大信号场下的功率损耗
Power loss in large signal field

大信号场下，磁芯损耗用下式表示:

Pm=Ph+Pe+Pr ，Ph、Pe、Pr，分别表示磁滞损耗、涡流损耗、剩余损耗。

In large singnal field, magnetic core loss can be expressed as:

Pm=Ph+Pe+Pr ,

When Ph , Pe , and Pr indicate hysteresis loss, eddy loss and residual loss respectively. In power ferrite, Pm is often used to analyze power loss, interpreted as dividing the total power loss and then analysing the cause and cores of power loss.

温度系数与比温度系数
Temperature coefficient and specific temperature coefficient.

温度系数为

μ_{i1}，μ_{i2}分别表示温度T_1，T_2时的初始磁导率。

Temperature coefficient and specific temperature coefficient.

Where μ_{i1} , μ_{i2} indicate initial permeability at T_1, T_2 respectively.

$$a_{\mu_i} = \frac{\mu_{i2} - \mu_{i1}}{\mu_{i1}} \times \frac{1}{T_2 - T_1}$$

比温度系数:

$\alpha_{\mu ir}$，$\alpha_{\mu i}$均表示磁导率的温度稳定性。

Sepcific temperature factor is:

ami and amir all indicate temperature stability of permeability.

$$a_{\mu_{ir}} = \frac{a_{\mu_i}}{\mu_{i1}} = \frac{\mu_{i2} - \mu_{i1}}{(\mu_{i1})^2} \times \frac{1}{T_2 - T_1}$$

减落因子与比减落因子
Dropping coefficient and Specific dropping coefficient.

减落因子为

μ_{i1}，μ_{i2}表示同一温度下t_1，t_2时刻的初始磁导率。

Dropping coefficient is:

Where μ_{i1} , μ_{i2} indicate initial permeability at the same temperature at different time t_1 , t_2 respectively.

$$D_A = \frac{\mu_{i1} - \mu_{i2}}{\mu_{i1}} = \frac{1}{\lg(t_2 / t_1)}$$

比减落因子

D_A，D_F都表示μ_i经磁扰动或机械冲击后的经时变化。比减落因子，一般用D_F表示，有时简称减落因子。

Sepcific dropping coefficient is:

Both D_A and D_F indicates the change under the influence of magnetic interference and mechanical lash.

$$D_F = \frac{D_A}{\mu_{i1}} = \frac{\mu_{i1} - \mu_{i2}}{(\mu_{i1})^2} \times \frac{1}{\lg(t_2 / t_1)}$$