

EV CHARGING SYSTEMS & INSTALLATION GUIDE YEAR 2025



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EV CHARGING LANDSCAPE & TESLAVOLTS INNOVATIVE APPROACH

The EV charging landscape is evolving rapidly as global efforts to reduce carbon emissions and shift towards sustainable transportation accelerate. With the rising adoption of electric vehicles (EVs), there is an urgent need for scalable, high-speed, and intelligent charging solutions to support both personal and commercial EV users. The demand is driven by:

- Government policies & incentives promoting EV adoption and charging infrastructure.
- Fleet electrification, with businesses transitioning to EV fleets for logistics and delivery.
- Urbanization & clean energy goals, requiring smart charging hubs in key locations.
- Advancements in battery technology, enabling faster and more efficient charging.

How Teslavolts is Leading the Charge

At Teslavolts, we are revolutionizing the EV charging industry by offering cuttingedge, Al-powered charging solutions that are scalable, efficient, and adaptable to market needs. Our innovation-driven approach includes:

- 1. Diverse Charging Portfolio From AC chargers (7.8kW-22kW) for home and business use to DC fast chargers (30kW-240kW) for highways, fleets, and commercial hubs.
- 2. Hyperfast CaaS (Charging-as-a-Service) A unique mobile charging solution delivering 20-minute fast charging without the need for <u>grid infrastructure</u>.
- 3.AI & ML-Integrated CSMS (Charging Station Management System) Optimizing power distribution, reducing battery degradation by up to 30%, and enabling seamless network management.
- 4. Scalability & Smart Grid Integration Designed for future expansion, integrating with renewable energy sources and microgrids for sustainable EV charging.

With a strong R&D foundation, strategic collaborations, and a vision for innovation, Teslavolts is set to drive the next phase of EV charging infrastructure growth, ensuring a fast, reliable, and widely accessible network for all EV users.

AC CHARGING SOLUTIONS





Product #AC01

TESLAVOLTS - ZAP1

Affordable. Efficient. Stylish. With the Teslavolts Zap1 EV Charger, everyday charging at Apartment & buildings is a breeze.

Power Ratings: 7kw to 22kW Available Wall or Pedestal Mountable Plug&Play/RFIDcard/App Type2 Cable Or GBT Cable



Product #AC02

TESLAVOLTS ZAP2

Dependable. Flexible. Effective. The Teslavolts Zap2 EV Charger comfortably adapts to serve every Business or Apartment & Parking Lots building.

Up to 11kW to 22kW output Wall-mount/Pole-mount Mountable OCPP1.6J (OCPP2.0 optional) Working Temperature -25°C~+50°C



Product #AC03

TESLAVOLTS ELITE 1

Dynamic. Durable. Intelligent. The Teslavolts Elite 1 enhances EV charging for Business or Apartment & Parking Lots use.

Up to 7kW output at 32 amps Type2 Or GBT Plug Adjustable maximum charging current for lower rated supplies Plug&Play/RFIDcard

DC CHARGING SOLUTIONS





Product #DC04

VOLTXPRESS 40 (30KW - 40KW DC FAST CHARGER)

A compact and efficient DC fast charger designed for urban EV users and fleet operators. Ideal for commercial spaces, dealerships, and public parking areas, VoltXpress 40 delivers rapid charging speeds, allowing EVs to reach 80% charge in under an hour.

Product #DC05

VOLTXTREME 80 (60KW - 80KW DC FAST CHARGER)

Designed for mid-range fleets, public highways, and high-traffic charging hubs, the VoltXtreme 80 balances power and efficiency. It features adaptive load management, ensuring optimal energy distribution while keeping operational costs low.





Product #DC06

HYPERVOLT 120 (120KW DC ULTRA-FAST CHARGER)

A high-power ultra-fast charger for long-range EVs and commercial fleets. HyperVolt 120 significantly reduces charging downtime, delivering up to 120kW of power for an 80% charge in 30-40 minutes.

HYPERFAST - DC megavolt 240 (180kw 240kw DC hyperfast charger)



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Tes Volts

The ultimate high-speed charging solution, designed for heavy-duty commercial vehicles, buses, and highpowered EVs. MegaVolt 240 offers hyper-fast charging, with the ability to charge large EV batteries within minutes instead of hours. Equipped with liquid-cooled charging cables, V2G (Vehicle-to-Grid) capabilities, and seamless CSMS integration, it is the future of EV charging infrastructure for highways, depots, and logistics hubs.

