

The Next Generation of MOVITRANS®

Contactless energy transfer for automation



MOVITRANS® – when you need a contactless, space-saving solution

System operators can no longer get by without mobile systems when it comes to bridging lengthy travel distances at high speeds without any wear and tear. MOVITRANS® is the perfect power supply system for this. Whether they're centralized with control cabinet installations or decentralized (with power supply units spread along the line), drag-chain systems that take up lots of space are now a thing of the past. MOVITRANS® also eliminates maintenance intervals, which boosts your system availability.

It operates on the principle of inductive energy transfer. Electrical energy is transferred from a fixed conductor to one or more mobile consumers without any need for physical contact. The electromagnetic connection is made via an air gap and is completely free of wear, making it maintenance-free.

Another key advantage:

This type of power supply doesn't cause any contamination and isn't susceptible to contamination either.

The new decentralized generation of MOVITRANS® – a technological breakthrough in energy transfer.



→ The origins of MOVITRANS®

We developed the technology for the MOVITRANS® contactless energy transfer system back in the 1990s. Since then, we have been adapting this technology to changing market requirements and working on it continuously, particularly with regard to Industry 4.0.

MOVITRANS® is made up of stationary and mobile components for supplying power to mobile electrical consumers without contact. The required energy is transferred via electromagnetic fields (without contact) from a coil or insulated stationary conductors via an air gap to the mobile consumers (vehicles) at specific points or along a track. Compared to conventional energy transfer systems – such as those that use contact conductors or charging

stations – the MOVITRANS® system is particularly low-wear, making it maintenance-free. When using the contactless energy transfer system, there is no need for heavy-duty batteries, which has a lasting impact on the design of a mobile assistance system. The line cables laid on the main routes supply the vehicles with energy when they pass over them. This means charging a battery is no longer necessary.

The vehicles can thus be used in three-shift operation, as no breaks are required to charge the battery. At the same time, fewer mobile assistants are needed than with battery-driven vehicles.

This saves resources – and the same applies to the unavoidable need to change batteries when using battery-driven vehicles.

Here's how it works:



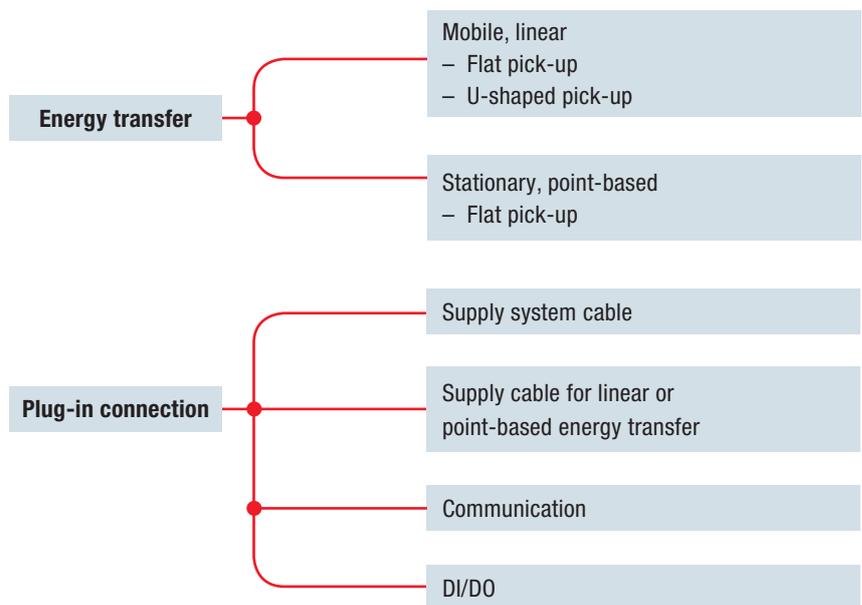
NEW

MOVITRANS® – TES decentralized supply unit

Scalable nominal power: 8 kW / 14 kW / 16 kW

Peak power: 11 kW / 22 kW / 24 kW

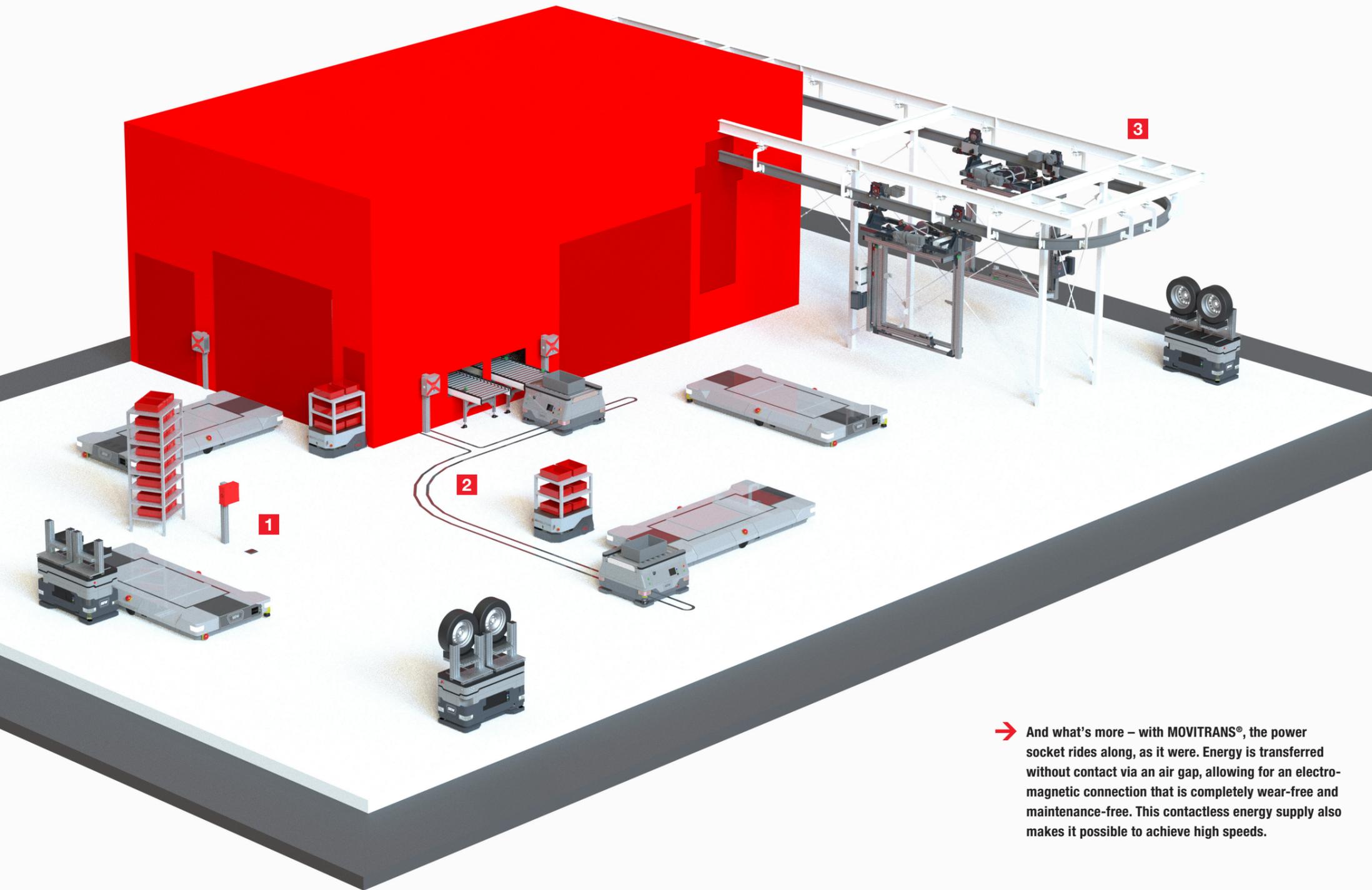
System frequencies: A = 25 kHz / B = 50 kHz



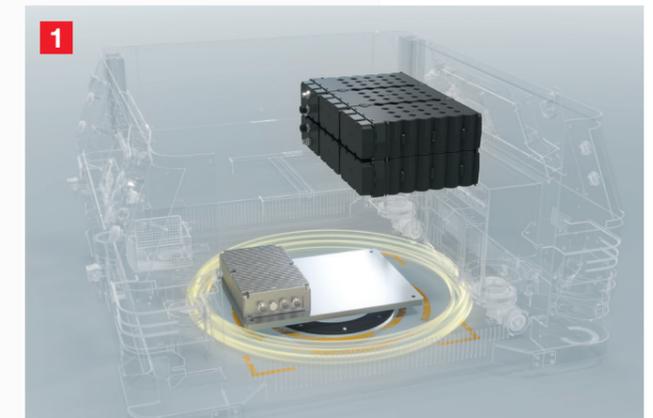
➔ **The new MOVITRANS® decentralized, contactless energy transfer system is the size of just two shoe boxes and is very light-weight! Compared to the conventional solution, it is very compact, meaning it takes up less space while also significantly boosting energy efficiency. You too can benefit from our intelligent innovation.**

The right functional principle for any application

Intelligent technology – whether you require mobile and linear or stationary and point-based energy transfer, we have just the right pick-ups to suit your needs. MOVITRANS® is the perfect supply system for all mobile applications.



