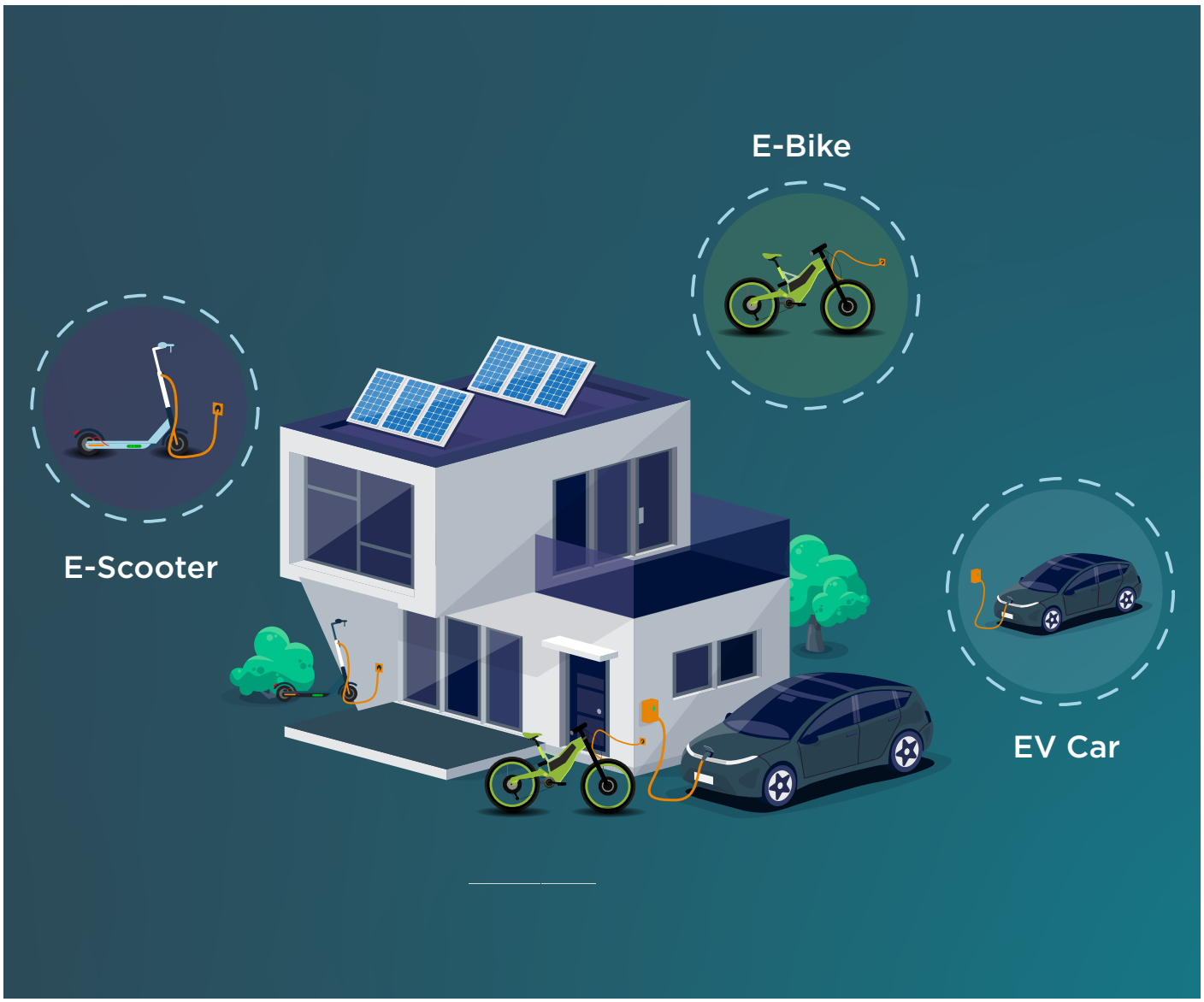


THE SMARTER WAY TO REFUEL

Energy Efficient Home Charging Station Product Solutions

LEADING THE

CHARGE

THE FUTURE OF HOME CHARGING

E-Bike Charger

Emergency EV Charger

E-Scooter Charger

EV Charger

LEVEL 1 CHARGING

LEVEL 2 CHARGING

ONLINE RESOURCES

TE.COM/EFFICIENT-HOME

E-MOBILITY LANDING PAGE

VIDEO

TE CONNECTIVITY HOME CHARGING SOLUTIONS

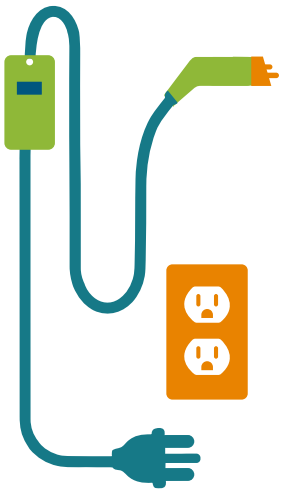
Clean energy is a journey, not a destination. Need help with energy efficient home solutions? Our team of experts are here to help you find the right connectivity solution.

CONTACT A SPECIALIST

THE FUTURE OF SMART TRANSPORTATION

Charging your ride has never been easier. With the popularity of electric vehicles (EVs) the global market is steadily growing towards sustainable transportation. In urban areas, consumers are looking for ways to get around beyond public transportation and are relying more on e-bikes and e-scooters to get them from place to place. As consumers continue to buy into micromobility technology and this form of transportation becomes commonplace, the need for charging infrastructure will increase. The expectation is for consumers to bring charging to the home.

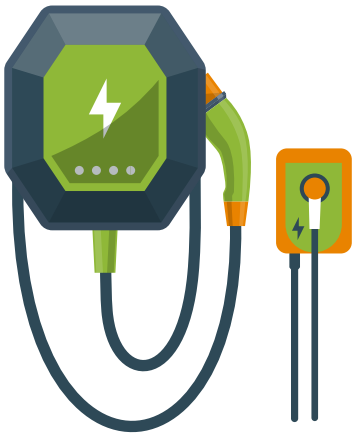
The growing worldwide need for a faster, safer, smaller, and more flexible charging infrastructure has created design challenges for engineers. The future is electric! TE Connectivity (TE) offers a robust portfolio of components to face the challenges of this electric future and to fit the diverse needs of AC chargers on a global basis, no matter what their power level or charging speed requirements.



Level 1 Charger

Application	Electric Vehicle (EV) / e-bike / e-scooter
Connection	Electrical source from a regular home outlet
Charging Time	2-5 miles of range per 1 hour of charging
Voltage	110VAC

Level 1 chargers: Automakers typically supply a small, portable charger with each electric vehicle. These types of chargers are known as electric vehicle service equipment or supply equipment (EVSEs) for slower charging. E-bike innovations include removable batteries you can charge at home, dual batteries to increase range time, and smartphone charging. These e-bike technology advancements allow riders to enjoy the journey rather than worrying about stopping for a power up. Charging your ride has never been easier with TE's reliable component solutions that meet government safety regulations and answer the challenges engineers face today.



Level 2 Charger

Application	Electric vehicle (EV)
Connection	Electrical source from a regular home dryer outlet or home hardwire
Charging Time	25 miles per hour
Voltage	220-240VAC

