SOLAHD

11-04-09

SolaHD Technical Support: "Question of the Week"

Question:
How does current flow occur within buck-boost transformers without damaging it, given that primary and secondary wires have a different gauge?

Answer:
Buck-boost transformers are shipped as isolation transformers, but can be connected in the field as "autotransformers" for buck-boost applications. When the primary and secondary windings are connected in series (autotransformer), the current is reflected by the turns ratio from secondary to the primary. The primary is only carrying low current because of this ratio. The majority of the kVA load passes directly from the supply to the load through the secondary winding. The secondary winding is sized to carry the load current as shown in the selection tables on pages 218-229 in the SolaHD Edition 006 Catalog.

Please feel free to contact me at 800-377-4384 (option 2) if you have any questions or comments regarding this message or any SolaHD products. I look forward to hearing from you.

Joey Hidalgo