

# Integrated lithium-ion technology

Yale® ERC050-060VGL and ERP050-060VLL

#### **TRUCK AND BATTERY FEATURES**

#### What are the battery sizes?

The integrated lithium-ion battery capacities are:

- ERC050-060VGL: 33kWh
- ERP050-060VLL: 30kWh

#### What battery features are included in the truck?

All ERC050-060VGL and ERP050-060VLL trucks come with the standard features provided with the Yale Lithium Ready program. This includes: battery state of charge via the truck display, low state of charge warning features and early shutdown warnings.

Both models advance the integration between the battery, charger, and truck even further. Introduced in these truck are the following features:

- Battery to charger CAN communication. This allows the battery to control charge rate—putting faster charge into the battery from 0-80% before the charging slows to protect the battery from over charging.
- High temperature thermal controls:
  - Battery has the ability to detune the truck traction performance and charge rate to allow longer run times and increase battery life in high ambient environments.
- Heating pads for battery storage (see "What about cold storage?" below).

## How does the residual capacity compare to the lead-acid models?

While the integrated truck is lighter, Yale engineering has optimized the location of the counterweighting to match the lead-acid capacity more efficiently.

What this means in practice is that the integrated ERP050-060VLL residual capacity matches that of the lead-acid with the minimum weight requirements.

### Frequently Asked Questions



The layout of the ERC050-060VGL allows for even more counterweighting and has improved residual capacity vs a lead-acid with minimum weight requirements.

Please consult rating experts for more details.

#### What is the battery warranty?

7 years or 12,000 hours with 60% capacity. Please see the ERC050-060VGL and ERP050-060VLL on the Dealer Portal for more warranty information.

#### Where is this truck built?

The ERP-VLL series is manufactured in our Craigavon facility in Northern Ireland. The ERC-VGL series is manufactured in our Greenville facility located in North Carolina.

#### What is the operating temperature for the battery?

The batteries operating range is -40 to 131F (-40 to 55C).

#### What about cold storage?

All ERC050-060VGL and ERP050-060VLL trucks come with battery heaters installed for cold storage conditions. When the truck is connected to the charger, heaters engage to keep the battery temperature above 32F (0C). The heaters are able to keep the battery above freezing when stored in -20F (-30C) indefinitely.

#### Can the battery be removed?

Yes, if there is ever a need, the battery can be removed. It is removed vertically from the floor. The battery is maintenance free and accessing or removal is not part of normal service schedule.

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#### Are there any major option incompatibilities?

The ERC050-060VGL and ERP050-060VLL are incompatible with the following options; mechanical hydraulics and UL. The integrated lithium-ion battery is designed to UL standards, and internal componentry is UL listed. However, at this point, the battery itself is not UL certified or listed.

#### **CHARGERS**

#### What chargers are available?

The integrated lithium-ion battery communicates to drive the charger. Due to this, the following chargers have been validated and approved:

#### Ecotec Fast Access

#### PosiCharge ProCore

For more information on the chargers including specs, brochures, and warranty information please see their product pages on the Dealer Portal.

#### How fast can the battery be charged?

Charge rate is dependent on facility infrastructure and charger selection. Both Ecotec and PosiCharge offer a range of charger sizes.

- ERP050-060VGL with a 30kWh fast charger can provide a full battery charge in 65 minutes\*
- ERP050-060VLL with a 30kWh fast charger can provide a full battery charge in 55 minutes\*

\*Full battery charge is defined as time to charge from lift-lock out of 8% to 100%; charge times based on 30kW Posicharge ProCore

#### What infrastructure is required for full charge capacity?

The fastest charge rate requires infrastructure providing 480V on a 50A breaker. Please contact charger supplier for more detailed information. Contact information can be found on dealer portal.

#### What are the charger warranties?

Charger warranties and service is provided by Ecotec and PosiCharge. Please see dealer portal pages for warranty information. Frequently Asked Questions

#### ORDERING

#### How do I order the integrated lithium-ion model?

The integrated lithium-ion models can be ordered through NOVO. It is an option under the standard product. Once the base ERC050-060VG or ERP050-060VL model has been selected, choose the "Integrated Lithium" option located under "Energy Systems." Please note this line item includes the battery and operator station improvements. This does not include the charger or the new Air Ride seat.

#### How do I order a charger?

The charger is not ordered via NOVO. Chargers can be ordered through the D3 Direct Ship program via aftermarket. All charger orders go towards dealers AIM-HY targets. Please see the charger dealer portal pages for more information.

### What is the lead time for the integrated lithium-ion models?

The lead time for the is the same as the listed lead times for the standard ERC050-060VG and ERP050-060VL product. There are no increases in lead time due to SPED.

#### Is leasing available?

Yes, please contact Yale Financial Services for more information.

#### Are SPRs available?

Yes. To compensate for possible dealer margin loss by integrating battery pricing into the truck, SPR margins may be increased. When submitting for a SPR, include the integrated option in the opportunity request. Please contact HYG tactical pricing for more information.



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