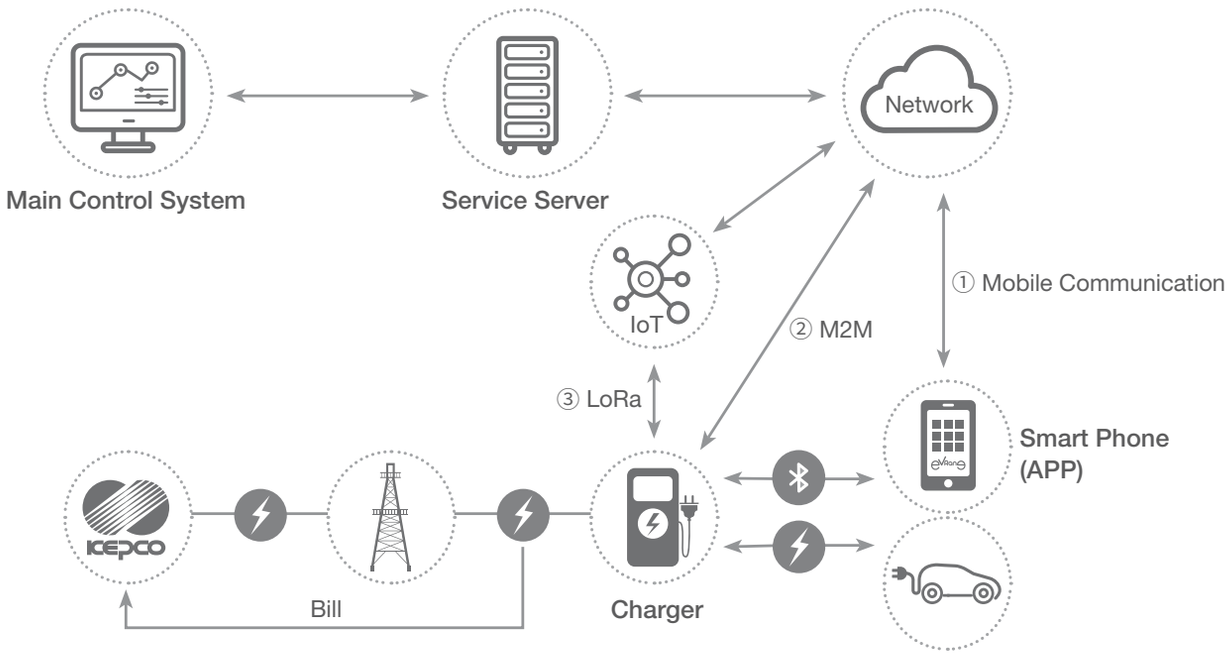
eVRang 이비랑 Charging Service Diagram



Main Control System
- Management of Chargers & Users

Service Server
- User Authentication
- Charging & Payment
- Charging Information
- Charger Location

Charger
- Various Interfaces
- Power Supply Control
- Payment System Included

APP
- Charging History
- Charger Location
- Payment System
- Smart Charging Function

“ Visit our social network services.”

이카플러그 ecarPlug @ecarplug_kr

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ecarPlug
(주)이카플러그

Easy to use the EV Charging Infrastructure

A+++

Anytime
Anywhere
Anyone

Company Information

ecarPlug Co. Ltd. focuses on electric vehicle charging system and related businesses based on ICT technology including slow/fast charging devices. Our main products are On Board Charger(OBC), Energy Storage System(ESS), Uninterruptible Power Supply(UPS), Battery Management System(BMS).
eVRang electric vehicle charger is the world first new concept model that smartphones control, measure, and pay throughout end-to-end charging process.
We cooperate global electic vehicle manufacturers, top charging service providers, and Korean Government, the Ministry of Environment, as an official service provider.
We, ecarPlug will contribute to growth of EV and the related industry by introducing new concepts of electric charging and management service/system continuously based on our top notch ICT capability in the future.

