

# leep™ freeze

Our LEEP™ systems are **anti-idle compliant** and **will** reduce fuel consumption, emissions and noise.



Azure Dynamics' LEEP™ Freeze System is **driving a world of difference** in cities throughout North America.

# leep™

## low emission electric power



Azure Dynamics (AZD) develops hybrid electric and electric drive technology for commercial trucks and shuttle buses. AZD has developed a mild hybrid electric system (LEEP™) that can provide auxiliary power for a variety of applications. The LEEP™ system draws energy from the combustion engine during normal driving and can be plugged into the grid for off-duty charging. The system is adaptable across most truck chassis platforms and can be used by refrigeration, aerial lift, telecom and other commercial applications.

## leep™ freeze system

The LEEP™ Freeze mild hybrid system, in conjunction with Kidron's Ultra Temp cold plate transport refrigeration solution, offers an economic and environmentally clean alternative for your fleet needs. The LEEP™ Freeze system draws energy in a highly efficient manner from the vehicle's primary engine during normal driving and delivers it to the Ultra Temp cold plate system, which allows the cold plates to stay cold for the duration of most delivery cycles—even in some cases of vehicle malfunction. The system can also be plugged into the grid for off-duty charging of the cold plates. Finally, the system is compatible with a variety of chassis/PTO combinations. AZD will work with you today to provide a quote for your LEEP™ system.

## advantages of leep™ freeze and Ultra Temp versus conventional engine-driven systems include:

- Significant fuel savings compared to auxiliary mechanical systems
- Maintains even temperatures when the engine is off
- Quiet operation for noise-sensitive environments
- Reduces system maintenance
- Reduces emissions
- Plug-in flexible—accepts 240VAC single-phase or 208VAC 3-phase wall power
- Designed to withstand wall power fluctuations and heavy-duty 12V power supplies

## compact installation



Permanent Magnet Generator driven via PTO



Compact installation; comes with its own frame



Installs next to condenser



Fits in the existing over-cab compartment

## sales inquiries

### AZURE DYNAMICS SALES TEAM

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## electrical specifications

- Permanent Magnet Generator driven via PTO
- Generator operating speed range: 900–3120 rpm
- Refrigeration power available (output to compressor):  
3-phase 208V AC grid power: 4.4 kW  
Single-phase 220–240V AC grid power: 3.6 kW  
Mobile power: 2.8 kW @ 900 rpm to 4.25 kW @ 1200–3120 rpm
- System design life: 10 yr or 70,000 hr

## mechanical specifications

- Operating Temperature Range =  
–18°C to +50°C (–4°F to +122°F)
- Meets IP54 Environmental requirements
- Durability: 200,000 mi per modified GMW3172 vibration standard for truck chassis
- Total Weight: 155 lb
- Over-cab frame dimensions: 27.5" x 18" x 21" (LxWxH)

## chassis & body specifications

- PTO Transmission required – PTO ratio chosen based on speed constraints
- Can be installed on one of several pre-approved chassis that accommodate Ultra Temp

## warranty

- 24 months

SPC501032-B