

GUIDELINES FOR THE SUPPLY OF ELECTRIC VEHICLE CHARGERS

Content Page:

1.	Approval of Electric Vehicle (EV) Chargers	2
1.1	Technical Reference 25 (TR 25)	2
1.2	Application for EV Charger Type Approval/Homologation	3
1.3	Classes of Approval	9
1.4	Approval Labels for Approved EV Chargers	10
2.	Installation and Certification of EV Chargers	12
2.1	Locations for Installation or Use of EV Chargers	12
2.2	Requirements for Installation and Certification of EV Chargers	14
2.3	Certification Course for Electric Vehicle Charger Equipment Specialist	18
3.	Alteration of Approved EV Chargers	18
3.1	Application for Alteration of Type-Approved/Homologated EV chargers	19
3.2	Alteration-Approved Labels for Altered EV Chargers	19
4.	Advertising of EV chargers	21
5.	Exemptions of EV Chargers	21
6.	Transitioning to the New Regulations	22

1. Approval of Electric Vehicle (EV) Chargers

1. A key objective of the Electric Vehicles Charging Act (“EVCA”) is to ensure that electric vehicle (EV) chargers supplied in Singapore are safe for use. Under the EVCA, EV chargers that can be used to charge the battery of an electric vehicle, which include a plug-in hybrid vehicle, must be approved by LTA before they can be supplied¹, installed, or certified as fit for charging any electric vehicle in Singapore. EV charger models that had previously been issued with a Letter of No Objection (LNO) should also obtain type approval from LTA under the EVCA before they can continue to be supplied.
2. EV chargers must comply with the safety and performance standards under the Technical Reference 25 (TR25) – the national EV charging standard that sets out technical safety requirements for EV chargers – before they can be type-approved or homologated in Singapore.
3. Chargers that are supplied solely for the purposes of exportation or re-exportation from Singapore do not require an approval from LTA.

1.1. *Technical Reference 25 (TR 25)*

4. There are currently 3 versions of the TR25 that are accepted by LTA for homologation: the TR25:2016 standard, the TR25:2016+A1:2020 and the TR25:2022 standard. Homologation applications using test report based on TR25:2016 or TR25:2016 + A1:2020 will no longer be approved after 7 June 2024.
5. The types of EV chargers cover under each standard are as highlighted under [Table 1](#).

Table 1: Types of EV chargers under each TR25 standard

TR25:2016	
Mode 2 Chargers	Non-fixed AC Chargers that have a power rating of 3.6kW to 22kW (Non-Public Charger)
Mode 3 Chargers	Fixed AC Chargers up to 50kW (Public Charger)
	Fixed AC Chargers up to 50kW (Non-Public Charger)
Mode 4 Chargers	Fixed DC Charger up to 200kW (Public Charger)

TR25:2016+A1:2020	
Mode 2 Chargers	Non-fixed AC Chargers that have a power rating of 3.6kW to 22kW (Non-Public Charger)
Mode 3 Chargers	Fixed AC Chargers up to 50kW (Public Charger)
	Fixed AC Chargers up to 50kW (Non-Public Charger)

¹ “Supply” of an EV charger includes selling, bartering, exchanging, or giving away the EV charger.

Mode 4 Chargers	Fixed DC Charger up to 200kW (Public Charger)
------------------------	---

TR25:2022

Mode 2 Chargers	Non-fixed AC Chargers that have a power rating of 3.6kW to 22kW (Restricted)
Mode 2A Chargers	Fixed AC Chargers up to 2.3kW
	Non-Fixed AC Chargers up to 2.3kW
Mode 2B Chargers	Fixed DC Chargers up to 2.3kW
	Non-fixed DC Chargers up to 2.3kW
Mode 3 Chargers	Fixed AC Charger (restricted)
	Fixed AC Charger (non-restricted)
Mode 4 Chargers	Fixed DC Charger up to 500kW

1.2. Application for EV Charger Type Approval/Homologation

Submission of a type approval/homologation application

6. Applications for homologation can be made via the OneMotoring website which also contains a step-by-step guide. Payment of the application fee of \$1,700 will be required during the submission.
7. Documents to be submitted for a homologation application are as follows (Table 2):

Table 2: Documents required for a homologation application

	Documents to be submitted	Provided by
Test Reports*	Certification for ISO 17025*	Test Lab
	Scope of accreditation of the test lab*	
	Test Report(s)* (see <i>Table 3</i>)	
Certification of Conformity*	Certification for ISO 17065*	Certification Body
	Scope of accreditation of the certification body*	
	Certificate of Conformity of the EV charger*	
Photographs of EV charger	<ol style="list-style-type: none"> a. Front view* (including the proposed position on the EV charger where the LTA-issued approval label will be affixed on); b. Left view; c. Right view; d. Rear view; e. Top view; f. Internal view; g. Information Plate*; h. Critical component list*; i. EV charger documents* (e.g. user manual for installation and operation); j. Any additional documents 	Applicant

*Required for submission

8. During the review process, LTA may request for clarifications and further documentary proof to be provided. Applicants may expect a response from LTA requesting for clarifications, if any, within 3 weeks from the date of submission.