Company Profile

2021

- Acquiring Green Technology Certification
- Selection of Management Innovation Small and Medium Business (Main-Biz)
- Contract to establish a local subsidiary in India

2020

- Certified for ISO Authentication
- Elected as “Industrial Convergence Company” by Korea National Industrial Convergence Center
- Elected as “Inno-Biz” by Ministry of SMEs and Startups
- Opened a German branch in Frankfurt
- Opened a High-speed EV Charging Station (West Gong-ju IC Restaurant, Myoung-Shin Inc.)

2019

- Exports of EVSE(initial samples) to the United States and India
- Registered as an electric vehicle charging service by Business of Ministry of Environment
- Registered as a partner in POSCO E&C(Engineering & Construction)
- Register of new electric service provider
- Attend 2019CES(Las Vegas, USA)

2018

- Registered as a leading industrial convergence item and leading company in 2018
- Registered as a partner in Daewoo Development

2017

- Acquiring Green Technology Certification
- Licensed for electric construction business
- Certified for Venture Company

2016

- 2016 Industrial Convergence Achievement Award Winner of the Ministry of Trade, Industry and Energy
- 2016 Korean Best Technology Award Winner of Minister of Trade, Industry and Energy
- Registering for R&D institution

2015

- Signed MOU with Seoul Metropolitan Government to establish charging infrastructure
- Established ecarPlug Co., Ltd.

Business Information

EV Charger Development & Manufacturing

- Fast Charger
- Slow Charger
- Portable Charger
- Streetlamp Charger
- Charger Socket

Electrical Construction Business

- Electrical Construction for EV Charger

Charging Platform Business

- Development for Charging Service Solution
- ICT Business
- EV Charging Service
- ESS

Software Development

- Various type of EV Charger
- Mobile Applications(APP)
- Charging Payment System
- Main Control System(Server)

Patent / Certification

[Authentication]

- Venture Business Certification
- Electric Work Certification
- Electric Utility Certification
- Factory Registration Certification
- Smart Grid Certification
- Green Technology Certification
- Quality Certification
- Risk Assessment Certification
- KC Certification
- Examination of Conformity Assessemnt for Broadcasting Communication Equipment Certification
- Electromagnetic Compatibility Certification
- Wireless Electromagnetic Compatibility Certification
- CE, RoHS Certification
- ISO Authentication Certification
- Inno-Biz Certification
- And many others

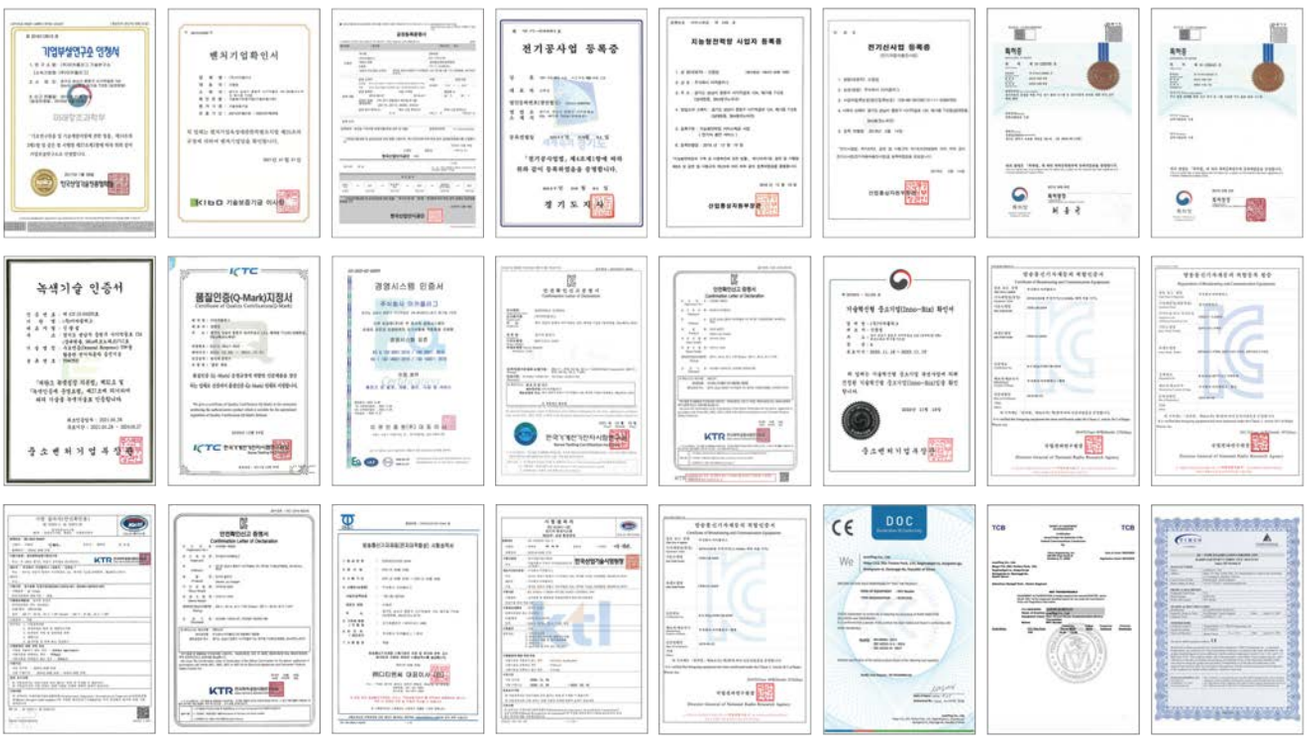
[Award]

