Leading the way in eco-friendly cities with top-quality products

moderntec

moderntec

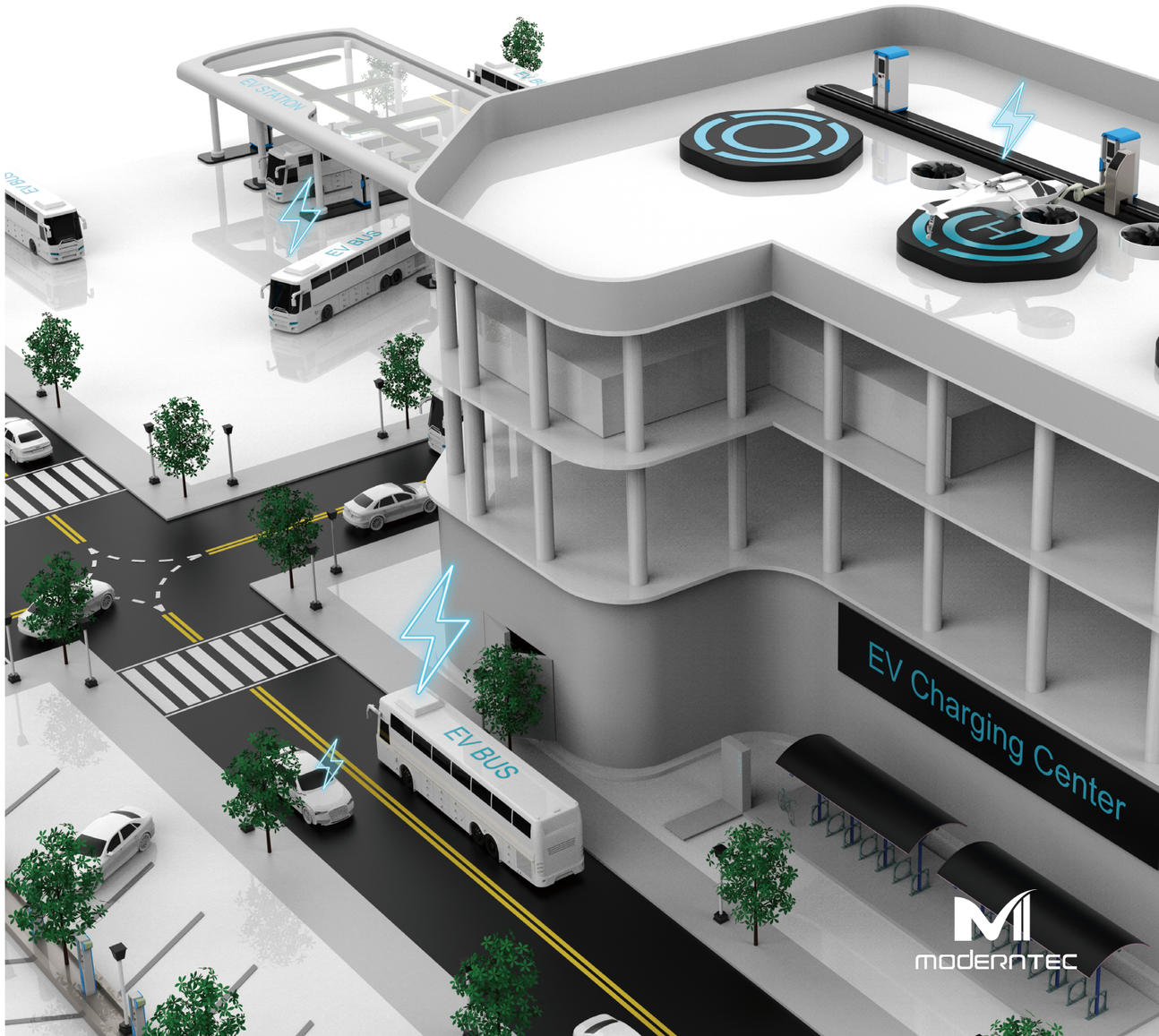
Moderntec Co., Ltd.