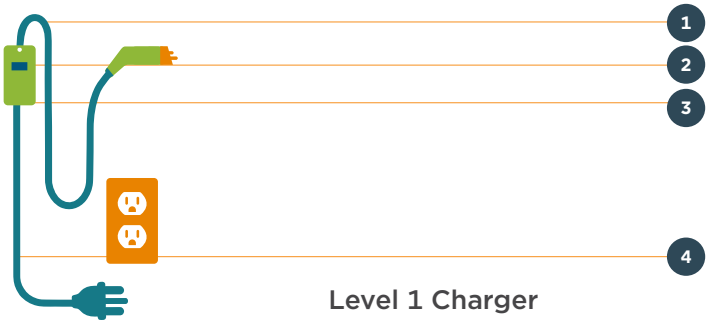
Level 2 chargers: Level 2 charging is considered a medium charging speed, with 25 miles replenished per hour. These charges are sold separately from the car and require a slightly more complicated setup as they are plugged into a 220V-240V outlet. The control box is integrated directly into a dedicated charging point outside the home or inside the garage. An advantage of home charging is the low cost of residential electricity compared to the cost of public charging stations and the cost of gas.

As e-bikes, e-scooters, and electric vehicles (EVs) grow in popularity and become a part of daily life, the demand for in-home micromobility charging stations that work for multiple types of vehicles will increase. TE Connectivity (TE) has the solutions and expertise that engineers will need to answer the challenges of complex designs for next generation charging stations.

DESIGN CHALLENGES FOR ELECTRICAL HOME CHARGING STATIONS

Design Challenges		The TE Solution
 Power Capacity	Simultaneously charging two vehicles without overloading the electrical infrastructure or cause voltage fluctuation.	TE's **battery connector solutions** can accommodate customized terminal configurations for power and signal applications. Options for different current ratings are also available.
 Electrical Infrastructure Upgrades	Rewiring or increasing capacity of older home electrical panel.	**FASTON terminals** are designed to allow ease of assembly and offer advances in quick disconnect termination.
 Installation & Space Constraints	Space constraints and installing the necessary electrical connections.	**2.0mm Signal GRACE INERTIA connectors** present compact and reliable connections featuring an inertia locking mechanism that helps prevent unexpected disconnection or half-mating. **2.5mm Signal Double Lock connectors** offers secondary locking safety combined with IP67 rated sealing protection
 User Experience	Intuitive and user-friendly interface plus safety features like fault detection and proper grounding must be incorporated into the charging station to protect both vehicles and users.	**Economy Power 2.5 connectors** are designed for easy of assembly in tight spaces and have Glow Wire Tested (GWT) and V-0 options available. Offers mechanical and electrical reliability. **FASTON terminals** offer high contact stability and are available with high temperature and flame resistant housings.
 Cost & ROI	Needing a cost-effective, one stop shop	**AMPLIVAR terminals** reduce complexity and simplify processes to allow for lower applied cost. **FASTON terminals** 2D crimp allows one terminal and one applicator to accommodate many wire sizes, potentially reducing design-in, procurement, inventory and production cost.
 Regulations & Standards	Compliance with local regulations and industry standards is crucial for EV charging station design	**Economy Power 2.5 connectors** are compliant with Glow Wire Test (GWT) and UL 94 V-0 standards. **MTA 156 connectors** meet UL 94 V-0 flammability standard, are UL and CSA approved, and offer potential applied cost savings

E-MOBILITY CHARGER



Level 1 Charger

Level 1 chargers, while considered a slower method of charging, can be suitable for charging at home and at the workplace. Assuming a commute of less than 35 miles, Level 1 chargers can provide enough power to restore vehicle driving range for most EVs during a typical workday. With the convenience of plugging a Level 1 charger into a standard electrical outlet and the ability to charge both at home and at the office, EVs have become more appealing to commuters. The availability of charging stations will be considered a perk among places of employment. With a deep portfolio and the expertise to meet a variety of charging needs, TE Connectivity (TE) is the perfect partner for companies seeking to accommodate a greater number of EVs with additional charging stations.