Technical Compliance Checklist for Type Approval/Homologation of EV chargers

9. The following table sets out the technical requirements for the different types of EV chargers that must be complied with, depending on the version of the TR 25 standard chosen for the application. Applicants may choose to submit an application using either TR25:2016 (until 7 June 2024) or the latest TR25:2022. The relevant test reports specified at Table 3 will be required for submission.

Table 3: Technical requirements for EV chargers based on charger type.

	Charger Type	Under TR 25:2016 or TR25:2016+ A1:2020^	Under TR 25:2022
1.	Fixed AC charger: AC chargers (Mode 3) which may be wall-mounted, or floor-standing.	<ol style="list-style-type: none"> 1. TR 25:2016 & the relevant normative IEC standards referred to in the technical reference; or 2. The following IEC standards: <ol style="list-style-type: none"> a) IEC 61851-1 b) IEC 61851-21-2 c) IEC 62196-1; d) IEC 62196-2, and; e) Essential tests for AC chargers under TR 25:2016 (<i>see item 4 below</i>) 	TR 25-1:2022
2.	Portable AC charger: AC chargers with an In-cable control and protection device (IC-CPD) with rated power output between 3.6kW and 22kW (Mode 2).	<ol style="list-style-type: none"> 1. TR 25:2016 & relevant normative IEC standards referred to in the technical reference, which should include the following test report: <ol style="list-style-type: none"> a) IEC 62752 (only Case B1 complying with TR 25:2016 Mode 2 charging Clause 1.6.2.2 is allowed) 	TR 25-1:2022, which should include the following test report; <ol style="list-style-type: none"> a) IEC 62752 (only Case B1 complying with TR 25:2022 Mode 2 charging Clause 5.3.2.2 is allowed)
3.	Fixed DC charger: Combined Charging System (CCS) and CHAdeMo DC off-board charger (Mode 4) with rated power output not exceeding 200kW.	<ol style="list-style-type: none"> 1. TR 25:2016 and the relevant normative IEC standards referred to in the Technical Reference; or 2. The following IEC standards: <ol style="list-style-type: none"> a) IEC 61851-1; 	TR 25-1:2022

	<i>Please refer to No. 7 for fixed DC charger with rated power output exceeding 150kW, using thermal management systems or automated connection device for high power charging.</i>	<ul style="list-style-type: none"> b) IEC 61851-21-2; c) IEC 61851-23; d) IEC 62196-1; e) IEC 62196-3, and; f) Essential tests for DC chargers under TR 25:2016 (see item 5 below). 	
4.	Essential tests for AC chargers under TR 25:2016	<p>The following essential tests for an AC charger are required to be carried out by an accredited test laboratory (refer to TR 25:2016 for the clauses in brackets):</p> <ul style="list-style-type: none"> a) Harmonics and DC current injection (Clause 1.7.10) b) Interlocks (Clause 1.9.7.1) c) Clearance and creepage distances (Clause 1.11.3) d) Emergency switching (Clause 1.12.6) 	N.A
5.	Essential tests for DC chargers under TR 25:2016	<p>The following essential tests for a DC charger are required to be carried out by an accredited test laboratory (refer to TR 25:2016 for the clauses in brackets):</p> <ul style="list-style-type: none"> a) Emission (Clause 2.11.12.1) 	N.A
6.	<p>Portable low-power charger (rated power output not exceeding 2.3kW) which can be either:</p> <ul style="list-style-type: none"> 1. Low-power AC charger with an IC-CPD (Mode 2A), or 2. Low-power DC off-board charger (Mode 2B) 	N.A	<ul style="list-style-type: none"> 1. TR 25-1:2022, and 2. TR 25-2:2022, which should include the following test reports: <ul style="list-style-type: none"> a) For Mode 2A – IEC 62752 (only Case B1), or b) For Mode 2B – IEC 60335-2-29.

7.	<p>Fixed high-power charger (rated power output exceeding 150kW) which can be either:</p> <ol style="list-style-type: none"> 1. Combined Charging System (CCS) and CHAdeMo DC off-board charger (mode 4) with an output voltage and current up to 1500VDC and 500A respectively, and uses thermal sensing with or without thermal transport and thermal exchange, or 2. DC charging system with an ACD (Automated Connection Device) for conductive connection with the electric vehicle, supply voltage either up to 1000VAC or 1500VDC, and output voltage up to 1500VDC 	N.A	<ol style="list-style-type: none"> 1. TR 25-1:2022, and 2. TR 25-3:2022.
8.	<p>Battery swapping systems intended to be used for electric motorcycles which can be either a:</p> <ol style="list-style-type: none"> 1. Battery Charge and Swap Station (BCSS) that can store and charge swappable Rechargeable Energy Storage System (RESS) and is permanently connected to the supply mains. 2. Battery Store and Swap Station (BSSS) that can only store RESS. 	N.A	<ol style="list-style-type: none"> 1. For BCSS: TR 25-1:2022, and TR 25-4:2022, or 2. For BSSS: TR 25-4:2022.

^Homologation applications using test report based on TR25:2016 or TR25:2016 + A1:2020 will be accepted until 7 June 2024, after which only test reports based on TR25:2022 will be accepted.

10. All test reports issued for the purpose of a homologation application must bear the accreditation body's mark, accreditation certificate number and be traceable to the model and make of the EV charger. The report must be issued by a local or overseas laboratory accredited by the Singapore Accreditation Council (SAC) or its Mutual Recognition Arrangement (MRA) partners from the International Laboratory Accreditation Cooperation (ILAC).
11. Certificates of Conformity (CoCs) should be issued by a certification body accredited by SAC or its MRA partners from the International Accreditation Forum (IAF).

Accredited test labs

12. All test reports must be issued by test labs which have been accredited by the Singapore Accreditation Council² or its International Laboratory Accreditation Cooperation-Mutual Recognition Agreement (ILAC-MRA) partners³.
13. All test reports issued must bear the accreditation body's mark, accreditation certificate number and must be traceable to the model and make of the EV charger. A test laboratory that is accredited to test a product for compliance with a certain standard, will be granted the use of the ILAC-MRA mark on the test reports it issues. The ILAC-MRA mark (Image 1) is to be displayed alongside with the mark of the accreditation body in the test report.

Image 1: ILAC-MRA mark used by accredited test laboratories



14. Please refer to LTA's website for the latest list of accredited TICs.

1.3. Classes of Approval

15. An EV charger will be approved for a specific class based on its classification under the TR 25, as specified in the test report submitted to LTA. The class of approval will determine where the EV charger can be installed and/or used subsequently (see section 2 on definitions for restricted access use and non-restricted access use).

²The Singapore Accreditation Council (SAC) was formed in 1996 as the national authority for the independent accreditation of Conformity Assessment Bodies (CABs). SAC's primary function is to accredit conformity assessment services such as testing, calibration, inspection, and certification. It also builds trust in Singapore products and services by strengthening Singapore's technical infrastructure for conformity assessments and forging Mutual Recognition Agreements (MRAs) with our economic partners. MRAs are agreements among accreditation bodies (from different countries and economies), to recognise the reports and certificates issued by one another's accredited conformity assessment bodies (CABs), in their scope of accreditation.

³The International Laboratory Accreditation Cooperation (ILAC) is an international organisation for recognised accreditation bodies involved in the accreditation of CABs including calibration, testing, medical testing laboratories and inspection bodies. ILAC Mutual Recognition Arrangement (ILAC MRA) provides technical underpinning to international trade, which helps promote cross-border stakeholder confidence and acceptance of accredited laboratory data and inspection results.

Table 5: Classes of approval

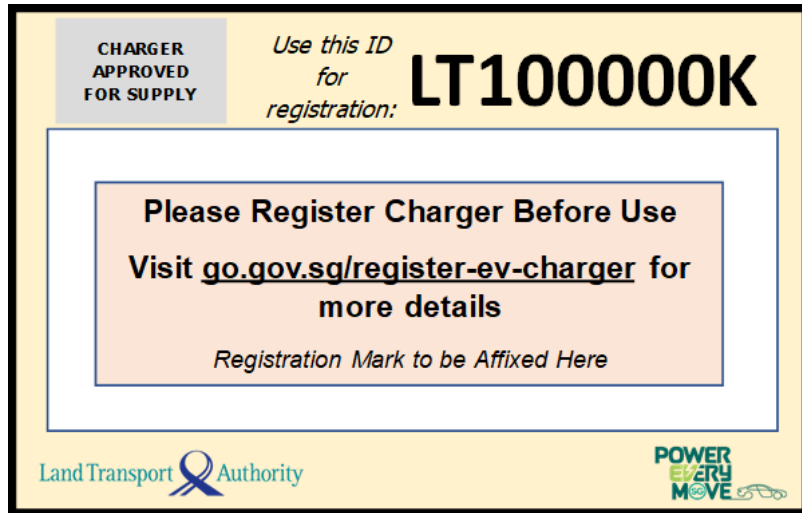
Type of EV Charger	Charger Classification (under TR25)	Class of Approval (under the EV Charging Act)
Non-fixed EV Charger	Restricted Access	Restricted Access use
Fixed-EV Charger	Restricted Access	Restricted Access use
	Non-Restricted Access	Non-Restricted Access use + Restricted Access use
Battery Charge and Swap Station (Fixed EV Charger)	Non-Restricted Access	Non-Restricted Access use + Restricted Access use

1.4. Approval Labels for Approved EV Chargers

16. Successful applicants who have received LTA’s approval of homologation must then apply for approval label(s) from LTA and affix the label(s) onto the EV charger(s) before they can be supplied, installed, or certified as fit for charging any EV in Singapore. Applications for approval label can be made via the OneMotoring website, subject to a fee of \$2 per label. Upon successful application, the applicant will receive an e-letter via the OneMotoring inbox. LTA will also issue a hard copy letter and the approval label(s) by mail.
17. Each approval label will have a unique type approval ID indicated on it, which will be required for subsequent registration of the EV charger. Should the original labels be lost or destroyed, suppliers may choose to apply for replacement label(s) on the OneMotoring website, subject to a fee of \$2 (before GST) per replacement label.⁴
18. Approval labels will only be given to applicants who have obtained LTA’s approval for homologation. Under the EVCA, it will be an offence to affix approval labels on charger models that are different from that submitted to LTA for homologation, and for which the labels are issued.

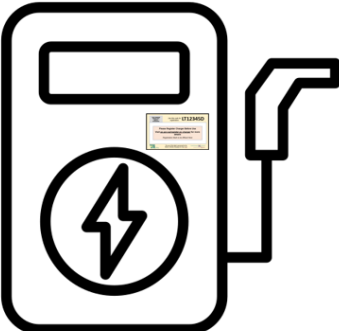
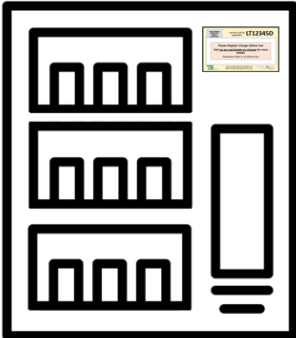
⁴ Replacement labels will attract GST.

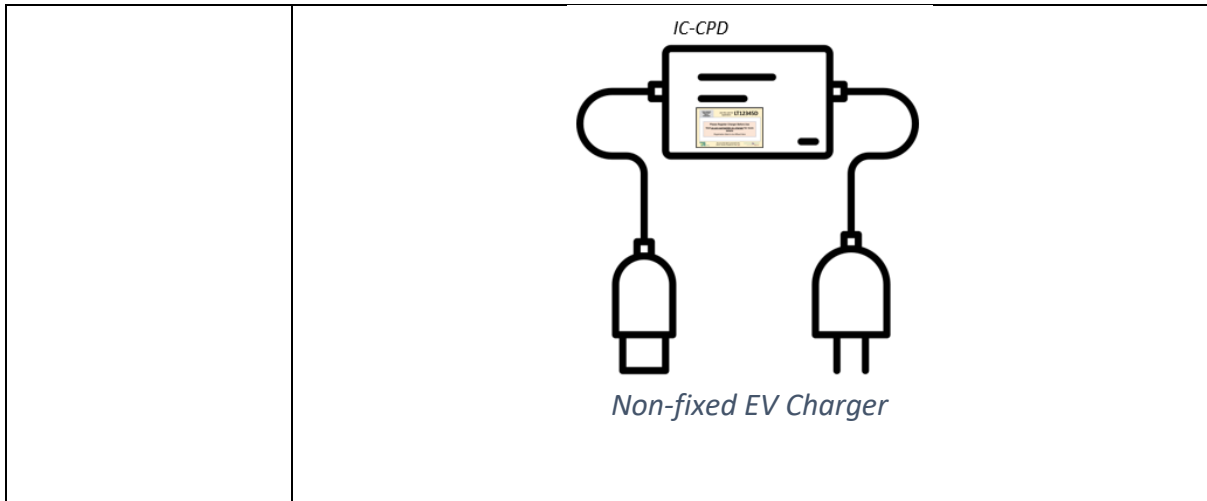
Image 2: Approval label issued by LTA



19. Approval labels must be affixed on the EV chargers in an upright position and does not obscure the manufacturer’s information plate. The label must be affixed at a prominent location and clearly visible to all users, as per the illustration in Table 6. Removal of the label affixed to an EV charger may constitute an offence.

