



PYRAMID
ELECTRONICS
go charging



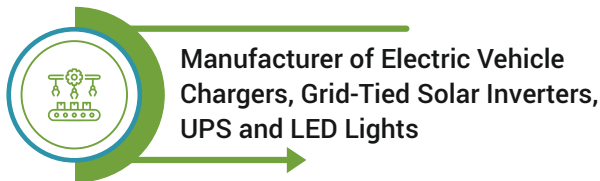
Pyramid Electronics

Electric Vehicle Chargers

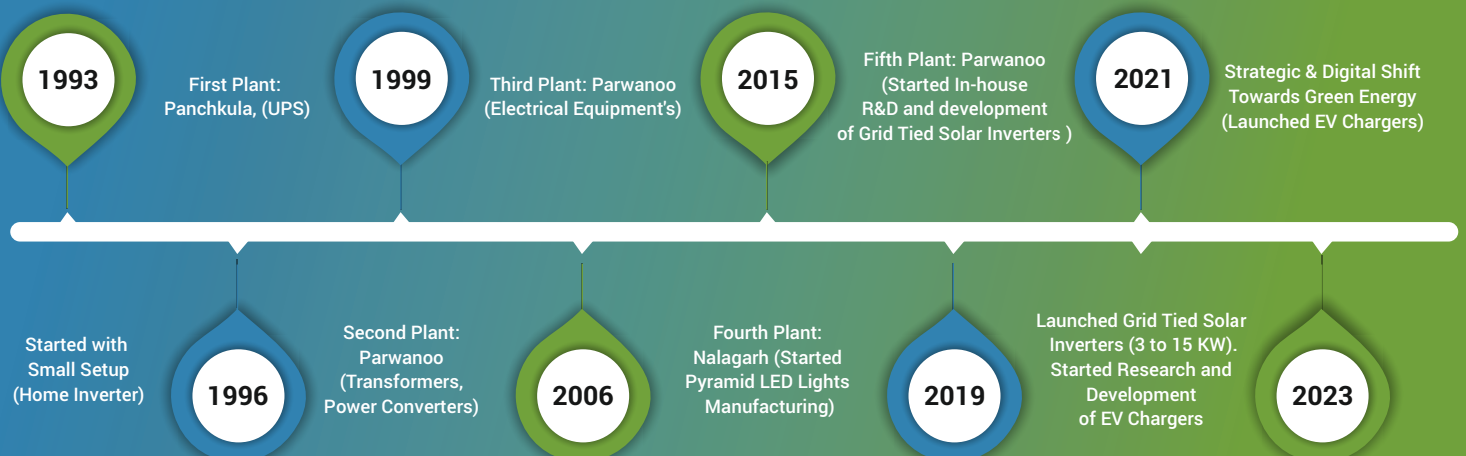


Who are we!

Pyramid Electronics, is a leading electronic design and manufacturing company in India founded by Mr Sandeep Goyal in 1993. With 30 years of excellence in the industry, Pyramid Electronics specializes in the research, design, development, and manufacturing of high-quality electronics products.



History



About Electric Vehicle Charging

Electric vehicle charging refers to the process of recharging the battery of an electric vehicle (EV) using an external power source. There are several types of EV chargers, including Level 1, Level 2, and DC fast chargers.

01

Level 1 chargers are the most basic and can be plugged into a standard 220-volt electrical outlet. These chargers deliver a slow charging rate of 6-12 kilometres of range per hour of charging.

02

Level 2 chargers require a dedicated circuit and can be installed in a home or workplace. These chargers provide a faster charging rate of up to 40 kilometres of range per hour of charging.

03

DC fast chargers are designed for commercial use and can provide up to 80% charge in just 30 minutes. These chargers require a special connector and are typically found at public charging stations along highways and in urban areas.



“When it comes to charging an electric vehicle, it is important to plan and choose the appropriate charger for your needs. You should also be mindful of the charging time and range of your vehicle to ensure that you have enough power to reach your destination.”

Charging Technologies

There are two primary methods of charging an EV: AC (alternating current) charging and DC (direct current) charging.



