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**Session: August 2019**

# PowerHour FAQs

## Paralleling Power System Design Considerations and System Level Control

A comprehensive overview of power systems design, including when and how a system-level control fits in the power system. Topics include system level control reliability as well as paralleling and control strategies employed to eliminate potential single points of failure. The presentation also covers elements to consider when designing paralleling systems, automatic transfer switches, grounding and protection.

To learn more about power systems design, join the Cummins PowerHour webinar:

Following this PowerHour participants should be able to:

- Discuss the major differences between switchboards and switchgear (UL 891, UL 1558)
- Describe transfer switch design considerations in a power system scheme
- Describe the functionality and applications of a system level control and how it fits in a power system
- Discuss protection and ground fault considerations

### **Does the Cummins MasterControl parallel the generator sets?**

The system-level controller does not parallel the generator sets. The generator sets have their own paralleling control.

### **How does the MasterControl interface with the generator sets?**

The MasterControl interfaces with the generator sets' paralleling controls to display generator set data, and it can be used to initiate manual paralleling. There are no Woodward or external synchronizers to parallel the generator sets.

### **Does UL 891 distribution offer drawout breakers?**

There is a common misperception that UL 891 doesn't allow drawout breakers, and that a UL 1558 is required. You do not need to use a UL 1558 for drawout. You can get drawout circuit breakers in a UL 891 distribution board.

### **Does Cummins offer time-based ratings for transfer switches?**

Yes. UL 1008 allows you to have withstand closing ratings based on time or a specific overcurrent device, a breaker or a fuse. Cummins offers both ratings. Information about the level of current and time durations is available on the Power Suite website in tabular form.

### **Do medium-voltage power systems have UL listings?**

At this time, UL does not have listings for medium-voltage. Medium voltage falls under a different classification, IEEE C37. Specifically, for switchgear metal clad the classification is IEEE C37.20.2.

### **Regarding UL 891 boards, are you saying not to use short-time ratings with UL 891 boards?**

You can use the short-time based rating but it is not necessary. You don't need to use a short-time based rating with a UL 891 board because the board is only evaluated for three cycles. Every UL 489 breaker that is 400 amps and above must trip in three cycles or less. Breakers over 400 amps must trip in one and a half cycles or faster. So you can use a short-time rating transfer switch, but there's no advantages.

### **Does Cummins offer cloud solutions for generators or transfer switches?**

Yes. Cummins does offer cloud solutions for generators and transfer switches. We have been offering cloud solutions for a number of years.

### **How many different system topologies or configurations can the system controller accommodate?**

There is no limitation on the number of topologies for the system controller. More hardware can be added to handle input/output for signals and breaker control.

### **Where can I find the short-time ratings for Cummins ATS?**

You can find the short-time ratings by logging into the Power Suite library: [powersuite.cummins.com](https://powersuite.cummins.com).

Visit us at [powersuite.cummins.com](https://powersuite.cummins.com) for previous webinar recordings, PDF presentations, frequently asked questions, sizing tools, FAQ documents, and other Cummins Continuing Education programs. Contact your local Cummins support team member if you need any further assistance.

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