Hybrid Electric Vehicle Bi-Directional DC/DC Converter

RCT Systems developed, manufactured and tested a bi-directional DC/DC converter for hybrid vehicle applications, under contract with the Army Research Laboratory (ARL). The unit converts between 300V on the low side and 610V on the high side. The unit is rated at 150kW in both directions, and is rated for a peak power of 300kW in the up direction. The system can pre-charge from either side, operates with closed loop voltage and current control, and provides contactor isolation.