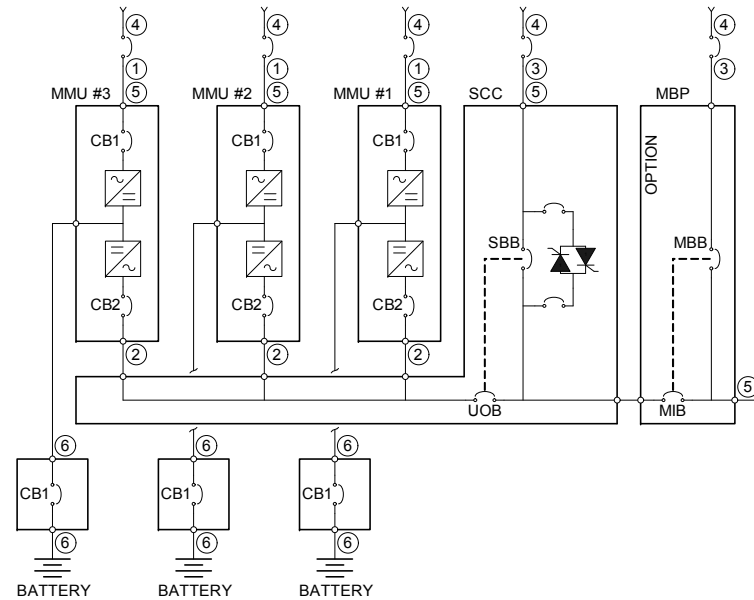


SITE PLANNING DATA, LIEBERT® SERIES 610™, 225KVA, MULTI-MODULE SYSTEMS



Notes for Table 1

1. 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 noncontinuous). Continuous and noncontinuous current limits are defined in NEC 100. Maximum input current is controlled by current limit setting which is adjustable. Values shown for maximum setting are 125% of nominal input current. Standard factory setting is 115%.
2. Nominal AC output current (considered continuous) is based on full rated output load. Maximum current includes nominal output current and overload current for 10 minutes.
3. Bypass AC input current (considered continuous) is based on full rated output load.
4. Feeder protection (by others in external equipment) for rectifier AC input and bypass AC input is recommended to be provided by separate overcurrent protection devices.
5. UPS output load cables must be run in separate conduit from input cables.
6. 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.
7. Grounding conductors to be sized per NEC 250-122. Neutral conductors to be sized for full capacity—per NEC 310-15 (b)(4)—for systems with 4-wire loads and half capacity for systems with 3-wire loads.
NOTE: A neutral conductor is required from each Multi-Module Unit output to the System Control Cabinet and from each SCC to the Power-Tie™ cabinet, if applicable. See grounding diagrams in the Installation Manual.
8. Rectifier AC Input: 3-phase, 3-wire, plus ground
AC Output to Load: 3-phase, 3- or 4-wire, plus ground
Bypass AC Input to SCC: 3-phase, 3- or 4-wire, plus ground
Module DC Input from Battery: 2-wire (positive and negative), plus ground
Module Input to SCC: 3-phase, 4-wire, plus ground
9. All wiring is to be in accordance with National and Local Electrical Codes.
10. Minimum overhead clearance is 2 ft. (0.6m) above the UPS.
11. Top and bottom cable entry through removable access plates on standard size cabinets only. Top cable entry only on SpaceSaver cabinets, which are 8" (20cm) narrower than standard size cabinets. SpaceSaver cabinets are available on units that have either 600 or 480VAC output. Cut access plates to suit conduit size.
12. Control wiring and power cables must be run in separate conduits. Control wiring must be stranded tinned conductors.
13. 7% maximum reflected input harmonic current and 0.92 lagging input power factor at full load with optional input filter.



