

INTERPHASE TRANSFORMERS

TRANSFORMERS,  
LEAKAGE TRANSFORMERS

AC/DC POWER SUPPLIES

AIR REACTORS

TRACTION SUBSTATION

SMOOTHING REACTORS

OIL TRANSFORMERS

REACTORS & FILTERS

REACTORS IN SPECIAL ENCLOSURES

## ELHAND for the Railway Industry



ELHAND Transformatory is the leading manufacturer of inductive components for Railway, Marine, Oil & Gas, Mining and Power Electronics Industries. Our offer includes low and medium voltage transformers, reactors and filters dedicated to the most demanding applications.

Quality Supported by Certificates





### TRANSFORMERS

Railway transformers are used to feed auxiliary devices. They often operate in harsh conditions such as high harmonics content and complex load cycles.



### LEAKAGE TRANSFORMERS

Leakage transformers combine two functions in a single compact device. They ensure both galvanic separation and relatively high reactance which can be used as part of a sine-wave filter.



### OIL TRANSFORMERS

Oil-immersed traction transformers are designed to work with 12-pulse rectifiers to create DC traction network.



### AIR REACTORS

Air-core reactors are used to smooth the DC current ripple. Their advantage over core reactors is linear characteristic of inductance and lower weight, which makes them a perfect choice for the railway industry.



### REACTORS & FILTERS

Single or three-phase reactors are used to reduce harmonics and improve power quality. Reactors are independent inductances or part of sine-wave or harmonic filters.



### REACTORS IN SPECIAL ENCLOSURES

A set of a reactor and a dedicated enclosure mounted under the floor or on the roof of the train.



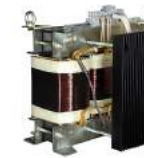
### INTERPHASE TRANSFORMERS

Interphase transformers reduce unbalance between two six-pulse bridges of 12-pulse rectifiers.



### SMOOTHING REACTORS

DC power reactors add inductance in traction network to provide smooth DC current by means of lowering ripples.



### AC/DC POWER SUPPLIES

Universal, non-stabilized power supply for appliances in passenger and cargo compartments.

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