- 2016 Outstanding Award of Korea Technology by Ministry of Trade, Industry and Energy
- 2016 Merit of Industrial Convergence by Ministry of Trade, Industry and Energy
- 2019 Leader for Economic and Industrial Sector by Ministry of Trade, Industry and Energy

[Patent]

- Earth Leakage Breaker Recovery Patent registration(10-2034675)
- Communication path multiplexing device and method patent registration(10-19539901)

* Company patent



Slow Charger

AC Single-phase 220V, 7kW / 14kW

Wall/Stand type
(Stand Option)

CPT Model (Public / Non-public)

- User-friendly product design
- Operate charger control system by smart phone
- Real-time information on location, status and payment
- Single or Dual charger support system(7kW/14kW Option)
- User Interface: LED Status, Voice guidance information, RFID, Smart phone APP.
- Earth leakage breaker recovery function*
- Support dual connections through mobile modem and mobile phone (APP.) in parallel*
- Dimensions: 420mm(D) x 150mm(H)

Wall/Stand type
(Stand Option)

BKx Series

- On-site payment can be made to a credit card
- Included modem
- Real-time management by evRang main control system
- Informative user interface with a color display pannel
- Select the mode(7kW/14kW Option)
- User Interface: 7" Color LCD, LED Status, Voice guidance information, RFID, Smart phone APP.
- Earth leakage breaker recovery function*
- Support dual connections through mobile modem and mobile phone (APP.) in parallel*
- Dimensions: 400mm(W) x 520mm(H) x 160mm(D)

Wall/Stand type
(Stand Option)

TYH Model

- Control all functions using smart phone
- Support scheduled charging function
- Suitable for home or private users
- User authorization & Charging control system
  - RFID card
  - Smart phone(Bluetooth connection)
- Auto charging mode support
- Easy power recovery by external earth leakage breaker
- Dimensions: 211mm(W) x 345mm(H) x 122mm(D)

Quick Charger

AC 3-phase 380V, 50kW / 100kW

EPF Series

- Ergonomic design
- Parallel operation and power sharing of power module
  - Esay capacity change
  - Highly reliabile operation in a parallel connection
- High tolerance in wide ranges of temperature and humidity
- Capable of limiting charging capacity depending input power
- Anti-rust coating of main body
- Simultaneous charging(option)
- Support DC Combo and DC CHAdeMO
- User Interface: 12" color touch LCD, Smart phone APP.
- Payment System: RFID, Smart phone APP., Credit card
- Support dual connections through mobile modem and mobile phone(APP.) in parallel*
- Dimensions: 750mm(W) x 1700mm(H) x 300mm(D)