www.moderntec.kr | +82-55-604-1860

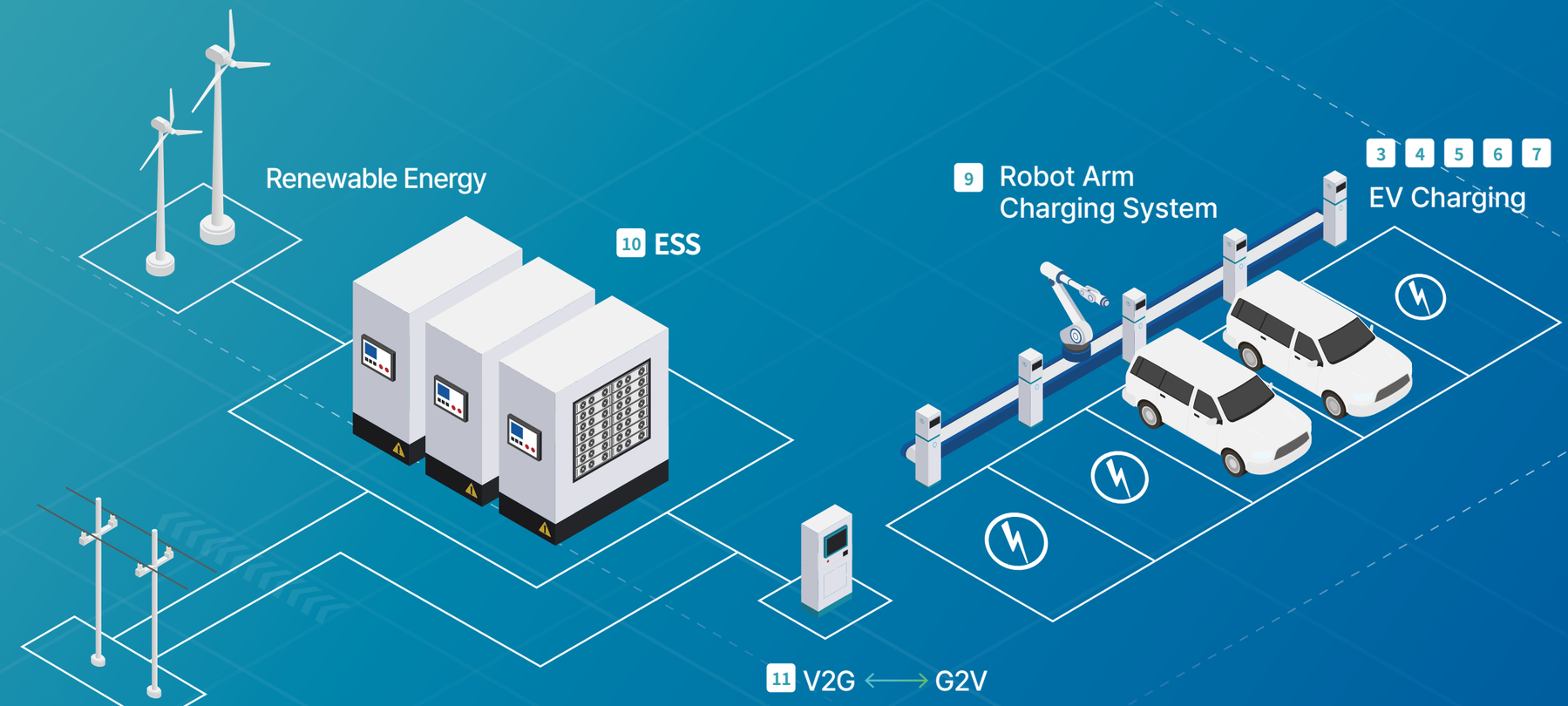
HQ 4F, Green Building, 12, Sogye-ro, Uichang-gu, Changwon-si, Gyeongsangnam-do

