Amphenol[®]

Application Note





ePower-Lite 5.7mm 3 Ports

BACKGROUND

In order to meet small space constraints, extend battery life, and meet high current requirements within continuously evolving markets, Amphenol Industrial Operations has added a 3 position, 5.7mm solution to the ePower-Lite product family. Designed to meet specifications from EV/HEV, Heavy Equipment and Fuel Cell Vehicle customers, this light weight, robust connector is positioned to be a staple for years to come.

PROBLEM

Electrical requirements for EV/HEV, Heavy Equipment and Fuel Cell Vehicle manufactures continue to migrate towards higher currents, in order to support fast charging and higher power within their on board applications, not supported by the 3.6mm ePower-Lite. As the world continues the push of electrification, global competition demands higher performance encompassed by compact designs.

AIO SOLUTION

Enter the 5.7mm ePower-Lite series, which meets and exceeds requirements for an integrated design within EV/HEV, Heavy Equipment and Fuel Cell Vehicle markets. This rectangular crimp connector is based off of the pre-existing 3.6mm ePower-Lite, and provides high current, EMI, and HVIL options, as well as a secondary locking CPA mechanism and multiple keyway options to prevent mis-mating. The CPA function is designed to meet SAE USCAR2 requirements. The receptacle terminals utilize a busbar design for easy installation. The compact design provides OEM's with a solution that will contribute to high current needs within the aforementioned vehicle markets.