Properties of APM-series

APM-series is consist of Nano-crystalline alloy powder .

Among the various type of the cores which produced by certain metal powder,

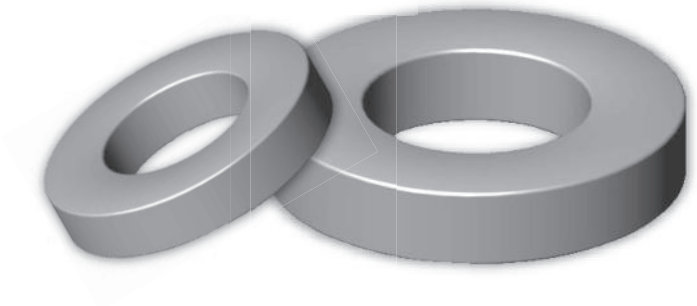
APM-series have the **lowest core loss** in the properties.

Thus, technically we suppose this factor increases the efficiency of the power supply.

Also, APM-series **do not generate audible noise**, **zero magnetostriction**

nearly and the core of APM-series has **good temperature stability** in the operation.

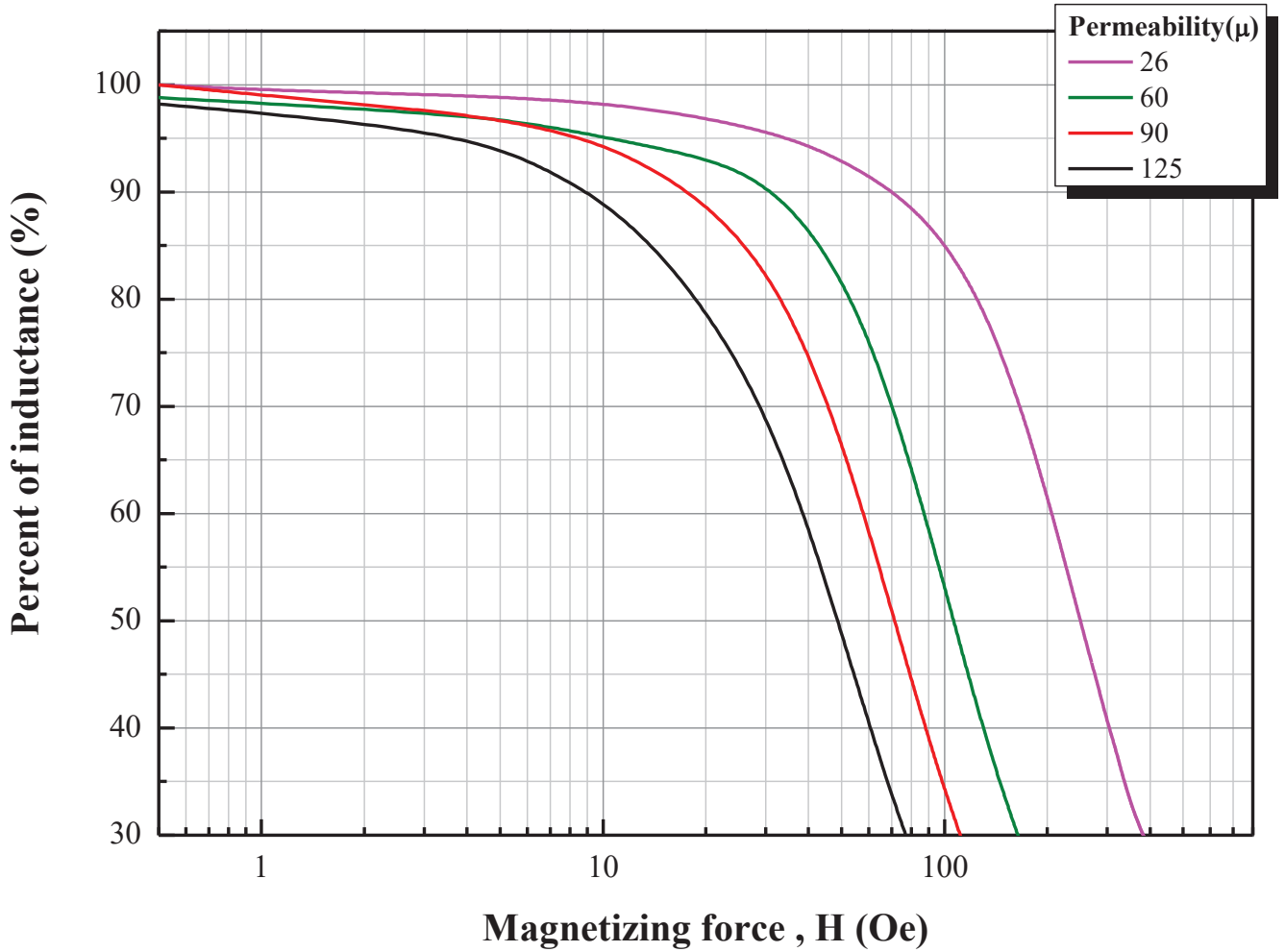
RoHS 2002/95/EC



➢ General material properties

Material alloy	Nanocrystalline
Composition	Fe-Si-B-Nb-Cu
Permeability	26~125 μ
Magnetic flux density	1.2 T
Curie Temp.	≈ 570 °C

