

# Ticket #1071

<b>Ticket Status:</b>	Closed	<b>Name:</b>	Philip Piper
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<b>Create Date:</b>	10/29/2015 2:24 pm	<b>Phone:</b>	(713) 501-2744
<b>Field of Study:</b>	Electrical Engineering		

Subject: **Yale University**  
**10/29/2015 2:24 pm Philip Piper**

This question is in regards to EV8.2.12 concerning chargers that are not UL listed.

We just received a quote for Elcon's PFC 5000 charger which is CE certified, however it is not UL listed. Note that this quote arrived just after submitting our ESF Part 1. So the charger section of our ESF Part 1 is outdated. What process do we have to follow to obtain a waiver for using Elcon's PFC 5000 at competition?

Best,

Phil

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**10/29/2015 5:42 pm**

Hello Phil,

Forward data sheet(s) for your charger that list things like isolation, etc.

-daf

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**10/29/2015 7:51 pm Philip Piper**

Attached is a datasheet from an Elcon retailer, and two CE certifications that were provided by an Elcon sales representative (one for EMC and one for LVD). Let me know if you need anything else and I can get the information from Elcon.

Phil

Charger EMC 08.jpg(261.9 kb) Charger LVD 08.jpg(238.3 kb) PFC\_5000.pdf(336.4 kb)

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**10/30/2015 9:13 am**

Phil,

The enclosed sheets didn't include any input/output isolation numbers.

We've requested that information from the importer and will let you know as soon as we hear back. (We've had other teams ask about this charger as well.)

-daf

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**10/30/2015 2:42 pm**

Phil - we received some information from Elcon (mostly in Chinese), but were able to see that the charger has sufficient isolation and also that it complies with international insulation standards.

Your charger is allowable for the competition.

Please note however that we will likely perform a multimeter continuity check during tech inspection between input and output, and also, as the car frame is to be grounded during charging, any charger leakage current from electric grid (which is grounded) to TSV will trip the IMD and cause a shutdown.

All the best -  
FHelecRules

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### **Please Wait!**

Please wait... it will take a second!