Seoul Office (Magok) 6F, 39, Magokjungang 2-ro, Gangseo-gu, Seoul

Seoul Office (Gangnam) 4F, 45, Teheran-ro 87-gil, Gangnam-gu, Seoul



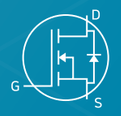
SMART ENERGY SOLUTION

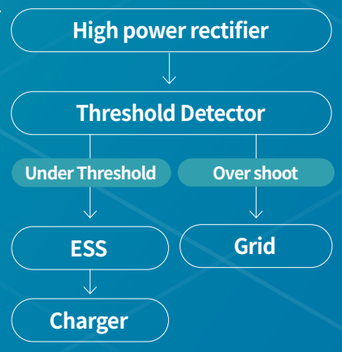


Patents & Other Stand-out Points

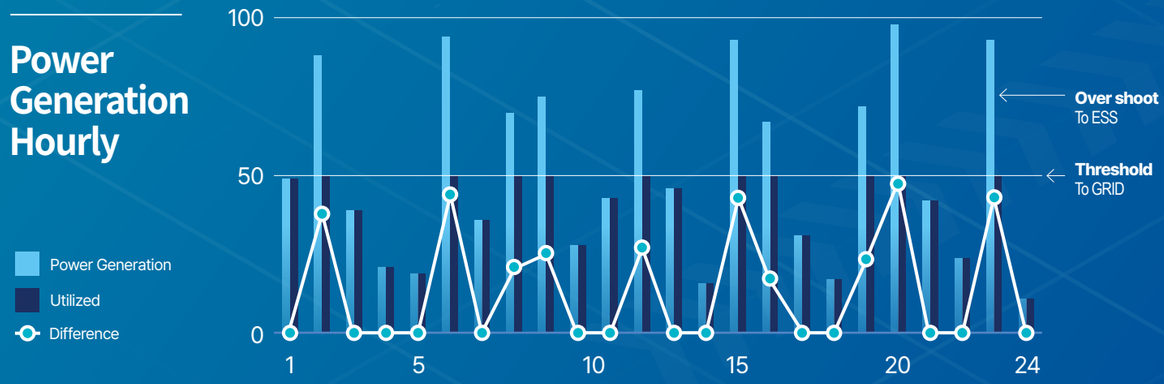
1. Distribute power by fine configurations of total power capacity
2. Small footprint and sleek design with power cabinet and dispenser separated
3. A unit of charger charges more than one car simultaneously (NET Certified)
4. A unit of charger gives various charging options (Fast/Middle/Slow)
5. Replaceable charging connectors for vehicles with different charging types
6. Schedule a charging start time and get billed for lowest electricity cost
7. Reserve consecutive chargings for fleet operators
8. SiC system applied
9. Robot Arm Charging System
10. ESS-linked charging system
11. V2G bidirectional charging technology