- Most common method of charging EV's.
- Power range from 3 KW to 22 KW.
- Cost-effective and widely available.
- Convenient for daily charging needs.
- Not be suitable for quick top-ups due to its relatively slow charging speed.



- Uses higher voltage and power levels to rapidly charge an EV battery.
- Power range from 50 KW to 350 KW
- The charging speed varies depending on the power level of the charger and the EV's battery capacity.
- A 50-kW charger takes 30-60 minutes to charge to 80%, while a 350-kW charger takes 10-20 minutes.
- More expensive than AC charging but is convenient for drivers who frequently travel long distances and need to quickly top up their battery.
- Not all EV's are compatible with DC charging.

The different types of charging connectors available. Here are the most common ones:

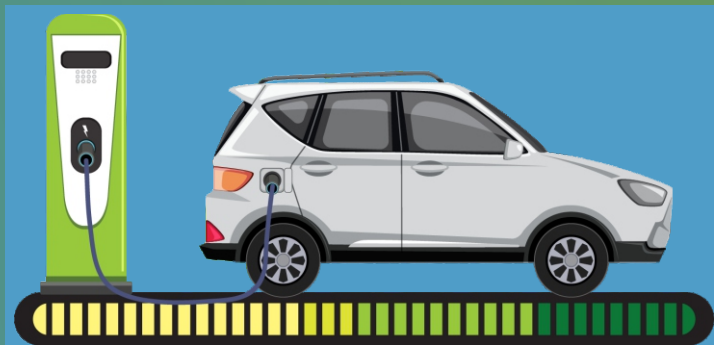
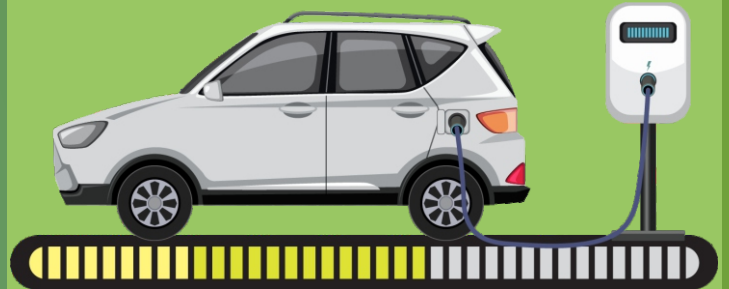
- 01** | CCS (Combined Charging System) - Most popular and widely adapted connector throughout the world. It supports both DC fast charging and AC charging with use of single connector.
- 02** | CHAdeMO - This connector is commonly found on Japanese electric vehicles and supports DC fast charging.
- 03** | Tesla Connector - This is exclusive to Tesla vehicles and supports both AC and DC fast charging.
- 04** | J1772 - This connector is commonly used for Level 2 charging in North America and supports AC charging.
- 05** | GB/T - This is the standard connector in China and supports both DC fast charging and AC charging with use of different connectors

Our Offerings

Pyramid Electronics produces two types of EV chargers: AC EV chargers and DC EV chargers.

