# Amphenol<sup>®</sup> Application Note



# **EV Electric Drive System**

## BACKGROUND

An EV electric drive system delivers a motor's output while maximizing the equipment's operating range with high efficiency. By using a connector the drive system allows ease of access to our existing electric infrastructure, providing the user with the convenience and ability to charge the battery several times a day.

### PROBLEM

There are several challenges with EV drive systems. The need to transfer high current when the equipment is operating is one concern. Another is the end-user's ability to easily mate and un-mate the connector when charging the battery. The footprint size, weight, and high number of mating cycles can cause a dilemma as well.

#### AIO SOLUTION

GT connectors can provide the high current and ease of use the customer demands. When used with RADSOK<sup>®</sup> technology the footprint can remain small while producing up to 50% more amps in the same size package as a standard connector. Mated within a <sup>1</sup>/<sub>4</sub> turn of the coupling nut the standard lifespan of a GT connector is 2000 mating cycles.