Table 6: Locations for Approval Labels on EV chargers

Type of Charger	Reference
Fixed EV charger (including BCSS and pantograph EV charger)	<p>Approval labels must be affixed either at the front or the side panel of the EV charger, as seen below.</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p><i>Fixed EV Charger</i></p> </div> <div style="text-align: center;">  <p><i>Battery Charge and Swap Station</i></p> </div> </div> <p>Specifically for <u>pantograph EV chargers</u>, approval labels must be affixed at the top right-hand corner of the power cabinet.</p>
Non-fixed EV charger	<p>Approval labels must be affixed on the In-cable Control and Protection Device (IC-CPD) of the EV charger, or on the off-board EV charger.</p>



2. Installation and Certification of EV Chargers

20. Under the EVCA, EV chargers must be installed (for fixed EV chargers) and certified as fit for charging EVs according to requirements specified, before they can be registered with LTA. In addition, EV chargers can only be installed and/or used in certain locations depending on their class of approval and EV connector type.

2.1. *Locations for Installation or Use of EV Chargers*

Classes of Approval: Restricted and Non-Restricted Access Use

21. Under the EVCA, restricted access use chargers refer to chargers that are strictly meant for use in restricted access locations. These locations refer to the parking spaces or locations for parking in landed dwelling houses that are not comprised within a strata title plan registered under the Land Titles (Strata) Act 1967, and will include bungalows, detached houses, semi-detached houses, and terrace houses. EV chargers approved for restricted access use (Table 5) may only be installed and/or used at a restricted access location.

22. Non-restricted access use chargers refer to chargers that can be used in any place that is not a restricted access location (i.e., non-restricted access locations).

EV Connectors for Publicly Accessible Chargers

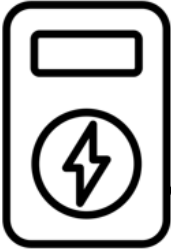
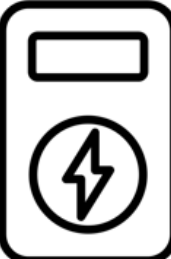
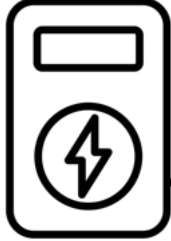
23. The National Public Charging Standard was introduced in 2016 to standardise the types of EV connectors allowed for publicly accessible chargers, to ensure that EVs can conveniently access public charging infrastructure. An Optional Public Charging Standard was also introduced in 2020 to allow an alternative for DC fast charging. These standards will be formalised under the EVCA going forward, as described below.

24. Publicly accessible chargers⁵ refer to chargers that can be used by any member of the public (e.g. HDB carparks, malls, petrol kiosks), while non-publicly accessible chargers refer to those that can only be used by a selected group of users (e.g. condominiums that do not allow public access).

25. For publicly accessible locations, only fixed chargers that come with Type 2 AC and/or Combo-2 DC (or CCS2) connectors can be installed. CHAdeMO connectors may be provided as an alternative charging option, in addition to Type 2 and/or CCS2 connectors.

26. For non-publicly accessible locations, in addition to what is allowable for publicly accessible locations above, Type 1, CCS 1, or proprietary connectors that are covered under the TR25 may also be provided. Chargers with only CHAdeMO connectors (i.e., does not come with Type 2 or CCS 2 connector) may be provided as well.

Table 8: Illustration of EV connectors allowed

Scenarios	EV charger connector
Chargers with Type 2 AC or CCS2 DC connectors can be installed in both publicly accessible and non-publicly accessible locations .	 <p>Type 2 or CCS2 connector</p>
Chargers with CHAdeMO connectors, when provided together with Type 2 and/or CCS2 connectors, can be installed in both publicly accessible and non-publicly accessible locations .	 <p>Type 2 or CCS2 connector CHAdeMO connector</p>
CHAdeMO-only chargers are not allowed in publicly accessible locations	 <p>CHAdeMO connector</p>

⁵ Chargers that are publicly accessible will be reflected on LTA's MyTransport.Sg Mobile Application.

Chargers Installed in Residential premises

27. For residential premises⁶, EV chargers can only be installed and/or used at locations where a vehicle may ordinarily park, for example, in garages and carparks.

2.2. Requirements for Installation and Certification of an EV Charger

28. EV chargers must be installed (for fixed chargers) and certified as fit for charging EVs according to requirements under the EVCA. The Certificate of Fitness issued after the installation and certification of an EV charger will need to be provided during the subsequent registration of the charger with LTA.

29. Under the EVCA, the installation of a fixed charger must be carried out by a Licensed Electrical Worker (LEW).⁷ Certification of EV chargers must be carried out by a charger equipment specialist.⁸

30. Only homologated EV charger models may be installed or certified as fit for charging EVs in Singapore. Fixed EV chargers approved for restricted access use (Table 5) may only be installed at a restricted access location.

