

125kW DC FAST SMART INVERTER POWER CONVERSION SYSTEM (PCS)

MEDIUM AND HEAVY-DUTY ELECTRIC VEHICLES (EVs) REQUIRE MORE FROM THEIR CHARGERS

Today's medium and heavy-duty (M/HD) EVs can have storage capacities from 150kWh to over 600kWh. These vehicles need charging systems that have been designed to continuously supply high rates of clean, reliable DC power (60kW to 125kW) on a continuous basis. At Ivys, we are experts in the design of high-power electrical systems with exceptional reliability and maintainability for the most demanding applications. Our units are proudly **designed and manufactured in the USA.**

SOLUTIONS THAT ARE EXPERT-ENGINEERED FOR V2X-CAPABLE EV CHARGING

The utility grid's resilience is constantly being challenged, from both weather events and peak loads. Vehicle to grid (V2G) provides the ability to offset peak loads by offering/selling excess vehicle power back to the grid, reducing total energy costs. Vehicle to building (V2B) enables vehicle energy to power critical building circuits during power outages, improving overall site power resilience. Our charging solutions are UL 1741-SA certified, simplifying fleet operator deployment of V2X-capable charging systems for the M/HD EV fleets.

KEY BENEFITS

125kW Power with Bi-directional
Capability

530VDC to 920VDC Output Range

Continuous Operation at Rated
Load

UL 2202 & UL 2231

TECHNICAL SPECIFICATIONS

AC SPECIFICATIONS (POWER)

Bi-directional Capable?	YES (RES-DCVC125-480-V2G); NO (RES-DCVC125-480)
Rated Power	125 kW/kVA
Utility Grid Supply	480VAC, 3-Phase, 60Hz
Max Rated Utility Current	+/-160A@480VAC/60Hz (V2G), 160A@480VAC/60Hz (non-V2G)
Wiring	3-Phase, WYE (L1, L2, L3, Neutral, Gnd.) or Delta (L1, L2, L3, Gnd.)
Power Factor Range	+/- 0.5
THD for Linear Loads	< 5%
Maximum Efficiency	> 95%
Grid Isolation	Galvanic, Integrated

DC OUTPUT/INPUT

Maximum Power	125kW (625-800VDC)
Voltage Operating Range	530VDC to 920VDC
Maximum Current	+/-200ADC (V2G), +200ADC (non-V2G); Charging cable limited

ENERGY METERING

AC Energy Meter (Option) / Required for V2G	+/-1% from 20% to full scale
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MECHANICAL

PCS Dimensions	39.5"W x 24"D x 115"H
PCS Weight	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

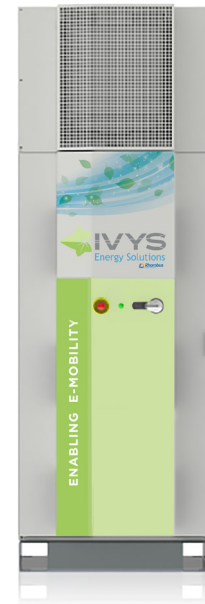
Local Control	Modbus RTU/CAN
External Control & Management	VectorStat® for enhanced diagnostic and energy management

CERTIFICATION, SAFETY, COMPLIANCE

Certifications	UL 2202, CSA22.2, IEEE 1547.1, UL1741-SA
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COMPATIBILITY (MAX DISPENSERS TO PCS RATIO)

Smart Inverter Compatible with Dispenser Model	RES-D3-CS20 (5:1) or RES-D3-CS20-V2G (5:1)
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Smart Inverter (PCS)



Dispenser