

March 27, 2017

Yaskawa – Solectria Solar prepared this document to aid PV developers with the design Yaskawa – Solectria Solar single-phase residential inverters (PVI 3800/5200/6600/7600TL) when using LED lights + dimmers. It has come to Yaskawa – Solectria Solar’s attention that a small percentage of residential installations have resulted in flickering LED lights. The flickers occur when LED lights are used with dimmers. Flickering has occurred with LED lights used with dimmers for many years, regardless of the addition of solar. The most common cause is due to the lack of resistance in the lamp, which hinders the ability of the dimmer switch to work correctly.

Furthermore, Yaskawa – Solectria Solar has performed various tests throughout the past year to determine appropriate combinations of LED lights + dimmers which will **not** result in flickering. The combinations can be seen in the table below. The LED and dimmer combinations below cannot be interchanged; meaning the combinations below are mutually exclusive of one another. Yaskawa – Solectria Solar cannot guarantee that any other combinations will not result in flickering and technical support will be unable to provide additional service. If a customer experiences this issue, Yaskawa – Solectria Solar will recommend that one of the three combinations below be used. If there are any additional questions, please contact the Application Engineering department at (978) 683-9700 x6.

LED Dimmer Flickering	Noise Interference	INSTEON 2477D + HYPERIKON 14W 40D
		INSTEON 2477D + PHILIPS 8W 25D
		GE 18023 + PHILIPS 8W 25D

Sincerely,



David Twohill  
Application Engineer  
Yaskawa - Solectria Solar  
978-683-9700  
[David.Twohill@solectria.com](mailto:David.Twohill@solectria.com)