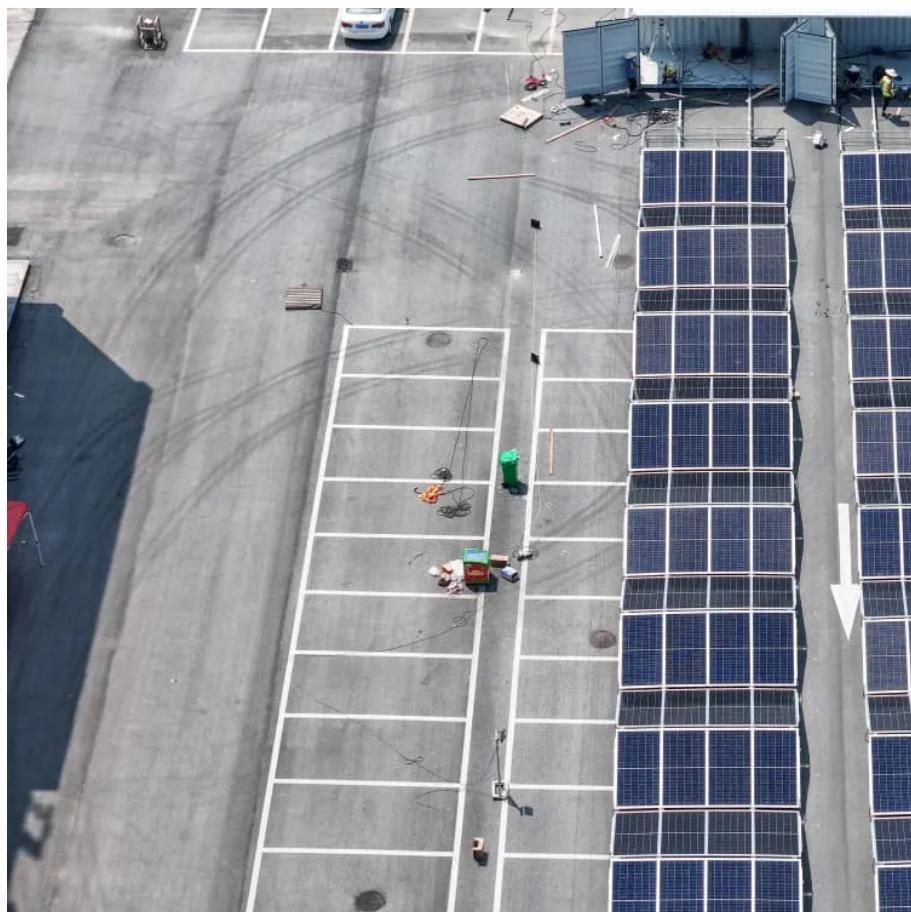




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Capacity and age of lead-acid batteries in base stations





Overview

What is the aging margin for lead-acid battery sizing?

Upload your project docs. # Lead-Acid Battery Capacity Variation Throughout Service Life ## IEEE-485-2010 Standard: Aging Margin Justification The IEEE-485-2010 standard recommends including a 1.25 aging margin in lead-acid battery sizing calculations due to predictable capacity degradation patterns.

What is the end of life of a lead-acid battery?

r. Thus, IEEE and other documents define the end of life of a lead-acid battery as the point at which the available capacity has fallen to 80% of rated capacity. Figure 1 also shows the aging characteristics of nickel-cadmium batteries.

How many battery groups does a base station have?

The original battery allocation result is largely skewed so that over 65 percent of base stations are equipped with only one battery group. Our framework considers both the base station situations and battery features, allocating 2 battery groups to most base stations and 3 or 4 battery groups to those with long-time power outages.

What is the capacity of a lead-acid battery?

Ordinary lead-acid (0.1C): Min. capacity = 1000Ah Lead-carbon (0.25C): Min. capacity = 400Ah Discharging Current (Load-dependent): *10kW load + 48V battery* → Max discharge current = 200A Lead-carbon battery(30I₁₀): Min. capacity = >80Ah Gel battery (3I₁₀): Min. capacity = 800Ah 3. Depth of Discharge (DOD) & Cycle Life: Shallow Cycle: 10-30% DOD



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Industrial Battery Capacity Variation During Life

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