



Livermore-Pleasanton Fire Department

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Residential Battery Energy Storage Systems

Summary of UL 9540A Approved Configurations per California Fire Code Section 1207

The table below is a list of battery energy storage systems (BESS) using lithium-ion battery technology which have been reviewed by LPFD in accordance with sections 1207.11.2.1 and 1207.1.7 of the 2025 California Fire Code (CFC). After reviewing the applicable UL 9540A test reports, the reduced residential single-row unit-to-unit spacing is provided below.

LPFD does not allow battery system stacking for residential BESS systems. All systems must be installed per the requirements of the applicable California Building/Fire/Electrical codes, manufacturers installation directions, and the information below.

Please, note this document is subject to change as manufacturers provide additional reports to LPFD for consideration.

In all scenarios, residential BESS installations are limited to 80 kWh.

Manufacturer	BESS Model Number(s)	Minimum Unit-to-Unit Spacing	Notes
Franklin	WH aPower X WH aPower X-20	4-inches	3 units per group maximum, groups to be separated by 36-inches
Tesla	Power Wall 2 Power Wall 3	10-inches	Expansion stacking NOT allowed
Enphase	IQ 5P		*See Figure 1
Enphase	IQ 10C	6-inches	
Panasonic	EV-X10 EV-X15 EV-X20	12-inches	
EG4 Electronics	WP-16/280	6-inches	

*Figure 1 for Enphase configuration:

