

800V architecture in Electric Vehicles (EVs)

Electric Vehicles (EVs) continue to face the dual challenges of addressing range anxiety and faster charging. Over the recent years, technology trends have been pointing increasingly towards 800V High Voltage architecture in EVs due to multiple benefits including faster charging, smaller and lighter cables, extended range and better regeneration during braking. In the recently launched German premium carmaker Porsche's Taycan, 800V architecture is touted as the backbone to its incredibly repeatable high performance, about half of the charging time compared to the traditional 400V architecture, and ability to achieve higher range with better regeneration capability. The vehicle also features a new inverter from Delphi with an advanced power switch based on Silicon Carbide (SiC) semiconductors using double-sided cooling that results in a more compact and lightweight design compared to current inverters available in the market.



Source: Delphi Technologies

<https://thedriven.io/2019/09/12/new-800-volt-inverter-could-provide-multiple-benefits-for-electric-vehicles/>