Formula SAE® (/)

23673

Charging Shutdown Circuit Discharge

Rule Numbers:

2024:EV.8.3.2B

Opened: 2/8/2024 9:17:23 AM ET

State: Closed

Status: Closed By Team

Team Member — 2/8/2024 9:22:18 AM ET

Linda Chen

Team Member for Princeton Univ, Princeton Racing Electric since 2023

The rules of section b state that in the design of the charging circuit that "Design of the respective circuits must ensure that a failure cannot result in electrical
power being fed back into the Charging Shutdown Circuit." Since the shutdown circuit directly controls the AIRs, does this refer to how the inductors on the AIRs could reverse polarity and discharge back into the circuit? If so, is this what this rule is referring to, and that I need to design the circuit to prevent this?

No Attachments

Approved Resolution — 2/8/2024 10:37:52 AM ET

Jonathan Peiffer

Rules Rep since 2020

The flyback of the coils when current is removed is something you'll need to design for. But the main intent of that rule is that you'll need separate relays for the AMS and IMD circuits. For example, you

cannot use an AND gate to combine the two signals to drive only one relay.

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No Attachments

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