

INTELLIGENT LINE INTERACTIVE UPS

Communications/Industrial

"L" Series (TRUE SINE WAVE)



DESCRIPTION:

Always "On"[™]'s L Series are line-interactive UPS systems with a true sine wave output in all modes. These systems are ideal for commercial and light industrial applications and range in size from 800VA to 3kVA. All systems provide voltage regulation, a serial communication interface, network and modem protection, extended runtime options and additional communication interfaces.

APPLICATIONS:

Among other applications, the L Series can be applied to LAN file servers, personal computers, networks and workstations, Automatic Teller Machines, telecommunications equipment, POS equipment, robotics, test equipment, PLC's, security and emergency systems and applications where additional runtime or SNMP are required.

ADVANCED FEATURES:

SMART "BOOST AND BUCK" LINE CONDITIONING:

The Always "On"[™] transformer-based built-in line conditioning provides stable voltage when the utility supply fluctuates.

LIGHTNING, NOISE, SPIKE AND TRANSIENT PROTECTION:

The L Series offers lightning and surge protection, common mode and normal mode noise protection and Low-Pass Series filters on the input and output.

NETWORK AND MODEM PROTECTION:

The Always "On"[™] high end multi-component design provides ultimate protection and RJ11 and RJ45 connectivity.

INTELLIGENT COMMUNICATIONS INTERFACE:

RS-232 or dry contact interface ports act as the communication link between the computer and the UPS. Various management software is available.

COLD START:

The cold start function allows start from battery when AC is not present.

AUTO RESTART:

This feature allows the UPS to restart automatically when the utility becomes available, provided the UPS has been shutdown due to an extended blackout.

AUTO FREQUENCY DETECTION:

The automatic frequency sensing function will match the input and output frequency.

BATTERY REPLACEMENT:

User replaceable battery.

SNMP ADAPTER:

An optional SNMP adapter allows your network to easily manage the UPS, including remote control and status monitoring.

CHARGING CURRENT WITH LOW RIPPLE AND LOW HARMONICS

A control circuit is used to provide a strict sine wave with low ripple and little harmonic distortion from the charging current.

VALUE ADDED:

Power Management and Shutdown Software, Communication Cable, Power Cable.

USB OPTION:

Available at time of order.

EXTENDED RUNTIME OPTIONS:

Additional battery banks are available for all models.

Always "On"[™] UPS Systems Inc., #100 - 150 Campion Road, Kelowna, BC Canada V1X 7S8

INTELLIGENT LINE INTERACTIVE UPS

"L" Series (TRUE SINE WAVE)

