DC-DC Converter (Isolated) for Hybrid Electric and Fuel Cell Systems

PRODUCT OVERVIEW:
The DC20 Series of converters has been designed for medium and heavy duty electric, hybrid and fuel cell commercial vehicles. It uses advanced digital control with J1939 communications and diagnostics with secondary analog controller and high frequency magnetics with advanced ZVS/ZCS switching to achieve high power density and efficiency. DC20 products are FCC Class A and SAE J1455 compliant. MIL-STD-1275 option available.

FEATURES:
- DC Input Voltage Range: 250-900V
- DC output range: 12-30VDC
- Efficiency: 95% rated, > 94% from 40% to 100% load.
- Output Current: 300A at 27.8VDC, 9 kW, or 450A at 13.6VDC, Can be paralleled externally.
- Short Circuit, Over Current, Over/Under Voltage and Over Temp protection.
- Output voltage 12 to 30VDC, (42-57VDC optional) programmable via CAN.
- Input and output voltages, currents, power and temperature reporting.
- CAN command, control and diagnostics. Output voltage can be regulated via CAN.
- High Efficiency ZVS/ZCS architecture.
- FCC Class A EMI/EMC Compliance (MIL-STD-1275 optional)
- SAE J1455 Vibration Compliant
- IP65 Rated, (IP67 optional)

APPLICATIONS:
Electric, Hybrid, and Fuel Cell Vehicles, Light Rail, Off-Road Equipment, and Battery charging systems. DC20 can be customized to meet your most stringent applications requirements.

DATA SHEET REV: 1402. Specifications subject to change. www.ushybrid.com
Integrated Component Solutions for Clean Mobility & Energy Conservation
3/8-16 GROUND STUD
TORQUE: 150 LB/IN
(3 PLACES)

3/8-16 POSITIVE LUG
TORQUE: 380 LB/IN
(3 PLACES)

MOUNTING HOLES
M6X1.0 ⊘.37
(4 PLACES ON ALL SIDES)

NOTES: UNLESS OTHERWISE SPECIFIED
1. DC/DC CONVERTER WEIGHT: 12.7 kg (28 LBS.).
2. COOLANT: 50/50 ETHYLENE GLYCOL / WATER.
3. MIN FLOW: 11.4L / MIN (3.0 GPM).
4. PRESSURE DROP: 9.65 kPa (1.4 PSIG)@MINIMUM FLOW.
5. PRESSURE DROP: 14.05 kPa (2.1 PSIG)@40°C.
6. INLET TEMP: -20°C TO 60°C.
7. OPTIONAL 3/4-16 HOSE FITTINGS: 3/4” , 3/8”  OR  90 DEG. FITTINGS.
8. TORQUE 3/8-16 FASTENERS TO 150 LB/IN.
9. INPUT MATING CONNECTOR: TYCO HVA280 [P/N# 1587902-9].
10. SIGNAL MATING CONNECTOR: DEUTSCH P/N# DT06-12SA.