

WATCH #457
March, 2013
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SUBJECT: Increased Accessory Power (IAP) High Voltage Distribution Module (HVDM) (New Optional Feature)

MODELS AFFECTED: H 40/50 EP™

Introduction:

Effective May 1 2013, Allison Transmission, Inc. is pleased to announce the introduction of the High Voltage Distribution Module (HVDM) to provide increased power for accessories such as air conditioning systems.

Allison Transmission, Inc. is also investigating future full electrification of other electric components.

The HVDM is capable of handling two large electrical loads and future considerations include the electrification of power steering, air compressors, and vehicle control systems.

Features and Benefits:

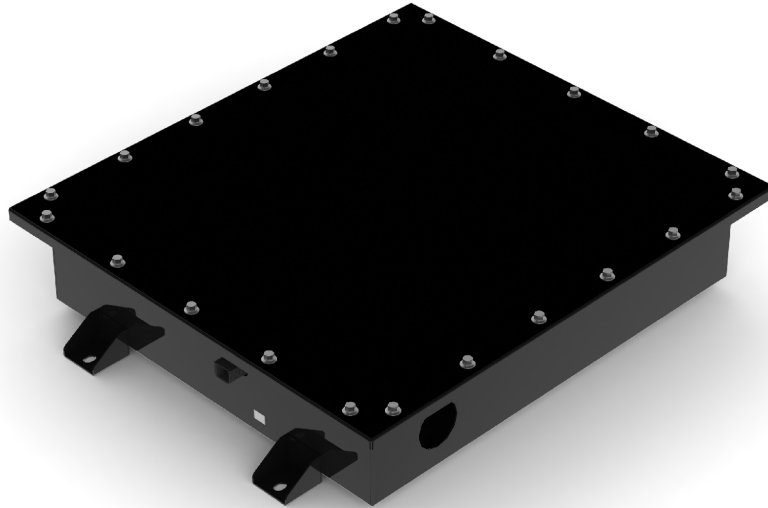
Features:

The HVDM will support Electric A/C and the Vanner Hybrid Beltless Alternator (HBA).

The HVDM will provide up to 30 kW unregulated DC power from the H 40/50 EP System™.

The HVDM is capable of supporting 2 load channels:

- Channel 1: HBA or dual HBA (Primary-Secondary HBA configuration)
- Channel 2: Suttrak or Thermo King electric HVAC



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Figure 1. High Voltage Distribution Module (HVDM)

Benefits:

Alternator and Electric HVAC generators can be eliminated, which will reduce engine parasitic loads and improve fuel economy. Mounting hardware and plumbing can also be eliminated thereby eliminating maintenance for these components.

Removing these manually-driven components from the engine accessory drive will reduce the demands of the engine, reduce fuel consumption, reduce noise levels and establish a green imprint.

In addition, on-road time will increase due to the reduction of maintenance and durability issues related to engine-mounted components.

The HVDM is capable of handling two large electrical loads and future considerations include the electrification of power steering, air compressors, and vehicle control systems.

Vehicle Requirements:

Increased Accessory Power (IAP) may be used on:

- Buses, coaches
- Vehicles equipped with electric A/C from Sutrak or Thermo King only (at this time)
- Vehicles equipped with HBA or dual HBA

IAP requires:

- Vanner HVDM
- MY2013 System Identification Number (SID)
- Low voltage additional wiring for Transmission Control Module (TCM), Vehicle Control Module (VCM), HVDM, and the High Voltage Interlock Loop (HVIL)
- J1939 communication new messages

- HVIL extends to HVDM and the load channel components
- High Voltage Splice
- HVDM can be rooftop mounted
- Thermo King electrical HVAC requires additional choke box for DC to AC conversion
- Additional cooling requirements for the drive unit and DPIM loading



NOTE: Requires MY2013 Allison Hybrid SID.



NOTE: Contact Vanner for more details concerning the HVDM installation, and Allison Application Engineering for IAP Installation and Integration with the H 40/50 EP™.

Warranty questions on the High Voltage Distribution Module (HVDM) should be directed to Vanner Corporation, Hilliard, Ohio.

For additional information on the High Voltage Distribution Module (HVDM), please contact Vanner Corporation at: www.vanner.com or 800-AC-POWER (227-6937).