United Nation Standard Product & Service Code # 39121011

| Specification | MODEL NO. | GES-801L | GES-102L | GES-152L | GES-202L | GES-302L |
|-------------------|---------------------------------------|--|--------------|---------------|-------------------------------|-------------------------------------|
| GENERAL | MAXIMUM CAPACITY | 800VA / 520W | 1kVA / 650W | 1.5kVA / 975W | 2kVA / 1300W | 3kVA / 1950W |
| | UPC ORDER CODE | 825433 22100 | 825433 22200 | 825433 22300 | 825433 22400 | 825433 22500 |
| INPUT | NOMINAL VOLTAGE | 120VAC (220 optional) | | | | |
| | VOLTAGE RANGE | + / - 25% | | | | |
| | FREQUENCY RANGE | 50 or 60 Hz auto-sensing + / - 5% | | | | |
| OUTPUT | NOMINAL VOLTAGE | 120VAC | | | | |
| | AUTO VOLTAGE REGULATION | +15% for 90 - 109VAC; -15% for 130 - 150VAC | | | | |
| | CURRENT | 6.6A | 8.33A | 12.5A | 16.6A | 25A |
| | FREQUENCY | 50Hz / 60Hz (Auto Detected) + / - 0.5% | | | | |
| | POWER FACTOR | 0.5 - 1.0 | | | | |
| | WAVE FORM (ON BATTERY) | TRUE SINE WAVE | | | | |
| | LOAD CREST FACTOR | 3:1 (ON BATTERY) | | | | |
| | TRANSFER TIME | 2 - 4ms (Typical), including detection time | | | | |
| | OUTLETS | 4 | 4 | 6 | 6 | 4 + Hardwired |
| BATTERY | BATTERY TYPE | SEALED LEAD ACID - MAINTENANCE FREE | | | | |
| | QUANTITY | 2 | 2 | 3 | 4 | 4x2 |
| | VOLTAGE | 24VDC | 24VDC | 36VDC | 48VDC | 48VDC |
| | RECHARGE TIME | < 2 to 4 Hours; Recovery = 90%, Typically | | | | |
| BACKUP POWER TIME | FULL LOAD | > 8 MIN. | > 7 MIN. | > 7 MIN. | > 7 MIN. | > 8 MIN. |
| | HALF LOAD | > 20 MIN. | > 17 MIN. | > 25 MIN. | > 25 MIN. | > 25 MIN. |
| | PENTIUM & 17" MON | > 41 MIN. | > 41 MIN. | > 70 MIN. | > 75 MIN. | > 90 MIN. |
| EXTENDED RUN TIME | Available | | | | | |
| PROTECTION | OUTPUT SHORT | YES | | | | |
| | ABNORMAL VOLTAGE | YES | | | | |
| | MODEM OR NETWORK | SINGLE LINE (2 wire RJ11) / NETWORK (UTP, RJ45) COMPATIBLE JACKS | | | | |
| | I/O NOISE PROTECTION | COMMON & NORMAL MODE NOISE SUPPRESSION | | | | |
| | I/O SPIKE & TRANSIENT PROTECTION | YES | | | | |
| INTERFACE | COMMUNICATION | RS 232 / DRY CONTACT (OPTIONAL SNMP OR AS400) | | | | |
| | LED DISPLAY | NORMAL / BACKUP / LOW BATTERY / FAULT / CHECK BATTERY / BUCK / BOOST | | | | |
| | AUDIBLE ALARMS | ON BATTERY, LOW BATTERY, OVERLOAD, FAULT | | | | |
| ENVIRONMENT | OPERATING TEMPERATURE | 0 - 40°C (32 - 104°F) | | | | |
| | HUMIDITY | 0 - 95% (NON-CONDENSING) | | | | |
| | AUDIBLE NOISE | < 40 dBA AT 1 METER FROM UNIT | | | | |
| SAFETY APPROVAL | SAFETY | cUL, UL1778, CSA C22.2 | | | | |
| | EMI / RFI | FCC PART 15 CLASS B | | | | |
| | SURGE / TRANSIENT | IEEE C62.41 CAT.A | | | | |
| PHYSICAL DATA | UPS WxDxH mm (in.) | 140x436x210 (5.5x17.2x8.3) | | | 170x450x226 (6.7x17.7x8.9) | |
| | EXTERNAL BATTERY BANK (if applicable) | INTERNAL BATTERIES | | | | 170x450x226 (6.7x17.7x8.9) |
| | WEIGHT in kg (lbs) | 14.5 (32) | 15 (33) | 25 (55.1) | 30 (66.1) | 46 (101.4) (including battery bank) |
| RACK-MOUNT MODELS | MODEL NO. | GES-801LR | GES-102LR | GES-152LR | GES-202LR | GES-302LR |
| | UPC Order Code | 825433 22105 | 825433 22201 | 825433 22301 | 825433 22401 | 825433 22501 |
| | WxDxH mm (in.) | 483x381x89 (19x15x3.5) [2U] | | | 483x381x133 (19x15x5.25) [3U] | 483x381x178 (19x15x7) [4U] |
| | WEIGHT in kg (lbs) | 18 (35.3) | 20 (44) | 26.1 (57.5) | 28.4 (62.6) | 46.4 (102.3) |

Specifications are subject to change without notice to reflect upgrades and improvement in technology.

OTHER VOLTAGES AND CONFIGURATIONS ARE AVAILABLE; FOR ORDER CODES, CONSULT MANUFACTURER.

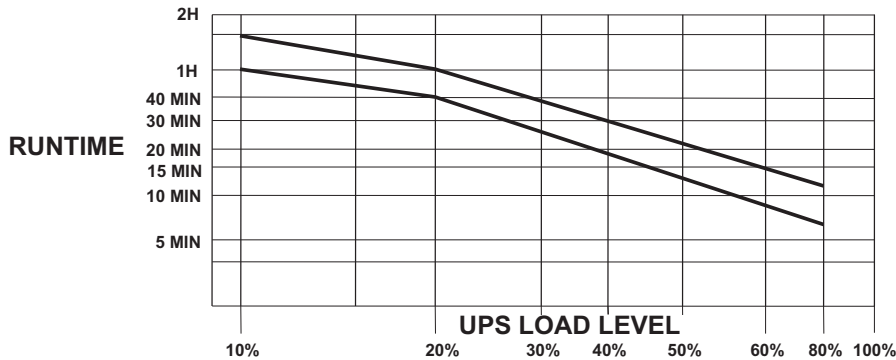
EXTERNAL WRAP-AROUND BYPASS MODULES ARE AVAILABLE FOR ALL MODELS AND PERMIT UPS MAINTENANCE WITHOUT POWER INTERRUPTION TO THE LOAD.

