

ePower for Hybrid and EV

BACKGROUND

Electrical systems on conventional automobiles, buses and trucks are typically powered by a 12 volt battery with a 30A current rating. The switch to "electrification" in hybrid vehicles and drives will require much higher voltage and amperage levels for operation. These demanding electrical requirements of 800vdc to 1,000vdc with a 200A to 500A rating will require special contacts and connectors. Unique packaging solutions for the power distribution system, AC/DC converters, multi-phase motors and starter generators will have to be developed. Electro-mechanical systems using high power are being designed to replace bulky mechanical or hydraulic systems. Amphenol Industrial Operations is leading the industry with our new ePower connector series.

PROBLEM

Connector solutions that will accommodate multi-pin high power and current have been non-existent. Three phase motor and similar power applications have had to rely on wires running through cable glands for power, resulting in large and bulky enclosures. This system of interconnect is space consuming and not operator friendly. Current connectors are often limited to 200A which can be insufficient to handle today's amperage requirements.

AIPG SOLUTION

AIPG introduces the ePower connector series which incorporates our patented RADSOK® technology. The product features higher amperage, lower T-rise, less resistance and lower mating force. It allows the user to incorporate the three traditional connectors into one, saving space and cost. Meantime, the product is integrated with EMI shielding, offering smaller footprint and easier operation than cable glands. For more product detail, please refer to Data Sheet IDS-34, ePower.

