

Electric Vehicle use with the 220 volt AC input DLS battery chargers.

Many EV (electric vehicle) owners have been looking for a way to charge 12 volt DC batteries from their high voltage vehicle battery bank as well as to power 12 volt DC loads.

The following is from IOTA Engineering regarding using the DLS battery chargers from a high voltage direct current source.

From: Jeff Young [mailto:jyoung@iotaengineering.com]

Sent: Tuesday, November 06, 2007 2:21 PM

To: John Kehm

Cc: dbull@iotaengineering.com

Subject: Re: Driving DLS units off 288 - 312VDC... and other tech questions

Responses to the questions below concerning our model DLS 220-55....

1) The unit should have no problem in the range of 260VDC to 340VDC.

2) Hard-tie parallel is no problem without IQ4 (smart charge option; boost, soak & float); special parallel IQ4 available for two units in parallel.

3) There will be no delay in the response of the power supply to a 50A dynamic load. The design is switchmode, operates above the normal audio range, and employs closed loop feedback (type 1) for output voltage regulation. The response of the power supply depends on the rate-of-change of the dynamic load (di/dt); transient loading slower than 100A/mSec (100,000 A/Sec) will provide minimal effect on the output voltage.

4) As long as the input remains within the range of 260VDC to 340VDC, disturbances on the input will have minimal effect on the output voltage. The enhanced audio susceptibility results from the large input filter and the closed loop regulation of the output voltage.

IOTA DOES NOT RECOMMEND SERIES CONNECTION OF EITHER INPUTS OR OUTPUTS OF THE DLS SERIES POWER SUPPLIES.

Paralleling inputs and outputs is acceptable.