ADDITIONAL BATTERY BANKS ARE AVAILABLE FOR ALL MODELS.



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L SERIES BATTERY BANKS



For 800VA to 3kVA UPS

This graph is designed to aid in sizing the UPS system based on load and runtime and is suitable for small loads only (i.e. 50VA to 1kVA). The horizontal axis is the percent load of a UPS system and the vertical axis is the runtime that the UPS's internal batteries will provide. For runtimes exceeding chart scale, please contact our factory.

Example: 30 minutes of back-up time are required to power a 200VA load.

Using the chart, find the back-up time required (i.e. 30 MIN) and move along the horizontal axis until you are placed between the slanted lines. At this point, follow down the vertical lines to identify the UPS Load Level % (i.e. 30%). Divide the load (i.e. 200VA) by the UPS Load Level % to identify the size of UPS required. Once calculated, round-up the calculated number to the nearest UPS rating (i.e. $200 / 0.3 = 667$). The minimum VA requirement is 667VA, so you round-up to an 800VA UPS system (GES-801L). The GES-801L will supply a minimum of 30 minutes to a 200VA load.

Additional Back-up Times (Battery Banks) for L Series

| | | Load | | | | | |
|-----------|----------------|---------|---------|---------|---------|---------|---------|
| | | 350W | 490W | 700W | 1,050W | 1,400W | 2,100W |
| | | 500VA | 700VA | 1,000VA | 1,500VA | 2,000VA | 3,000VA |
| Model | UPC Order Code | | | | | | |
| BBU-801LA | 825433 60000 | 42 mins | 33 mins | | | | |
| BBU-801LB | 825433 60025 | 70 mins | 45 mins | | | | |
| BBU-102LA | 825433 60005 | 42 mins | 33 mins | 20 mins | | | |
| BBU-102LB | 825433 60030 | 70 mins | 45 mins | 30 mins | | | |
| BBU-152LA | 825433 60010 | 30 mins | 25 mins | 17 mins | 13 mins | | |
| BBU-152LB | 825433 60035 | | 90 mins | 55 mins | 40 mins | | |
| BBU-202LA | 825433 62300 | | | 72 mins | 42 mins | 30 mins | |
| BBU-202LB | 825433 60040 | | | | 90 mins | 50 mins | |
| BBU-302LA | 825433 62400 | | | 50 mins | 40 mins | 27 mins | 18 mins |
| BBU-302LB | 825433 60045 | | | | 90 mins | 50 mins | 40 mins |

| Model | Cabinet Style | Dimensions (mm) | Dimensions (in) | Weight |
|-----------|---------------|--------------------|----------------------|------------------|
| BBU-801LA | S cab | 170W x 450D x 225H | 6.75" x 17.7" x 9" | 26.5 kg (58 lbs) |
| BBU-801LB | S cab | 170W x 450D x 225H | 6.75" x 17.7" x 9" | 33 kg (73 lbs) |
| BBU-102LA | S cab | 170W x 450D x 225H | 6.75" x 17.7" x 9" | 26.5 kg (58 lbs) |
| BBU-102LB | S cab | 170W x 450D x 225H | 6.75" x 17.7" x 9" | 33 kg (73 lbs) |
| BBU-152LA | S cab | 170W x 450D x 225H | 6.75" x 17.7" x 9" | 23 kg (51 lbs) |
| BBU-152LB | B cab | 260W x 540D x 740H | 10.5" x 21.25" x 29" | 49 kg (108 lbs) |
| BBU-202LA | B cab | 260W x 540D x 740H | 10.5" x 21.25" x 29" | 39.5 kg (87 lbs) |
| BBU-202LB | B cab | 260W x 540D x 740H | 10.5" x 21.25" x 29" | 61 kg (134 lbs) |
| BBU-302LA | B cab | 260W x 540D x 740H | 10.5" x 21.25" x 29" | 37 kg (81 lbs) |
| BBU-302LB | B cab | 260W x 540D x 740H | 10.5" x 21.25" x 29" | 61 kg (134 lbs) |

To meet your back-up time requirements, we offer increased back-up time by simply adding additional battery cabinets. To determine the battery bank part number, locate the UPS model number and runtime you want in the tables below. For additional runtime or for runtime calculations, please contact our factory.

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For more information or different runtimes, please contact **CUSTOMER SERVICE** toll-free at 1-877-259-2976, Ext. 451.

Standard 5-year pro rated warranty with 1-year replacement. Extended warranties available.