



COMPATIBLE CHARGER GUIDE:

# Powering Jouley



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## CHARGING CALCULATION BREAKDOWN:

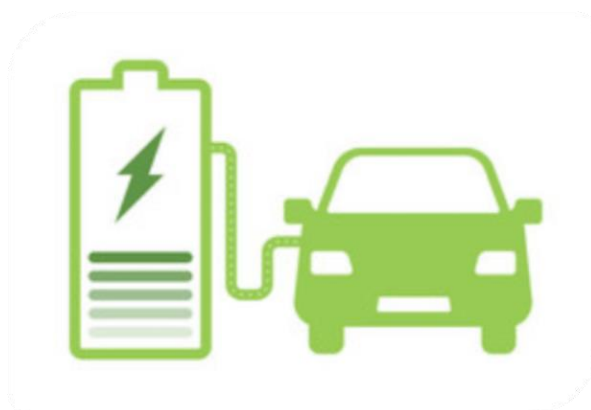
PROTERRA 60 kW DC FAST CHARGER	
State of Charge (SOC)	20%
Energy Used	80%
Energy Needed	161 kWh
Formula: 161 kWh / 60 kW = 2.7 hours	

60 kW DC Fast Charger				
Useable kWh	Energy Used %	Energy Needed in kWh	DC kW	Time to charge = Hrs.
201	0	0.00	60	0.00
201	10%	20.11	60	0.34
201	20%	40.23	60	0.67
201	30%	60.34	60	1.01
201	40%	80.46	60	1.34
201	50%	100.57	60	1.68
201	60%	120.68	60	2.01
201	70%	140.80	60	2.35
201	80%	160.91	60	2.68
201	90%	181.03	60	3.02
201	100%	201.14	60	3.35

25 kW DC Fast Charger				
Useable kWh	Energy Used %	Energy Needed in kWh	DC kW	Time to charge = Hrs.
201	0	0.00	25	0.00
201	10%	20.11	25	0.80
201	20%	40.23	25	1.61
201	30%	60.34	25	2.41
201	40%	80.46	25	3.22
201	50%	100.57	25	4.02
201	60%	120.68	25	4.83
201	70%	140.80	25	5.63
201	80%	160.91	25	6.44
201	90%	181.03	25	7.24
201	100%	201.14	25	8.05

### Proterra Powertrain

Total Battery Capacity of 226 kWh x 89% limited usage = 201kWh of usable battery capacity





## TERRA DC WALLBOX 24kW



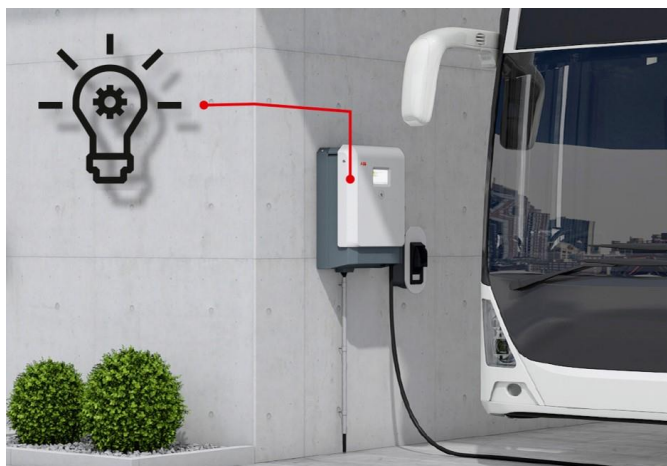
Terra DC wallbox is a futureproof investment supporting current and future EVs with high voltage charging, applicable to a wide variety of use cases, in an ultra-compact footprint, that is safe and reliable, for residential use too.

### Main features

- Complying with UL standards
- Single phase 19.5 kW @ 208 V, 22.5 kW @ 240 V / 100 A input
- Three phase 0 – 22.5 kW, 24 kW (peak) @ 480 V / 32 A input
- DC output 60 A
- Charging voltage: CCS 150 – 920 V DC
- Protection NEMA 3 & IP54
- Overcurrent, overvoltage, undervoltage, ground-fault, surge protection, PE continuity monitoring and leakage current monitor protection integrated

PRODUCT PAGE:

[TERRA WALLBOX 24kW](#)





## DELTA WALLBOX 25kW



DC Wallbox EV charger has an output power up to 25kW and 94% efficiency with CCS and/or CHAdeMO standard output. Wall-box design and pluggable power modules facilitate easy and cost-saving installation. Its communication functions and RFID user authentication can support both public and private charging applications for different locations.

