aselsan

HVDC-5K6

BIDIRECTIONAL DC/DC CONVERTER FOR HYBRID/ELECTRIC VEHICLE APPLICATIONS



Product Description

ASELSAN's HVDC Series is a family of converter units in different power levels developed from a unique technology platform.

The HVDC-5K6 is designed as a modular electrical automotive drive system and same housing with OPTRAC-603D auxiliary inverter. All solutions are scalable, as well as being easy and safe to handle. It is a compact, rugged high performance, high intelligence and liquid-cooled charger unit for hybrid/ electric vehicles.

Typical Applications

- Battery Charger
- · On-board Power Supply

Product Features

- · Bidirectional operation
- · Wide bandgap semiconductor SiC based design
- High efficiency (>96%) at full load
- · High power capability with modular parallelizable structure
- J1939 or CANopen interface options
- Analogue inputs and discrete IOs
- Active/passive discharge
- Overvoltage, overcurrent and over temperature protection
- Galvanic isolation between HV and LV
- High Voltage Interlock (HVIL)
- Complies with all EMC requirements
- · Automotive qualified components
- High IP protection

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Specifications

Input Voltage Range : 450-900 VDC

Output Voltage Range : 16-32 VDC

Continuous Power : 5.6 kW

Efficiency :> 96 %

Control Voltage Range : 16-32 VDC

Standards

Automotive Components : AEC-Q100 / Q101 / Q200

Electromagnetic Compatibility (EMC) : ECE R10, Rev. 4

Thermal & Mechanical Data

Max inlet cooling temperature : 65 $^{\circ}$ C Nominal cooling flow : 10 lt/min

Coolant type : 50/50 Water-Glycol

Weight : 11 kg

Operational Temperature : -40 $^{\circ}$ C / +85 $^{\circ}$ C Storage Temperature : -40 $^{\circ}$ C / +125 $^{\circ}$ C

Sealing : IP65

Dimensions