HYPERFAST – DC megacharge 161kw

MOBILE DC2DC

🔶 Tes 🗸 Volt

hypercharger

PowerPod 60 - Compact & Versatile (60kW)

- Power Output: 60 kW
- Charging Time: 0-80% in approximately 30 minutes

Tes LVolts

 Ideal for: Shopping centers, highway rest stops, and fleet depots





AC CHARGING SOLUTIONS INSTALLATION

- Ideal for: Residential, Public, commercial spaces & workplace charging
- Features: WiFi/BLE/4G/RFID enabled, OCPP 1.6J compliant
- Installation Steps:
- 1. Identify a dedicated parking spot with existing electrical wiring
- 2. Install the wall-mounted unit near a power source
- 3. Ensure grounding and surge protection
- 4. Configure software settings for CSMS integration
- 5. Dedicated 32A power line
- 6. Mounting post or wall installation
- 7. Internet connectivity for remote monitoring
- 8. Requires 3-phase 400V power supply
- 9. Transformer & circuit protection setup
- 10. Load balancing with CSMS integration







DC CHARGING SOLUTIONS INSTALLATION

1. 30kW - 40kW DC Charger

- Best for: City fleets & commercial use
- Power Requirements: 50kVA transformer
- Site Requirements: Concrete foundation & cable trenching
- 2. 60kW 80kW DC Charger
 - Designed for: Highway corridors & fleet operations
 - Power & Infrastructure: Requires dedicated substation connection
 - Software: Advanced load-sharing enabled

3. 120kW DC Charger

- Perfect for: Highway hubs, logistics depots
- Installation:
- Dedicated grid connection with 250kVA transformer
- Fast charging with liquid-cooled cables

4. 180kW - 240kW DC Charger

- For: Heavy-duty trucks & buses
- Setup:
- High-power substation setup
- Charger canopy for weather protection





DC MOBILE HYPERFAST CHARGING (CAAS) INSTALLATION ON EV CARRIER

1. 60kW Mobile CaaS Charger

- Use Case: On-demand charging for fleets
- Setup: Mounted on battery storage units
- 2. 141kW Mobile CaaS Charger
 - Use Case: Emergency backup charging
 - Installation: Requires high-voltage safety compliance
- 3. 161kW Mobile CaaS Charger
 - Use Case: Large-scale fleet depots
 - Special Feature: Al-powered battery optimization



OCPP1.6

20

PayPal

120

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Support for OCPP1.6 protocol, you can access your own platform, and we provide technical support

✓ Mobile payment

charging piles

75000

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3:

1

\$1800

Income

Quantity management of

Number of equipment

Support APP operation

- Current regulation / Timed charge
- Remote control charging





INSTALLATION REQUIREMENTS & PROCEDURES

A. Site Selection & Preparation

- Identify a location with EV demand & accessibility
- Ensure local grid availability

B. Electrical & Power Infrastructure

- Install transformers & metering systems
- Set up load balancing equipment

C. Civil Work & Mounting Procedures

- Concrete foundation & mounting poles
- Weatherproof enclosures for outdoor chargers
- D. Network & Software Integration (CSMS)
 - OCPP compliance setup
 - Remote diagnostics & data tracking
- E. Safety & Compliance Standards
 - Adherence to Bharat EV charging standards
 - Earth grounding & circuit breaker installation
- F. Testing & Commissioning
 - Trial runs & real-time charging tests
 - Final approval from power utility authorities



OPERATIONAL GUIDE STEPS

5. Operational & Maintenance Guidelines

- Routine inspections & software updates
- Fault detection & predictive maintenance

6. Revenue Models for Charger Deployment

- 1. Direct Ownership Model: Businesses own & operate the chargers
- 2. Revenue-Sharing Model: Teslavolts installs chargers, profits are shared
- 3. CaaS Subscription Model: Mobile chargingas-a-service for fleets
- 4. Government & CSR Partnerships: Public EV infrastructure funding
- 7. Conclusion & Future Expansion Plans
 - Expansion into smart grid integration & renewable-powered EV hubs
 - Increasing adoption of AI-driven charging for efficiency optimization
 - Scaling Mobile EV charging for remote & underserved areas

"DRIVING THE ELECTRIC FUTURE"

Let's Charge -

Tes *L***Volts**

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JOIN HANDS WITH PIONEER IN EV CHARGING





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