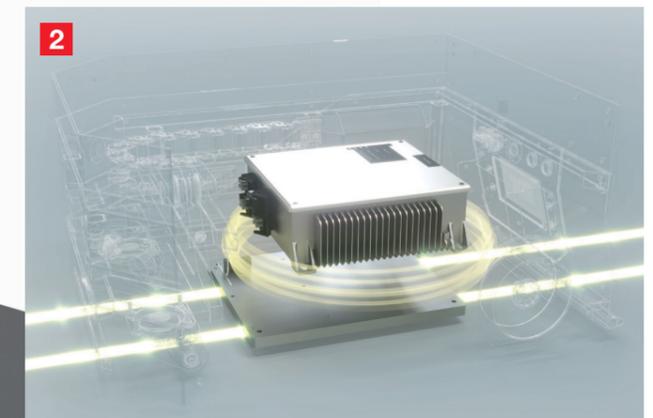
Point-based energy transfer with a flat pick-up and an energy storage unit that can be connected directly



Characteristics

- Compact design
- Very high pick-up performance for its size
- Reduced line cable current of just 60 A

Mobile, linear energy supply with a flat pick-up



Characteristics

- Extremely flat design
- 20 mm air gap between pick-up and line cable

Mobile, linear energy transfer with a U-shaped pick-up



➔ And what's more – with MOVITRANS®, the power socket rides along, as it were. Energy is transferred without contact via an air gap, allowing for an electromagnetic connection that is completely wear-free and maintenance-free. This contactless energy supply also makes it possible to achieve high speeds.

One solution – endless applications

The new generation of our MOVITRANS® contactless energy transfer system with a decentralized energy supply is the perfect solution if

- the mobile equipment has to cover long distances,
- energy has to be transmitted at high speeds,
- the energy transfer has to be maintenance-free,
- any additional contamination has to be ruled out in areas that need to be kept clean, or the equipment is to be used in wet and damp areas.

MOVITRANS® optimizes your material transport in a variety of applications.

Here are a few examples of potential areas of application:

- Mobile assistance systems
- Pallet transfer shuttles and gantry trolleys
- Conveying systems in logistics centers
- Skillet conveyors with elevating tables
- Electrified monorail systems (EMS)
- Floor conveyor systems (e.g. automated guided vehicle systems)
- Storage and retrieval systems
- Lifts

**→ Can't find your application on the list? No problem!
What is the application you need to power with a decentralized, contactless power supply system?
Please contact us!**



If you opt for MOVITRANS®

Your benefits

Simplified installation

No control cabinet is required to house the supply unit. All connections are made using plug connectors.

Straightforward configuration

MOVITRANS® can be easily adapted to suit changing system tasks and modifications.

Increased productivity

MOVITRANS® offers maximum system reliability and is wear-free and maintenance-free.

Increased energy efficiency

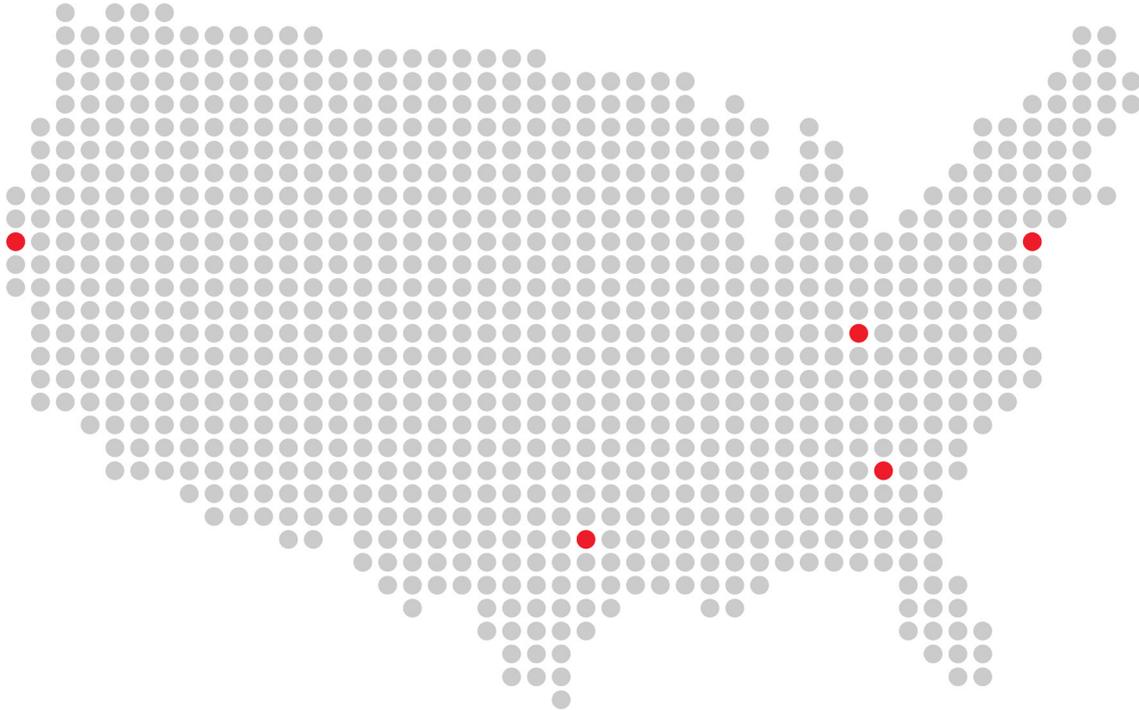
The state-of-the-art component technologies and short power distribution routes used in linear and point-based charging ensure energy is used efficiently.

Savings on investment costs

Even if the design of your factory or plant changes, the existing components can generally be reused.

Lower operating costs

MOVITRANS® is easy to handle, boosts system availability and minimizes maintenance requirements in the long term.



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