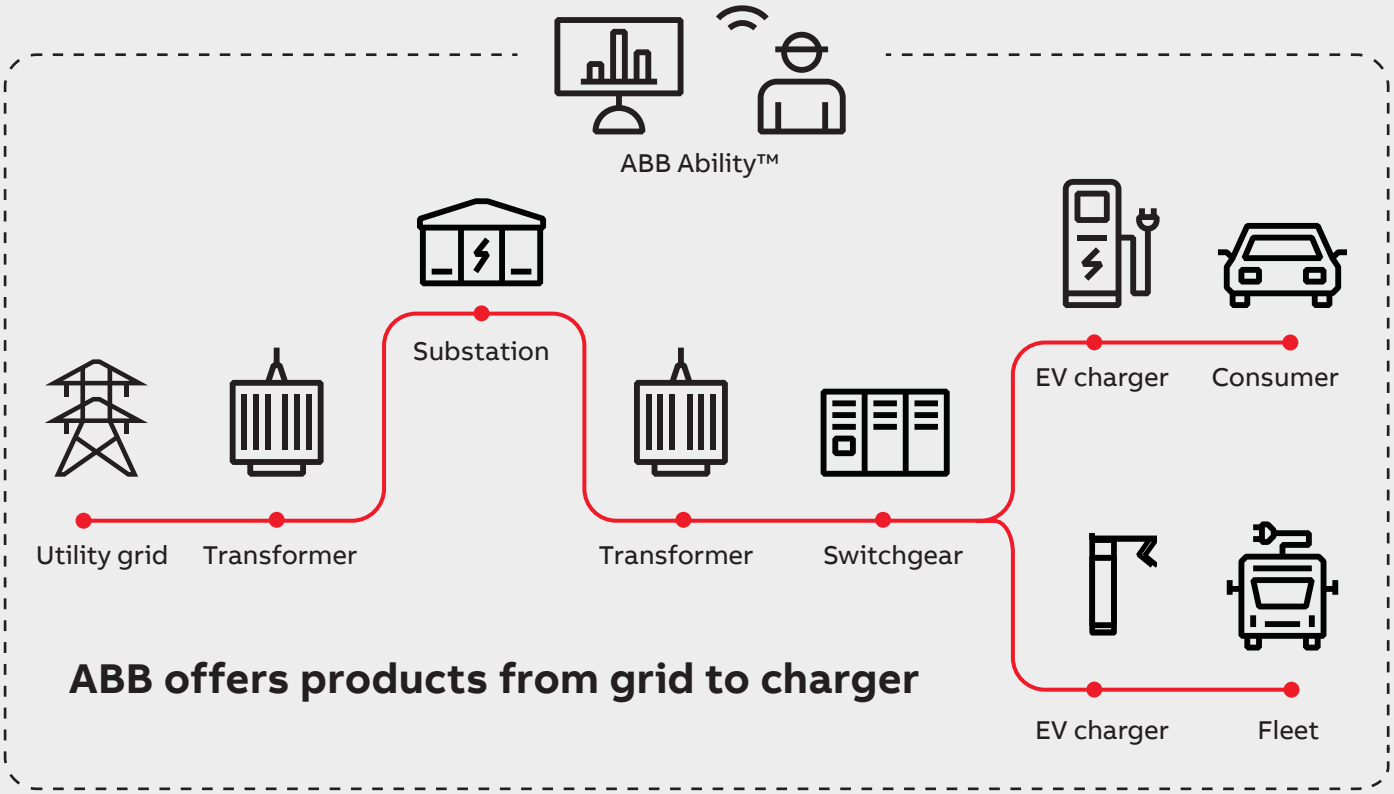


ABB ELECTRIFICATION

Beyond the Charger
Considerations for EV Charger Power Source

ABB ELECTRIFICATION

Terra 54 UL 50 kW

DC fast charging station

— Terra 54 HV

— Terra 54

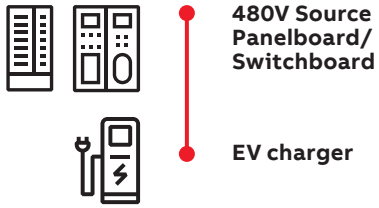
Specifications	Terra 54 | Terra 54HV
Technical data	
Max output power	50kW continuous
AC input voltage	480Y / 277 VAC +/- 10% (60Hz)
AC input connection	3-phase: L1, L2, L3 (GND) no neutral
Nominal input current and input power rating	64 A, 54 kVA
Recommended upstream circuit breaker(s)	90A

Electrical equipment often used for EV charger installations

- Panelboards – ReliaGear™ neXT
- Switchboards – ReliaGear™ SB
- Transformers – QL Dry Type
- Disconnects – Spec Setter Safety Switch
- Enclosed circuit breakers – Tmax® XT, Formula, Q-Line

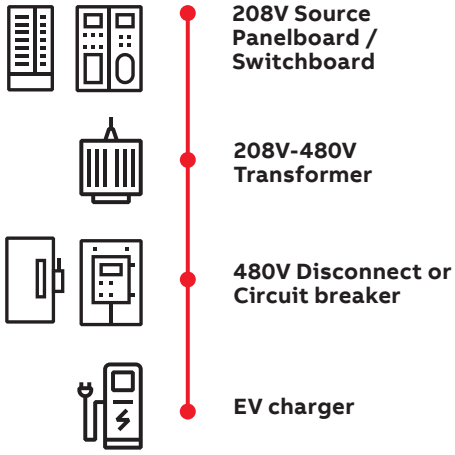
If 480V available:

- Determine if existing electrical service will support proposed EV charger load.
- Check local codes for installation requirements.
- Check EV charger installation requirements. For example, CHADEMO chargers may require upstream residual current device.
- Upgraded electrical service may be required along with additional electrical distribution equipment.



