

IEEE Recommended Practice for Installation and Maintenance of Lead-Acid Batteries for Photovoltaic (PV) Systems

Sponsor

IEEE Standards Coordinating Committee 21

on

Fuel Cells, Photovoltaics, Dispersed Generation, and Energy Storage

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Abstract: Design considerations and procedures for storage, location, mounting, ventilation, assembly, and maintenance of lead-acid storage batteries for photovoltaic power systems are provided. Safety precautions and instrumentation considerations are also included. Even though general recommended practices are covered, battery manufacturers may provide specific instructions for battery installation and maintenance.

Keywords: battery installation, battery maintenance, photovoltaic power system, sizing lead-acid battery

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Introduction

[This introduction is not part of IEEE Std 937-2000, IEEE Recommended Practice for Installation and Maintenance of Lead-Acid Batteries for Photovoltaic (PV) Systems.]

This recommended practice provides design considerations and procedures for storage, location, mounting, ventilation, assembly, and maintenance of lead-acid storage batteries for photovoltaic power systems. Safety precautions and instrumentation considerations are also included. While this document gives general recommended practices, battery manufacturers may provide specific instructions for battery installation and maintenance.

While there are other IEEE standards that cover lead-acid battery installation and maintenance, they are generally designed for other types of applications, such as float-service, utility grid-tied applications. This document provides information for installation and maintenance of lead-acid batteries in photovoltaic applications that are characterized by nongrid connected, cycling service. These procedures also reflect consideration of the typically remote nature of photovoltaic applications.

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