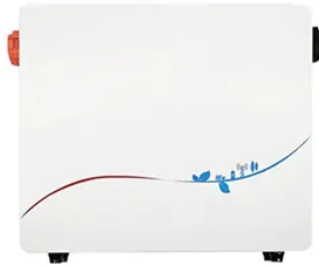


Data Center Rack 500kW Cost-Effectiveness



Overview

Illustrative Annual Cost to Power One Data Center Rack (by Density, PUE, & Electricity Rate) This table shows how rack density, PUE, and location dramatically impact annual costs. Power Usage Effectiveness (PUE) is the industry's key metric for energy efficiency, showing how much total facility energy is used by IT equipment versus supporting infrastructure. Colocation providers offer different power levels: Power density depends on server type, workload, and. This guide provides an overview of best practices for energy-efficient data center design which spans the categories of information technology (IT) systems and their environmental conditions, data center air management, cooling and electrical systems, and heat recovery. For example, if a server rack uses 5 kW of power continuously for one hour, it consumes 5 kWh of energy. Formula: $(\text{Total Power in Watts} \div 1000) \times \text{Number of Operational Hours per Year}$ Example: A rack using 2000W running 24/7 $(2000 \div$



Article Content

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