EPEQ
Electrified Power Equipment®

Clean, Quiet, Power™ for End-to-End Fleet Electrification

VANAIR®
A Lincoln Electric Company

Why Choose EPEQ® to Electrify Your Work Truck?

Clean, Quiet, Power™ • Reduced Carbon Footprint
Reduced Emissions & Idling • Reduced Wear & Tear on Vehicle
Reduced Noise & Fumes • Optimized Vehicle Utilization
Reduced Maintenance Downtime • Reduced Vehicle Service Costs

What is EPEQ®?

EPEQ® is a comprehensive, end-to-end, patented system, of zero emission and quiet Electrified Power Equipment® products. Powered by Vanair's EPEQ® Smart Display, which communicates with a specifically developed line of ELiMENT® Lithium Iron Phosphate (LiFePO4) Batteries, EPEQ® allows you to turn off the vehicle's engine and still run the equipment you need on the jobsite. EPEQ® is an agnostic system that can be mounted on, or within, combustion engine vehicles, electric vehicles, or even on trailers.

Who Should Use EPEQ®?

The EPEQ® series for clean, quiet, Mobile Power Solutions® is perfect for: all fleet industries, road construction, heavy moving equipment, mining, municipalities, oil and gas, HVAC, fire/rescue, marine, RV/recreation, crane/lifting, and mobile service vehicles including tire, roadside response, and more.

It All Starts With the "Heart" of the EPEQ® System

ELiMENT®
LITHIUM IRON PHOSPHATE SMART BATTERY

Why did we choose this type of battery?

STABLE TECHNOLOGY – Lithium Iron Phosphate (LiFePO4) Batteries are chemically very stable making them amongst the safest battery technologies available on the market. They are inherently non-combustible and will not overheat. Each ELiMENT® Battery comes with its own Battery Management System (BMS) which protects against over current, over/under voltage, and over temperature by monitoring the state of the battery cells.

PERFORMANCE – ELiMENT® Batteries have high energy density which means great improvement in capacity, weight, and shelf life over AGM and standard lithium-ion batteries. LiFePO4 batteries are long lasting and provide full amperage output even at 10% remaining battery life. The ELiMENT® Battery can discharge all the necessary power while utilizing power from a charger simultaneously.

COST EFFECTIVE – The ELiMENT® Battery can be fully cycled at least 5000 times, compared to lead acid which only has 300-400 cycles. The life cycle of the ELiMENT® Battery is an impressive 5-7 years. The ELiMENT® fully charges in 1.5 hours, far faster than other batteries, and requires zero maintenance. This combination of long life, fast charge, slow discharge, and maintenance free, means you'll experience minimal downtime and maximum productivity, saving you time and money.

CONVENIENCE – The ELiMENT® Battery is designed to fit in compact spaces such as tool cabinets, van shelving units, and service body side-packs. They are easily mounted and include quick connect plugs for ease of installation and relocation.

EPEQ® Smart Display

Convenience at Your Fingertips

The EPEQ® system is controlled by a smart display which has proprietary software designed to intelligently monitor and control all EPEQ® system components. Each component can communicate to the display allowing the user to make priority decisions to manage the load applied to the battery. The loads allowed to draw on the battery can be adjusted based on various factors such as: temperature, heat build-up, duty cycle, assigned function priorities, and power remaining.

Now, It's Time to Add the Mobile Power

Air Compressors

EPEQ® Air Compressors are driven by highly tuned and specialized permanent magnet AC (PMAC) electric motors for increased efficiency to prolong battery range. The EPEQ® AIR20 and AIR45 compressors communicate with the EPEQ® Smart Display and are designed to provide optimal performance.

EPEQ® AIR20
20 CFM @ 150 PSI
Reciprocating compressor
ideal for intermittent
air use

EPEQ® AIR45
30-45 CFM @ 150 PSI
Rotary screw compressor
ideal for air on demand
applications

EPEQ® AIR5
4-5 CFM @ 125 PSI
Cast iron, oil-free compressor
ideal for intermittent air use with
small air tools

Welder

The Vanair® EPEQ® WELDER140 combines the flexibility of lithium-powered welding with Vanair's long history of providing top-level welding capabilities. The ability to carry the entire welder and cables (34 lbs. total weight) right next to the equipment being worked on, makes the EPEQ® WELDER140 extremely user-friendly for those fast repair jobs.