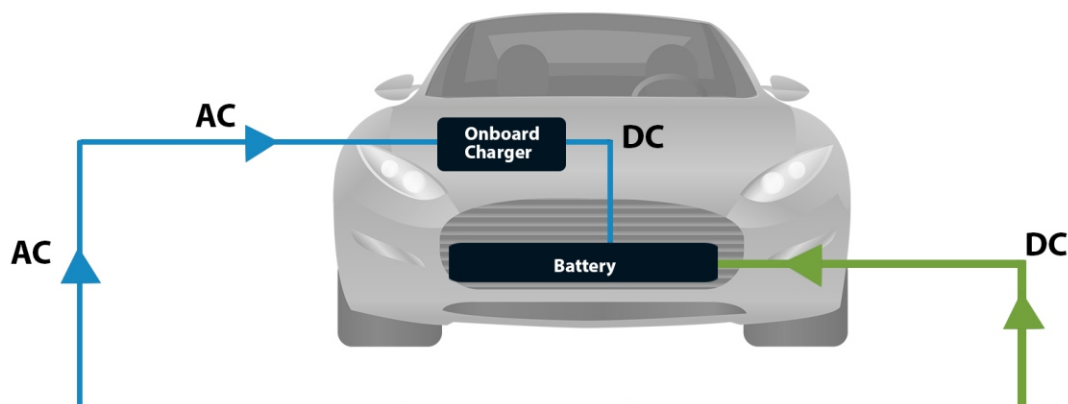
AC Charger

AC EV chargers are designed for slow charging and use the onboard charger already present in the electric vehicle. The power range for AC EV chargers produced by Pyramid Electronics is between 3.3 kilowatts and 22 kilowatts.



On the other hand, DC EV chargers are fast chargers that bypass the onboard charger of the electric vehicle and directly charge the car battery via its battery management system. Pyramid Electronics offers fast CCS2 EV chargers with power ranges from 15 kilowatts to 150 kilowatts.

DC Charger



AC (3.3 KW to 22 KW)

- J1772
(Type 1)
- Mennekes
(Type 2)
- GB/T (AC)
- Tesla

(15 KW to 350 KW) DC

- CCS1
- CCS2
- CHAdeMO
- GB/T (DC)

AC Charger (Type-2)

7.4 KW

11 KW

22 KW

Home EV Charger

Captive EV Charger

Captive EV Charger

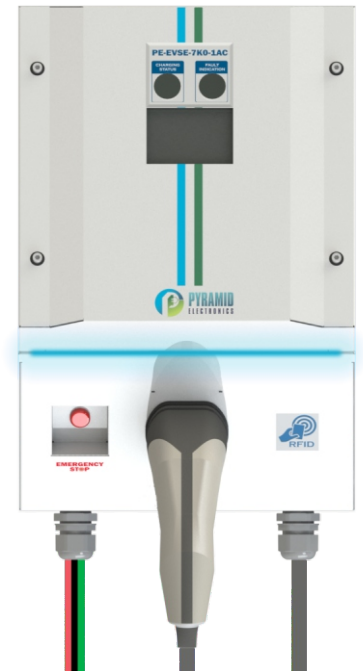
Pyramid EV Lite

High quality and cost effective charging for home, with connectivity to serve users, owners and operators!



Pyramid EV Plus

High quality and cost effective charging for malls and captive areas with connectivity to serve users, owners and operators!



It's Smart

The charger is compatible with OCPP 1.6, upgradable to 2.0, and capable of managing dynamic grid load and varying demand.

It's Stylish

The compact stainless steel structure makes Pyramid Electronics apart of the scenery without compromising on toughness and durability

It's Controllable

Our user-friendly app allows you to monitor charging and lock or unlock the charger for others. All data is recorded on a secured cloud.

It's Safe

The charger has built-in residual current monitoring and over current protection that allows working in improper earthing conditions and ensures user safety.

Input Power		
Input Voltage (AC) 230VAC (L-N) + 10% or -6 % for 7.4 KW 400 VAC (L-L) + 10% or -6% for 11 KW & 22 KW	Frequency 50 Hz	Wires 3 Wire, L, N, PE for 7.4 KW 5 Wire: R, Y, B, N, PE for 11 KW & 22 KW
Output Power		
Number of Outputs 1 number	Output Connector Type 2 for 7.4 KW IEC 62196 Type 2 for 11 KW & 22 KW	Output Current Control 32 Amp for 7.4 KW Max. 16 A for 11 KW Max. 32 A for 22 KW
Environment		
Operating Temperature -25°C to 55°C	Storage Temperature -25°C to 80°C	
Altitude Upto 2500 meters	Humidity 5% to 95%, non-condensing	
User Interface & Control		
Display Screen 3.5" TFT LCD Touch-Screen	Languages Supported English	Push Buttons Emergency Stop
User Authentication Remote start using mobile app/ OTP/ RFID Card (All three as per OCPP 1.6 J protocol)	Visual Indication Charging and Fault Indication via LEDs, complete charging info including SOC, remaining time to charge, energy consumption etc. on HMI	Payment Energy consumption information sent to CMS (as per OCPP 1.6 J). Actual payment is taken care by the CMS
Protection		
Protection Over Voltage, Under Voltage, Over Current, Surge Protection Device, Reverse Polarity Protection, Emergency Shut down, NE (Neutral-Earth) Voltage Tripping, In built RCMU		
Communication		
Charger and Electric Vehicle IEC 61851- 1	Charger and CMS OCPP v1.6 J / 100 Base-T Ethernet / GSM Modem (4G) / Wi-Fi	
Mechanical		
Cable Length 5 meters	IP Rating / Cooling IP-54 / Natural Air Cooling	
Structure Stainless Steel	Dimensions (mm) 430 (L) X 200(W) X 550(H) for 7.4 KW 450 (L) X 200(W) X 600(H) for 11 KW & 22 KW	



