

UL Standards & Engagement Standards for e-Mobility Devices



Household and Commercial Batteries | UL 2054

Covers portable primary (non-rechargeable) and secondary (rechargeable) batteries for use as power sources in products. These batteries consist of either a single electrochemical cell or two or more cells connected in series, parallel, or both, that convert chemical energy into electrical energy by chemical reaction.



Personal e-Mobility Devices | UL 2272

Covers the electrical drivetrain system including the battery system, other circuitry and electrical components for electric-powered e-mobility devices as defined in this Standard, such as hoverboards and small scooters not intended for road use.



e-Bikes | UL 2849

Covers the electrical system of eBikes powered by a lithium-based, rechargeable battery. eBikes include both Electrically Power-Assisted Cycle (EPAC – pedal assist) and non-pedal assist eBikes.



e-Scooters | UL 2850*

Covers the electrical systems of electric scooters and motorcycles intended for over the road use with respect to a risk of fire, electric shock, and explosion hazards associated with the battery-powered electrical system during charging and discharging (during operation).



Light Electric Vehicles | UL 2271

Covers electrical energy storage assemblies (EESAs) such as battery packs and combination battery pack-electrochemical capacitor assemblies and the subassembly/modules that make up these assemblies for use in light electric-powered vehicles (LEVs) as defined in this Standard.



e-Vehicles | UL 2580

Covers electrical energy storage assemblies such as battery packs and combination battery pack-electrochemical capacitor assemblies and the subassembly/modules that make up these assemblies for use in electric-powered vehicles as defined in this Standard.