

## ULTRA SINE

## MICROPROCESSOR CONTROL and PURE SINE WAVE UPS

**Easy-Mon X** | UPS Monitoring and Management Software



- High reliability
- High input power factor
- Power Watcher: full time load power monitoring and warning.
- Battery Watcher: automatic battery test and alert when battery level is low or need to replace the battery.
- Ultra fast charge with 3 stage charging battery.
- Intelligent Battery Management (IBM)
- Advanced Load Outlet Management (ALOM)
- Buck/Double boost stabilizer
- Surge protection for telephone and LAN Line
- Extend backup time
- Perfect Ultra Sine display
- Surge, spike, blackout, brownout, overload and short circuit protection
- Schedule Shutdown, Restart and Self-Testing
- Easy-Mon X Software
- SNMP/HTTP monitor capability (option)

www.leonics.com  
**ISO 9001  
 14001**  
 www.leonics.co.th



## LINE INTERACTIVE UPS WITH STABILIZER

LEONICS UPS with range from 350 VA to 250 kVA is also widely used to protect electronic equipment such as computer networks, PABX, telecommunications, medical and scientific equipment, etc. from blackout, brownout, surge, spike, noise and frequency drift.

# LEONICS® ULTRA SINE Series :: Line Interactive UPS with Stabilizer :: Microprocessor Control and Pure Sine Wave UPS ::



| SPECIFICATIONS                               |  | USC 1050  | USC 1600        | USC 2000         | USC 3000           | USC 5000                    | USC 1050 RM   | USC 1600 RM        | USC 2000 RM        | USC 3000 RM                                    | USC 5000 RM                 |                    |
|--|--|---|-----------------|------------------|--------------------|-----------------------------|---|--------------------|--------------------|--|-----------------------------|--------------------|
| Capacity (Pf = 0.6)                          |  | 1050 VA (630 W)   | 1600 VA (960 W) | 2000 VA (1200 W) | 3000 VA (1800 W)   | 5000 VA (3000 W)            | 1050 VA (630 W)   | 1600 VA (960 W)    | 2000 VA (1200 W)   | 3000 VA (1800 W)                               | 5000 VA (3000 W)            |                    |
| <b>INPUT</b>                                 |  |   |                 |                  |                    |                             |   |                    |                    |  |                             |                    |
| Input voltage for utility operation          |  | - 35% to + 25% of nominal input voltage (expandable to + 30% by Easy-Mon X)   |                 |                  |                    | -25% to +25% of nominal Vin | - 35% to + 25% of nominal input voltage (expandable to + 30% by Easy-Mon X)   |                    |                    |  | -25% to +25% of nominal Vin |                    |
| Nominal input                                |  | 220, 230, 240 Vac single phase, 50 / 60 Hz ± 6% (auto sensing)  |                 |                  |                    |                             | 220, 230, 240 Vac single phase, 50 / 60 Hz ± 6% (auto sensing)  |                    |                    |  |                             |                    |
| <b>OUTPUT</b>                                |  |   |                 |                  |                    |                             |   |                    |                    |  |                             |                    |
| Voltage (on battery)                         |  | Pure sine wave at nominal input voltage ± 1%  |                 |                  |                    |                             | Pure sine wave at nominal input voltage ± 1%  |                    |                    |  |                             |                    |
| Frequency (on battery)                       |  | 50 / 60 Hz ± 0.1% (pure sine wave THD < 3%)   |                 |                  |                    |                             | 50 / 60 Hz ± 0.1% (pure sine wave THD < 3%)   |                    |                    |  |                             |                    |
| Voltage (AVR)                                |  | Nominal ± 10% or as selected input range by Easy-Mon X  |                 |                  |                    |                             | Nominal ± 10% or as selected input range by Easy-Mon X  |                    |                    |  |                             |                    |
| Automatic voltage stabilizer                 |  | Buck / Double Boost   |                 |                  |                    | Buck / Boost                | Buck / Double Boost   |                    |                    |  | Buck / Boost                |                    |
| Transfer time                                |  | 0.5 to 4 msec.  |                 |                  |                    |                             | 0.5 to 4 msec.  |                    |                    |  |                             |                    |
| Overload protection                          |  | On battery - internal current limiting, On line - circuit breaker   |                 |                  |                    |                             | On battery - internal current limiting, On line circuit breaker   |                    |                    |  |                             |                    |
| <b>SURGE PROTECTION AND FILTERING</b>        |  |   |                 |                  |                    |                             |   |                    |                    |  |                             |                    |
| Surge energy rating, peak current capability |  | 170 Joules, 8 kA x 3 ( L-N, L-G, N-G )  |                 |                  |                    |                             | 170 Joules, 8 kA x 3 ( L-N, L-G, N-G )  |                    |                    |  |                             |                    |