SiC based system





Power Generation Hourly

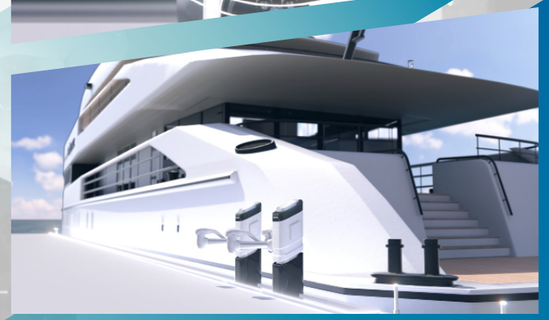


PRODUCT LINE-UP

CHARGING CONTROLLED TO REACT TO BATTERY CAPACITY
FLEXIBLE TO ACCOMMODATE VARIOUS E-MOBILITY

Leading ecofriendly city with best quality products

MODERNTEC

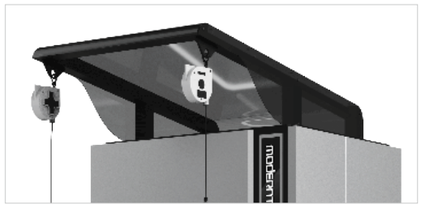


SLOW CHARGER

	MC-7KC-R-1	MC-7KBC-C-3
Size	155(W) * 100(D) * 280(H) [mm]	280(W) * 160(D) * 480(H) [mm]
UI	3 inch OLED	8 inch LCD touch display
OS	Linux	Linux
Payment	RFID / APP	RFID / IC-CARD
Temperature	-25~50 C	-25~50 C
Humidity	≤95%	≤95%
IP	IP 44	IP 44
Input	220VAC 60Hz, 7kW	220VAC 60Hz, 7kW
Output	C Type : 220VAC 60Hz, 7kW	B/C Type : 220VAC 60Hz, 7kW
Efficiency	>95%	>95%

FAST CHARGER

OPTIONAL



Roof + Cable lift

3 Port

	MC-IN60-2AB	MC-IN120-2AA
Size	600(W) * 570(D) * 1,710(H) [mm]	720(W) * 600(D) * 1,710(H) [mm]
UI	12.1 inch LCD touch display	12.1 inch LCD touch display
OS	Window 10	Window 10
Payment	RFID / IC-CARD	RFID / IC-CARD
Temperature	-25~50 C	-25~50 C
Humidity	≤95%	≤95%
IP	IP 44	IP 44
Charging Type	CCS1 + CHAdeMO (+AC)	CCS1+CCS1, CCS1
Input	380VAC 50/60Hz, 53kW 82A	380VAC 50/60Hz, 108kW 164A
Output	150~500VDC, 125A, 60kW	150~1,000VDC, 200A, 120kW
Efficiency	>95%	>95%
Optional	Voice support / Outdoor type	Cable lift

	MC-IN100-2AA	MC-IN200-2AA
Size	600(W) * 570(D) * 1,710(H) [mm]	720(W) * 600(D) * 1,710(H) [mm]
UI	24 inch LCD touch display	24 inch LCD touch display
OS	Window 10	Window 10
Payment	RFID / IC-CARD / APP	RFID / IC-CARD / APP
Temperature	-25~50 C	-25~50 C
Humidity	≤95%	≤95%
IP	IP 44	IP 44
Charging Type	CCS1 (+ CCS1)	CCS1 (+ CCS1)
Input	380VAC 50/60Hz	380VAC 50/60Hz
Output	150~1,000VDC, 120A, 100kW	150~1,000VDC, 240A, 200kW
Efficiency	>95%	>95%
Optional	Voice support / Outdoor type	Cable lift

SEPARATE CHARGER Power Bank

The First Korean Company
To Earn Patent For
Power Distribution Technology

	120kW Power Distribution Type	196kW Power Distribution Type
Size	900(W) X 750(D) X 1700(H)	800(W) * 910(D) * 1900(H) [mm]
Temperature	-25~50 C	-25~50 C
Humidity	≤95%	≤95%
IP	IP 44	IP 44
Input	380VAC 50/60Hz	380VAC 50/60Hz
Output	max. 120kw	max. 196kw
Efficiency	>95%	>95%
Channel	4CH	2CH

The First Korean Company
To Earn Patent For
Power Distribution Technology

	240kW Power Distribution Type	360kW Power Distribution Type
Size	900(W) X 750(D) X 1700(H)	1114(W) * 910(D) * 1900(H) [mm]
Temperature	-25~50 C	-25~50 C
Humidity	≤95%	≤95%
IP	IP 44	IP 44
Input	380VAC 50/60Hz	380VAC 50/60Hz
Output	max. 240kw	max. 360kw
Efficiency	>95%	>95%
Channel	2CH, 4CH, (+ AC 1CH)	4CH, 6CH

SEPARATE CHARGER **Dispenser**

The First Korean Company
To Earn Patent For
Power Distribution Technology

Up to 4 Dispensers for a Single Power Cabinet (8ch)

