

PUBLIC ADVISORY

ELECTRIC VEHICLES

ELECTRICAL INSTALLATION FOR CHARGING ELECTRIC VEHICLES (EV) AND PLUG-IN HYBRID ELECTRIC VEHICLES (PHEV) IN TRINIDAD AND TOBAGO

The following points are to be noted for charging of Electric Vehicles and Plug-in Hybrid Electric Vehicles from the electrical installation (wiring) of buildings:

1. Ensure that the building has an adequate electricity supply from T&TEC. For guidance, contact any T&TEC Utilisation Department.
2. The electricity supply available for charging these vehicles is typically 230 volts, 60 Hertz single phase. In some cases these vehicles are charged at 115 volts, 60 Hertz.
3. In cases where vehicles will be charged at 115 volts, the supply must be from a dedicated sub-circuit with an overcurrent protection device (circuit breaker) of 20 amperes, a receptacle outlet rated at 115 volts for a minimum of 20 amperes and a circuit conductor with minimum cross sectional area of 2.5 mm² (copper). The receptacle outlet must be a Ground Fault Circuit Interrupter (GFCI) outlet or GFCI protected.
4. Vehicles charged at 230 volts, single phase, must be supplied by a dedicated 230 volts sub-circuit with an overcurrent protection device (circuit breaker) of 40 amperes, a receptacle outlet rated at 230 volts for a minimum of 40 amperes and a circuit conductor with minimum cross sectional area of 10 mm² (copper). In addition, the type and current rating of the receptacle outlet, circuit conductors and the overcurrent protective device (circuit breaker) must be according to the recommendations of the equipment manufacturer. The charging circuit to the vehicle must be GFCI protected.
5. All sub-circuits must comply with the requirements of the Trinidad and Tobago Wiring Code Part 1: Low Voltage Installations (TTS 171: Part1: 2015) and the relevant sections of the most recent version of the NFPA 70 National Electric Code (NEC).
6. All new electrical installations, or alterations to existing ones, must be inspected by the Government Electrical Inspectorate Division and a certificate of approval issued before the electrical installation is energised in accordance with the Electrical Installation (Building) Act Chapter 54:71 of the Laws of Trinidad and Tobago.
7. All electrical works must be carried out by a licensed wireman or by an electrician under the supervision of a licensed wireman.

For more information, contact the
Government Electrical Inspectorate at
Tel. 692-6548, 692-6549 or check our
website at www.mpu.gov.tt

