



Ferrites and accessories

PM cores

General information

Date: September 2006

PM cores

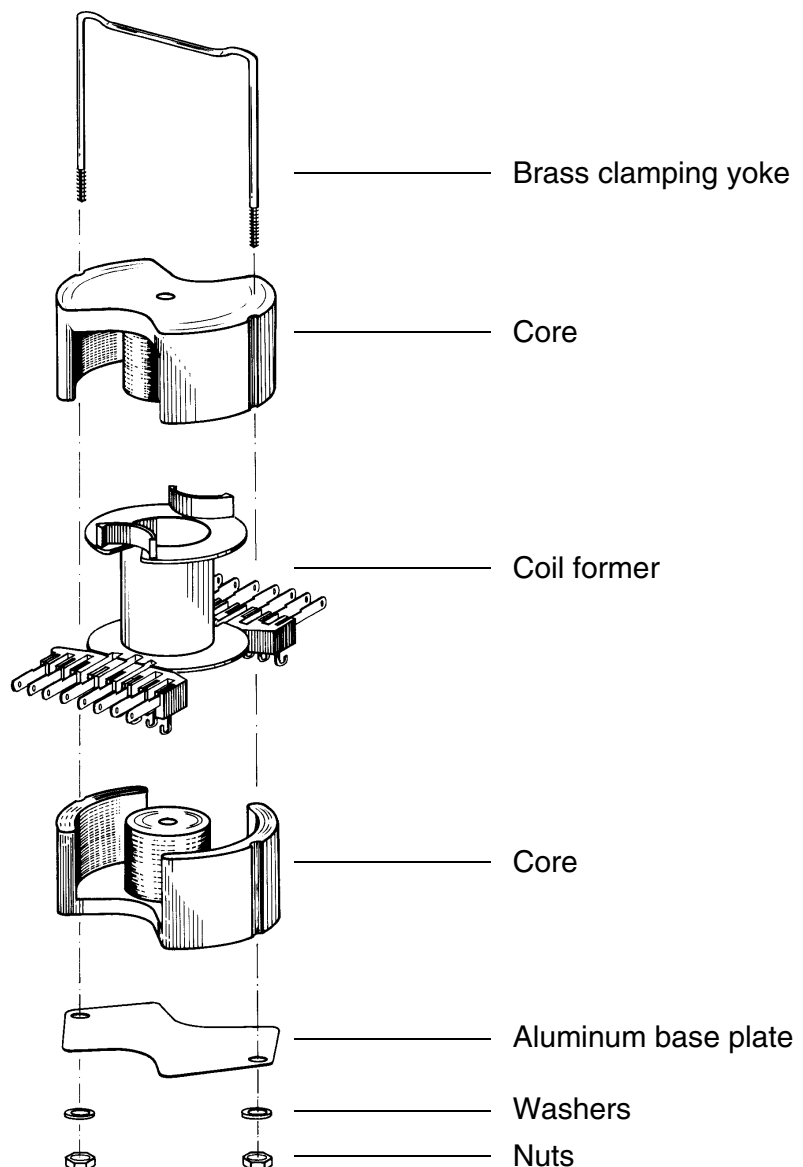
General information

PM cores are particularly suitable for use in transformers handling high powers in the frequency range up to 300 kHz. For numerous design tasks in telecommunications and industrial electronics (e.g. power pulse transformers in radar transmitters, antenna matching networks, machine control systems, thyristor firing transformers, energy storage chokes in switch-mode power supply equipment and others), the pot core shape offers various advantages: wide flux area for high power at a minimum number of turns, thus causing only low magnetic leakage and stray capacitance, as well as good shielding owing to the closed form, precisely ground air gaps, straightforward assembly and economic mounting.

A family of large pot cores, briefly designated PM cores (for **P**ot core **M**odule), is presented in the following.

Due to the weight of these pot cores, particularly in the case of the large cores 87/70 and 114/93, mounting on PC boards may not always be possible. In these cases, the coil former should be mounted with its terminals upwards.

Example of an assembly set:



FPM0002-6

PM cores

General information

1 Core losses

For each core type, the maximum dissipation loss is specified in W/set with the relevant measurement parameters. The flux density has been calculated on the basis of a sinusoidal voltage and is referred to the minimum cross-sectional area A_{\min} .

2 Tightening torque

When using the mounting assembly, the torques for tightening the nuts (without printed circuit board) are as follows:

Type	Torque
PM 50/39	0.4 Nm
PM 62/49	0.6 Nm
PM 74/59	0.8 Nm
PM 87/70	1.0 Nm
PM 114/93	1.2 Nm