



High-Power Charging for Medium- and Heavy-Duty Electric Vehicles

Historically, commercial electric vehicle (EV) chargers have been fairly low-power devices. The typical commercial EV charger found in commercial and mixed-use areas are Level 2 chargers, which typically provides between 7.2kW and 19kW of output power.

Today's medium- and heavy-duty (M/HD) EVs can have storage capacities from 150kWh to over 600kWh. The designs of Level 2 EV chargers are unable to be "scaled-up" to these power levels – their designs simply cannot handle the thermal or power loads required to support M/HD EV Fleets, which typically require chargers with over 50kW of DC output power.

At Rhombus, we are experts in the design of high-power electrical systems with exceptional reliability and maintainability for the most demanding applications – we have deployed thousands units, with near-zero failure rates.

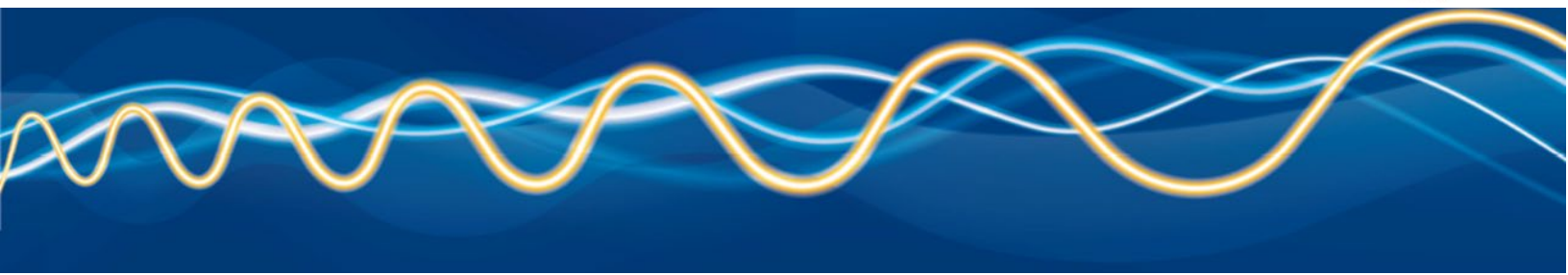


Solutions That Are Expert-Engineered for V2X-Capable EV Charging

Rhombus applies this high-power expertise to the design of our unidirectional DC fast charging solutions for M/HD EV fleets such as school buses, public transit buses, delivery vehicles, refuse trucks, and drayage tractors. Our EV charging solutions are designed specifically for continuous operation at rated loads. These systems are also designed to support the unique needs of EV fleet operators, including the ability to remotely locate the EV charging dispenser up to 600 feet away from the charger PCS. Additionally, Rhombus bi-directional capable stations can support peak hours power flow to the grid to increase resilience (V2G), or for emergency power to buildings during power outages (V2B).