Key Features Include:

- Speed: 25kW output, charges at rate of 100 RPH (miles of Range Per Hour)
- Warranty: 2yr hardware warranty; Proactive monitoring, repairing & reporting available
- Output voltage range: 200-500Vdc

PRODUCT PAGE:

[DELTA WALLBOX 25KW](#)





## RT50 50kW



Tritium's RT50 is a compact, reliable, and robust DC fast charger capable of charging all EVs on the market. This all-in-one unit is small enough to suit your site's configuration and maximize your parking space without need for expensive site modifications. Lightweight but strong, easy to install, cost-effective, and backed by our 24/7 customer care, the RT50 is a smart DC fast charging option.

### The world's smallest footprint DC charger

- The world's smallest footprint DC charger for flexible site location options
- Easy and quick to install for faster return on investment
- Supports a wide range of grid voltages
- Designed to thrive in any environmental condition or temperature range
- Access to real-time data
- Custom branding

PRODUCT PAGE:

[RT50 50kW](#)





## QC45 50kW



The QC45 quick charging station provides a rapid battery charge and supports two EVs simultaneous AC and DC charging with multiple power output options.

### Network integration

The QC45 is a flexible and open charging station able to charge in a standalone mode or integrated in any network with any central system.

### Output power

The QC45 has DC output with power up to 50 kW and optional AC output with power up to 43 kVA. The battery charging status is displayed in a TFT color screen.

PRODUCT PAGE:

[QC45 50kW](#)

**QC45** Portfolio of Products

### Quick Charge Station

Overview

- FAST-CHARGE ANY Compatible Vehicle
- 0 to 80% in less than 30 minutes
- MULTI-STANDARD (DCA - CHAdeMO; DCC - CCS/Combo; AC)
- Simultaneous charging of DC and AC
- Color Screen (for user interface and publicity)
- Network integration (OCPP or proprietary protocol)
- Built-In communications (3G; LAN; WIFI)
- Optional 2 piece Configuration (Kiosk/Terminal)

Fast Charging   User-friendly   Communication & Management   Multi-standard

AC and DC plug-in charging systems

CCS   CHAdeMO   AC ~



## Proterra Industrial Series Charging System



# PROTERRA



### Sizes

- 60kW
- 90kW
- 120kW
- 150kW
- 180kW

The Proterra Industrial Series charging system is designed explicitly for fleet applications.

Charge up to 4 vehicles from the same charger with automated, multi dispenser configurations, including up to 4 single-cable dispensers or 2 dual-cable dispensers.

Dispensers can be sited separately (up to 500 feet away) from the charging cabinet, enabling greater flexibility in design and configuration for fleets.

PRODUCT PAGE:

[Proterra Industrial Series](#)

- OCPP compliant and 4G enabled
- Small footprint
- Multi-dispenser option
- Supports CCS1 and pantograph options
- 3 Year Standard Warranty with extensions available

### LARGE FLEET SOLUTIONS

10 OR MORE VEHICLES

Proterra 1.5 MW Charging System







POWER CONTROL SYSTEM      CHARGING DISPENSER



POWER CONTROL SYSTEM      PAIR WITH UP TO 4 CHARGING DISPENSERS

## DETAILS:

- DC charging enables a full charge of a Jouley School Bus in 3.3 hours and 4 buses up to 12 hours with 60kW of Power
- Automated and Rules-Based Vehicle Charging
- Standard SAE J1772, Type 1 CCS
- Power Control System can be located up to 500 feet away from dispenser
- Charging Package includes (1) Cabinet and (1) Dispenser
- Connect up to 4 charging dispensers
- Electrical Input = 66kw / Electrical Output = 60kw
- Input Voltage = 480V-3 Phase / Output Voltage = 270-875VDC / 200A Efficiency = 95%
- Operating Temperature -31F to +131F
- Charging Cable (10'ft std. - Optional 18' and 25")
- 2 Year Standard Warranty
- Proterra charging system utilizes cellular LTE for communication. No hardline internet wiring is required.

## V2G CAPABILITIES:

- DC charging compatible bus + DC charger with stationary inverter = Utilities preferred specs for V2G.
- Bi-Directional Power Flow capable for the discharging of energy from the bus to the grid.
- UL 1741 SA Grid Interconnection Certification for Charger inverter. Utilities require this for equipment used in V2G. The Jouley DC charging bus + Proterra DC charger = Optimum hardware specs for V2G.
- ISO 17118 -20 Vehicle to Grid interconnected communications
- ISO 17117-20 Vehicle to Grid Interconnected Communications



## RTM75 75kW



**TRITIUM**



Tritium's RTM is the most advanced DC fast charger on the market. This charger retains Tritium's signature small footprint while introducing the first Modular Scalable Charging (MSC) hardware platform unit to the market.