Table 1 Site planning data - Liebert Series 610, 225kVA, Multi-Module Systems

UPS Rating		AC Output Voltage	Options		Rectifier AC Input Current		Inverter Output Current		Required Battery Disconnect Rating (A)	Max. Battery Current at End of Discharge (A)	Max. Heat Dissipation Full Load BTU/h (kW/h)	Dimensions (excluding SCC) WxDxH: in. (mm)	Approx. Weight (excluding SCC) Unpacked lb. (kg)		Floor Loading Concentrated Loading lb./ft. ² (kg/m ²)	
kVA	kW	VAC	Input Filter	Input Xformer	Nom	Max	Nom	Max				Standard Model/SpaceSaver	Standard Model	Space-Saver	Standard Model	Space-Saver
600V input																
225	180	600	NO	NO	218	272	217	271	450	486	42,700 (12.5)	Standard: 56x33x78 (1422x838x1981)	3410 (1547)	3210 (1456)	266 (1297)	292 (1425)
225	180	600	YES	NO	202	253	217	271	450	486	44,800 (13.1)		3540 (1606)	3340 (1515)	276 (1347)	304 (1482)
225	180	600	NO	YES	221	277	217	271	450	486	53,400 (15.6)	SpaceSaver: 48x33x78 (1219x838x1981)	4360 (1978)	4160 (1887)	340 (1659)	378 (1846)
225	180	600	YES	YES	205	257	217	271	450	486	55,600 (16.3)		4490 (2037)	4290 (1946)	350 (1708)	390 (1904)
225	180	208	NO	NO	219	274	625	781	450	488	46,250 (13.5)	Standard: 56x33x78 (1422x838x1981)	3610 (1637)	—	281 (1373)	—
225	180	208	YES	NO	203	254	625	781	450	488	48,400 (14.2)		3740 (1696)	—	291 (1423)	—
225	180	208	NO	YES	223	278	625	781	450	488	57,050 (16.7)		4560 (2068)	—	355 (1735)	—
225	180	208	YES	YES	206	258	625	781	450	488	59,300 (17.4)		4690 (2127)	—	365 (1784)	—
480V input																
225	180	480	NO	NO	271	339	271	338	450	486	39,200 (11.5)	Standard: 56x33x78 (1422x838x1981)	3140 (1424)	2940 (1334)	245 (1195)	267 (1305)
225	180	480	YES	NO	251	314	271	338	450	486	41,300 (12.1)		3270 (1483)	3070 (1393)	255 (1244)	279 (1363)
225	180	480	NO	YES	275	344	271	338	450	486	49,800 (14.6)	SpaceSaver: 48x33x78 (1219x838x1981)	4340 (1969)	4140 (1878)	338 (1651)	376 (1838)
225	180	480	YES	YES	255	319	271	338	450	486	51,950 (15.2)		4470 (2028)	4270 (1937)	348 (1701)	388 (1895)
225	180	208	NO	NO	272	341	625	781	450	488	42,700 (12.5)	Standard: 56x33x78 (1422x838x1981)	3425 (1554)	—	267 (1303)	—
225	180	208	YES	NO	253	316	625	781	450	488	44,800 (13.1)		3555 (1613)	—	277 (1352)	—
225	180	208	NO	YES	277	346	625	781	450	488	53,400 (15.6)		4625 (2098)	—	360 (1760)	—
225	180	208	YES	YES	257	321	625	781	450	488	55,600 (16.3)		4755 (2157)	—	371 (1809)	—
208V input																
225	180	208	NO	NO	635	794	625	781	450	488	49,800 (14.6)	Standard: 56x33x78 (1422x838x1981)	3820 (1733)	—	298 (1453)	—
225	180	208	YES	NO	589	736	625	781	450	488	51,950 (15.2)		3950 (1792)	—	308 (1503)	—
225	180	208	NO	YES	646	807	625	781	450	488	60,750 (17.8)		4460 (2023)	—	348 (1697)	—
225	180	208	YES	YES	599	748	625	781	450	488	63,000 (18.4)		4590 (2082)	—	358 (1746)	—
See Notes (p. 1):			13	—	1,4,5,7,8,9,12		2,3,5,7,8,9,12		6	6,8,9,12	—	—	—	—	—	—

System Control Cabinets

Multi-Module Systems are provided with a System Control Cabinet. Cabinets are available to match load current. **Table 2** shows dimensions and weights for SCCT cabinets.

These cabinet dimensions and weights are in addition to the module dimensions and weights in **Table 1**.

Table 2 System Control Cabinet data - SCCT

Type	Amps	Overall dimensions - WxDxH: in. (mm)	Weight - lb. (kg)
SCCT	200-1200	37x37x78 (940x940x1981)	1000 (454)
SCCT	1600	62x48x78 (1575x1219x1981)	1525 (692)
SCCT	2000	62x48x78 (1575x1219x1981)	2850 (1293)
SCCT	2500-3000	62x60x78 (1575x1524x1981)	3100 (1406)
SCCT	4000	138x60x78 (3505x1524x1981)	5850 (2653)



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