If 208V available:

- Determine if existing electrical service will support proposed EV charger load.
- Check local codes for installation requirements.
- Check EV charger installation requirements. For example, CHADEMO chargers may require upstream residual current device.
- New 480V electrical service or step-up transformer may be required along with additional electrical distribution equipment



— Requirements for each site must be confirmed by site survey and detailed design.

ABB ELECTRIFICATION

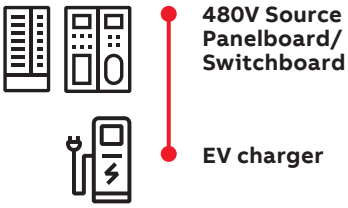
Terra DC Wallbox

DC fast charging station

Specifications	Terra DC wallbox
Electrical	
AC input voltage range	(1) 208-240 VAC +/- 10% (60Hz) (2) 480Y / 277 VAC +/- 10% (60Hz)
AC input power connection	(1) 1-phase: L1, L2 (GND) (2) 3-phase: L1, L2, L3 (GND)
Max input current	(1) 100 A, 20.8-24 kVA (2) 32 A, 26.6 kVA Current limiting options available
Recommended upstream circuit breaker(s)	(1) 125 A (2) 40 A

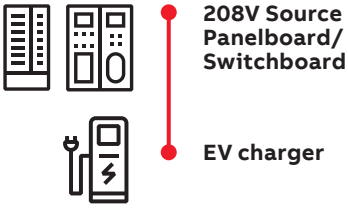
- Determine if existing electrical service will support proposed EV charger load.
- Check local codes for installation requirements.
- Check EV charger installation requirements
- Upgraded electrical service may be required along with additional electrical distribution equipment.

If 480/277V available, use 3 phase charger



Rated DC output power 208 V (kW)	Rated DC output power 240 V (kW)	Charging standard	Cable length (m/ft)	Type	Order code	Weight pkg 1 piece (kg)
Single-phase						
19.5	22.5	CCS1	3.5 / 12	TWB UL 24 C 3-7M-A-0	6AGC079380	70
19.5	22.5	CCS1	7 / 23	TWB UL 24 C 7-7M-A-0	6AGC079381	70
19.5	22.5	CHAdeMO/CCS1	3.5 / 12	TWB UL 24 CJ 3-7M-A-0	6AGC079378	70
19.5	22.5	CHAdeMO/CCS1	7 / 23	TWB UL 24 CJ 7-7M-A-0	6AGC079379	70

If 208V or 240V available, use single phase charger
Consider load balance if there are multiple single phase chargers at the site



Rated DC output power 208 V (kW)	Rated DC output power 240 V (kW)	Charging standard	Cable length (m/ft)	Type	Order code	Weight pkg 1 piece (kg)
Three-phase						
22.5	24	CHAdeMO/CCS1	3.5 / 12	TWB UL 24 CJ 3T-7M-0-0	6AGC08024B	70
22.5	24	CHAdeMO/CCS1	7 / 23	TWB UL 24 CJ 7T-7M-0-0	6AGC081362	70
22.5	24	CCS1	3.5 / 12	TWB UL 24 C 3T-7M-0-0	6AGC081363	70
22.5	24	CCS1	7 / 23	TWB UL 24 C 7T-7M-0-0	6AGC081364	70

—
Requirements for each site must be confirmed by site survey and detailed design.

U.S.portfolio, single-phase and three-phase
Description
DC charger for electric vehicles, CCS1 and CHAdeMO
Total weight 10 kg backplate + 60 kg main body and cables
Power supply network: 1-phase 200-240 V AC +/-10% (60 Hz), 3-phase 480 V AC +/-10% (60 Hz)
Connectivity: Cellular connection, 3G/4G, 2 port RJ45 ethernet
Metal connector/cable holders for inside use provided standard with the product

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EV Charging support products offered

Other solutions

- Energy Storage
- Dry Type Transformers
- Packaged Solutions
- Circuit Breakers
- Disconnects
- Surge Protective Devices
- Conduit
- Lugs
- Cable trays
- Crimp tools

Disconnect/Safety Switch family

ReliaGear™ neXT power panelboard

Custom modular charging station

ReliaGear™ SB switchboard

Tmax® XT circuit breaker family

Customer Service
888-862-3290
abbinsidesalessupport@us.abb.com
Monday - Friday, 7am - 5:30pm CST

Tech Support
888-437-3765
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