EPEQ® WELDER140
CC Stick Welding, 140A

AC Power Inverters

The EPEQ® 48V AC Power Inverter lineup includes four Pure Sine Wave inverters to fit any need. The EPEQ® high frequency INVERTER5000 provides 240VAC. The uniqueness of the EPEQ® 5kW inverter is that it is stackable to achieve 10kW, 240VAC power. The low frequency EPEQ® INVERTER6000 provides 120VAC/240VAC power with 300% surge output.

EPEQ® INVERTER3000
48V, 120VAC/240VAC, 3kW
Low Frequency

EPEQ® INVERTER5000
48V, 240VAC, 5kW
(stackable) High Frequency

EPEQ® INVERTER6000
48V, 120VAC/240VAC, 6kW
Low Frequency

EPEQ® EPTO

Designed for electric vehicles or those without a traditional PTO setup, the EPEQ® EPTO provides up to 15 gallons per minute and 3000 PSI of hydraulic power to operate any hydraulic circuit. It is composed of two (2) Vanair® proprietary ELiMENT® Batteries, an electric motor optimized for performance, and a hydraulic pump. The EPEQ® EPTO enables you to work with the engine turned off, resulting in lower noise levels and zero emissions, making it ideal for indoor or residential use.

EPEQ® EPTO
Hydraulic system provides power to your crane or boom truck with the engine off

EV Charging

The Level 1 and Level 2 EPEQ® EV Chargers are your gateway to unparalleled convenience and flexibility for electric vehicle charging. Whether you're at home, at work, on the move, or operating a mobile roadside response vehicle, these chargers are designed to elevate your charging abilities. Both of our portable chargers boast high compatibility (SAE J1772), ensuring it's the perfect fit for a wide array of electric vehicles and plug-in hybrids.

- The EPEQ® Level 1 Charger offers a NEMA 6-20P, with a 6-20R to 5-15P adapter, that can be plugged into a 12OV outlet.
- The EPEQ® Level 2 Charger offers a NEMA 14-50P that can be plugged into a 240V outlet.

EPEQ® Level 1 Charger

EPEQ® Level 2 Charger

EPEQ® Idle Management System

EPEQ IM
IDLE MANAGEMENT

Reduces or eliminates the unnecessary idling of a vehicle's engine.

The cost of idling, on your bottom line and the environment, is hard to ignore. Idling uses up precious resources like fuel and eats away at your budget due to maintenance costs.

EPEQ® IM by Vanair® is a patented vehicle control system that autonomously manages fleet idling, energy consumption, and climate-control so your operators can do their job safely and effectively.

EPEQ® IM Controller

Key Benefits

Reduce Fuel Consumption

Diagnose and diminish your fleet's idling time.

Reduce Engine Wear

Less idling time means less downtime and getting more done.

Reduce Costs

Cut down on your fleet's fuel consumption and maintenance.

Reduce Emissions

Less idling leads to less carbon pollution.

1 hour of idle time = 30 miles of driving

1 gallon of gas produces 19.37 lbs. of CO2

Idling a medium-duty truck wastes 0.4 to 0.6 gallons of gas per hour

Auxiliary Power

EPEQ® DC-DC Converters

Provides 60A of power when the vehicle is off to run all your 12V accessories, such as emergency lighting and flashers.

EPEQ® DC-DC CONVERTER
48V to 12V, 60A

Charging Methods

The EPEQ® system operates at 48V rather than the standard 12V vehicle charge system. The 48V power source, or a converter, must be used to transform from 12V to 48V power, or you can use shore power.

Shore Power

EPEQ® Shore Power provides 120VAC to charge your ELiMENT® Battery. The Shore Power charger utilizes, but does not provide, 120VAC to charge the battery.

Shore Power
120VAC

DC-DC Converters (charging)

12V input to 48V output to charge the ELiMENT® Battery, available in 20A output. Recharges the battery back while driving.

EPEQ® DC-DC CONVERTER
12V to 48V, 20A

EPEQ® Ready-To-Go Kits and Skids

To make your fleet electrification journey easy, Vanair® is Powering Fleet Electrification™ by offering a complete green technology system with ready-to-go kits and skids.