DC Charger (CCS-2)

15 KW

Public EV Charger

30 KW

Public EV Charger

60 KW

Public EV Charger

Pyramid EV Pro

This includes charging and serviceability for the public and semi-public environments with connectivity to serve users, owners and operators!



It's Smart



OCPP 1.6 (can be upgraded to OCPP 2.0) and dynamic load management are basic features of Pyramid Electronics.

It's Tough

The stainless steel structure of Pyramid Electronics guarantees durability for both the weather (IP54) and external impacts (IK10).



It's Flexible



Agile factory commissioning to back-end system and wide range of customer tailoring make Pyramid Electronics most suitable selection.

It's Safe

Pyramid Electronics Chargers have built-in residual current monitoring and over current protection. This guarantees user safety and also allows compact installation.



Input Power		
Input Voltage (AC) 3 Phase, 415 VAC + 10% or -6%	Frequency 50 Hz	Wires 5 Wire AC System (3Ph, N, PE)
THD < 5% of Nominal Voltage	Power Factor > 0.99 (Full Load)	
Output Power		
Number of Outputs 1 number for 15 KW 1 or 2 Number (as per choice) for 30 KW & 60 KW	Output Connector CCS2 (GB/T or CHAdEMO on Demand) for 15 KW & 30 KW CCS2 for 60 KW	
DC Output Voltage 100V - 500V DC for 15 KW 200V - 1000V DC for 30 & 60 KW	Efficiency > 95%	
Environment		
Operating Temperature -10°C to 55°C for 15 KW & 30 KW -25°C to 55°C for 60 KW	Storage Temperature -20°C to 80°C for 15 KW & 30 KW -25°C to 80°C for 60 KW	
Altitude Upto 3500 meters	Humidity 5% to 95%, non-condensing	
User Interface & Control		
Display Screen 7" TFT LCD Touch-Screen for 15 KW & 30 KW 10" TFT LCD Touch-Screen for 60 KW	Languages Supported English	Push Buttons Mushroom Type Emergency Stop
User Authentication Remote start using mobile app/ OTP/ RFID Card (All three as per OCPP 1.6 J protocol)	Visual Indication Charging & Input Supply Indication via LEDs, complete charging info including SOC, remaining time to charge, energy consumption etc. on HMI	Payment Energy consumption information sent to CMS (as per OCPP 1.6 J). Actual payment is taken care by the CMS
Protection		
Protection Over Voltage, Under Voltage, Over Current, Surge Protection Device, Reverse Polarity Protection, Emergency Shut down, NE (Neutral-Earth) Voltage Tripping, In built RCMU		
Communication		
Charger and Electric Vehicle As per DIN SPEC 70121/ ISO 15118-2 and ISO 15118-3	Charger and CMS OCPP v1.6 J / 100 Base-T Ethernet / GSM Modem (4G) / Wi-Fi	
Mechanical		
Cable Length 5 meters	IP Rating / Cooling IP-54 / Forced or Natural Air Cooling for 15 KW, 30 KW & 60 KW	
Structure Stainless Steel for 15 KW, 30 KW & 60 KW	Dimensions (mm) 675 (L) X 400 (W) X 1250 (H) for 15 KW & 30 KW 875 (L) X 500 (W) X 1550 (H) for 60 KW	
Power Backup		
Input Supply Failure 30 minutes for Control System and Billing Unit		



