

Site Planning Data – Liebert® EXL S1



Electrical and Thermal Data—Single-module (SMS) and Distributed-bypass (MMS)

UPS Rating		Input/ Output Voltage, VAC	Rectifier AC Input Current			Bypass/Output AC Output Current			Battery			Efficiency AC AC 100%	Efficiency DC AC 100%	Maximum Heat Dissipation Full Load, BTU/H	Cooling Air, CFM
kVA	KW		Nominal	Maximum	External Breaker Trip Amp (100% Rated)	Nominal	External Breaker Trip Amp (100% Rated)	Nominal VDC	Maximum Current at EOD	External Breaker Trip Amp					
250	250	480	310	341	350	301	350	480	647	700	≥96.9%	≥96.4%	28198	2800	
300	300	480	373	410	450	361	400	480	776	800	≥96.8%	≥96.5%	34932	2800	
400	400	480	499	548	600	481	500	480	1036	1200	≥96.5%	≥96.3%	48036	2800	
500	500	480	624	686	700	601	700	480	1294	1400	≥96.5%	≥96.4%	61876	3920	
600	600	480	749	824	900	722	800	480	1555	1600	≥96.3%	≥96.3%	78657	3920	
625	625	480	780	858	900	752	800	480	1618	2000	≥96.4%	≥96.4%	70496	4470	
750	750	480	937	1030	1200	902	1000	480	1943	2000	≥96.3%	≥96.3%	90068	4470	
800	800	480	999	1099	1200	962	1000	480	2073	2500	≥96.3%	≥96.3%	99001	4470	
1000	1000	480	1247	1372	1400	1203	1400	480	2588	3000	≥96.5%	≥96.4%	120091	6700	
1100	1100	480	1373	1510	1600	1323	1400	480	2849	3000	≥96.4%	≥96.3%	132100	6700	
1200	1200	480	1499	1574	1600	1443	1600	480	3110	4000	≥96.3%	≥96.3%	148502	6700	
1200	1200	480	1499	1649	2000	1443	1600	480	3110	4000	≥96.3%	≥96.3%	148502	6700	

NOTES:

- Nominal rectifier AC input current (considered continuous) is based on full rated output load. Maximum current includes nominal input current and maximum battery recharge current (considered non-continuous). Continuous and non-continuous current limits are defined in NEC 100. Values shown for maximum current are 110% of nominal input current, except for 1200kVA/kW module with 1600A breaker. This 1200kVA/kW module has a maximum current of 105% of nominal input current. If configuring a 1200kVA/kW module with a 1600A external rectifier input breaker contact Applications Engineering for support.
- Nominal AC output current (considered continuous) is based on full rated output load.
- Bypass AC input current (considered continuous) is based on full rated output load.
- Vertiv recommends that feeder protection (by others) for the rectifier AC input and the bypass AC input be provided by separate overcurrent protection devices.
- UPS output load cables must be run in separate conduit from input cables.
- Power cable from module DC bus to battery should be sized for a total maximum 2.0 volt line drop (power cable drop plus return cable drop as measured at the module) at maximum discharge current.
- Grounding conductors to be sized per NEC 250-95.
- Rectifier AC Input: 3-phase, 3-wire, plus ground
AC Output to Load: 3-phase, 3-wire, plus ground
Bypass AC Input: 3-phase, 3-wire, plus ground
Module DC Input from Battery: 2-wire (positive and negative), plus ground
- All wiring is to be in accordance with National and Local Electrical Codes.
- Minimum overhead clearance is 2 ft. (0.6m) above the UPS.
- Top or bottom cable entry through removable access plates. Cut plate to suit conduit size. If aluminum cable is to be used, top and bottom cable entry may be required. Contact Applications Engineering for assistance.
- Control wiring and power cables must be run in separate conduits. Control wiring must be stranded tinned conductors.
- If the UPS is fed from an automatic transfer switch, the UPS can transfer to and from an alternate out-of-phase source in double-conversion mode without applying a break-before-make delay to the automatic transfer switch operation.

