

# PowerVault

Smart Integrated Mobile Charging & Storage Solution



## Features & Overview

The **CP40** is a premium, all-in-one mobile charging solution designed for modern educational and corporate environments. It combines high-speed charging, advanced security, and smart environmental monitoring into a single, sleek mobile unit.

## Power Management with Smart Charging Solutions



### Auto Recognition

Automatically recognizes connected devices, provides zero voltage output when idle



### Adaptive Charging

Automatically adjusts voltage and current to each device



### Load Balancing

Balances the power load across all iPads to prevent overloading and overheating



### Device Safeguard

Built-in overcurrent protection to safeguard the devices from damage

## Smart Management System Software (WiFi Enabled)



### Centralized Management Control

- Remote App Control (mobile)
- Real-time voltage, current, and power display
- Leakage and overload protection
- Alarm recording
- Operation and electricity consumption statistics
- Timer switch
- Overvoltage/undervoltage protection
- Power-off memory function
- Rated working voltage 90–300 V



### Smart Management System Software

- Customizable threshold
- Automatic detection
- Automatic activation of exhaust fans or heating rods with manual override
- Historical data query
- WiFi IEEE 802.11 b/g/n 2.4 GHz
- Smart ventilation and cooling system for optimum temperature



### Smart Security System

- Password unlocking with universal admin password
- Card (RFID) unlocking
- Mobile app remote unlocking
- Both single- and multi-person management



CP40 Mobile Charging Cart

# Technical Specifications

## i. Power & Charging System

Feature	Specification
Product Name	Mobile Charging Cart
Model Number	CP40
Material	100% industrial cold-rolled steel frame with removable ABS plastic separators.
Max Device Size	300 mm x 23 mm x 200 mm
Overall Dimensions	680 mm x 460 mm x 1040 mm (L x D x H)
Input Power	AC 110-250V, 50/60Hz, 10A
Charging Output	20W Fast Charging
Charging Interface	40-Bay USB-C with numerical numbering
Status Indicators	Individual LED lights (Red: Power on/Full; Blue: Charging)
Protection	Soft start, Overvoltage, Overcurrent, Short circuit, and Over-temperature protection
Charging Protocol	PPS, PD3.0, PD2.0, QC5, QC4+, QC3+, QC3.0, QC2.0, AFC, FCP, SCP, PE2.0, PE1.1, SFCP, TFCP, BC1.2 DCP mode.



## ii. Smart Control Management

- **Smart Switch System:** Remote control via mobile app (2.4GHz WiFi) with historical data querying.
- **Sensor Range:** Temperature (-20°C to 80°C) and Humidity (5% to 90% RH).
- **Access Control:** RFID Access Control system supporting single or multi-person management.

## iii. Backup Battery Parameters

- **Capacity:** 532.8Wh (48Ah nominal 11.1V).
- **Output Voltage:** 220V-230V/50Hz (Customizable 110V).
- **Cycle Life:** 2500+ cycles.
- **Charging Methods:** Supports mains power, solar energy (18V/200W Max), and vehicle charging.
- **Weight:** 7.5kg.

## iv. Physical Features

- **Internal Slot Gap:** 25mm
- **Internal Shelf Height:** 245mm per shelf
- **Charging Layout:** 2 racks x 20 ports Type-C with built-in cable.
- **Extra Storage:** Storage compartment at the bottom for battery placement or other devices' storage
- **Handle:** Ergonomic push plastic handle for smooth steering



### Safety First

The modular power supply design ensures that if one module fails, the rest of the system remains operational for easy maintenance.



### Eco-Friendly Efficiency

High-efficiency charging protocols ensure minimal energy waste while maximizing battery health for your tablets.



### Global Compliance

Manufactured under strict quality standards with certifications including IECEE, SIRIM, ST-COA

