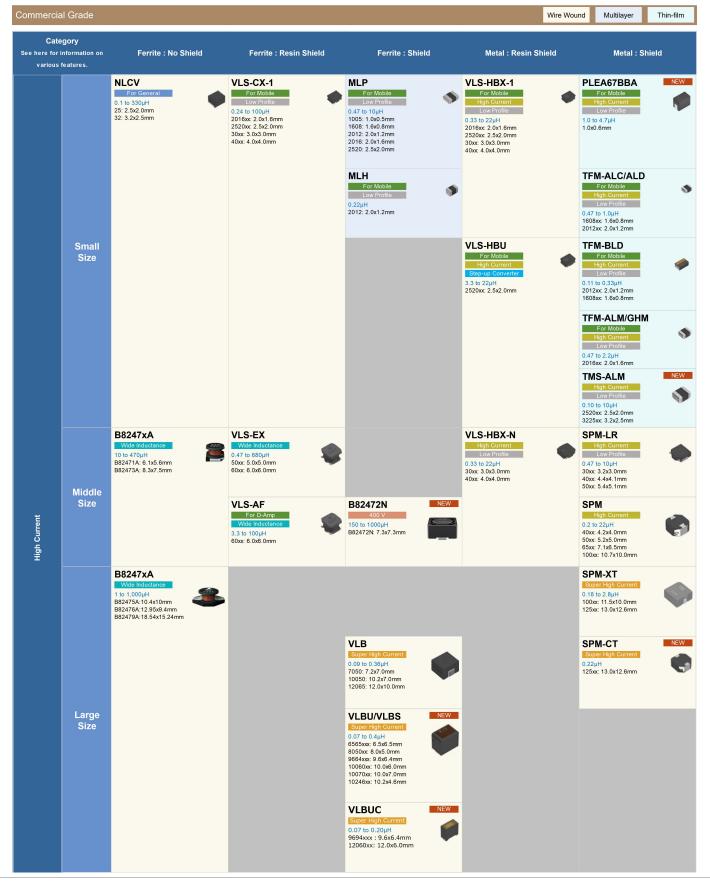


https://product.tdk.com/de/products/selectionguide/smd-commercial.html

## Inductors for Power Circuits Selection Guide (Commercial Grade)











Features		
Process	Wire Wound	These products have a structure consisting of a core with copper wires wound around it. The use of thick copper wires can reduce the DC resistance, making them suitable for applications with large currents.  Composite-type products (SPM series), whose wire wound coils are integrally molded using magnetic metal powder, are also available, and are effective in countermeasures against coil acoustic noise.
	Multi Layer	Metal conductors are printed on sheets which are then laminated to create coils. These products are well-suited to achieving smaller product sizes and lower profiles, with excellent mass-producibility.
	Thin Film	Thin film processing is employed to make high-density pattern forming possible. Combinations with metallic magnetic materials make these products suitable for applications requiring small sizes and low profiles, as well as large currents.
Magnetic Material	Ferrite	These products have high $\mu$ and are suitable for high-inductance applications. They also possess consistent DC superimposition characteristics, demonstrating stable properties up to the magnetic saturation point.
	Metal	Since these products have small changes in inductance depending on temperature, and are less likely to experience magnetic saturation than ferrite, they possess soft saturation characteristics.
Shield Type	No Shield	A simple, open magnetic circuit type with no magnetic shielding on the coil components.
	Resin Shield	The areas around the coil are covered with resin which contains a mixture of magnetic powder such as ferrite and soft magnetic metals. Compared to shielded types, the magnetic shielding effectiveness of these products is limited, but they have good cost balance.
	01:1:1:1	Covering the areas around the coil with a shield core and molding with magnetic materials gives these products a structure similar to a closed magnetic circuit. This type

has high magnetic shielding effectiveness with lower magnetic flux leakage than all other types.