高频电抗器(HFR) High Frequency Reactor

■ 产品概述(Product Introduction)

在现代电力电子设备中，随着设备功率及开关频率不断提高，中高频大电流电抗器的需求和应用越来越多.结合我们的专有技术和行业经验，在此类电抗器的设计和制造中，我们通过磁芯和导体发热的合理选择、处理以及反复验算，保证了电抗器在高频大电流条件下的高性能运行。目前此类产品广泛应用于UPS和新能源等领域的变流器中。开关频率达40kHz。

In modern power electronic equipment, as the power and switching frequency of the equipment continue to increase, the demand and application of medium and high-frequency high-current reactors are increasing. Combining our proprietary technology and industry experience, in the design and manufacturing of such reactors, we ensure the high-performance operation of the reactors under high-frequency and large-current conditions through reasonable selection, processing, and repeated verification of magnetic cores and the heating of conductors. Currently, such products are widely used in converters in fields such as UPS and new energy. The switching frequency reaches 40kHz.




■ 产品应用 (Product Application)

目前此类产品广泛应用于UPS, APF和新能源等领域的变流器中。

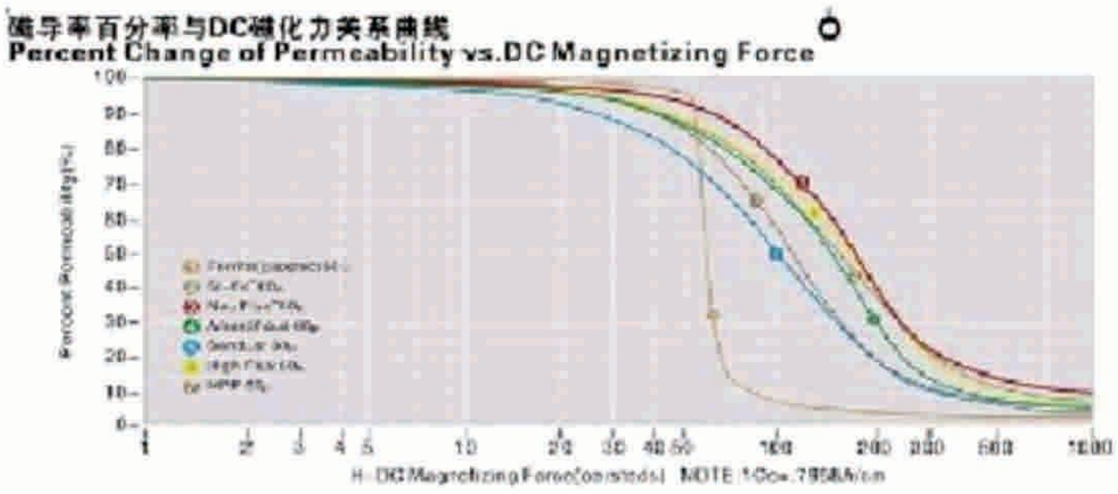
Such products are widely used in converters in UPS, APF and new energy fields currently.

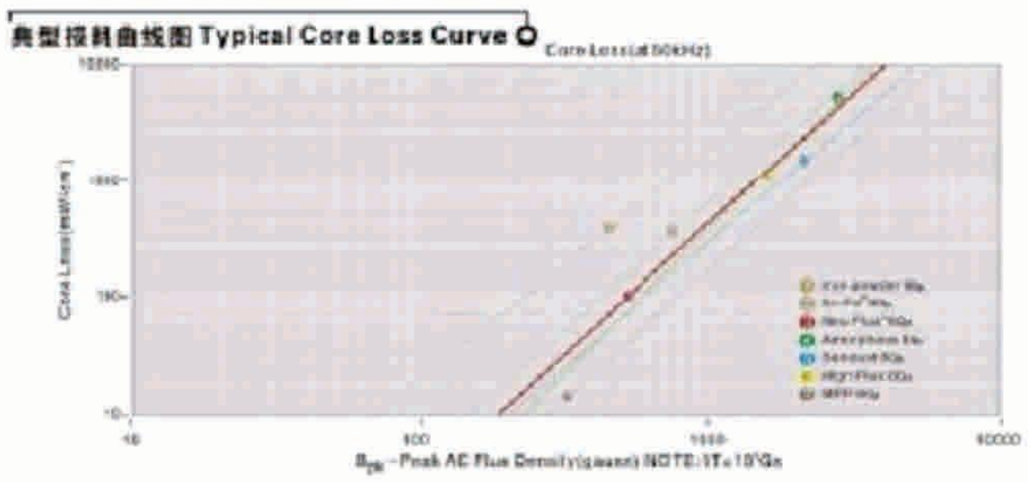
额定电流范围 Rated Current Range: 5 ~ 500A

额定电压范围 Rated Voltage Range: 220 ~ 1140V

■ 软磁材料性能对照表 (Reference Table of Soft Magnetic Material Properties)

材料特性 Property	材料成分 Composition	铁芯损耗 Core Loss (mW/cm^3) @1000Gs/50kHz	直流偏压 DC-Bias (%μ_0)@100Oe	磁通密度 Flux Density(Sat.) (Gs)	耐温 Curie Temperature (℃)	温度稳定性 Temperature Stability	颜色代码 Color Code	相对成本 Relative Cost
铁粉 Iron Powder	99%Fe	2000	40	12000	750	Medium	Mix Color	0.3
铁硅铝 Sendust	85%Fe, 9%Si, 6%Al	300	45	10500	600	Good	Black	1
硅铁 Si-Fe	94%Fe, 6%Si	750	70	16000	700	Good	Blue	1.5
高磁通铁镍 High Flux	50%Fe, 50%Ni	400	70	15000	500	Better	Khaki	4
铁镍钼 MPP	17%Fe, 81%Ni,2%Mo	280	50	7500	400	Best	Gray	6
高温超导体 Amorphous Powder Core	78%Fe, 9%Si,13%B	420	68	15000	400	Poor	-	3.5
铁轨镍 Neu Flux	85%Fe, 15%Si-Ni	480	78	16000	650	Better	Brown	2





■ 成品识别码(Product Identification Code)

HFR	0080	0M54	0.4SC
高频电抗器 High Frequency Reactor	额定电流 Rated Current	电感量 Inductance Value M: mH H: μH	0.4: Rated Voltage 0.2=220V,0.4=380V,0.7=690V,1.1 = 1140V D: Single Phase S: Three Phase C: Copper A: Aluminum