

TECHNOLOGY ON THE RAILS

INDUCTIVE COMPONENTS FOR RAILWAY TECHNOLOGY APPLICATIONS

STS's power transformers and power inductors are used for auxiliary power supplies, for example, in railway technology applications. Leading manufacturers of electric trams, regional trains and high-speed trains around the world have already placed their trust in our know-how and decades of market expertise.

Every kilo counts

Using numerical and analytical calculation methods, we determine the hot spot of each component before building it. We use an appropriate thermal management approach to achieve optimal cooling. The end result is a component that is perfectly designed in terms of volume and weight.

Reliable, long-lasting operation

Partial discharge plays a key role in insulation systems for inductors, which are intended to function reliably for 300,000 operating hours or 30 years. Our experts design your inductors to be compliant with the relevant standards and in line with your specifications – ensuring that we achieve the right partial discharge resistance and provide you with optimally sized, low-weight components.

150

QUALIFIED
EMPLOYEES

15

% RESEARCH &
DEVELOPMENT

1973

MEDIUM FREQUENCY –
RIGHT FROM THE START

100

% MADE IN
GERMANY



DC-INDUCTORS

Key Data:

L = 190 μ H | I = 180 Adc |
I Ripple = 75 App | F = 18 kHz

Dimensions:

180 x 160 x 120 mm
(L x W x H)

Weight:

8.1 kg

Specials:

For use in inductors suited in harsh environments with a certified IP65 protection class. High power density possible due to active cooling through forced air cooling.

Key Data:

P = 35 kW | F = 25 kHz

Dimensions:

260 x 140 x 130 mm
(L x W x H)

Weight:

16 kg

Specials:

Combined component for battery chargers used in railway technology. MF transformer with mechanically integrated DC filter inductor for high charging currents.



COMBINED-COMPONENTS



HIGH-POWER-DENSITY-TRANSFORMERS

Key Data:

P = 45 kW
F = 32 kHz

Dimensions:

150 x 90 x 100 mm
(L x W x H)

Weight:

5.2 kg

Specials:

Due to an optimised winding design and tailored core technologies the power density of the transformer can be increased: 8.4 kW/kg!

Key Data:

P = 60 kW

Dimensions:

550 x 230 x 160 mm
(L x W x H)

Weight:

40 kg

Specials:

Turnkey magnetic solutions are produced in accordance with DIN EN 50124-1, EN 61373 and EN 15085 by our own engineering department – 4 different inductive components in one combined component.



COMBINED-COMPONENTS



MF-TRANSFORMERS

Key Data:

P = 160 kVA
F = 8 kHz

Dimensions:

380 x 230 x 250 mm
(L x B x H)

Weight:

45 kg

Specials:

Shock and vibration-resistant construction ensure safe underfloor installation on a high-speed train. P.D. free insulation system ($Q < 10$ pC for up to 2.1 kV) ensures a long service life with remarkable power density.

