

## Electrify your Telescopic Boom Lift in one day



### e-PowerPack power-unit

E-PowerPack is retrofit power unit for existing diesel hydraulic machines. It replaces diesel engine and fuel tank. For an operator, the machine works same way as the original diesel version. The unit has mechanical interface for the machine's original hydraulic pump, and control interface for machine's CAN-bus and I/O's. Electrification of a diesel hydraulic machine can be done in one day.

The basic unit has 45kWh Li-ion battery capacity. Capacity is scalable in 45kWh increments up to 90kWh, 135kWh or even higher ... Limit is the available space in the machine. The unit is available in low-voltage and high-voltage versions.

The Power Unit can be charged from 240VAC or 400VAC mains (also USA & Canada voltages are possible) or from DC-fast charge charging station. Unit can be supplied also directly from mains during operation which gives indefinite operating hours.

The Power Unit has also option to supply e.g., power tools with 240VAC or 400VAC.



Two 2nd Generation e-PowerPacks ready for delivery



e-PowerPack installed into Genie S-45 XC

1<sup>st</sup> Generation of the e-PowerPack was released in 2022, 2<sup>nd</sup> generation was released in 2024 and now 2025 is time for 3<sup>rd</sup> generation. Each generation has gone through several updates and an increase of the battery capacity. All the produced units are in daily use at the end-users and feedback has been good. The e-PowerPack was originally developed for telescopic boom lifts, but it basically fits to any diesel hydraulic machine which has physical space for it. If physical space is a problem or some other feature does not fit, Hybria is open to looking for customized solutions.

### What is e-PowerPack

e-PowerPack unit is a plug-and-play electric powerpack which replaces diesel engine and fuel tank. It has an electric motor to rotate the hydraulic pump, and Li-ion battery as energy storage. Advanced thermal management system allows operating the machine from -30°C to +40°C ambient temperature.

### What is the capacity of the e-PowerPack

The basic unit has a 45kWh battery which already gives resources to work 8 hours in light duty work. Fast DC-charging is available as an option which allows to charge battery full in about half an hour. For heavier duty use battery capacity can be increased up to 90kWh, 135kWh or even higher. When mains electric is available the powerpack can be supplied also directly from mains which gives indefinite operating hours.

### For which machines e-PowerPack fits

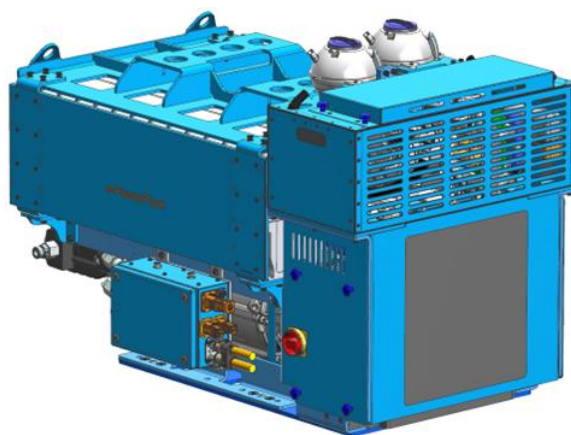
e-PowerPack is a generic unit which can be installed into almost any diesel hydraulic machine which has enough physical space for it. The packet has been installed so far into Genie S-45 XC and Genie S-85 XC. For other machines we need to evaluate first the physical space to see does the packet fits as it is or does it need some customization.

### The most important benefits of the e-PowerPack

Upgrading your machine from diesel hydraulic to electric takes only one day so down time is very short. Operating the unit is easy, just one button to turn it on and off. With scalable battery capacity one can operate emission free whole workday. When mains electric is available you can operate indefinitely by plugging in the machine. Advanced thermal management allows operation in cold winter conditions or in hot climates.

### Why you need e-PowerPack

You want to have free emission machines, save energy costs and win next competitive tendering for emission free construction site.



## Technical specifications

Model	High voltage	Low voltage
<b>Mechanical power, max</b>	120 kW	43 kW
<b>Rated mechanical power at 2400rpm (hydraulic pump speed)</b>	50 kW	34 kW
<b>Rotation speed</b>	0-6000 rpm	0-3000 rpm
<b>Battery capacity (one battery)</b>	30 – 45 kWh (battery can be multiplied)	from 30 kWh (battery can be multiplied)
<b>System voltage</b>	360 V	48 V or 96 V
<b>Charging socket</b>	Type 1 or type 2	Type 1 or type 2
<b>Charge power</b>	6,6 kW or 20kW	3 kW or 9 kW
<b>DC fast charging</b>	Optional	No
<b>Cooling system</b>	Liquid cooled	Liquid cooled
<b>Battery heating</b>	Yes	Optional
<b>Cooling compressor</b>	Yes	Optional
<b>ePTO (240VAC &amp; 400VAC)</b>	Optional	Optional
<b>Low voltage system</b>	12 or 24V	12 or 24V

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