Light Duty/Service and Maintenance Vehicle Kits

This innovative kit was designed to provide on-site mobile service for small passenger-size vehicles. Featuring a 20 CFM air compressor and a 3kW inverter for AC power for electrical tools and computers, this kit is powered by Vanair's proprietary ELiMENT® LiFePO4 Battery. Our system produces no emissions and is virtually silent, making it perfect for use in residential or commercial areas. Whether you need to change the oil, replace the air filter, or perform tire service, this kit has you covered.

Kit Includes: (1) ELiMENT® Battery, (1) EPEQ® Smart Display, (1) EPEQ® AIR20, (1) EPEQ® INVERTER3000, (1) EPEQ® Shore Power Charger, (1) Optional EPEQ® DC-DC Converter, and (1) Optional 14 or 20-Gallon Reservoir Tank

Medium Duty Service Vehicle Kits

The EPEQ® Medium Duty Field Service Vehicle Kit is designed to provide mobile service vehicles for equipment rental houses, construction companies, and other industries with a complete electrified power solution for air compressors, AC power, and welding without the noise and fumes of a standard engine-driven system.

Kit Includes: (2) ELiMENT® Batteries, (1) EPEQ® Smart Display, (1) EPEQ® AIR45, (1) EPEQ® Shore Power Charger, (1) EPEQ® INVERTER3000, (1) EPEQ® WELDER140, and (1) Optional EPEQ® DC-DC Converter

Field Service with Crane Operation Kits

The EPEQ® Field Service and Crane Operation Kit is designed to provide all the electrified power sources, including air, welding, AC power, and hydraulic power for cranes needed by service vehicles for industries, including equipment rental houses and construction companies. Providing Clean, Quiet, Power™, the safe, lightweight LiFePO4 ELiMENT® Batteries provide dependable power and can be recharged via the 12V to 48V converter or with shore power.

Kit Includes: (2) ELiMENT® Batteries, (1) EPEQ® Smart Display (1) EPEQ® AIR45, (1) EPEQ® DC-DC Converter, (1) EPEQ® Shore Power Charger, (1) EPEQ® INVERTER3000, and (1) EPEQ® EPTO

Roadside Vehicle Assistance Kits

The Roadside Vehicle Assistance Kit is the perfect solution for Clean, Quiet, Power™ for emergency roadside responders. With the EPEQ® AIR20 reciprocating air compressor, you can fill tires and use pneumatic tools easily. The system runs with low noise and fumes, ensuring a quiet and safe working environment. The kit also includes a 3kW inverter for AC power for electrical devices, and shore power for recharging at the end of the day. A 12V to 48V DC to DC converter is included to keep your battery charged throughout the day. The level two EPEQ® EV Charger allows for onsite mobile charging, while the 5000A lithium-ion Start•All Jump•Pack® allows for remote engine starting.

Kit Includes: (2) ELiMENT® Batteries, (1) EPEQ® Smart Display, (1) EPEQ® AIR20, (1) EPEQ® Level 2 EV Charger, (1) EPEQ® INVERTER3000, (2) EPEQ® INVERTER5000, (1) EPEQ® DC-DC Converter, (1) EPEQ® Shore Power Charger, (1) Start•All Jump•Pack® 5000A, and (1) Optional Reservoir Tank

Mobile Support Box

Rethink your hard-to-electrify mobile power products with the all-new EPEQ® Mobile Support Box – from the leader in Mobile Power Solutions®! The Mobile Support Box combines some of the best parts of the entire EPEQ® ecosystem in a pre-built, simple to install, and entirely self-contained package!

Box Includes: (2) ELiMENT® Batteries, (1) EPEQ® Smart Display, (1) EPEQ® AIR20, (1) EPEQ® Level 2 EV Charger, (1) EPEQ® INVERTER3000, (2) EPEQ® INVERTER5000, and (1) EPEQ® Shore Power Charger

EPEQ® EPRO Power Skid

Experience the revolution of power with the all-new EPEQ® EPRO20 Power Skid – a new era of sustainability and convenience. The EPRO20 is a simple starting block for the EPEQ® line of electrified fleet equipment, providing a dependable reciprocating air compressor on a convenient skid for easy on/off application.

Kit Includes: (1) ELiMENT® Battery, (1) EPEQ® Smart Display, (1) EPEQ® AIR20, (1) EPEQ® Shore Power Charger, and (1) Optional EPEQ® INVERTER3000

EPEQ® is Your Hard-to-Electrify Mobile Power Solution®

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