

VRLA BATTERY

LiteMinder Modular Inverters

EMERGENCY PLANNING & COMMUNITY RIGHT TO KNOW ACT (EPCRA)

The EPCRA requires a building owner to declare when the aggregated amount of sulfuric acid in batteries throughout the entire facility exceeds 500lbs. The charts below lists the contents of each battery needed to calculate the total volume of sulfuric acid and add this to other batteries in the building to determine reporting requirements.

The quantity of batteries required for each modular inverter systems is dependent on the power of the unit (kVA/kW). To calculate the material composition of the system, multiply the quantity of batteries by the material listed for the specific battery type (refer to table for full details).

MODEL SIZE	BATTERY QUANTITY	BATTERY AH	LEAD WEIGHT PER INVERTER (LBS)	SULFURIC ACID WEIGHT PER INVERTER (LBS)	ELECTROLYTE VOLUME PER INVERTER (GALLONS)	ELECTROLYTE WEIGHT PER INVERTER (LBS)	STORED BATTERY CAPACITY PER INVERTER (KWH)
1kVA	4	55	107.6	13.04	2.72	30.44	2.64
1.6kVA	6	55	161.4	19.56	4.08	45.6	3.96
2.2kVA	8	55	215.2	26.08	5.44	60.88	5.28
2.8kVA	10	55	269.0	32.6	6.8	76.1	6.6
3.2kVA	12	55	322.8	39.12	8.16	91.32	7.92
4.2kVA	8	100	465.6	43.2	9.04	100.32	9.6
5.2kVA	10	100	582.0	54.0	11.3	125.4	12.0
6.2kVA	12	100	698.4	64.8	13.56	150.48	14.4
8.25kVA	16	100	931.2	86.4	18.08	200.64	19.2
10.5kVA	20	100	1164.0	108.0	22.6	250.8	24.0
12.5kVA	24	100	1396.8	129.6	27.12	300.96	28.8
15.75kVA	30	100	1746.0	162.0	33.9	376.2	36.0
18.75kVA	36	100	2095.2	194.4	40.68	451.44	43.2

EXAMPLE OF SYSTEM STORED CAPACITY CALCULATION

LM18750 Model has 36pcs of the B250023 Battery

Battery Nominal Voltage is 12VDC

Battery Nominal Capacity is 100AH

Calculation = 36 Batteries x 12VDC x 100AH = 43.2kWh 1000

BATTERY PART NUMBER: B250022 (55AH)

EACH BATTERY CONTAINS

26.9 Lead Weight Per Battery (bs)

0.68 Electrolyte Volume Per Battery (gal)

7.61 Electrolyte Weight Per Battery (lbs)

3.26 Sulfuric Acid Weight Per Battery (lbs)

BATTERY PART NUMBER: B250023 (100AH)

EACH BATTERY CONTAINS

58.2 Lead Weight Per Battery (bs)

1.13 Electrolyte Volume Per Battery (gal)

12.54 Electrolyte Weight Per Battery (lbs)

5.40 Sulfuric Acid Weight Per Battery (lbs)

PURSUANT TO CALIFORNIA FIRE CODE SECTION 1206

Table 1206.1, threshold quantities for Lead-Acid batteries shall not exceed 70kWh.

Section 1206.1 states that stored capacity can be calculated in one of 2 ways:

1. For units rated in Amp-Hours - (kWh equals the rated voltage x amp-hour rating)/1000
2. 50 gal of lead-acid battery electrolyte shall be considered equivalent to 70kWh