

Battery Energy Storage System Standards

Standards published by the Sri Lanka Standards Institution (SLSI) and stated as enforced by the Public Utilities Commission of Sri Lanka (PUCSL)

The following list is organised by the IEC standard family and the corresponding Sri Lanka Standard (SLS) designation supplied.

1. Lithium Batteries for PV integrated Battery Energy Storage Systems (BESS)

1. SLS 1839-1: 2026 / IEC 62619:2022

Secondary cells and batteries containing alkaline or other non-acid electrolytes — Safety requirements for secondary lithium cells and batteries for use in industrial applications.

2. SLS 1839-2: 2026 / IEC 63056: 2020

Secondary cells and batteries containing alkaline or other non-acid electrolytes — Safety requirements for secondary lithium cells and batteries for use in electrical energy storage systems.

3. SLS 1839-3: 2026 / IEC 62620:2023

Secondary cells and batteries containing alkaline or other non-acid electrolytes — Secondary lithium cells and batteries for use in industrial applications.

4. SLS 1840-1: 2026 / IEC 63330: 2024

Repurposing of secondary batteries Part 1: General Requirements.

2. Renewable Energy Storage

1. SLS IEC 61427: 2026 / IEC 61427

Secondary cells and batteries for renewable energy storage — General requirements and methods of test.

- Part 1: 2013 — Photovoltaic off-grid application
- Part 2: 2015 — On-grid applications

2. SLS 1838-1: 2026 / IEC 63115: 2020

Secondary cells and batteries containing alkaline or other non-acid electrolytes — Sealed nickel-metal hydride cells and batteries for use in industrial applications.

3. Safety of Secondary Batteries and Battery Installations

1. SLS IEC 62485 / IEC 62485

Safety requirements for secondary batteries and battery installations.

Part 1: 2015 — General safety information

Part 2: 2010 — Stationary batteries

Part 3: 2014 — Traction batteries

Part 4: 2015 — Valve-regulated lead-acid batteries for use in portable appliances

Part 5: 2020 — Safe operation of stationary lithium-ion batteries

Part 6: 2021 — Safe operation of lithium-ion batteries in traction applications