Compatible Dispenser
RES-D2-CS20

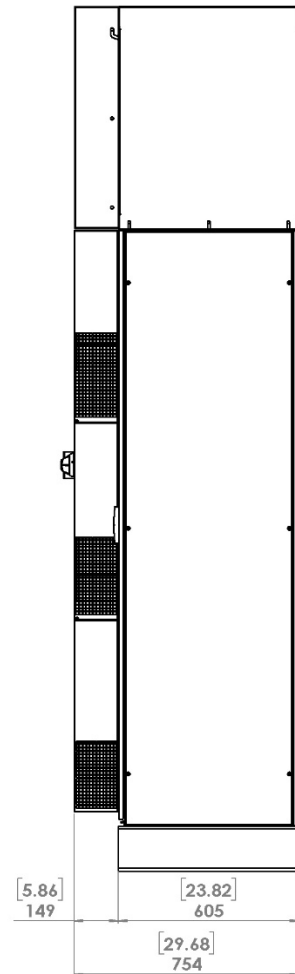
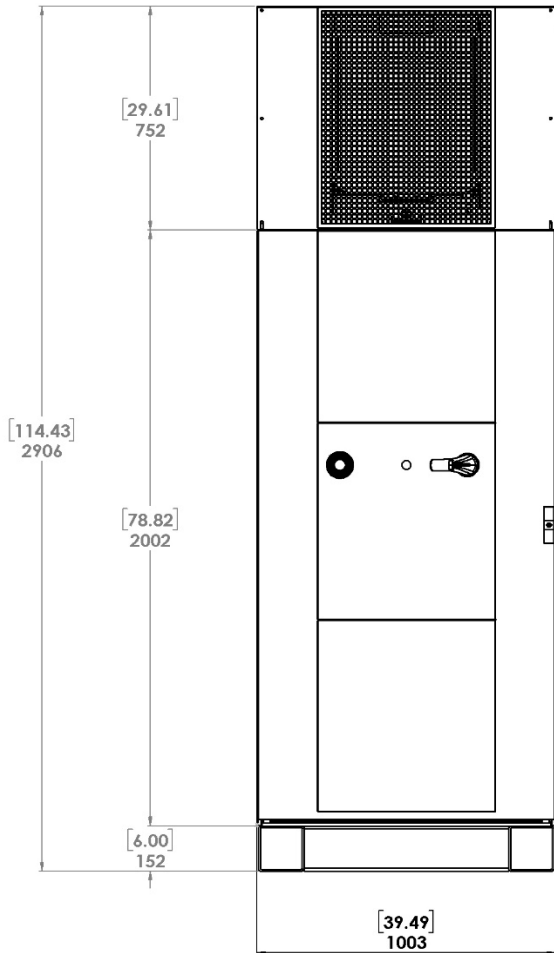
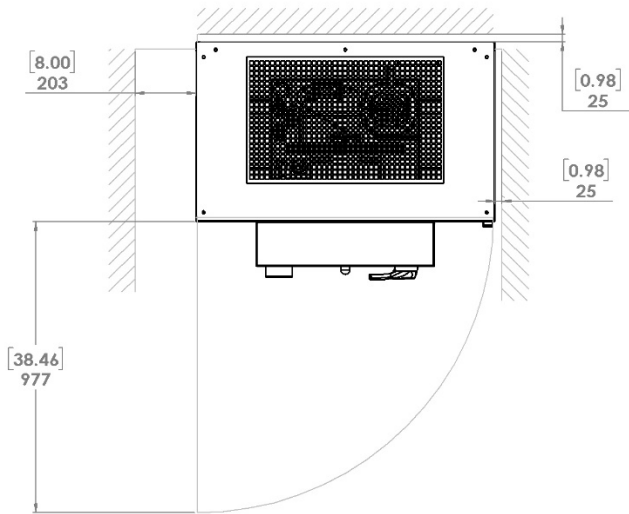


Model	RES-DCVC125-480-V2G	
Power Profile		
AC Specifications (Power)		
Bi-directional capable?	Yes	
Rated Power: (kW/kVA)	125	
Utility Grid Voltage: (Vac)	480-3P	
Max Rated Utility Current: (Aac)	160A @ 480VAC (60 Hz)	±160A @ 480VAC (60 Hz)
Wiring	3 phase WYE (L1, L2, L3, Neutral, Ground) or Delta (L1,L2,L3, Gnd)	
Utility Grid Frequency: (Hz)	60	
Power Factor Range	± 0.5	
THD for Linear Loads	<5%	
Maximum Efficiency:	>95%	
Grid Isolation	Galvanic, Integrated	
DC Output		
Maximum Power (kW)	125	
Voltage Operating Range: (Vdc)	530 to 920	
Maximum Current: (Adc)	±200A (Charging cable limited)	
Connector and Cable	CCS 1, Up to 8m (25ft)	
Energy Metering		
AC Energy Meter	±2% from 20% to full scale?	
Mechanical		
PCS Dimensions: W x D x H mm (in.)	1000 x 600 x 2920 (39.5 x 24 x 115)	
PCS Weight: kg (lbs)	975kg (2,150 lbs)	
Environmental		
Cooling	Air + Integrated Liquid Heat Exchanger	
Environmental Rating	NEMA 3R	
Operating Ambient Temp.	-20 °C to 45 °C (-4 to 113°F)	
Storage Temperature Range	-30 °C to 60 °C (-22 to 140°F)	
Humidity	0 to 95% (non-condensing)	
Altitude	De-rated over 2,000m above sea level	
Communication & Control		
Network Interface	Standard: Ethernet (Optional: Wifi, 4G, LTE)	
External Control & Management	Rhombus VectorStat® for enhanced diagnostics and energy management.	
Certification, Safety, Compliance		
Certifications	UL 2202, UL 2231, CSA 22.2 & UL 1741-SA	
Compatibility		
PCS Compatible with Dispenser Model:	RES-D2-CS20-V2G	

All specifications are configuration dependent and subject to change
 VectorStat® is a registered trademark of Rhombus Energy Solutions, Inc.

Rev 021921

Dimensions : RES-DCVC125-480-V2G



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