	Basic stand type	All-in-one type
Size	450(W) * 305(D) * 2,100(H) [mm]	450(W) * 250(D) * 1,600(H) [mm] with stand 450(W) * 250(D) * 500(H) [mm] without stand
UI	12.1 inch LCD touch display	-
OS	Window 10	-
Payment	RFID / IC-CARD / APP	APP / KIOSK(RFID / IC-CARD)
Temperature	-25~50 C	-25~50 C
Humidity	≤95%	≤95%
IP	IP 44	IP 54
Charging Type	CCS1, CCS2	CCS1, CCS2, GB Standard, ChAdeMO, NACS
Input	220VAC, 50/60Hz	-
Output	150~1,000VDC, 0~200A X 2 Port	- Up to 240kW per channel (120kW per channel if simultaneous charging) - 150 – 10000 VDC, 240AMP DC max
Installation	>95%	>95%
Efficiency	Stand -Type	(Stand / Wall / Roof) Type
Optional	Voice support	Outdoor type / Cable lift

ALL-IN-ONE CHARGER

Technology-intensive with both simultaneous/consecutive charging technology applied

All-in-one Tailored Charging Station

1 0kW ~ 360kW

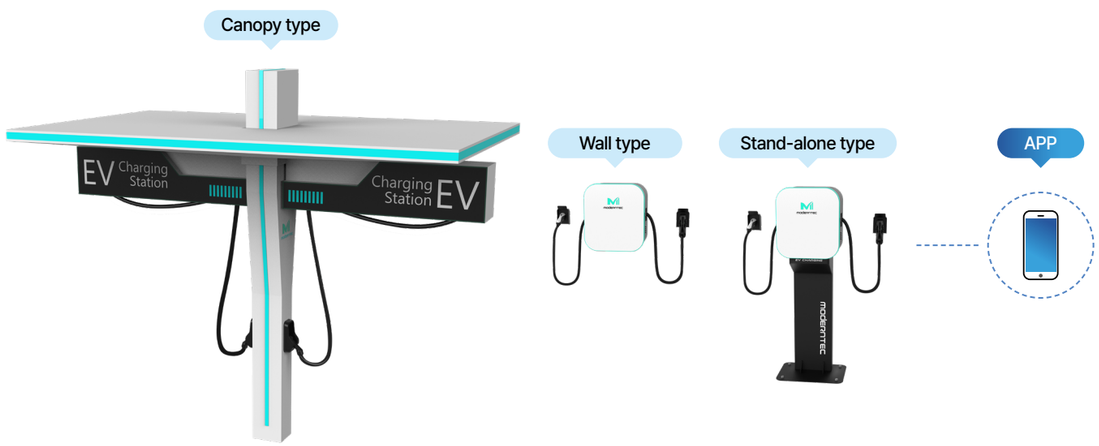
2 0kW ~ 360kW

- 0~360kW Dynamic power distribution
- LED charging status indicator
- Charging method changeable
- Easy payment and charging status checking service with application

| Korea Electric Power Corporation Jeju Branch

| logistics centers

Various types of chargers



SEPARATE CHARGER Dispenser

	Canopy type	Kiosk
Size	450(W) * 250(D) * 1,600(H) [mm] with stand 450(W) * 250(D) * 500(H) [mm] without stand	450(W) * 275(D) * 360(H) [mm]
UI	-	24 inch LCD touch display
OS	-	Window 10
Payment	APP / KIOSK(RFID / IC-CARD)	RFID / IC-CARD / APP
Temperature	-25~50 C	-25~50 C
Humidity	≤95%	≤95%
IP	IP 44	IP 44
Charging Type	CCS1 + CCS2	-
Input	220VAC(+PE) 60Hz	220VAC(+PE) 60Hz
Output	150~1,000VDC, 0~150A, 120kW	-
Installation	>95%	-
Efficiency	Size of the canopy may be different depending on the installation site environment	-
Optional	Outdoor type, Cable lift, Capacity Expansion	

