

EI, U,... Lamination assemblies

Different solutions for assembling EI & UI SiFe laminated to meet the power requirements for transformers and chokes. Possibility of integrating filtering.



Technical characteristics

Frequency	16 Hz 2/3 50 Hz - Up to 5 kHz
Power	Up to 200 kVA
Insulation class	Up to 200°C
Weight	Up to 500 kg

Examples of Inductors

Main current (A _{DC})	Inductance (μH)	AC Current (App)	Weight (kg)	L x W x H* (mm)	Specific features
155	2 x 27μH 2 x Diff. mode choke	30A _{pk} @ 400 Hz	7.4	150 x 128 x 125	marine environment, differential with 2 branches [1]
7.5	10 mH	7,5 A @ 100 Hz	21	245 x 140 x 185	Resonant inductor for railway application
75	3 x 450 μH	6 A @ 5,5 kHz	23	270 x 160 x 240	Molded Coils, high resistance to conductive pollution, Railway application
174	2 mH	80 A @ 3 kHz	75	380 x 240 x 300	Salt mist [2]

Examples of Transformers

Power (kW)	Frequency (Hz)	Prim/sec voltage (V)	Weight (kg)	L x W x H* (mm)	Specific features
6	50	3 x 400 3 x 60.6	53	300 x 170 x 270	Protective cover, anti flash finition, railway application [4]
25	60	158/235	150	320 x 240 x 480	Stainless steel mechanical assembly, marine environment [3]
22	50	3 x 400 3 x 376	210	740 x 530 x 430	Integrated filter, controlled noise, auxiliary power supply of railway cars [5]
115	50	3 x 1458 3 x 400	520	594 x 407 x 1025	three phase inverter output transformer with intergrated inductor for railway, Air forced ventilation

* L = Lengths - W = Width - H = Height

Key Benefits

- Optimized design to cost: copper or aluminum conductor (Weight vs Cost)
- Easy to mount: turnkey solution including: winding + mechanics + multiple connections (bus bar, cable lug, terminal block, connector)

Technologies

- Connection through isolators, bus bar,...
- Vacuum Impregnations
- Anti flash finish
- Overmolding
- Water cooling
- Air forced cooling
- Integrated filter

Other design examples

