750 Watt Electric Vehicle Charger Data Sheet

Description:

Green Watt's 750W/30V multifunction Lead-Acid battery charger is designed with built-in intelligent control and circuit designs, providing performances of high power density, high reliability, and high efficiency. The module is designed with perfect thermal management, anti-shock technique, and long life time. This charger offers solid and safe power conversions for multiple fields such as e-vehicles, e-bikes, e-motorcycles, e-boat, e-balance car, e-tool and other Li-ion battery applications.

Features:

- Universal AC Input/Full Range
- 90-264 VAC Input
- High Reliability
- Communication via CAN Bus
- Fan Cooled
- Efficiency up to 94%
- Over Voltage Protection
- Short Circuit Protection
- Over Temperature Protection
- Reverse Polarity Protection
- Waterproof IP65 Enclosure
- Case Dimensions: 9.45"(L) x 7.36"(W) x 2.76"(H)

Model Number	Input Voltage	Current Range	Output Voltage Range
EVC-30-750 (PLD750-14CH11-X13)	90-264Vac	110VAC 10 (max） 240VAC 5A (max)	22-30V

Specifications:

Input Parameters				
	Min	Typ	Max	Units
Input Voltage Range* *Designed to optimum performance at 110 and 220 nominal lines	90	110	264	VAC
Input Frequency	47	60	63	Hz
Power Factor 110VAC 220 VAC	 0.99 0.96			
Input Current 110VAC 240 VAC			 10 5	A
Efficiency 110VAC 240VAC	 90 92.5	 92 94		%

Output Parameters					
		Min	Typ	Max	Units
Output Current (Tolerance of +- 3%)		5	22	25	A
Output Voltage(Tolerance of ± 1% at room temp., ± 1.5% at temp. extremes)		22	27	30	VDC
Output Power		110	594	750	W
Noise & Ripple – Iout 25ºC – 20MHz bandwidth				±10	% Iout
Turn-on Delay Time –Full Load				3.0	s
Output Overshoot/Undershoot				10	%

General Specifications			
Isolation	Charger has a minimum of 800VDC floating output isolation from mains power, and thus be capable of combining outputs from multiple chargers that may be powered by different circuits with different input power sources.		
Over Voltage Protection	The PSU enters latch mode for a maximum of 2 attempts to charge for the duration of 20 minutes each, when the output voltage is too high between 36V and 40V. Charger will go into off state after that, until AC power is recycled and the excess output voltage condition is fixed		
Over Temperature Protection	The power supply shall go into thermal protection as the maximum case temperature exceeds 95±3°C. The Unit shall enter hiccup mode, and shall self-recover when the temperature becomes normal		
Short Circuit Protection	When output is shorted, power supply will enter hiccup mode, and shall self-recover when the fault condition is removed.		
MTBF: @ 25ºC, Full Load, Nominal Input	≥ 200,000 Hours		
Product Life @ 50 ºC Full Load, Nominal Input	≥ 50,000 Hours		
Temperature - Operating	MIN MAX	-30 +80	ºC
Temperature - Storage	MIN MAX	-40 +85	ºC
Relative Humidity	10% - 100%		
Weatherproof	IP65		

