



Amphe-PPC on Electrical Vehicle

BACKGROUND

Most modern EVs use a DC to DC converter. This is an electronic power supply that takes high voltage DC power from the car's traction battery pack, and provides an isolated 12 volt output to power standard accessories, like lights, horns, radios, and fans. The DC/DC converter needs a reliable electrical interconnection to distribute the power.

PROBLEM

The solution needs to be compact to save space, must be capable of 120 amp maximum current, waterproof, unable to be mis-mated, and cost effective.

AIO SOLUTION

Amphe-PPC, Plastic Power Circular, is designed for this solution. It utilizes a 5.7mm RADSOK® contact, which can carry a current as large as 120 amps with a lower insertion force and temperature rise than traditional contacts. With watertight cable glands and rubber seals, the connector can meet IP67. The connector is designed with 90 and 120 keyway rotations to prevent mis-mated connections in different applications. With a molded thermoplastic housing and insert, this connector is lightweight and cost effective. The connector is designed to connect directly with cable glands with no additional adaptors, thus the solution is shorter and fits in smaller spaces.