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IEEE Recommended Practice for Installation Design and Installation of Valve-Regulated Lead-Acid Batteries for Stationary Applications

IEEE Power and Energy Society

Sponsored by the
Stationary Batteries Committee

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IEEE Std 1187™-2013
(Revision of
IEEE Std 1187-2002)

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Abstract: Guidance for the installation and installation design of valve-regulated lead-acid (VRLA) batteries is provided in this recommended practice. This recommended practice is intended for all standby stationary installations. However, specific applications, such as emergency lighting units and semi-portable equipment, may have other appropriate practices and are beyond the scope of this recommended practice. Alternative energy applications are not covered.

Keywords: acceptance test, battery capacity, battery installation, battery installation design, battery maintenance, battery terminal voltage, battery testing, connection resistance measurements, float voltage, IEEE 1187™, internal ohmic measurements, standby power applications, valve-regulated lead-acid battery

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Introduction

This introduction is not part of IEEE Std 1187-2013, IEEE Recommended Practice for Installation Design and Installation of Valve-Regulated Lead-Acid Batteries for Stationary Applications.

Guidance for the installation and installation design of valve-regulated lead-acid (VRLA) batteries is provided in this recommended practice. This recommended practice is intended for all standby stationary installations. However, specific applications, such as emergency lighting units and semi-portable equipment, may have other appropriate practices and are beyond the scope of this recommended practice. Alternative energy applications are not covered.

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IEEE Recommended Practice for Installation Design and Installation of Valve-Regulated Lead-Acid Batteries for Stationary Applications

1. Overview

1.1 Scope

This recommended practice provides recommended design practices and procedures for storage, location, mounting, ventilation, instrumentation, preassembly, assembly, and charging of valve-regulated lead-acid (VRLA) batteries. Required safety practices are also included. This recommended practice is applicable to float-service stationary installations.

This recommended practice contains several informative annexes. These provide additional tutorial information relating to topics introduced in the body of the document.

Battery sizing, maintenance, capacity testing, charging equipment, battery protection, and monitoring are beyond the scope of this recommended practice. Alternative energy applications are also beyond the scope of this recommended practice.

The portions of this recommended practice that specifically relate to personnel safety are mandatory instructions and are designated by the word *shall*; all other portions are recommended practices and are designated by the word *should*.