### Modular, scalable, and the first of its kind

- Modular power units that are single-person operable so they can be easily changed in the field for faster maintenance and improved uptime
- Twin cables to simultaneously charge two EVs
- Built for any environment, thriving in temperatures from -35°C to +50°C (-31°F to +122°F)
- Engineered for safety, including standard cable management for hazard reduction
- Access to real-time data
- Custom branding
- OUTPUT VOLTAGE CCS: 150-920V DC

PRODUCT PAGE:

[RTM75 75kW](#)





## DELTA City Charger 100kW



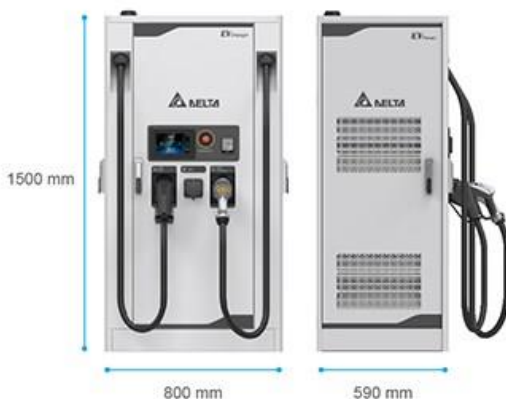
City Charger is an ideal solution for high-efficiency urban charging services. It supports simultaneous charging output and load distribution to optimize the utilization rate of the charging site. City Charger is compatible with OCPP which allows further backend system integration like user management, remote control, and energy management.

### Key Features Include:

- 50kW/100kW simultaneous charging
- Dynamic load distribution optimizes charging service
- RFID, credit card and ISO 15118 user identification
- OCPP and network connectivity enables system integration
- Modular design ensures high availability
- IP55 and small footprint provides high adaptability
- 94% power efficiency for energy-saving

### PRODUCT PAGE:

[DELTA City Charger 100kW](#)





## RT175-S 175kW



The RT175-S high-powered DC charger is easy to install, own, and operate, with a small footprint and backed by our 24/7 specialist customer care. Capable of charging all EVs on the market, this charger is an economical solution for a range of industries seeking a high-powered, efficient charge to get vehicles back on the road fast.

### A powerful charger for a modern vehicle class

- The only charger on the market designed for direct connection to 600V 60Hz networks
- Cutting-edge technology engineered for reliability across a wide range of grid voltages – 400V 50Hz, 480V 60Hz
- Engineered for safety with a user unit featuring extra low voltage power supply
- Robust construction with option for delivery without cables, allowing for custom heavy vehicle integration
- Built for any environment, thriving in temperatures from -30°C to +50°C (-22°F to +122°F)
- Engineered for safety, including standard cable management for hazard reduction
- Access to real-time data
- Custom branding

PRODUCT PAGE:

[RT175-S 175kW](#)