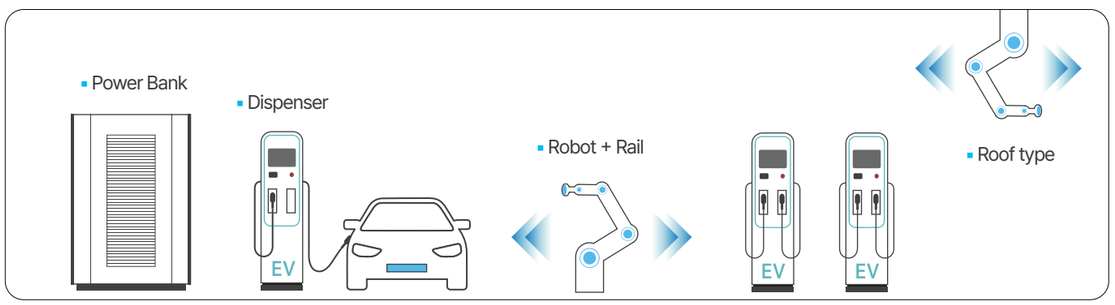
Robot Arm Charging System

	RACS
Robot	Co-Robot
Vision	Lidar sensor + 3D
Robot Rail	Fixed rail (ground/ceiling type)
Temperature	0~45 C
Humidity	≤95%
Payload	Max. 15kg (33lb)
Reach	Max. 1,300mm (51.1inch)
Tool Speed	1 m/s
Repeatability	±0.05mm

Shinbangwha subway station (Seoul)

