

Capacitor Charger for Army FCS Applications, 600V Input

RCT Systems developed, manufactured and tested a number of high power series resonant converters (SLR) for high voltage, high power capacitor charging under contract with the US Army Research Laboratory (ARL). This capacitor charger is successfully using IGBT switching devices in parallel driving a 90 khz resonant conversion process in such a way as to avoid switching losses and incur only conduction losses. These converters operate on a 600Vdc vehicle bus that is being supplied by an RCT Systems Bi-Directional DC/DC converter (300Vdc to 600Vdc). These chargers generate a 10kV output for specific Army applications. The topology is scalable up to 80MW applications.



RCT Systems 175kW/300kWpk Capacitor Charging
DC/DC Converter