SPV Series

- Auto brightness control of LCD panel(day/night)
- High tolerance in wide ranges of temperature and humidity
- Capable of limiting charging capacity depending input power
- Public / non-public available
  - Public connection to evRang main control system
  - Non-public connection to local control system or to private mobile
- Anti-rust coating of main body
- Stmultaneous charging(option)
- User Interface: 12" color touch LCD, Smart phone APP.
- Payment System: RFID, Smart phone APP., Credit card
- Redundancy of communication networks to secure confidence in charging infrastructure*
- Dimensions: 550mm(W) x 1750mm(H) x 850mm(D)

LPx Series

AC Single-phase 220V, 3.3kW(Socket Charger), 3.5kW/7kW(Light pole charger)

Socket Charger

- Can be used for all e-mobility including electric vehicles
- Easy product installation by securing parking lot
- Control all functions using smart phone
- Prevetion of "electicity theft" by authorization
- Compatible to all types of portable chargers
- Independent operation(local) or connected to central control system
- Robust design against external impact
- User interface: RFID, status display OLED, smartphone APP.
- Support dual connections through mobile modem and mobile phone (APP.) in parallel*
- Dimensions: 110mm(W) x 260mm(H) x 85mm(D)

Light pole charger

- Structure that is easy to install on a street lamp pole
- Control all functions using smart phone
- Smart App.-based charging change management
- Independent operation(local) or connected to central control system
- B-type Socket outlet
- High tolerance in wide ranges of temperature and humidity
- User Interface: RFID, status display OLED, Smart Phone APP.
- Robust design against external impact
- Support dual connections through mobile modem and mobile phone (APP.) in parallel*
- Dimensions: 110mm(W) x 325mm(H) x 100mm(D)

Portable Charger

AC Single-phase 220V, 3.5kW

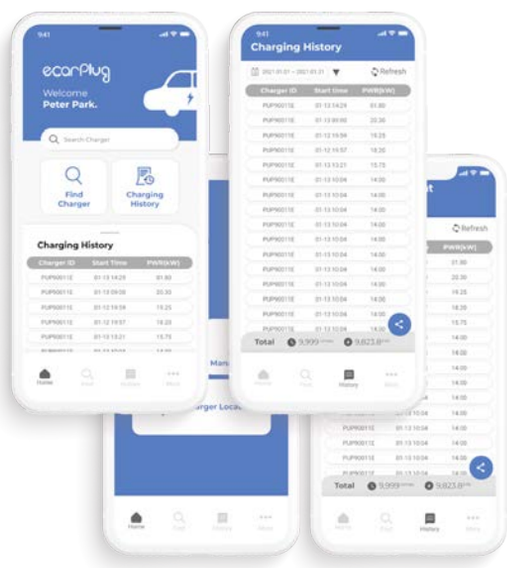
KPV Series

- Comfortable for charging and portability. Specially, for uninstalled area
- Support scheduled charging function
- Variable Charging Capacity Modulation
- Use as a home charger and personal charger using a non-public smartphone APP.
- User interface: 2-inch OLCD, smartphone APP.
- Dimensions: 380mm(W) x 80 mm(H) x 50mm(D)

Premium

Standard

Mobile App

Cloud mCharging Solution

- Searching and connecting to the charger on the mobile (at Bluetooth Mode)
- Selecting charging capacity (CPT, TYH Model, BKx, TYH, EPF, LPx, KPV Series)
- Simulating charging amount by the range of the time (Simulation Mode)
- Setting start time to the APP.(Smart Charging Function)
- After charging, uploading the charging data to the Cloud Server through mobile APP.(Cloud mCharge Solution)
- Storing the charging history in user's mobile and the Cloud Server