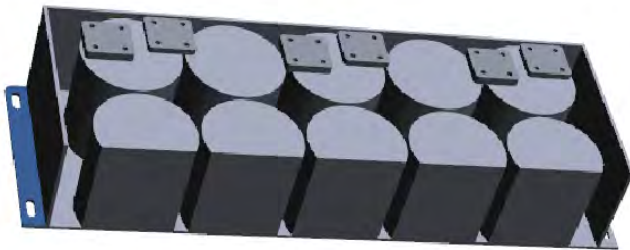


SBE Drop-in Success Story

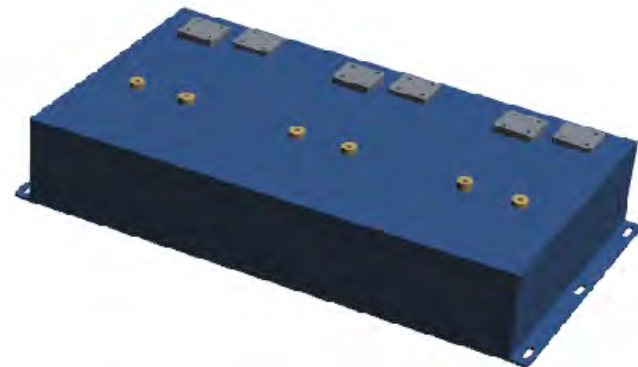


- The Problem

- Current hogging at certain capacitor sections
- Catastrophic field failures
- Expensive vs. power



Half cut away - 2600 μ F 1500Vdc



Capacitor - full view external



Current Hogging

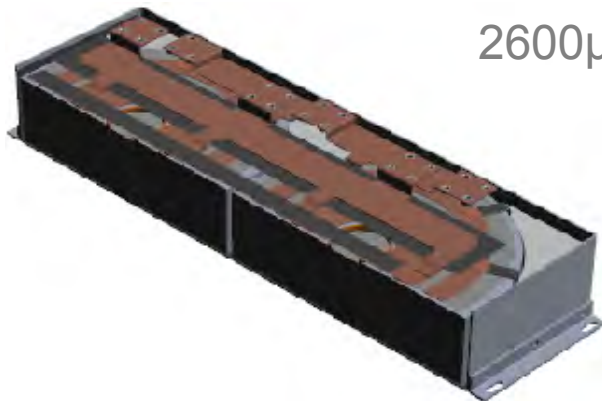
- What's good can be bad!
 - The evidence of “surprisingly low” overshoot is not good fortune.
 - It is usually evidence that one cap is dominating the low impedance path providing an abnormal ESL vs. expected but also filtering more current than planned.
 - The “current hogging” cap is almost always the first to fail and the weak link.
- SBE can find this by simulating, doing passive “ring out” and overshoot tests and comparing the results. **Wide discrepancies in your existing system are predicting failure points in the field.**
- Power Ring assemblies show very little current hogging in typical examples with balanced IGBT connection points

SBE Drop-in Success Story

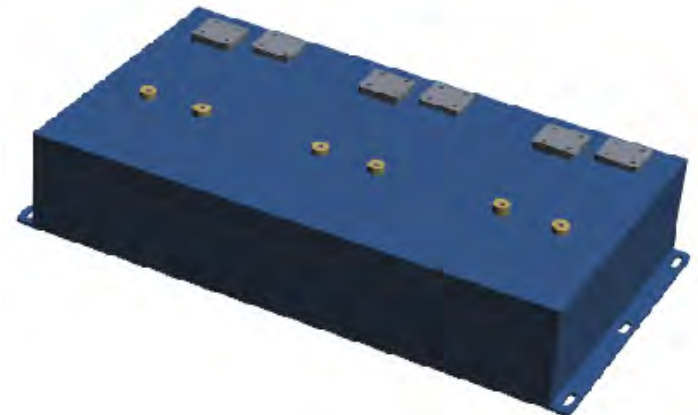


- SBE Basic Solution

- Match terminal structure
- Improved but “compromise” ESL
- Current distribution significantly better than original cap
- Current hogging issue resolved but not optimized



2600 μ F 1500Vdc

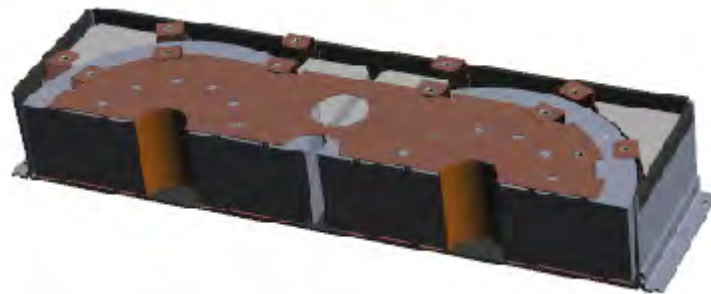


SBE Drop-in Success Story



- SBE Optimized Solution

- Two windings with crown terminals for uniform current distribution - 2600 μ F 1500Vdc, 50% more power
- Best-in-class ESL
- Eliminated current hogging
- Not terminal-to-terminal match but bus structure and volume “drop in”



SBE Drop-in Success Story



- **Outcomes:**

- SBE successfully replaced a 10 section traditional film capacitor system with a 2 Power Ring solution
- Customer opted for the basic solution for quick drop-in adoption with existing terminal connections
- Customer has known optimized solution for performance upgrades during future design cycle with SBE unique terminal system

For more information, download our [Solar Presentation](#).