TENAGA NASIONAL
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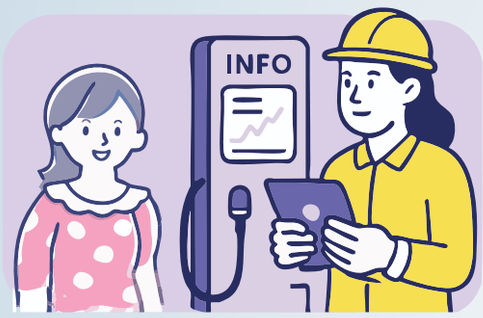
TNB Customer Guide
Before You Install an EV Home Charger

Congratulations for deciding to buy an Electric Vehicle (EV)!
Here are the steps you need to know before installing an EV Home Charger.

Step 1: Consult an Expert



Get a qualified ST-registered contractor to:

(a) Check internal wiring & Distribution Board (DB)

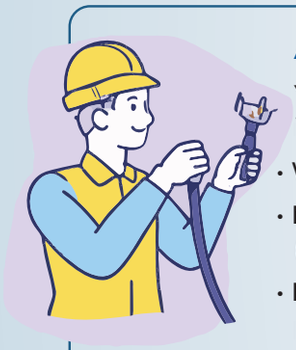
(b) Assess electrical load capacity for EV charging

(c) Confirm supply scheme and determine total load requirement (including EV charger):

- **Single Phase** → Supports **load up to 10kW**
- **Three Phase** → Supports **load above 10kW**

Their assessment determines whether internal upgrades or/and TNB supply upgrade are needed

Step 2: If Wiring Upgrade is Required



A. Installer/ Non TNB work

Your expert may recommend internal upgrades such as:

- Wiring improvements
- New main circuit breakers (MCB) or RCD for safety
- DB enhancements or safety protection devices

Note: All internal wiring and safety upgrades must be handled by your certified installer

B : Inform TNB

Your home may require changes to the electricity supply

- To upgrade from Single Phase to Three Phase Wiring, only TNB can process and approve supply upgrades.
- For more information and how to apply, please refer to myTNB Portal

Scan QR code for more info

Good to Know

1. EV Charger Installation & Wiring Requirements

- Charger must be ST-approved (COA Regulation 97)
- EV Charger Installer must be ST-registered and competent person/company (Electricity Supply Act 1990, Act 447)
- No Mode 1[1] charging allowed. Only Mode 2[2] or Mode 3[3] (AC Type 2) is permitted
- Wiring : Minimum wiring size: 6mm2. Upgrade to 10mm2 if wiring is exposed to sunlight. Socket installation height: ≥ 1.2m. Install RCD[5]/GFCI[6] + surge protection

2. Safety tips after installation

- Perform regular inspections and maintenance
- Avoid extension cords and wall sockets (13A)
- Keep Class C[4] fire extinguisher nearby

Notes:

1. Mode 1 - Direct Wall Socket
2. Mode 2 - Wall Socket with Safety Box
3. Mode 3 - Wall Mounted EV Charger with Cabling from Home Electrical Distribution Box
4. Class C - Fire Extinguisher for Electrical Equipment
5. RCD = Residual Current Device
6. GFCI = Ground Fault Circuit Interrupter