➢ Inductance with DC bias current



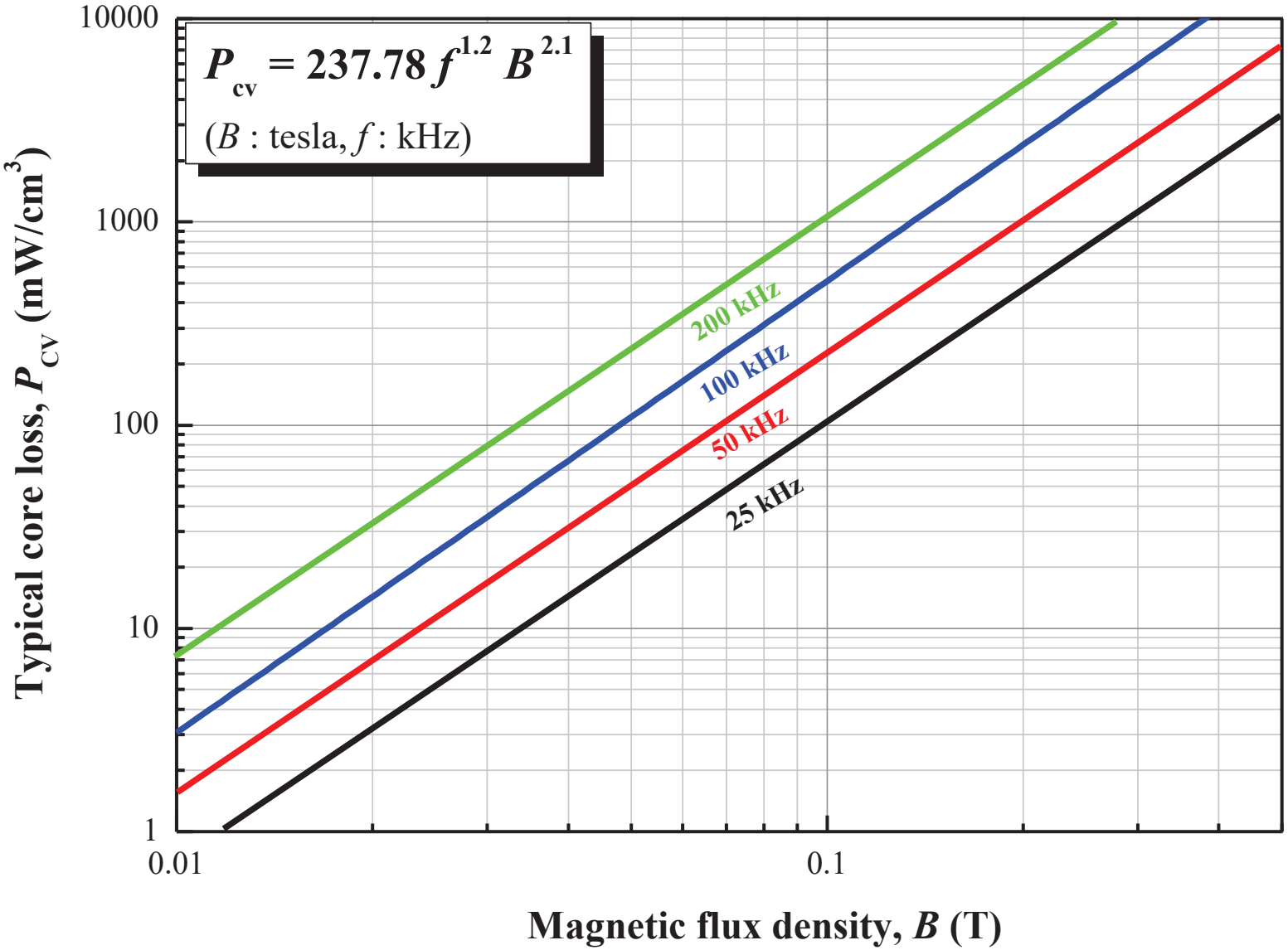
➢ APM-Series Fit Formula