31. EV chargers may only be certified as fit for charging EVs if:

- a. For fixed chargers – the charger has been installed in accordance with the TR 25:2022, and together with the essential apparatus and fittings required (Table 9).
- b. For non-fixed chargers – the charger satisfies the applicable safety and performance standards under the TR 25

⁶ A residential premise refers to any part of any land that is zoned for residential purposes by the URA.

⁷ LEWs are personnel licensed by the Energy Market Authority (EMA) to carry out electrical works.

⁸ LEWs and charger equipment specialists may engage assistants to assist them in carrying out the installation or certifications works but must ensure that they supervise the assistants during the works.

Table 9: Apparatus and fittings required for EV chargers

Type of EV charger	Installation location	Apparatus and fittings required
Fixed EV charger	Non-restricted access	<p>Emergency main isolation shut-off switch that complies with the following requirements:</p> <ol style="list-style-type: none"> 1.1. An emergency main isolation shut-off switch for an EV charger must be located so that a person does not have to travel more than 15 metres from the EV charger and its associated parking lot, to reach the switch. 1.2. If there is more than one EV charger, one or more than one emergency main isolation shut-off switch may be shared between EV chargers within the same storey. Such switch or switches must be located so that a person does not have to travel more than 15 metres from any EV charger and its associated parking lot to reach the switch. 1.3. Every emergency main isolation switch for an EV charger must be located on the same storey as the EV charger, so that there is a safe means of isolating the main electrical power supply to the entire electric vehicle charging system on the same storey upon activation of any one of those switches. Those switches must be capable of being activated manually without the use of a key or tool, or any special knowledge or effort. 1.4. Subject to paragraph 5, the nearest edge of an emergency main isolation shut off switch must be located at least 3 metres away from an EV charger and its associated parking lot. 1.5. An emergency isolation shut off switch may be located less than 3 metres away from an EV charger and its associated parking lot, if there is at least another emergency main isolation shut-off switch located at least 3 metres away but within 15 metres of that EV charger and its associated parking lot. 1.6. An emergency main isolation shut-off switch must be located between 800 millimetres and 1.2 metres (inclusive of both measurements) above the finished floor level. 1.7. An emergency main isolation shut-off switch must be in a clearly visible and easily accessible location, and be clearly labelled. 1.8. There must be clear instructions (however indicated) on how an emergency main isolation shut-off switch may be operated.

		<p>1.9. There must be one or more than one signage, on which any letter must bear a height of at least 50 millimetres and that is displayed in a prominent location from the emergency main isolation shut-off switch, directing a person on how the switch is to be operated.</p> <p>1.10. Where an emergency main isolation shut-off switch cannot be seen clearly from, or is not within the line of sight of, an EV charger and its associated parking lot, any number of additional signages as may be necessary must be displayed for the purpose of directing persons to the emergency main isolation shut off switch.</p>
		Apparatus and fittings required under TR 25:2022
	Restricted access	Apparatus and fittings required under TR 25:2022
Non-fixed charger	Restricted access	Apparatus and fittings required under TR 25:2022

32. Following the installation of an EV charger, the LEW must complete and endorse the applicable checklist found at LTA C&F list⁹ and provide the Certificate of Fitness to the charger owner and the charger equipment specialist who is carrying out the certification of the charger, if any.

33. Following the certification of an EV charger, the charger equipment specialist must complete and endorse the applicable checklist found at LTA C&F list and issue the Certificate of Fitness to the charger owner for the purpose of registering the charger.

34. A summary of the requirements for qualified personnel pertaining to installation and/or certification of an EV charger is at Table 10.

Table 10: Requirements for qualified personnel

Charger Type	Process	Qualified personnel	Obligations/duties under EVCA
Fixed Charger	Installation	LEWs	<ul style="list-style-type: none"> • Ensure only homologated EV charger model is installed • Ensure that EV chargers approved for restricted access use is only be installed at a restricted access location • Install charger according to TR 25:2022 • Endorse relevant sections of the Certificate of Fitness Cooperate with a charger equipment specialist who is carrying out certification of EV charger
	Certification	Equipment Specialists	<ul style="list-style-type: none"> • Ensure only homologated EV charger model is certified • Confirm that EV charger is installed according to TR 25:2022, and together with the essential apparatus and fittings required • Issue the Certificate of Fitness
Non- Fixed Charger	Certification	Equipment Specialists	<ul style="list-style-type: none"> • Ensure only homologated EV charger model is certified • Confirm that EV charger complies with the TR 25

⁹ LTA's list of certificates and forms for certification, installation and inspection of EV chargers.