| Normal mode clamping response time           |  | Fast Response <25 ns  |                 |                  |                    |                             | Fast Response <25 ns  |                    |                    |  |                             |                    |
| Normal mode noise suppression                |  | Full time EMI / RFI filtering   |                 |                  |                    |                             | Full time EMI / RFI filtering   |                    |                    |  |                             |                    |
| Surge energy rating for telephone line       |  | 28.5 Joules, 3.6 kA (RJ45 PIN 4, 5)   |                 |                  |                    |                             | 28.5 Joules, 3.6 kA (RJ45 PIN 4, 5)   |                    |                    |  |                             |                    |
| Surge Protection for LAN line (10 Base T)    |  | Yes (RJ45 PIN 1, 2, 3, 6)   |                 |                  |                    |                             | Yes (RJ45 PIN 1, 2, 3, 6)   |                    |                    |  |                             |                    |
| <b>ENVIRONMENTAL</b>                         |  |   |                 |                  |                    |                             |   |                    |                    |  |                             |                    |
| Ambient operation                            |  | 0 - 95% humidity non-condensing, 0 to + 45 °C (32 to 113 °F)  |                 |                  |                    |                             | 0 - 95% humidity non-condensing, 0 to + 45 °C (32 to 113 °F)  |                    |                    |  |                             |                    |
| Ambient storage                              |  | 0 - 95% humidity non-condensing, -10 to + 45 °C (14 to 113 °F)  |                 |                  |                    |                             | 0 - 95% humidity non-condensing, -10 to + 45 °C (14 to 113 °F)  |                    |                    |  |                             |                    |
| Audible noise                                |  | < 40 dBA (1 metre)  |                 |                  |                    |                             | < 40 dBA (1 metre)  |                    |                    |  |                             |                    |
| <b>PHYSICAL</b>                              |  |   |                 |                  |                    |                             |   |                    |                    |  |                             |                    |
| Input connector type                         |  | IEC 320 C 14  |                 |                  | Terminal           |                             | IEC 320 C14   |                    |                    | Terminal                                       |                             |                    |
| Number of output outlet                      |  | 6   |                 |                  | 6                  |                             | 6   |                    |                    | 6  |                             |                    |
| Maximum dimensions (WxHxD) in cm.            |  | 17.0 x 25.0 x 50.0  |                 |                  | 24.0 x 41.0 x 60.0 |                             | 48.2 x 14.0 x 50.0  |                    |                    | [48.2x22x50]+[48.2x14x50] [48.2x22.0x50.0] x 2 |                             |                    |
| Net weight in kg.(lb.)                       |  | 25.1 (55.34)  | 28.0 (61.73)    | 33.1 (72.97)     | 52.0 (114.64)      | 60.0 (132.30)               | 30.5 (67.24)  | 34.0 (74.96)       | 36.0 (79.37)       | 66.0 (145.5)                                   | 81.5 (179.67)               |                    |
| Shipping weight in kg.(lb.)                  |  | 27.1 (59.74)  | 30.0 (66.13)    | 35.1 (77.38)     | 57.0 (125.66)      | 65.0 (143.30)               | 32.5 (71.65)  | 36.0 (79.37)       | 38.0 (83.77)       | 70.0 (154.32)                                  | 85.5 (188.49)               |                    |
| <b>USER REPLACEABLE BATTERIES</b>            |  |   |                 |                  |                    |                             |   |                    |                    |  |                             |                    |
| Type   |  | Hot swappable, sealed lead acid (maintenance-free)  |                 |                  |                    |                             | Hot swappable, sealed lead acid (maintenance-free)  |                    |                    |  |                             |                    |
| Capacity                                     |  | 4 x 12 V 7 Ah {4 x 12 V 36 Watt}  |                 | 4 x 12 V 36 Watt | 8 x 12 V 7 Ah      | 12 x 12 V 7 Ah              | 4 x 12 V 7 Ah {4 x 12 V 36 Watt}  |                    | 4 x 12 V 36 Watt   | 8x12V 7Ah(Ext.cabinet)                         | 12x12V 7Ah(Ext.cabinet)     |                    |
| Recharge time to 80 %                        |  | < 3 hours   |                 |                  |                    |                             | < 3 hours   |                    |                    |  |                             |                    |
| Management                                   |  | Replace battery indicator & alarm   |                 |                  |                    |                             | Replace battery indicator & alarm   |                    |                    |  |                             |                    |
| <b>ADVANCE WARNING DIAGNOSTICS</b>           |  |   |                 |                  |                    |                             |   |                    |                    |  |                             |                    |