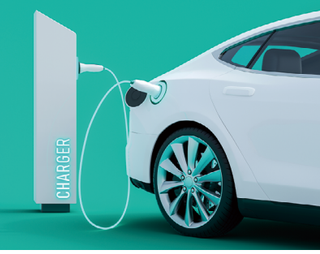
Presented at Dubai Expo

Robot Arm Charging System



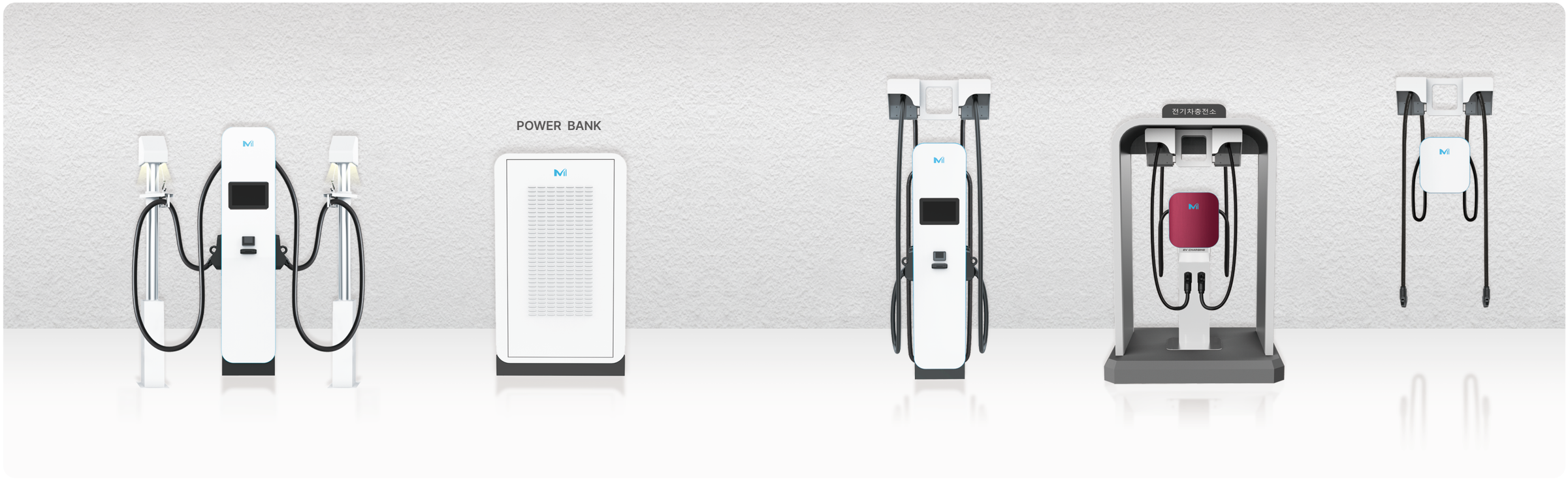
CABLE OPTION

Various options available for different installation environment



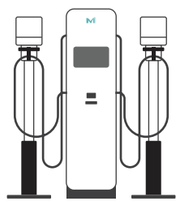
Cable Balance

Cable Winch

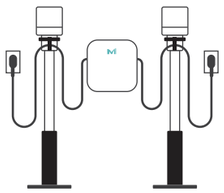


Options with Cable Balance

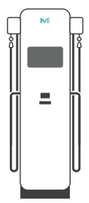
- Cable Balance + Dispenser



- Cable Balance + Wall Type Dispenser

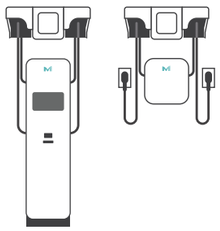


- Reel + Dispenser

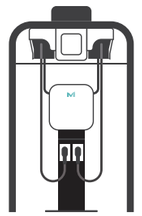


Options with Cable Winch

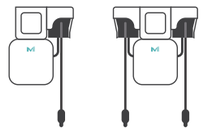
- Winch+Dispenser(Wall/Ceiling Type)



- Winch+Canopy+Dispenser



- Ceiling Type Winch + Dispenser (Integrated Type)



Truck + 1 port

Bus + 2 port

OTHER CHARGER

Battery Swapping System

	E-Scooter charger (8EA)
Size	1,050(W) * 950(D) * 1,500(H) [mm]
UI	7 inch LCD touch display
Temperature	-30~40 C
Humidity	≤95%
IP	IP 44
Input	220VAC 50/60Hz, 11kW 50A
Output	55VDC, 100A, 50kW
Efficiency	>94%
Optional	Expand slots

Mobile Charger

	Mobile charger
Size	750(W) * 650(D) * 650(H) [mm]
UI	7 inch LCD touch display
Temperature	-30~40 C
Humidity	≤95%
IP	IP 44
Input	220VAC 50/60Hz, 11kW 50A
Output	30~58VDC, 20A, 3~7kW
Efficiency	>94%
Optional	Gun change

V2G

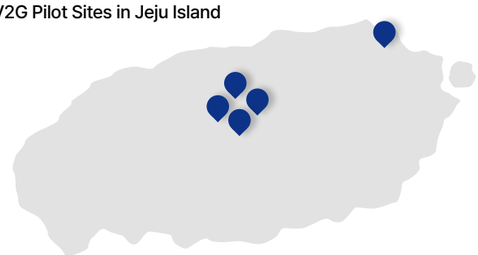
	Two way charger
Size	900(W) * 835(D) * 1,970(H) [mm]
UI	12.1 inch LCD touch display
Payment	RFID / IC-CARD
Temperature	-25~50 C
Humidity	≤95%
IP	IP 44
Charging Type	CCS1 (Charge/Discharge)
Input	380VAC 50/60Hz, 55kW 85A
Output	55VDC, 100A, 50kW
Optional	ESS linkage