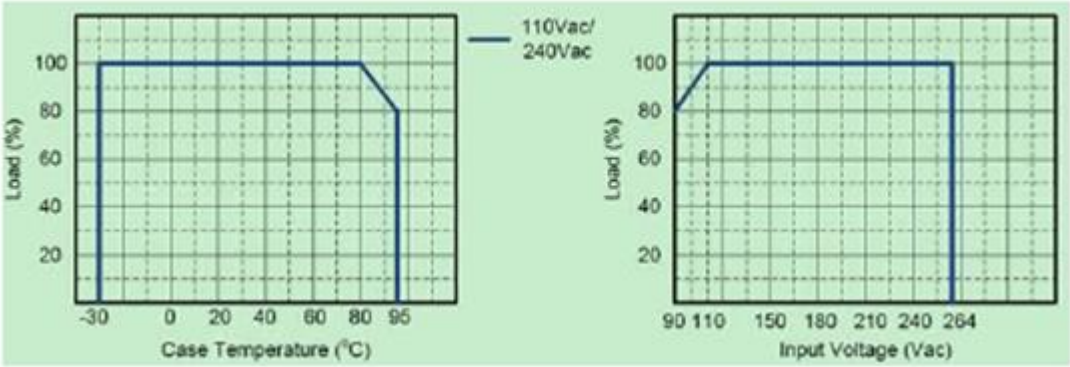
Electromagnetic Compatibility EMI/EMC	
EMI, RFI	Comply with EN55002 Class A, shall have a minimum if 6dB margin.
Immunity:	
EN61000-3-2	Harmonic Current Emission
EN61000-3-3	Voltage Fluctuations and Flicker
EN61000-4-2	ESD 16kV Contact Discharge
EN61000-4-3	Radio-Frequency Electromagnetic Field Susceptibility Test-Rs
EN61000-4-4	Electrical Fast Transient/Burst – EFD
EN61000-4-5	Surge Immunity Test, AC power line: line to line 2kV, line to each 4kV
EN61000-4-6	Conducted Radio Frequency Disturbance Test-Cs
EN61000-4-8	Power Frequency Magnetic Field Test
EN61000-4-1-1	Voltage Dips

Notes:

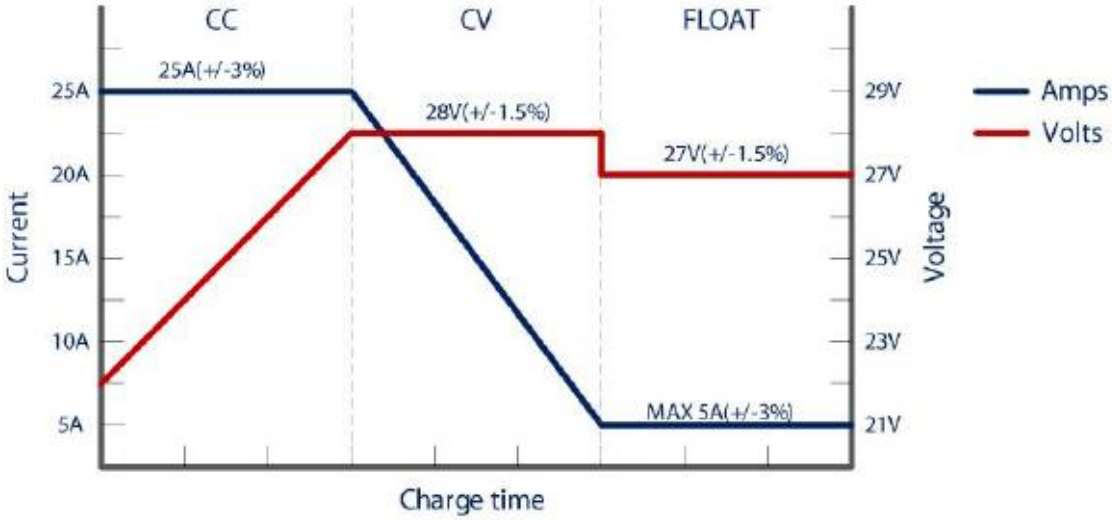
Specification is subject to change without notice.

