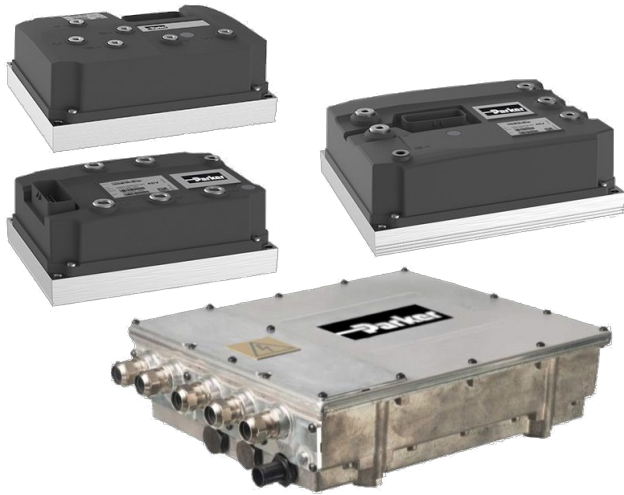


Inverter series for electric and hybrid vehicles

Parker Hannifin launched its Global Vehicle Inverter (GVI) low and high-voltage drives. The series is intended to meet the requirements of on-road commercial and off-road electric/hybrid electric vehicles. CANopen and J1939 protocols for in-vehicle communication are used.



The GVI is a software configurable device; In a CAN-based system, the motor controller setup and operation can be managed by a vehicle manager controller communicating over CAN (Source: Parker Hannifin)

The drives can also be used in non-traction applications, such as electro-hydraulic actuators/pumps for medium and high-power cylinders found in aerial lifts, construction equipment, material handling systems, refuse trucks, wheel loaders, excavators and mining machinery.

Low-voltage GVI motor controllers are available in 24-V, 48-V, 80-V, and 96-V (nominal) variants, with 230-A to 700-A peak current. High-voltage 650-V (nominal) variants meanwhile, offer 320 A to 500 A. GVI drives have been tuned to provide a perfect match for the Parker Global Vehicle Motor (GVM) series of permanent magnet (PMAC) motors to deliver power density and efficiency, explained the company. Optional preconfigured and validated combinations of the GVI and GVM provide customers with integrated solutions.

The company's GVM motors can deliver continuous power up to 228 kW, peak torque up to 1430 Nm, and rotational speeds as high as 9800 rotations per minute. Further features of the drives include CANopen and J1939 (29-bit identifier) protocols for in-vehicle communication, while prototype cable assemblies can be supplied in fixed lengths. The used CANopen protocol supports

CiA 301 version 4.01 based on the CANopen 11-bit identifier.

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