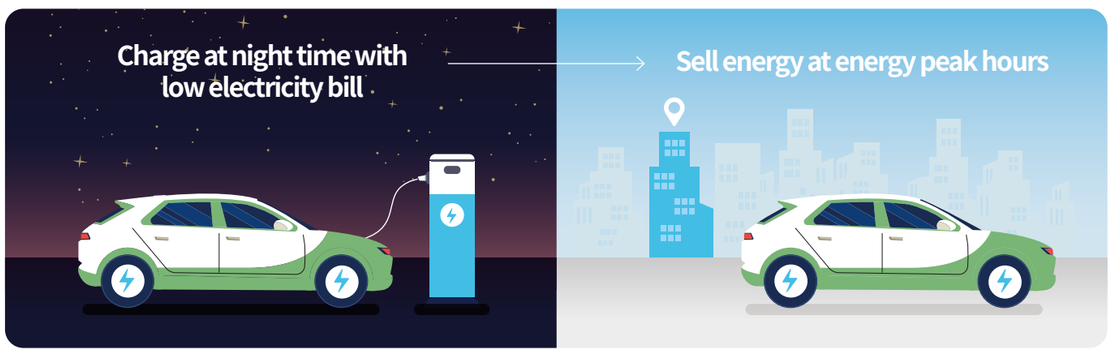
Pilot Site

Jeju Energy

Busan Eco Delta City

→ V2G Pilot Sites in Jeju Island





GENIE

Specialized in installing and maintaining EV chargers

Install/Trial-run/Maintain EV Chargers

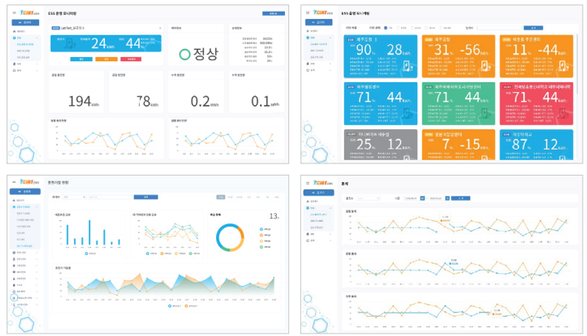
Genie Co., Ltd.

- Operate/Manage/Service 70 spots of Moderntec charging stations in Jeju Island

- Install/Trial-run EV chargers in Seoul, Gyeonggi, and Jeju island

Operate ev charging operation platform

- Operate OCPP 2.0.1-based control server



→ OCA-presented OCPP 2.0.1 standards applied
→ KOMVP (NIS's encryption system) module applied
→ Quantum cryptography based LTE gateway applied

- ECIRT EMS Protocol is being tested. It is an integrated control operation system that collects data from ESS EV Chargers to track the errors of the unit and increase the convenience of users. Currently, for testing, it is using ESS chargers in our lab.
- Integrated control monitoring system guarantees user convenience and stability by taking measures for any errors.

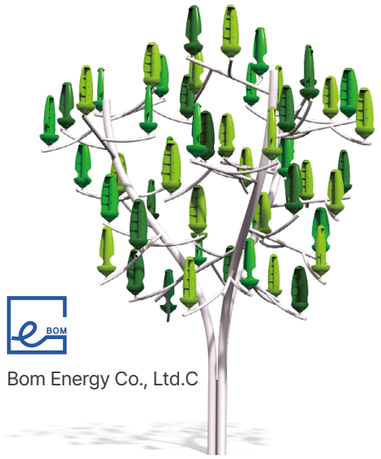
Pilot sites for ESS charging system

Patented in ESS-linked charging system

- Semiyang building in Jeju Science Park
- Park #4 parking lot in Jeju Science Park
- Digital convergence center in Jeju Technopark
- Lavawater center in Jeju Technopark
- Bioconvergence center in Jeju Technopark

Installed
To be installed

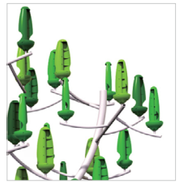
BOMENERGY WIND POWER GENERATOR



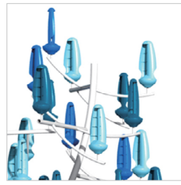
Bom Energy Co., Ltd.C

	Power Bank
Size	600(W) * 570(D) * 1,710(H) [mm]
600(W) * 570(D) * 1,710(H) [mm]	Max. power
Power per leaf	300W
Max. power	10,800W
Optional	Photovoltaic Petals

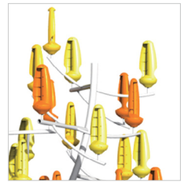
Leaf color



Green



Blue



Orange

Trunk color

White

Brown

Grey