			<ul style="list-style-type: none"> Issue the Certificate of Fitness
--	--	--	--

2.3. Certification Course for EV Charger Equipment Specialist

35. LTA and ITE have jointly developed the Certification Course for EV Charger Equipment Specialist, to ensure that equipment specialists are equipped with the necessary knowledge on regulatory requirements and standards for charger certification and inspection. It is an intermediate level course designed for personnel involved in installation, maintenance, or inspection of EV charging stations. Personnel who complete this new certification course, and pass the associated completion test, will be accredited as equipment specialists to certify and inspect EV chargers. A list of certified Equipment Specialists will be put up on LTA’s website subsequently.

36. The 3-hour course will cover the essential aspects of EV charging standards in Singapore. Participants will gain a comprehensive understanding of the relevant regulations, test and inspection procedures, and compliance requirements. The course will also provide hands-on demonstration on charger components and theory quiz. A Certificate of Completion will be awarded to participants who complete the 3 hours course and pass the completion test. Basic understanding in electrical engineering and proficiency in English are required.

Course highlights	<ul style="list-style-type: none"> Coverage of EV charging standards in Singapore Practical demonstrations of test and inspection procedures Understanding of compliance requirements Reference to TR25 and the Electric Vehicles Charging (Electric Vehicle Chargers) Regulations 2023
Fees	\$85
How to register	Please email: Chew_Yong_Hui@ite.edu.sg

3. Alteration of Approved EV Chargers

37. Under the EVCA, alteration or modification of a homologated EV charger will require LTA’s prior approval to ensure safety. Alteration or modification of an EV charger refers to any change to the EV charger from the model that was originally homologated by LTA, which will include any change in component, feature, functionality, or performance of the EV charger. This will include works to rectify any damage to the EV charger, or to return the EV charger to its original operable condition.

38. For avoidance of doubt, replacement of any part of the EV charger using components that have been previously type approved will not constitute an alteration. Replacement using any components that were not part of the EV charger model originally type approved by LTA will constitute an alteration that requires LTA's approval.
39. Alteration or modification may be carried out to either (i) a homologated charger that has yet to be registered, or (ii) a registered charger of a homologated model.

3.1. Application for Alteration of Type-Approved/Homologated EV Chargers

40. Applications for alteration approval can be made via the OneMotoring website, which also contains a step-by-step guide. Payment of the application fee of \$800 will be required during the submission.
41. Where an EV charger model was homologated based on the TR25:2016 or TR25:2016+A1:2020 standard prior to 7 June 2024, any application for alteration approval of the EV charger submitted to LTA will be assessed based on the same TR 25 standard used for its original homologation.
42. Applicants have to submit necessary information including the scope of the proposed alteration, type approval ID(s) and manufacturer's serial number(s) for the charger units to undergo the proposed alteration, related documentation, as well as details such as the location where the alteration works will be carried out.
43. During the review process, LTA may request for clarifications and further documentary proof, including appropriate test lab documentation and certification, to be provided. Applicants may expect a response from LTA requesting for clarifications, if any, within 3 weeks from the date of submission.

3.2. Alteration-Approved Labels for Altered EV Chargers

44. Successful applicants who have received LTA's approval for EV charger alteration must then apply for alteration-approved label(s) from LTA and affix the label(s) onto the EV charger(s). Applications for the alteration-approved label can be made via the OneMotoring website, subject to a fee of \$2 per label. Upon successful application, the applicant will receive an e-letter via the OneMotoring inbox. LTA will also issue a hard copy letter and the alteration-approved label(s) by mail.
45. Each alteration-approved label will have a unique alteration-approval ID indicated on it. Should the alteration-approved labels be lost or destroyed, an application for replacement label(s) can be made on the OneMotoring website, subject to a fee of \$2 (before GST) per replacement label.

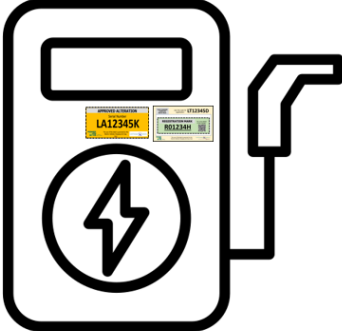
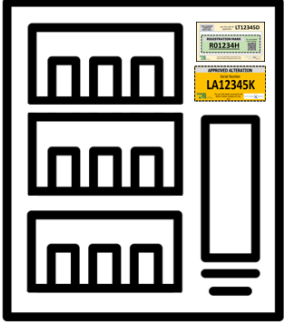
46. Alteration-approved labels will only be given to applicants who have obtained LTA’s approval for EV charger alteration. Under the EVCA, it will be an offence to affix alteration-approved labels on charger models that are different from that submitted to LTA for EV charger alteration, and for which the labels are issued.