CONNECTOR SOLUTIONS

Economy Power 2.5 Connectors

2 3

Micro MATE-N -LOK Connectors

2 3

MTA & SL 156 Connectors

2 3

Signal Double Lock Connectors

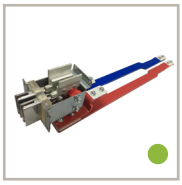
2 3

VAL-U-LOK Connectors

3

2.0mm Signal GRACE INERTIA Connectors

2



Power Busbar Connectors

3

RAPID LOCK Power Connectors

3

ICCON Portfolio Connectors

3

FPC Connectors

2

TERMINAL & SPLICES

Ring terminals & Spade Lugs

3

Pre-Insulated Diamond Grip Terminal & Splices

3 4

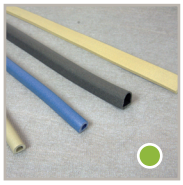
FASTON Terminals

1 3

HEAT SHRINK TUBING

Single Wall Heat Shrink Tubing (EVSW)

3 4

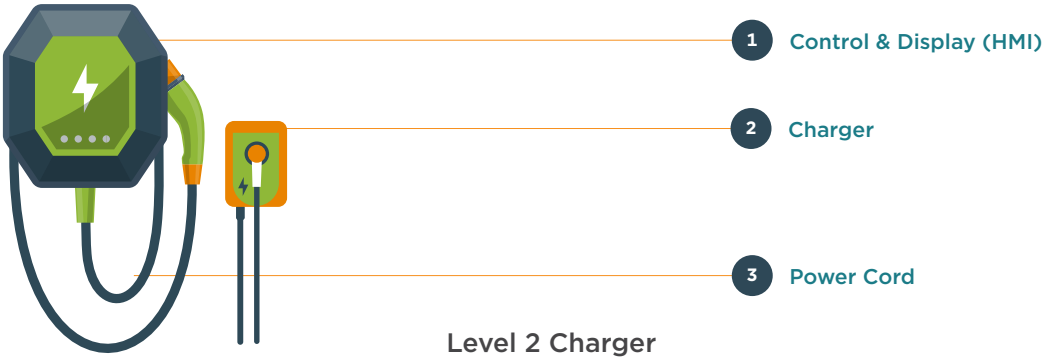


Conductive Elastomers EMI Shielding

2 3

New product

HOME EV CHARGER



Level 2 Charger

Level 2 charging stations offer a distinct advantage over Level 1 chargers — charging speed. Although they are considered medium speed, Level 2 chargers replenish a charge much faster than Level 1 chargers. Level 2 chargers must be physically installed and require a dedicated power supply, which can create a challenge in some environments. Many factors warrant consideration in the planning of an EV charging station, from hardware and installation to electricity consumption and demand charges. No matter the requirements, TE is a one-stop-shop for solutions that meet your EV charging station design needs.

CONNECTOR SOLUTIONS

Micro MATE-N -LOK Connectors

1 2

Signal Double Lock Connectors

1 2

Economy Power 2.5 Connectors

1 2

MTA & SL 156 Connectors

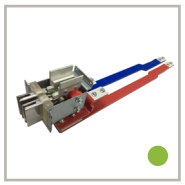
1 2

VAL-U-LOK Connectors

2

2.0mm Signal GRACE INERTIA Connectors

1



Power Busbar Connectors

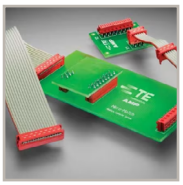
2

ICCON Portfolio Power Connectors

2

RAPID LOCK Power Connectors

2



Micro-MaTch Connectors

1

Dynamic Series Mini Connectors

2

New product

TERMINAL & SPLICES

Ring terminals & Spade Lugs

2

Pre-Insulated Diamond Grip Terminal & Splices

2

FASTON Terminals

1 3

RELAYS

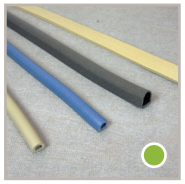
Power Relays T9V

2

HEAT SHRINK TUBING

Single Wall Heat Shrink Tubing (EVSW)

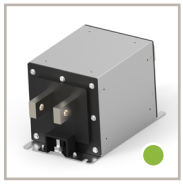
2



Conductive Elastomers EMI Shielding

2

CORCOM POWER FILTER



EVX Series DC Power Filters

2

● New product

te.com

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