Pyramid EV Infra

Charger Management System

- 01** | Essential component of an electric vehicle (EV) charging infrastructure. It is a software platform that connects and manages all the EV charging stations in a network.
- 02** | The CMS allows operators to monitor the status of charging stations, remotely manage and control them, and handle payment transactions.
- 03** | Charging station owners and operators can also monitor energy usage and optimize charging schedules to reduce costs and improve efficiency.
- 04** | Real-time data on usage, billing, and other metrics help EV charging providers make informed decisions about the deployment and management of charging stations.

Visualize Charging Station Status

Get visual information about chargers being available, unavailable, charging, suspended and fault state as well as groupings and consumption graphs.



Manage users and Charging Stations

With EV Manager it is possible to add, edit and authorize users as well as charging stations easily.



Report Consumption

Create user-based consumption reports. Reports user-specific consumption data or charging point usage between desired dates.



Remote Control

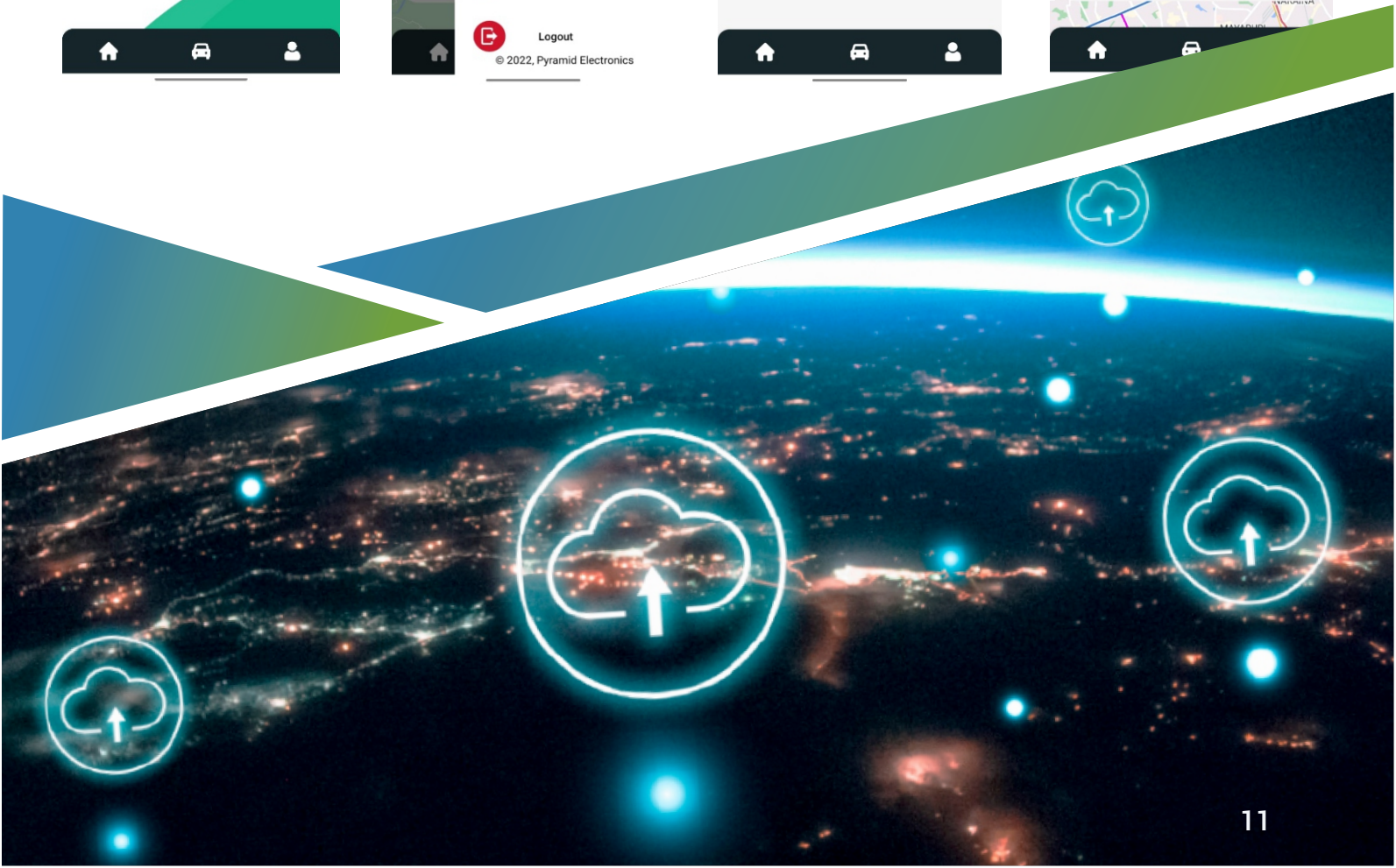
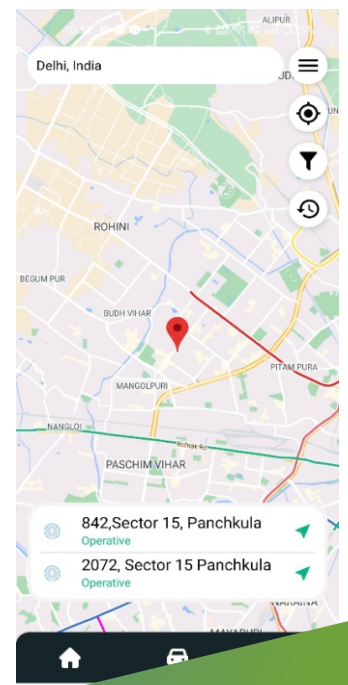
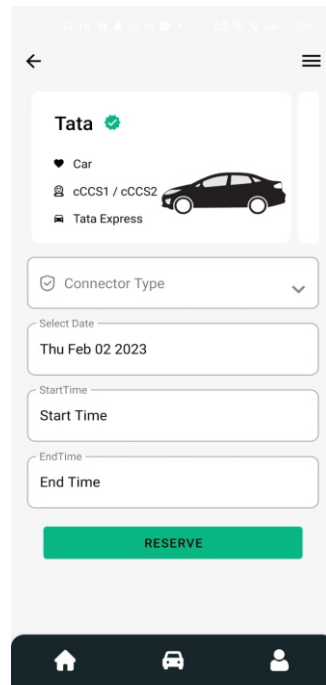
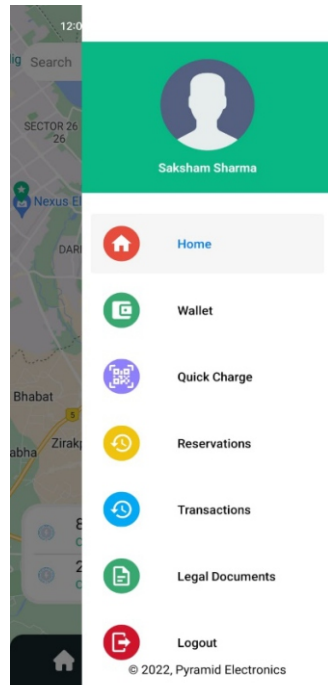
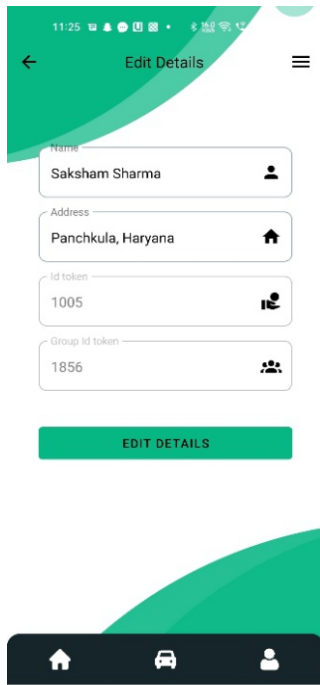
Control Charging Stations remotely and perform functions like start/stop charging, release cable, reset and get diagnostics. Solve basic faults like tripped RCD or stuck charging cable remotely.