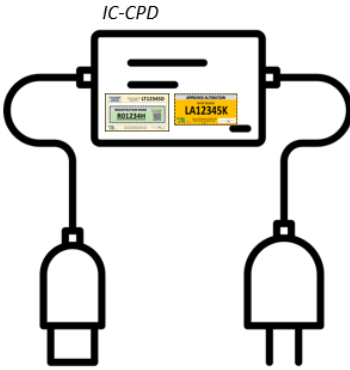
Image 3: Alteration approval label



47. Alteration-approval labels must be affixed on the EV chargers in an upright position and does not obscure the manufacturer’s information plate. The label must be affixed at a prominent location and clearly visible to all users, as per the illustration in [Table 11](#). Removal of the label affixed to an EV charger may constitute an offence.

Table 11: Locations for Alteration-Approved Labels on EV chargers

Type of Charger	Reference
<p>Fixed EV Charger (including BCSS and pantograph EV charger)</p>	<p>Alteration-approved labels must be affixed either at the front or the side panel of the EV charger, as seen below.</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p><i>Fixed EV Charger</i></p> </div> <div style="text-align: center;">  <p><i>Battery Charge and Swap Station</i></p> </div> </div> <p>Specifically for <u>pantograph EV chargers</u>, alteration-approved labels must be affixed at the top right-hand corner of the power cabinet.</p>

<p>Non-fixed EV Charger</p>	<p>Alteration-approved labels must be affixed on the In-cable Control and Protection Device (IC-CPD) of the EV charger, or on the off-board EV charger.</p> <div style="text-align: center;">  <p>The diagram shows a rectangular box labeled 'IC-CPD' at the top. Below the box are two cables, each ending in a different type of connector. A yellow label with the text 'LA12345K' is affixed to the front of the IC-CPD box.</p> </div> <p style="text-align: center;"><i>Non-fixed EV Charger</i></p>
------------------------------------	---

4. Advertising of EV Chargers

48. Only EV charger models that have been approved by LTA (i.e. homologated EV charger models) can be advertised for sale or supply in Singapore. Advertisement of any unapproved EV charger model in Singapore is strictly prohibited. This includes advertisements in all forms, whether through print, mass media or other digital platforms.

5. Exemptions of EV Chargers

Conditions for exemption

49. Certain exemptions may be granted for unregistered EV charger(s) that are used solely to charge “specified EVs”. A specified EV refers to either an (i) EV that is not used on any public road, or road which the public has access to, or an (ii) EV that is not intended for use on any public road, or road which the public has access to. Chargers used to charge cement mixers, concrete pumps and mobile cranes will be covered under the EVCA.

50. The list of exempted persons as well as their exemptions are highlighted under table 12 below.

Table 12: List of exempted persons and the respective exemptions

Exempted Persons	Exempted Requirements From
Person supplying an unregistered EV charger for the <u>sole</u> purpose of charging a specified EV, if a written undertaking on the purpose of the EV charger (i.e. to	Requirement for EV charger to be homologated by LTA (Paragraphs 3, 5, and 11)

charge a specified EV) has been obtained before supply	
Person supplying an unregistered EV charger to an accredited test laboratory or accredited certification body for the <u>sole</u> purpose of determining whether the EV charger complies with TR 25 standards	
Person advertising an unregistered EV charger for the <u>sole</u> purpose of charging a specified EV	
Person altering or modifying an unregistered EV charger used for the <u>sole</u> purpose of charging a specified EV	Requirement for alterations or modifications of EV charger to be approved by LTA (Paragraph 4)
Person altering or modifying an unregistered EV charger for the sole purpose of determining whether the EV charger complies with TR 25 standards	Requirement for alterations or modifications of EV charger to be approved by LTA (Paragraph 13)

6. Transitioning to the New Regulations

51. To smoothen the industry’s transition, LTA will provide a grace period for existing suppliers to continue supplying their EV chargers for 6 months, until 7 June 2024, after the commencement of the EVCA. Supply of non-homologated EV chargers after the grace period will be strictly prohibited and may constitute an offence.
52. LTA will also provide a grace period of 12 months, until 7 December 2024, for existing equipment specialists to complete the Certification Course for Electric Vehicle Charger Equipment Specialist. During this period, existing equipment specialists can continue to undertake certification and periodic inspection of EV chargers, as long as certification/inspection is carried out according to the requirements under the EVCA. After the grace period, only personnel who have completed the certification course and pass the associated completion test will be accredited as “charger equipment specialists” under the EVCA.
53. Should you have any further queries regarding the new regulations, please contact [LTA EV charging@lta.gov.sg](mailto:LTA_EV_charging@lta.gov.sg).