$$\mu(percent) = a + bT + cT^2 + dT^3 + eT^4$$

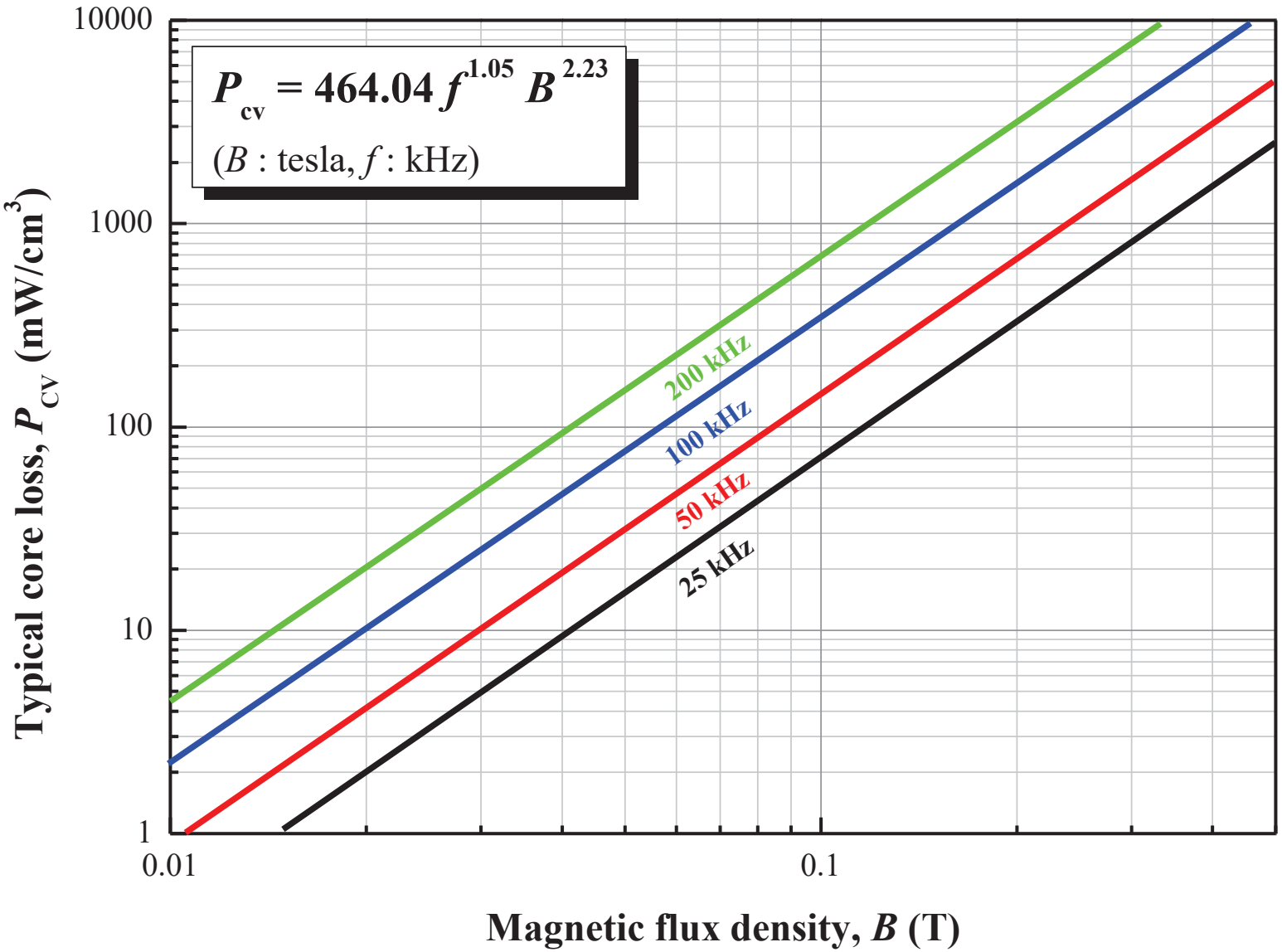
(T : Oersted)