Charger level requirements
Design and approved to UL1564

DERATING CURVES

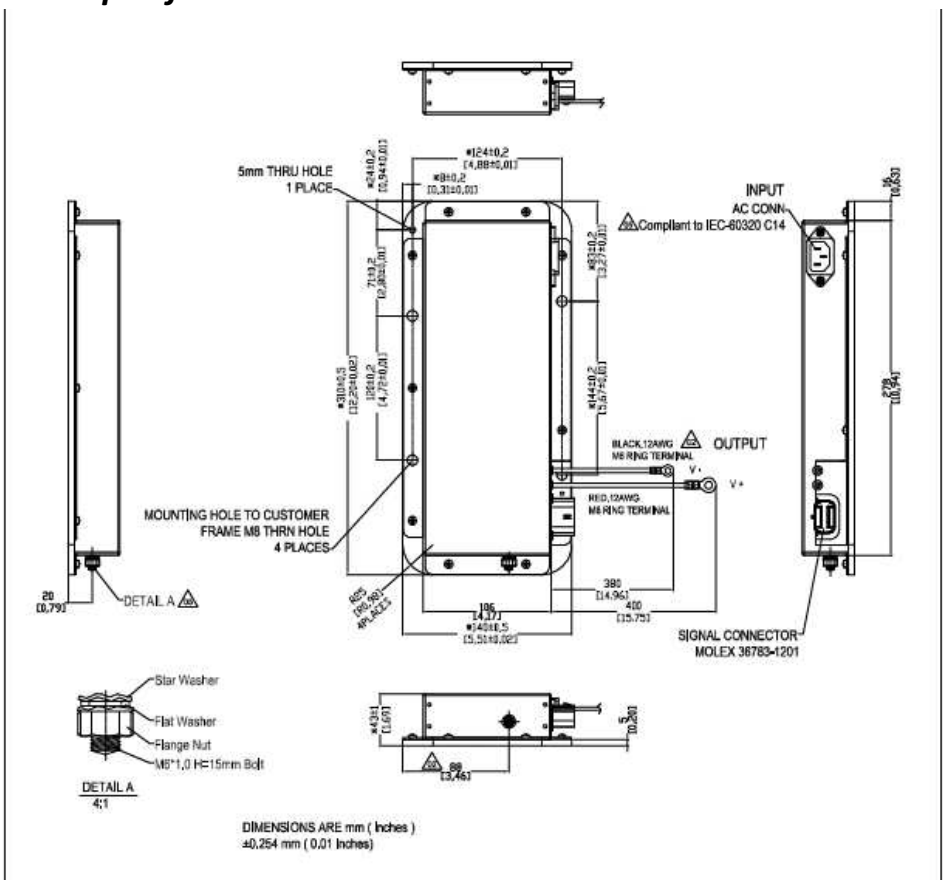


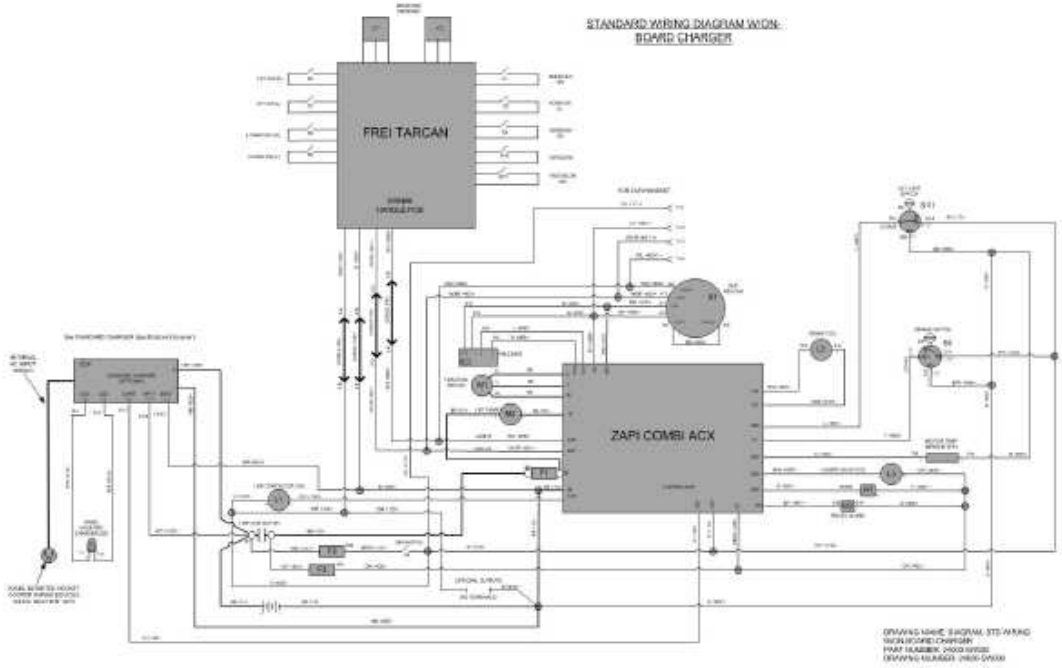
Appendix A:

