

# ef·fi·cien·cy

\i-'fi-shən-sē\

: the ability to do something or produce something without wasting materials, time, or energy: see **IAP II™**



**IAP II™**  
Increased Accessory Power II

Efficient energy management is the desire of the modern transit fleet. Effectively distributing power to accessories like electric air conditioning, air compressors, and power steering systems is key to providing better fuel economy, reduced emissions and lower maintenance costs.

*Full electrification* of the transit bus is the mission of Vanner's Increased Accessory Power II™ (IAP II™)

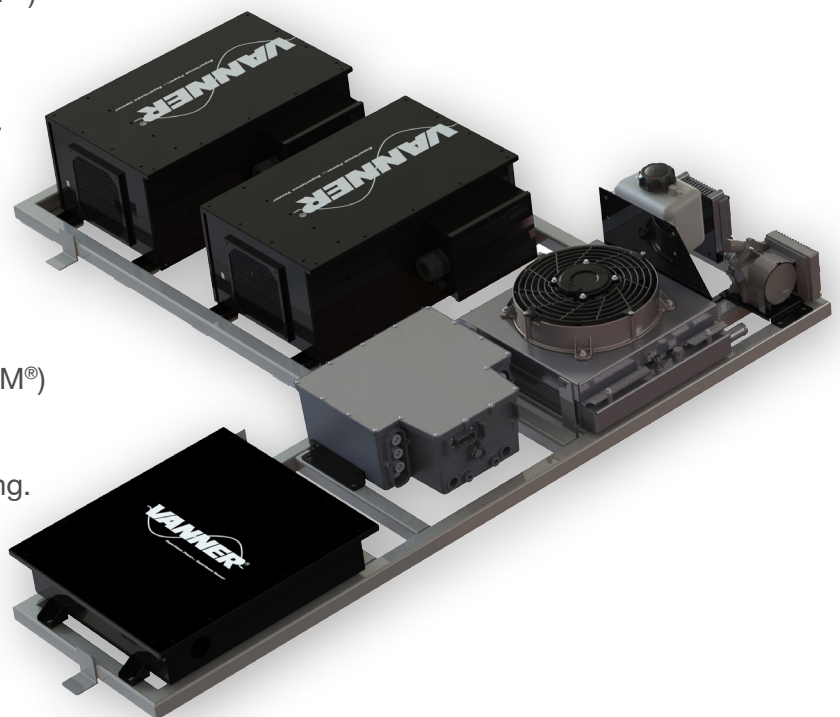
Building on the success of IAP I, a water-cooled Vanner Exportable Power Inverter™ (VEPI™) is now included and produces 230 VAC 3-Phase for full bus electrification.

IAP II™ includes either a Single or Dual Hybrid Beltless Alternator® for up to 600 amps-at-idle 24 VDC charging.

A Vanner High Voltage Distribution Module® (HVDM®) acts as a smart electrical grid for the hybrid bus and 80-Series Equalizer with Model Based Battery Monitoring® (MBBM®) for dynamic charging.

The result? Up to 30 kW of continuous export power from the Allison H 40/50 EP™ Hybrid.

All proudly made in the USA.



**VANNER®**

Power Management For Transit

[www.vanner.com](http://www.vanner.com)

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# VANNER®

## HBA®

- Single or Dual
- Provides up to 600 amps-at-idle smooth 24VDC
- 92-96% efficiency

## HVDM®

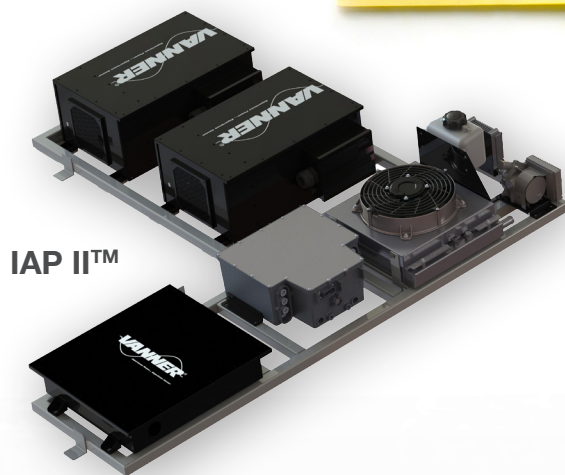
- Creates 99.9% efficient smart electrical grid for Allison H 40/50 EP Hybrid

## VEPI™

- 230 VAC 3-Phase
- Fully electric air conditioning
- Power steering
- Air compressor

## MBBM®

- 80 Series Equalizer® for dynamic house battery charging



IAP II™

- Successful severe hot weather testing
- Components easily accessible
- Made in the USA!

IAP II™ Diagram

