XV series

Delta-Q Technologies XV3300

3.3 kW Battery Charging System for Lithium and Lead-Acid Chemistries

Built for light electric on-road vehicles and non-road mobile machinery, Delta-Q Technologies' XV3300 can optimally charge any nominal 48-, 80-, or 96-volt battery pack of any chemistry. Its unique design combines a high-performance 3.3 kW charger, a 500W DC-DC converter, and an EV charging station interface, in a highly compact package. The XV3300 is the ideal solution for powertrain electrification.

Available Models	58 V	65 V	120 V
XV3300 Models	✓	✓	✓

✓ Lithium ✓ Lead-Acid

Charger Features

High Reliability

IP66/IP67-rated, rugged, sealed aluminum die-cast enclosure and connectors protects against vibration, shock, dirt, chemicals, and fluids. Automotive and non-road mobile machinery reliability; tested to an 8-year service life.

DC/DC Converter

Delta-Q's patented integrated DC-DC converter technology provides 500 W of auxiliary power for the operation of vehicle accessories such as air-conditioners, controllers, lights, turn signals, navigation and communication devices.

EV Charging Station Interface

Compliance with SAE J1772 (level 1 and 2) and IEC 61851 (mode 2 and 3) to charge from standard EV AC charging stations across North America and Europe.

Enhanced Protection

Extensive protection features, such as short circuit, output over-voltage, input and output inrush current limiting, and over-temperature protections, ensure reliable and safe operation.

Global Standard Compliance

Compliance with North American, European, and UNECE R10 regulatory standards allows for easy integration into electric vehicles.

OEM Features

- The combination of a battery charger, DC-DC converter, and EVSE interface saves space, weight, cabling, and cost.
- Class-leading 500 W/ L power density presents space advantages for on-board installations.
- CAN bus communication supporting CANopen and SAE J1939 protocols with the battery management system (BMS) or vehicle control unit (VCU) ensures seamless machine integration to grant original equipment manufacturers (OEMs) wide flexibility in their design and deployment.
- The built-in filtering needed for grid certification, vehicle EMI/EMC requirements, and regulatory compliance speeds up OEM time to market.
- Scalable power from 3.3 kW to 10 kW for faster charging options. Chargers can be paralleled up to 3 units.
- Fan and liquid-cooled variants allow for integration in very compact vehicles and enclosed applications.

Application Examples

SPECIFICATIONS**

DC Output	58 V Models	65 V Models	120 V Models
Nominal output power	Nominal output power 3300 W (1200 W if AC input voltage <185 Vac)		
Output voltage range	30 - 58.8 VDC (voltage Class A)	30 -65 VDC	60-120 VDC
Lithium cells in series	12 to16	12 to18	19 to 34
Max output current	65 A	65 A	40 A
Short circuit	Auto restart and shut-off		
Ground leakage current	< 3 mA		
AUX DC Output	**Drive Mode**	**Charging Mode**	
AUX DC nominal power output	500 W	70 W	
AUX DC nominal output voltage	13.7 V (configurable from12 to 14 V)		
AUX DC output current	0 – 37 A	0 - 5 A	
Quiescent current draw	< 300 uA		
AC Input	**All Models**		
AC input voltage range	85-265 V (100-240 V nominal)		
Nominal AC input frequency	50-60 Hz		
Max AC input current	16 A		
Power factor correction	>0.98		
Communication	**Premier & Essential Models**	**Advantage & Standalone Models**	
Isolated CAN bus	CANopen and SAE J1939 protocols		
BMS wake up signal	12 V / 2 W		
Indicator	On-board multicolor LED		
EVESE	SAE J1772 (level 1 and 2) and EN 61851 (Mode 2 and 3)	-	
EV receptacle signals	Manual lock override; receptacle lock actuator; control up to 6 receptacle indication LED's	-	
Protection	**All Models**		
Input	Surge; over current; under voltage protections; AC input inrush current limitation (<16 A)		
Output	Short circuit, over-load, reverse priority, over voltage protection, over temperature, current limit protections; DC output inrush current limitation		
Mechanical	**Fan Cooled Models**	**Liquid Cooled Models**	
Dimensions (excluding connectors):	300 x 204 x 110 mm (11.8 x 8.0 x 4.3")	300 x 204 x 100 mm (11.8 x 8.0 x 3.9")	
Weight	7 kg (15.4 lbs)	6.5 kg (14.3 lbs)	
Cooling	Forced convection with variable speed fan	Liquid coolant (50:50% Glycol/Water)	
IP Protection	IP66/IP67		
AC Connector	Amphenol DTI series PowerLok 4.0		
DC Connector	Amphenol DTI series PowerLok 4.0		
Signaling Connector	TE Deutsch DTM series		
Mounting holes	M6 diameter holes		

**Please note the above specifications are subject to change without notice.

Please reach out to your sales representative for all regulatory compliances.

DOCUMENT **720-0039** R2 LAST UPDATED: 11/25/2022

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SPECIFICATIONS**

Environmental	All Models
Efficiency	93% peak efficiency; California Energy Commission (CEC)
Thermal fatigue/ Shock/ Vibration	GMW 3172; IEC 60068-2
Operating temperature	-40°C to +65°C (-40°F to 149°F) Full nominal output power -35°C to +40°C (-31°F to 104°F)
Storage temperature	-40°C to +85°C (-40°F to 185°F)
Regulatory	**All Models**
Safety	UL1564, EN 60335-2-29, AZ/NZS60335 (RCM)
Emissions	FCC Part 15 / ICES 003 Class B, EN 61000-3-2, EN 6100-3-3, EN 61000-6-3, EN 12895, UNECE R10
Immunity	EN 61000-6-2, UNECE R10

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