50 YEARS OF ELECTRIC PROPULSION LEADERSHIP
NOW accepting early entry Pilot Customers (Q4 2018)

Technical Update – UQM HD2 Systems:
1. HD2 inverter/controller (Overview)
2. Advantages and new features
3. Physical Differences
PowerPhase® HD2 Inverter

Markets
- Medium and Heavy Duty Commercial Vehicles
- Transit
- Delivery/Drayage
- Construction
- Off-Highway

Spec Overview
- Up to 250kW
- 950A, up to 750V
- Rugged Durability
- Volume = 14 liters
- Mass = 16 kg

Compact Packaging | Extremely High Reliability | Heavy Duty Commercial | Low Profile Design
Advantages and New Features

• Software commutation innovation for improved performance
  • 1000 Nm, Increased from 900 Nm in HD250 system,
  • 180 kW Continuous power @ 60C and 193 kW @ 40C,
  • Improved Efficiency
  • Expected performance improvements in other HD2 based products

• Foot print and thickness reduced (85 vs 175 mm)

• Large reduction in weight
  • 16 kg HD2 vs. 40 kg HD

• Improved EMI

• Supervisory Processor for increased Functional Safety

• Latest Power Section with enhanced thermal Design

• Enhanced Durability with improved Architecture
Physical Differences

PowerPhase HD2

Power Connections:
• Size DC (Width)
• Length (internal)

Mounting:
• Spacing

Location:
• Coolant
• Signal
• User Interface

Improved Packaging

Weight: 16 kg
Volume: 14 L

PowerPhase HD

Weight: 40 kg
Volume: 39 L

Isolators