	Perm.(μ)	a	b	c	d	e
APM Series	26	99.3024	-0.0639	-0.00105	$2.41556E^{-6}$	$-1.20874E^{-9}$
	60	98.8205	-0.16712	-0.0065	$4.21658E^{-5}$	$-7.5827E^{-8}$
	90	99.51141	-0.33827	-0.0108	$1.01991E^{-4}$	$-2.56184E^{-7}$
	125	99.33194	-0.83789	-0.01006	$1.65295E^{-4}$	$-5.91882E^{-7}$

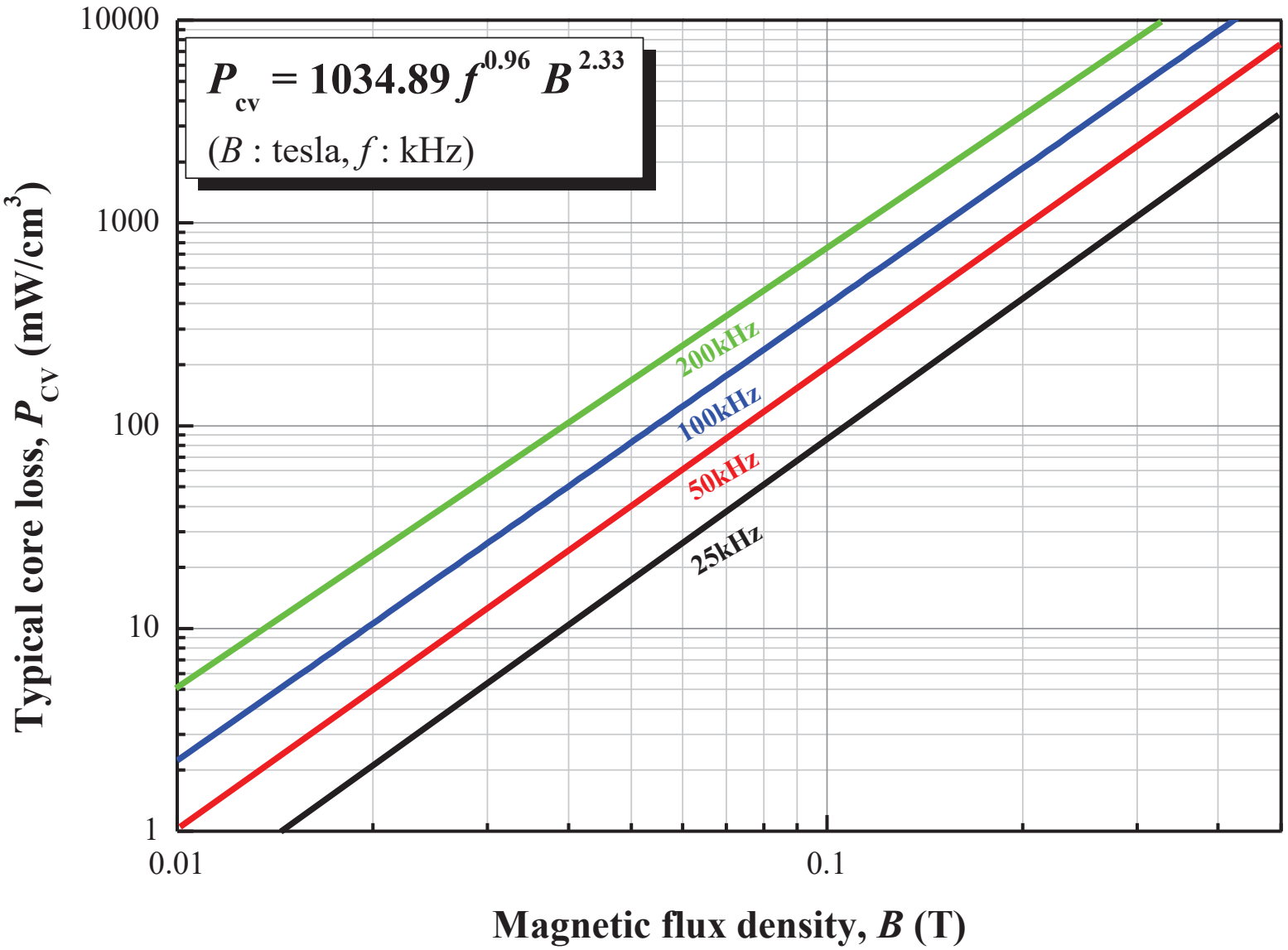
➢ APM 26μ Core loss curves & equation



➢ APM 60μ Core loss curves & equation



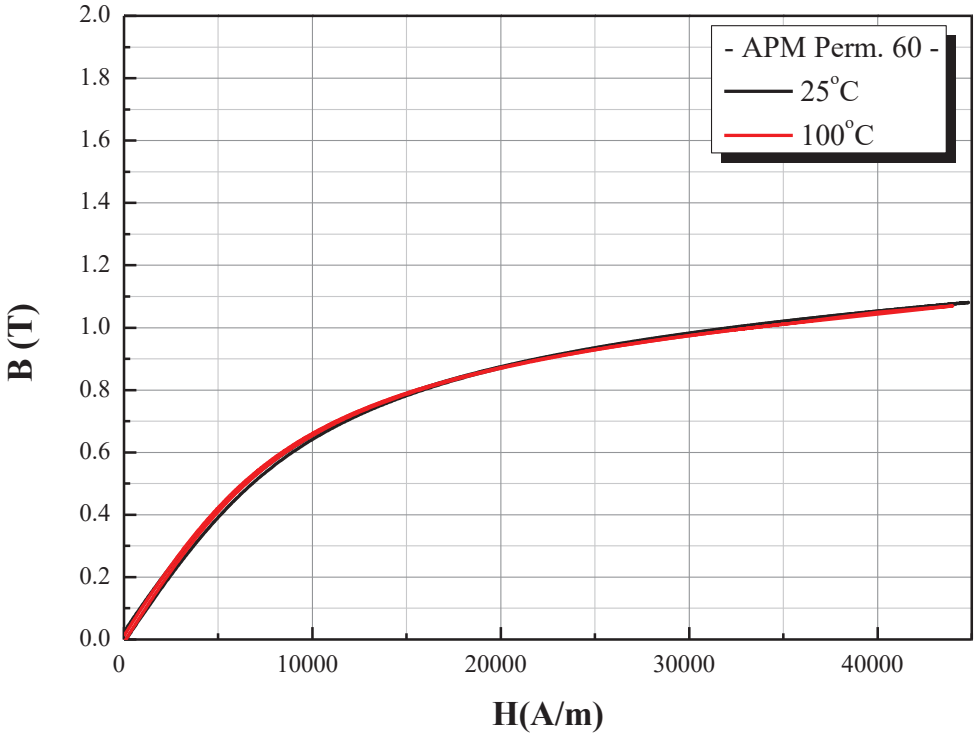
➢ APM 90 & 125μ Core loss curves & equation



➢ BH Curve

❖ APM Series (25°C & 100°C)

- **Perm. 60**



- **Perm. 90**