



TS1 Series

BACKGROUND

The accelerating push toward electrification is driving demand for high-performance power interconnects that can survive harsh environments. Applications such as electric heavy commercial vehicles, construction equipment, marine platforms, and eVTOL aircraft subject connectors to extreme electrical, thermal, and mechanical stress. Amphenol Industrial Operations' TS1 Series connector was developed specifically for these conditions and has proven reliable in demanding field use.

PROBLEM

Many legacy connector families are not optimized for modern high-power systems. In EV powertrains, interfaces must withstand frequent mating cycles, provide continuous EMI shielding, and maintain integrity under shock and vibration. Energy storage systems (ESS) add sustained high-current operation, which can accelerate contact wear and heating. Without a connector engineered for these stresses, designers face reduced service life, derating, or unplanned redesign.

AIO SOLUTION

Amphenol Industrial Operations' TS1 Series addresses these challenges with a full metal shell and positive latch for mechanical robustness and shielding. The platform covers 200 A/35 mm² to 450 A/120 mm² at up to 2000V DC, with vibration resistance tested to 20G and environmental protection to IP6K9K. Flexible receptacle terminations and configurable cable exit directions simplify packaging. UL4128 certification provides additional assurance for safety and compliance in high-power electrification applications.

