

Vertiv Liebert GXE 1-3 kVA

Legacy 0.8 output-power-factor models | English technical selection guide

Online double-conversion UPS with zero utility-to-battery transfer time, intelligent fan control, ECO operation, generator compatibility, USB/RS232 monitoring and remote shutdown support. Tower construction. This edition provides product specifications and selection tables; retain the original manual for installation, wiring, operation and safety procedures.

Model selection

Parameter	Specification
1 kVA / 800 W	Standard: GXE01k00TS1101C00; long-backup: GXE01k00TL1101C00
2 kVA / 1600 W	Standard: GXE02k00TS1101C00; long-backup: GXE02k00TL1101C00
3 kVA / 2400 W	Standard: GXE03k00TS1101C00; long-backup: GXE03k00TL1101C00

Input and output

Parameter	Specification
Input voltage / frequency	Nominal 220 VAC; 120-288 VAC full-load input range; 45-65 Hz automatic detection
Input power factor	0.99
Output voltage / regulation	220 VAC $\pm 1\%$; 230/240 VAC $\pm 3\%$
Output power factor	0.8
Synchronized output range	45-55 Hz on 50 Hz systems; 55-65 Hz on 60 Hz systems
Battery-mode frequency	50/60 Hz ± 0.2 Hz
Waveform / crest factor	Sine wave / 3:1
Voltage distortion	$\leq 3\%$ linear load; $\leq 5\%$ nonlinear load

GXE | batteries and mechanical selection

Parameter	1 kVA	2 kVA	3 kVA
Online efficiency	≥91%	≥92%	≥93%
Standard internal VRLA batteries	3 x 12 V, 7 Ah	6 x 12 V, 7 Ah	6 x 12 V, 9 Ah
Long-backup battery string	3 x 12 V	6 x 12 V	6 x 12 V
External battery capacity (Ah)	24-200	24-200	24-200
Standard W x H x D (mm)	156 x 255 x 295	156 x 255 x 466	156 x 255 x 466
Standard shipping W x H x D (mm)	287 x 355 x 447	297 x 385 x 607	297 x 385 x 607
Standard net / gross (kg)	12 / 13	22 / 24	25 / 27
Long-backup W x H x D (mm)	156 x 150 x 295	156 x 150 x 466	156 x 150 x 466
Long-backup shipping W x H x D (mm)	237 x 250 x 417	267 x 280 x 602	267 x 280 x 602
Long-backup net / gross (kg)	4 / 5	7 / 8	7 / 8

Standard-unit backup time is listed as ≥4 minutes in the source table, without a load qualification in that row. Recharge to 90%: 6 hours after shutdown from 100% load. Long-backup charger: adjustable up to 8 A, default 6.5 A, matched to battery capacity. The source charging-current row for standard models contains recharge-time text; no unsupported current rating is inferred.

GXE | protection and operating conditions

System specifications

Parameter	Specification
Utility-mode overload	105-130%: 10 min; 130-150%: 1 min; >150%: 500 ms
Bypass overload	Same thresholds and times; output shuts off after the allowed interval
Operating temperature	0-40°C
Storage temperature	-40 to 70°C, excluding batteries
Humidity / altitude	0-95% RH, non-condensing / 2000 m at 40°C without derating
Acoustic noise	<45 dB
Interfaces	RS232 DB9; USB Type B; optional intelligent-card enclosure and card
Color	Black RAL7021
Safety standard listed	IEC/EN 62040-1:2008+A1:2013
EMC reference listed	IEC/EN/AS 62040-2, second edition; CISPR 22 Class A
Surge immunity	IEC/EN 61000-4-5: level 3 (2 kV), line-to-earth; level 2 (1 kV), line-to-line

GXE 1 kVA | reference battery runtime

Battery Ah	800 W	640 W	400 W	240 W	150 W
24Ah	24.59min	31.99min	52.45min	1h23min	2h42min
38Ah	41.49min	53.25min	1h41min	2h51min	5h4min
48Ah	54.15min	1h8min	2h7min	3h29min	6h3min
65Ah	1h24min	1h51min	2h59min	5h10min	8h51min
76Ah	1h44min	2h16min	3h56min	6h33min	10h53min
100Ah	2h20min	3h	5h14min	8h41min	14h25min
130Ah	3h4min	4h2min	7h6min	11h14min	18h38min
200Ah	5h23min	7h1min	11h31min	18h13min	29h37min

Runtime values are indicative source-table values, not guaranteed backup times. Results depend on battery manufacturer, type, condition and age. Select a 24-200 Ah battery capacity and ensure the UPS battery-capacity setting matches the installed battery. Battery configuration: three 12 V blocks per series string.

GXE 2 kVA | reference battery runtime

Battery Ah	1600 W	1280 W	800 W	480 W	300 W
24Ah	25.99min	33.80min	52.79min	1h23min	2h42min
38Ah	43.64min	56.07min	1h41min	2h51min	5h4min
48Ah	56.88min	1h11min	2h7min	3h29min	6h3min
65Ah	1h29min	1h57min	2h59min	5h10min	8h51min
76Ah	2h	2h24min	3h56min	6h33min	10h53min
100Ah	2h28min	3h11min	5h14min	8h41min	14h25min
130Ah	3h15min	4h16min	7h6min	11h14min	18h38min
200Ah	5h44min	7h24min	11h31min	18h13min	29h37min

Runtime values are indicative source-table values, not guaranteed backup times. Results depend on battery manufacturer, type, condition and age. Select a 24-200 Ah battery capacity and ensure the UPS battery-capacity setting matches the installed battery. Battery configuration: six 12 V blocks per series string.

GXE 3 kVA | reference battery runtime

Battery Ah	2400 W	1920 W	1200 W	720 W	450 W
24Ah	14.82min	20.86min	33.56min	54.46min	1h28min
38Ah	27.70min	35.71min	55.70min	1h45min	3h4min
48Ah	37.38min	46.90min	1h11min	2h11min	3h45min
65Ah	47.19min	1h10min	1h56min	3h6min	5h47min
76Ah	1h	1h28min	2h23min	4h4min	7h2min
100Ah	1h23min	2h1min	3h10min	5h26min	9h20min
130Ah	2h5min	2h38min	4h41min	7h19min	12h3min
200Ah	3h27min	4h33min	7h21min	11h53min	19h29min

Runtime values are indicative source-table values, not guaranteed backup times. Results depend on battery manufacturer, type, condition and age. Select a 24-200 Ah battery capacity and ensure the UPS battery-capacity setting matches the installed battery. Battery configuration: six 12 V blocks per series string.

Source and edition notes

Independently prepared English technical edition by IWELL, 22 October 2026. This is not an official Vertiv English publication. Specifications refer to the cited source revision; confirm the exact model and supplied configuration before selection.

Source: GXE-1-3kVA-User-Manual-ZH.pdf

Manufacturer source: <https://www.vertiv.com/48eaf9/globalassets/products/critical-power/uninterruptible-power-supplies-ups/liebert-gxe-1-10-kva/liebert-gxe-1kva3kva-um-zs-cn.pdf>

Source: GXE manual V1.6, 28 June 2019; technical tables, printed pages 6-8, and model/feature descriptions. This is not GXE3. One source table heading differs in its 3 kVA suffix; model-column codes are used. The unchanged 40-page original manual is supplied separately.