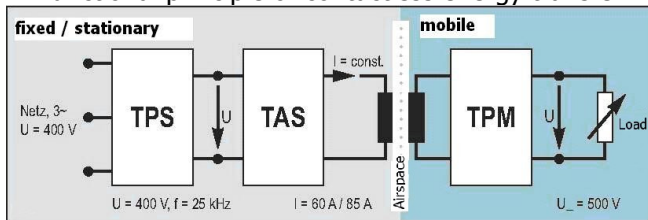


Electro Powered Overhead Conveyor (EHB) using contactless energy transfer

As maintenance rates, high plant availabilities and difficult environmental conditions for the adoption of power supply systems play a decisive role, plant operators rarely employ conventional systems based on the principle of contact e. g. drag chains or conductor lines. A contactless energy transfer provides much more benefits in such cases.

The contactless power supply system MOVITRANS® from SEW-EURODRIVE operates on the principle of inductive energy transfer. In doing so, the electrical power is contactless transferred by a fixed conductor to one or more mobile loads. The electro magnetic coupling results from an air gap and is free from maintenance and wear.

Functional principle of contactless energy transfer



This technology satisfied the experts of BMW Group at the Body-in-White plant Dingolfing and they decided to retool an overhead conveyor (EHB) with a traditional conductor line system to a contactless energy transfer system. Due to long lasting experiences with major projects with overhead conveyor materials handlings BMW quickly found an efficient and qualified partner to realize the project.

In close cooperation with SEW-EURODRIVE Staudinger undertook the part for control system construction, switch cabinet manufacturing, PLC-programming and installation of the plant. Integration and connectivity of the technology for contactless energy transfer in conjunction with a new developed car control system to an existing electro powered Overhead conveyor was no problem for the Staudingerteam and provided so far a smooth production flow after completed replacements.

Scope of supply and service by Staudinger for the project „Intelligent Electro Powered Conveyor lateral frame E63/64“:

- Construction Control engineering (Eplan)
- Issue of Block section overview
- Switch cabinet manufacturing
- PLC-Programming
- Plant installation

Features:

- Preparation of electric documentation and block section overviews for the plant with components of the range MOVITRANS® from SEW-EURODRIVE
- Switch cabinet manufacturing with system components from the product range MOVITRANS® in consideration of all relevant standards and guide lines
- Combination of two different power supply systems in one overhead conveyer facility:
Materials handling system lateral frame right with conductor line system,
Materials handling system lateral frame left with contactless energy transfer
- Combination of the systems on both lifting bars in one lifter
- Operation of the new overhead conveyor cars into a production line by specialized developed transfers
- Control for the overhead conveyor cars through integration and combination Interbus/Profinet/KISS-T
- Installation of extern components out of the product range MOVITRANS®
- Laying of MF-Cables as line conductor for contactless energy transfer

Our Project Partner in the field of Control Systems:

**SEW
EURODRIVE**