Pyramid EV Charge App

(Android and iOS)

With our app, you can find and reserve available chargers, track your charging progress, and even pay for your session all from your phone. Say goodbye to the hassle of searching for available chargers or carrying around multiple charging cards - our app puts everything you need right at your fingertips. Plus, you'll get real-time updates on your charging session and can even set up notifications to let you know when your car is fully charged.



Features

+ Flexibility

Our charging stations support all key standards including Bharat DC001 EV Standard, CCS2, and CHAdeMO. Additionally, they support both Low Voltage and High Voltage battery platforms.

+ Intelligent

We make use of high-efficiency rectifiers, Silicon carbide FETs, and smart charging algorithms. Load balancing enables intelligent and efficient charging at all times.

+ Ease of use

All of our chargers come with an easy-to-use UI and are available in various capacities ranging from 15 KW to 240 KW, making them suitable for all types of electric vehicles.

+ Innovation

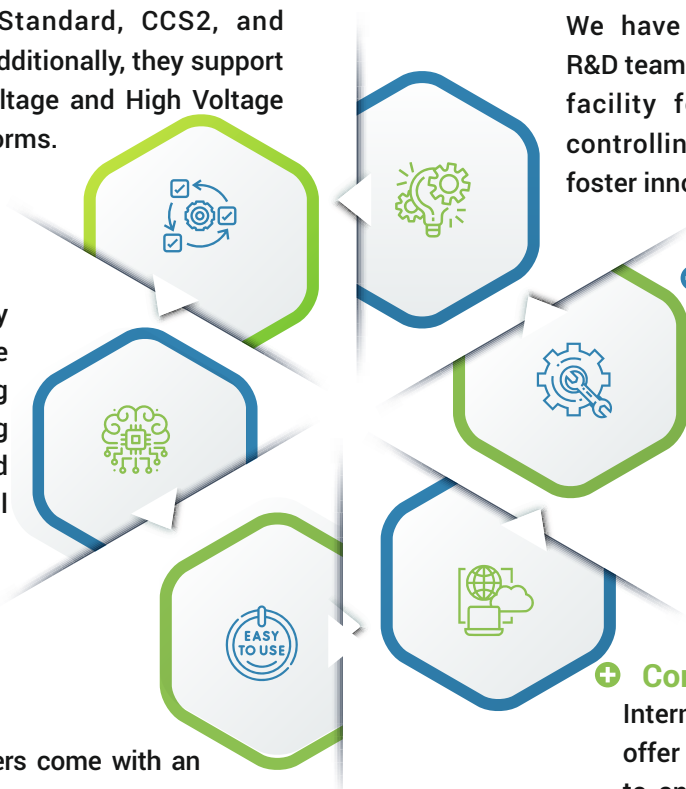
We have a comprehensive R&D team and manufacturing facility for designing and controlling components to foster innovation.

+ Low Maintenance

Our Help Desk, availability of Pan India service support, remote diagnostics, and upgrades allow for hassle-free operations of all charging stations.

+ Connected

Internet-connected chargers offer flexibility to connect to any back-office payment platform and to energy management solution.



