VA : 72Vdc   |
| Typical backup time                       | No Limit  |
| Charging method                           | Smart pulse charging with two charging modes.<br>Quick charging when battery is not fully charged, trickle charging when battery is 90% fully charged.  |
| Average charging current                  | 11A at normal line and normal temperature   |
| Average charging voltage for each battery | Quick charging mode : 14V maximum.<br>Trickle charging mode : 13.2V ~ 13.9V adjustable with the remote set-up software.   |
| Protection                                | Over current protection (SCR control)<br>Over charging voltage protection (SCR control)<br>Thermal protection (CPU control)<br>When temperature inside UPS is over 45°C, charger will stop charging for 2.5 minutes followed by an 1.5 minutes charging. The cycle will be repeated until the temperature is lower than 44°C. |

|            |   |
|------------|---|
| Monitoring | Smart monitoring & warning for failed battery or open-circuit battery.<br>Auto-detection each time when power on or every 6 days. |
|------------|---|

## ☐ Communications & Management

|   |  |
|---|--|
| Standard Interface port                             | UPSilon2000 compatible.<br>1100VA : RS232, optional for USB.<br>2200VA ~ 3000VA : RS232 + USB.                               |
| Optional Interface part                             | RJ45 (Surge protection), DB9, SNMP (external type)   |
| Control panel                                       | LCD or LED Selectable  |
| Audible alarm                                       | Alarm on battery : Low battery & Battery over voltage<br>Alarm on abnormal operation : Over load, Short-circuit, & Over heat |
| EBT (Estimation of Backup Time) system              | Support for LCD display  |
| Green mode function (Auto-shutdown during blackout) | 1% to 14% of full load (adjustable by using the remote set-up software)<br>The default setting is OFF.                       |
| Cooling fan control                                 | Auto on / off, controlled by temperature & operation mode  |

## ☐ Environmental and Safety

|  |   |
|--|---|
| Operating Temperature                    | Up to 1500 meters : 0°C to 40°C (32°F to 104°F) |
| Transit/storage Temperature              | -15°C to 55°C (5°F to 131°F)                    |
| Relative Humidity                        | 5 - 95% non condensing                          |
| Operating Altitude                       | 0 ~ 3000 meters                                 |
| Audible noise at 1M from surface of unit | ≤ 50 dBA  |
| Safety Markings                          | BSMI CE   |
| EMC                                      | Class B, EN50091-2, FCC part15, IEC1000-2-2     |
| Isolation                                | 3KVac for 1 minute between battery and AC side  |
| Quality control system                   | ISO 9001  |

## ☐ Physical

|                                     |   |
|-------------------------------------|---|
| Dimensions: (DxHxW) Unit / Shipping | 1100VA ~ 3000VA : 45 x 20 x 18 (cm) / 54 x 33 x 30 (cm)                 |
| Weight: Net / Gross (kg)            | 1100VA : 15 / 16 (kg)<br>2200VA : 19 / 20 (kg)<br>3000VA : 23 / 24 (kg) |
| Packing                             | Export carton for each unit, 16 - 30 units per pallet                   |