



iQL Parallel Operation Reference Design Application Note



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iQL Parallel Operation Reference Design

1. Design Consideration

- TDK-Lambda's power module provides all the power train components in one compact package allowing the end user quickly to design a custom power system.
- Some system applications demand a higher output current than a single iQL power module can deliver. This application note presents a methodology for paralleling two or more iQL power modules and providing excellent current sharing performance. The technique shown here is applicable to all 24Vin and 48Vin power modules, and results in solution for systems with high power requirements. Because of the automatic current sharing implementation, resistance imbalances in the output distribution system will be accommodated.
- TDK-Lambda Technical Support will be glad to assist you further.

2. Reference Design

- The current sharing technique is based on the well known TI UCC29002 current sharing controller.
- A schematic of the current sharing circuit is shown in **Picture 1**. The schematic shoes two paralleled modules but may be easily extended for more products by continuing the connection to the "Load Sense Bus".
- All resistors less than 1/3 W are 1% tolerance. Higher power resistors are 5% tolerance.
- Additional information on design considerations for the current sharing circuitry can be found in the referenced Texas Instruments documentation.

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Picture 1