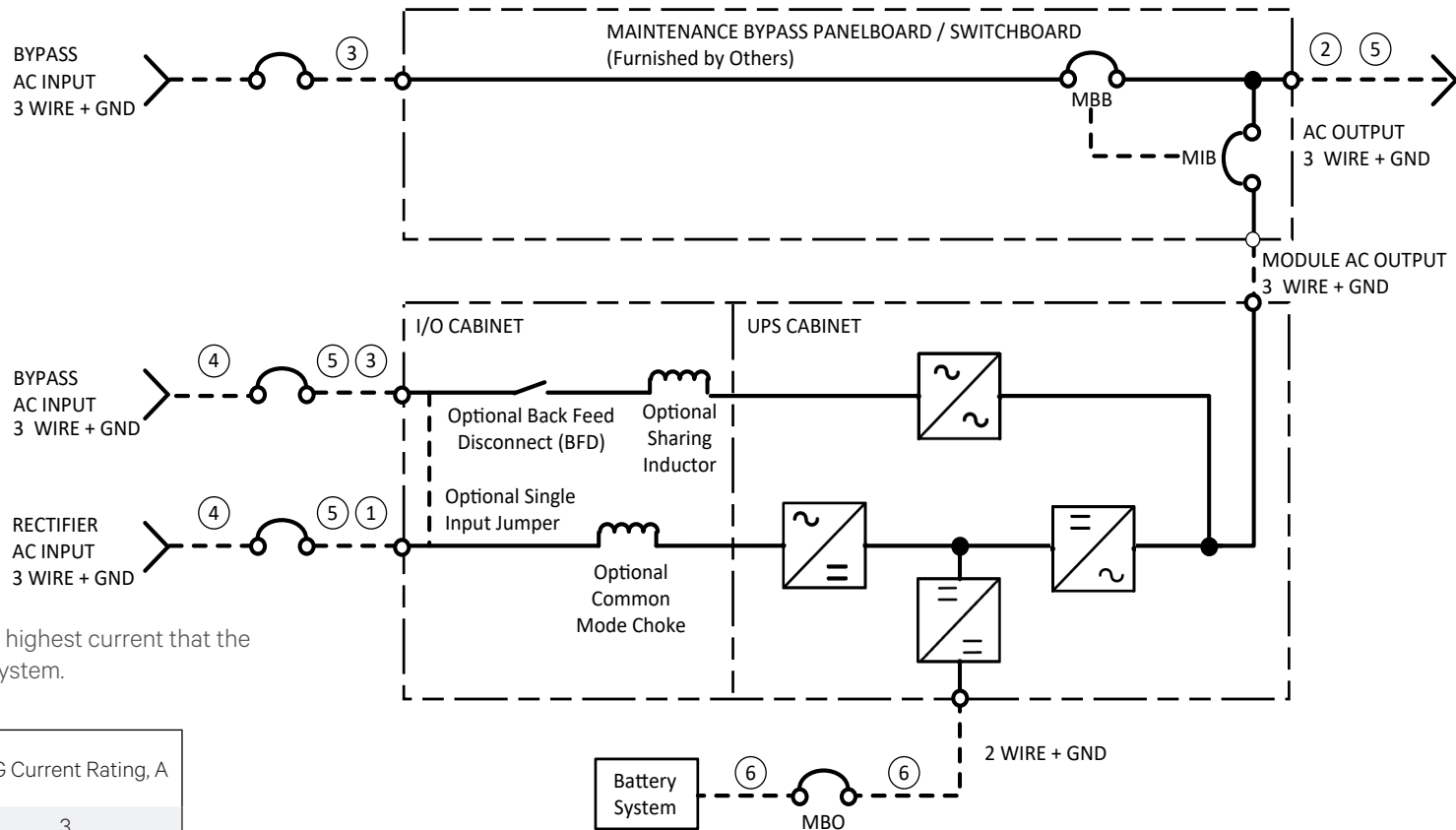
Dimensions and Weights—with and without Options