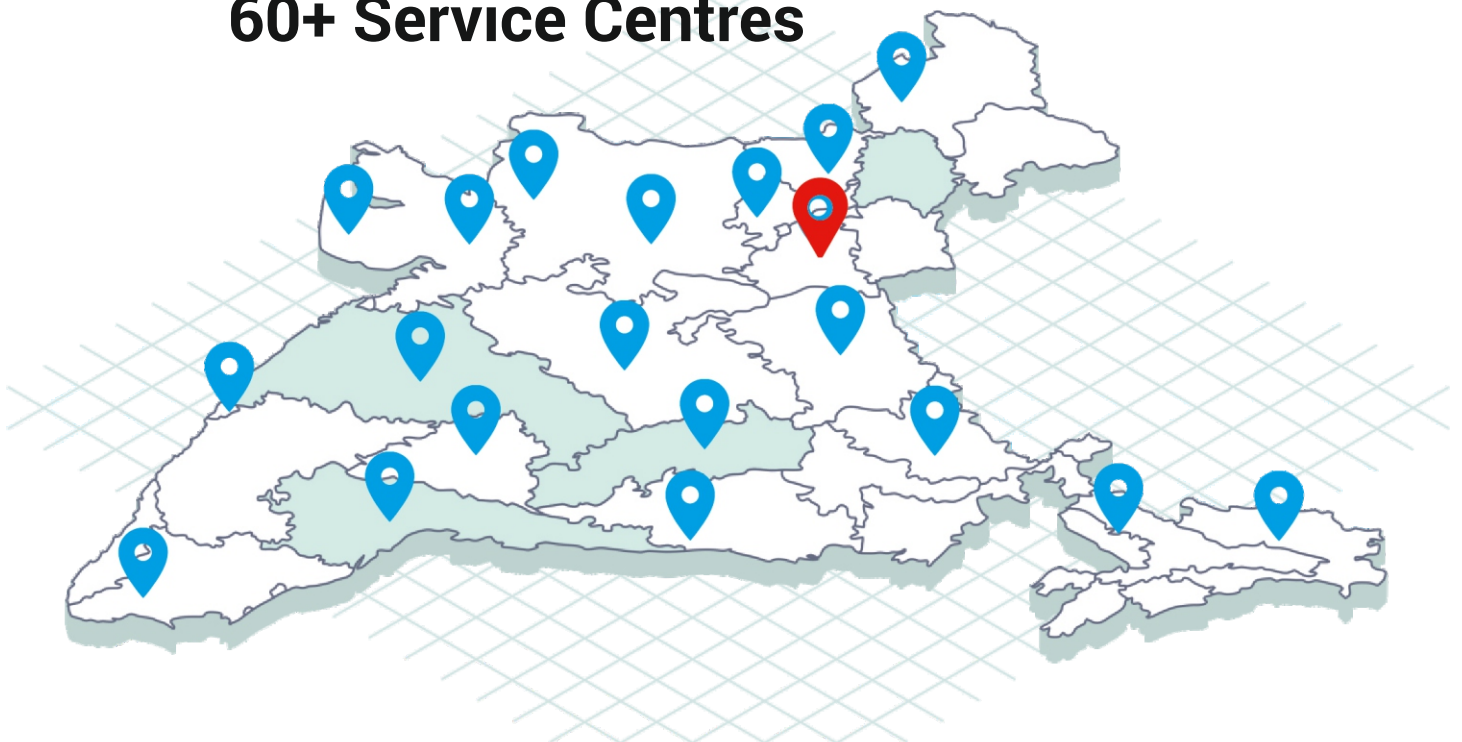
Customer Support

At Pyramid Electronics, we understand that exceptional customer service is key to our success. Our team of dedicated professionals is here to help you every step of the way, from selecting the right charger to installation and ongoing support. We are proud to offer exceptional customer service, and we are always available to answer your questions or address any concerns you may have.



Our commitment to customer satisfaction extends beyond the purchase of our chargers. We offer comprehensive training and support to ensure that you and your customers have a positive experience using our chargers. We provide ongoing maintenance and support services to ensure that your chargers are always up and running.

60+ Service Centres



Pan India Service Network

Sustainable & Green Future



**GET IN
TOUCH !**



Head Office:

486, Industrial Area, Phase-1,
Panchkula, Haryana-134113, India

(+91)-172-2584401

Manufacturing Unit I :

Plot No. 36, Sector-5,
Parwanoo, H.P-173220

Manufacturing Unit II :

401-404, Village Snade,
Nalagarh, H.P-174101

Contact Us:

+91- 99888-88767 | +91- 70424-72656

sales@pyramidelectronics.in

www.pyramidelectronics.in