Ticket #949

Ticket Status:	Closed	**Name:**	Philip Piper
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Create Date:	08/20/2015 10:57 am	**Phone:**	(713) 501-2744
Field of Study:	Electrical Engineering		

Subject: **Yale**
08/20/2015 10:57 am Philip Piper

This question is in regards to the note of EV4.12.3.

In order to power the TSVP indicators, we plan to use a buck converter to produce a 12V output from a 100-300V input. We had trouble finding a low power DC-DC converter that fits our needs, however the CUI Inc. VSK-S10-T Series of AC-DC converters seems to work well. It is rated for 100-370VDC input voltage, which will pass straight through the full bridge rectifier that is on the input to the converter.

From my understanding of the note in EV4.12.3, the buck converter has to switch the input voltage over a transformer to galvanically isolate the output from the input. Does the 4000Vac input to output isolation voltage stated in the datasheet (attached to this rules inquiry) fit this requirement? I am in the process of contacting CUI Inc. to verify that a transformer is used in the VSK-S10-T, but I wanted to check if the rating given in the datasheet already meets the requirement in case that information is considered proprietary to CUI Inc.

Best,

Phil
VSK-S10-T.pdf*(295.6 kb)*

08/20/2015 1:04 pm

The 4000v isolation indicates that the converter is isolated, and quite sufficiently so.
It looks like a good choice.
FYI these converters typically do not use a simple "buck" circuit - they are more likely to be a push-pull inverter feeding a transformer, and then a diode rectifier on the secondary.
Regards - FHelecRules

08/20/2015 1:05 pm

(Closing Ticket for Now)

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