UPS Rating		Input/Output Voltage, VAC	Installed Options			Dimensions, WxDxH, in. (mm)	Approximate Weight Unpackaged, lb (kg)
kVA	kW		Back-feed Disconnect (BFD)	Bypass (Sharing) Inductors	Common Mode Choke		
250/300/400	250/300/400	480				2019 (916)	
250/300/400	250/300/400	480	x		51.3 x 36.0 x 79.1 (1304 x 914 x 2009)	2318 (1051)	
250/300/400	250/300/400	480		x	63.2 x 36.0 x 79.1 (1605 x 914 x 2009)	2318 (1051)	
250/300/400	250/300/400	480	x	x		2419 (1097)	
250/300/400	250/300/400	480			69.1 x 36.0 x 79.1 (1755 x 914 x 2009)	2970 (1347)	
250/300/400	250/300/400	480	x			3269 (1483)	
250/300/400	250/300/400	480		x	81.0 x 36.0 x 79.1 (2057 x 914 x 2009)	3269 (1483)	
250/300/400	250/300/400	480	x	x		3370 (1529)	
500/600	500/600	480			63.0 x 36.0 x 79.1 (1600 x 914 x 2009)	2450 (1111)	
500/600	500/600	480	x			2749 (1247)	
500/600	500/600	480		x	74.8 x 36.0 x 79.1 (1900 x 914 x 2009)	2749 (1247)	
500/600	500/600	480	x	x		2850 (1293)	
500/600	500/600	480			80.9 x 36.0 x 79.1 (2054.9 x 914 x 2009)	3401 (1543)	
500/600	500/600	480	x			3700 (1678)	
500/600	500/600	480		x	92.7 x 36.0 x 79.1 (2354 x 914 x 2009)	3700 (1678)	
500/600	500/600	480	x	x		3801 (1724)	
625/750/800	625/750/800	480			78.8 x 36.0 x 79.1 (2002 x 914 x 2009)	3508 (1591)	
625/750/800	625/750/800	480	x			4258 (1931)	
625/750/800	625/750/800	480		x		4428 (2008)	
625/750/800	625/750/800	480				4787 (2171)	
625/750/800	625/750/800	480	x	x	109.3 x 36.0 x 79.1 (2776 x 914 x 2009)	4558 (2067)	
625/750/800	625/750/800	480	x			5096 (2311)	
625/750/800	625/750/800	480		x		5457 (2475)	
625/750/800	625/750/800	480	x	x		5665 (2569)	
1000/1100/1200	1000/1100/1200	480			104.5 x 36.0 x 79.1 (2654 x 914 x 2009)	4667 (2117)	
1000/1100/1200	1000/1100/1200	480	x			5116 (2321)	
1000/1100/1200	1000/1100/1200	480		x		5286 (2398)	
1000/1100/1200	1000/1100/1200	480				5645 (2561)	
1000/1100/1200	1000/1100/1200	480	x	x	128.1 x 36.0 x 79.1 (3254 x 914 x 2009)	5416 (2457)	
1000/1100/1200	1000/1100/1200	480	x			5954 (2701)	
1000/1100/1200	1000/1100/1200	480		x		6315 (2864)	
1000/1100/1200	1000/1100/1200	480	x	x		6523 (2959)	
1000/1100/1200	1000/1100/1200	480				6523 (2959)	

NOTES:

1. Minimum overhead clearance is 2 ft. (0.6 m) above the UPS.
2. Top or bottom cable entry through removable access plates. Cut plate to suit conduit size. If aluminum cable is to be used, top and bottom cable entry may be required. Contact Applications Engineering for assistance.
3. Control wiring and power cables must be run in separate conduits. Control wiring must be stranded tinned conductors.

One-line Diagram



The following values are the highest current that the UPS will supply to an HRG system.

HRG Compatibility

UPS Modules	HRG Current Rating, A
1	3
2	6
3	9
4	11
5	14
6	17
7	20
8	30

NOTES: For bubble callouts 1-6 above, refer to notes section on page 1 for details.

The EXL S1 is compatible with high-resistance ground systems. Contact your Vertiv representative for details.



To contact Vertiv Technical Support: visit www.Vertiv.com

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