| Front panel LED's                            |  | On-line, Replace battery, Fault, Input voltage level, Battery level, Load level, UPS overload, Main & Intelligent channel fault, Frequency fault, High / Over temperature |                 |                  |                    |                             | On-line, Replace battery, Fault, Input voltage level, Battery level, Load level, UPS overload, Main & Intelligent channel fault, Frequency fault, High / Over temperature |                    |                    |  |                             |                    |
| Audible alarms                               |  | On battery, low battery, UPS overload, replace battery, high /over temperature  |                 |                  |                    |                             | On battery, low battery, UPS overload, replace battery, high /over temperature  |                    |                    |  |                             |                    |
| <b>COMMUNICATIONS INTERFACE</b>              |  |   |                 |                  |                    |                             |   |                    |                    |  |                             |                    |
| DB-9 connector                               |  | Serial interface port can be connected to PC, workstations or servers for automatic unattended shutdown Easy-Mon X may be required  |                 |                  |                    |                             | Serial interface port can be connected to PC, workstations or servers for automatic unattended shutdown Easy-Mon X may be required  |                    |                    |  |                             |                    |
| SNMP / HTTP capability                       |  | option (internal or external)   |                 |                  |                    |                             | option (internal or external)   |                    |                    |  |                             |                    |
| <b>CONFORMANCE</b>                           |  |   |                 |                  |                    |                             |   |                    |                    |  |                             |                    |
| Design Regulation                            |  | EN 50091-1, EN 50091-2, EN 55022(B), EN 61000-4-2, (4), (6), IEC 801/5/IP21, TIS 1291-2545  |                 |                  |                    |                             | EN 50091-1, EN 50091-2, EN 55022(B), EN 61000-4-2, (4), (6), IEC 801/5/IP21, TIS 1291-2545  |                    |                    |  |                             |                    |
| <b>TYPICAL RUNTIME IN MINUTES</b>            |  | <b>VA</b>   | <b>USC 1050</b> | <b>USC 1600</b>  | <b>USC 2000</b>    | <b>USC 3000</b>             | <b>USC 5000</b>   | <b>USC 1050 RM</b> | <b>USC 1600 RM</b> | <b>USC 2000 RM</b>                             | <b>USC 3000 RM</b>          | <b>USC 5000 RM</b> |
| Compaq Pressario                             |  | 90  | 300 min.        | 300 min.         | 300 min.           | 600 min.                    | 1,000 min.  | 300 min.           | 300 min.           | 300 min.                                       | 600 min.                    | 1,000 min.         |
| Cabletron MMAC - 8                           |  | 210   | 120 min.        | 120 min.         | 120 min.           | 300 min.                    | 480 min.  | 120 min.           | 120 min.           | 120 min.                                       | 300 min.                    | 480 min.           |
| Pentium system w/VGA                         |  | 270   | 90 min.         | 90 min.          | 90 min.            | 240 min.                    | 300 min.  | 90 min.            | 90 min.            | 90 min.  | 240 min.                    | 300 min.           |
| Dell PowerEdge 4200                          |  | 360   | 60 min.         | 60 min.          | 60 min.            | 120 min.                    | 240 min.  | 60 min.            | 60 min.            | 60 min.  | 120 min.                    | 240 min.           |
| Dell PowerEdge 6100                          |  | 480   | 40 min.         | 40 min.          | 40 min.            | 100 min.                    | 150 min.  | 40 min.            | 40 min.            | 40 min.  | 100 min.                    | 150 min.           |
| IBM Netfinity                                |  | 600   | 30 min.         | 30 min.          | 30 min.            | 80 min.                     | 120 min.  | 30 min.            | 30 min.            | 30 min.  | 80 min.                     | 120 min.           |
| 2X HP NetServer LH/LX                        |  | 750   | 20 min.         | 20 min.          | 25 min.            | 60 min.                     | 90 min.   | 20 min.            | 20 min.            | 25 min.  | 60 min.                     | 90 min.            |
| 6X Compaq Prosignias                         |  | 960   | 15 min.         | 15 min.          | 20 min.            | 45 min.                     | 70 mn.  | 15 min.            | 15 min.            | 20 min.  | 45 min.                     | 70 mn.             |
| 3X IBM PC Server 500/700 series              |  | 1,200   | -               | 10 min.          | 15 min.            | 30 min.                     | 50 min.   | -                  | 10 min.            | 15 min.  | 30 min.                     | 50 min.            |
| 3X Compaq Proliant 5000/6000/7000            |  | 1,800   | -               | -                | 7 min.             | 15 min.                     | 30 min.   | -                  | -                  | 7 min.   | 15 min.                     | 30 min.            |
| HP 9000 V2250                                |  | 3,000   | -               | -                | -                  | 8 min.                      | 15 min.   | -                  | -                  | -  | 8 min.                      | 15 min.            |