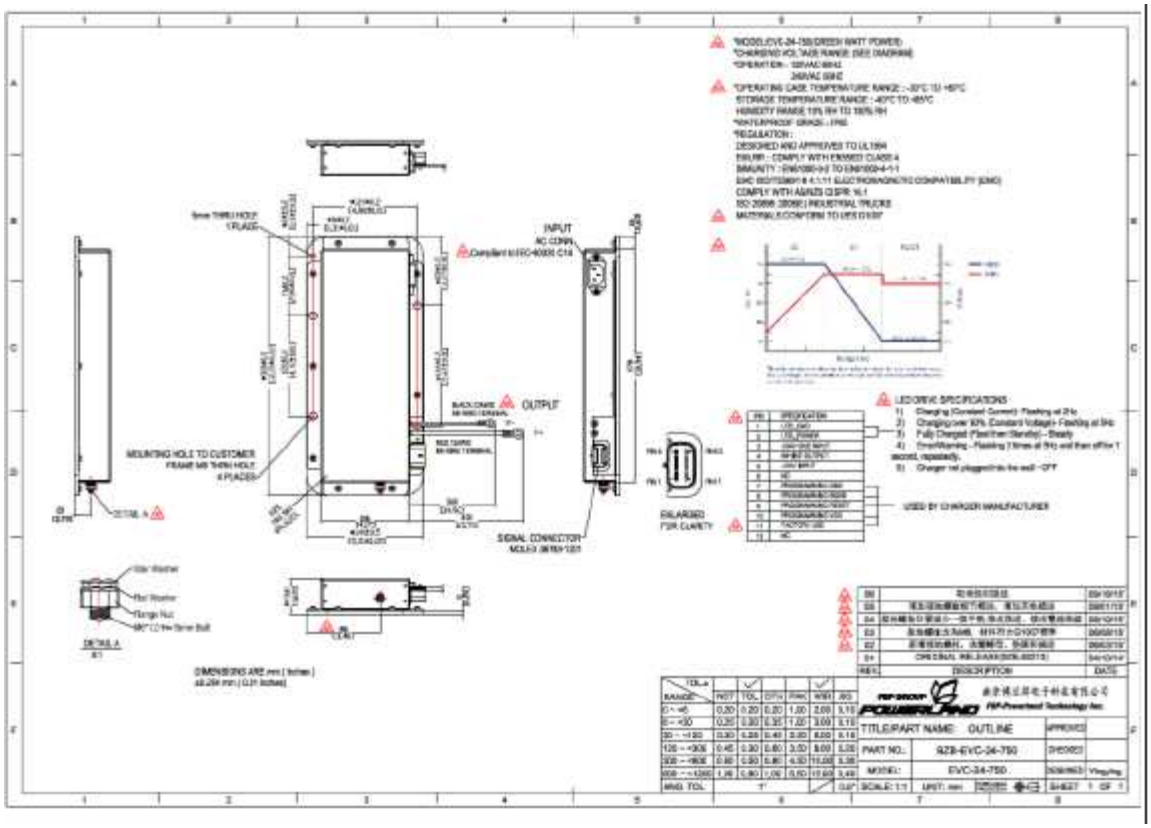


The fully charged condition has been achieved when, for a period of two hours, the cell voltages do not continue to increase and the charging current does not continue to decrease.

Case Specifications:






INPUT
AC CONN.
OUTPUT
MOUNTING HOLE TO CUSTOMER
SIGNAL CONNECTOR
LED DRIVE SPECIFICATIONS
TITLE/PART NAME: OUTLINE
PART NO.: RZB-EVC-24-750
MODEL: EVC-24-750
DIMENSIONS ARE