## CHARGING CONFIGURATIONS AND RATINGS TERMINOLOGY:

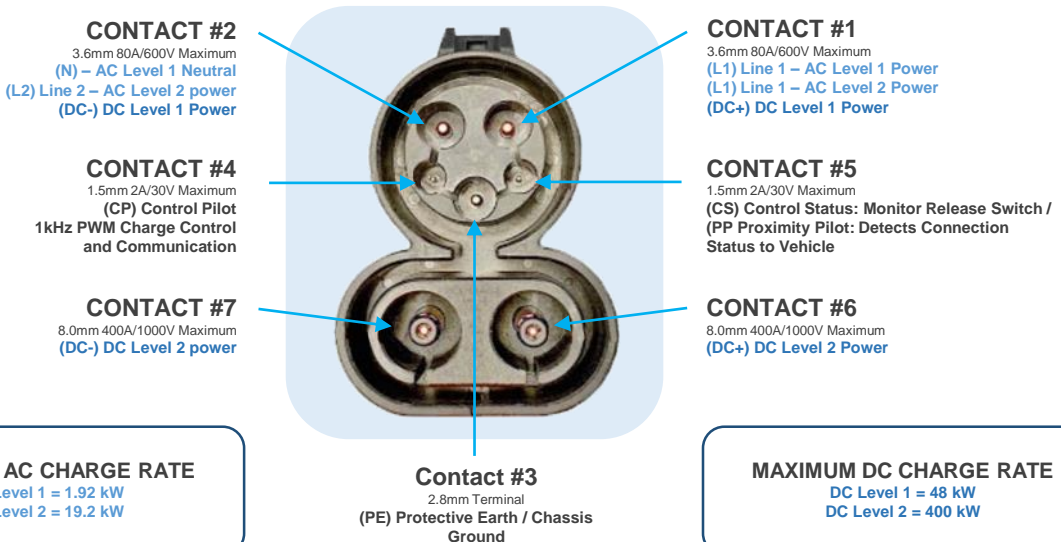


AC Level 1 (SAE J1772)	120V, 1.4 kW @ 12 amp
	120V, 1.9 kW @ 16 amp
	EST. Charge Time
	PHEV: 7hrs (0% to full)
	PHEV 17hrs (0% to full)
AC Level 2 (J1772) PEV includes on-board charger	240V, up to 19.2 kW (80A)
	Charge time for 3.3kW
	PEV 3hrs - (0% to full)
	BEV 7hrs - (20% to full)
	EST. Charge Time for 20kW
AC Level 3 (TBD)	PEV : 22mins (0% to full)
	BEV: 1.2hrs (20% to full)
AC Level 3 (TBD)	>20 kW, shingle phase and 3 phase
PHEV	Plug-in Hybrid Electric Vehicle
BEV	Battery Electric Vehicle
EVSE	Electric Vehicle Supply Equipment
kW	kilowatt



DC Level 1	EVSE includes an off-board charger
	200-450 V DC, up to 36kW (80A)
	Est. Charge Time (20kW)
	PHEV: 22 mins (0% to 80%)
	BEV: 1.2hrs (20% to 100%)
DC Level 2	EVSE includes an off-board charger
	200-450 V DC, up to 90kW (200A)
	Est. Charge Time (45 kW) Off-Board
	PHEV: 10mins (0% - 80%)
	BEV: 20 min (20% to 80%)
DC Level 3 (TBD)	EVSE includes an off-board charger
	200-600V DC up to 240 kW (400A)
	Est. Charge Time (45 kW) Off-Board
	BEV (only): <10min. (0% - 80%)

## SAE J1772 DC LEVEL 2 COUPLER (COMBINED CHARGING SYSTEM (CCS) TYPE 1 CHARGE RECEPTACLE:

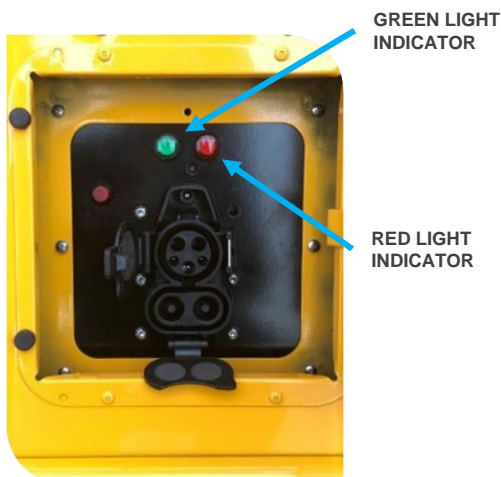




## CONNECTING THE CHARGER TO THE BUS:

- 1 Park the bus in position closest to the charging unit.
- 2 Ensure that the bus is in neutral by pressing the “N” on the push button shifter.
- 3 Apply the parking brake by pulling the Intellipark Brake Switch.
- 4 Turn the Ignition Key to the “OFF” Position.  
If the driver as the intent of staying with the bus while charging, the key can remain in the “ON” Position.
- 5 When ready to connect the charging connector, remove the power connect from the charging dispenser.
- 6 Open the access door to gain access to the Charge Port.  
Charge Port is located behind the service door (entrance door)
- 7 Open the charge port covers (top and bottom).
- 8 Before connecting the power feed to the charge port, always inspect the connector for damage.
- 9 Plug the connector into the Charge Port (**Do not force** the connector into the port. This could cause damage to both Connector and Charge Port).
- 10 Once connected, you may hear 3 distinct beeps to indicate status. If connected properly, there will be an audible click to lock the connector into the port and the green light will begin to flash. There will be 5 to 10 second delay before charging starts.
- 11 A Solid Green Light indicates that the charging is complete.

NOTE: If the Red Light Indicator comes on, the charging has not been activated. Charging does start automatically.



J1772 CCS TYPE 1 COMBO CONNECTOR.  
REQUIRED TO CHARGE BUS (400v MINIMUM)

