

Dongbu MPC Report

September 2010



Dongbu's Magnetic Materials

Dongbu has the five material type products and each material has difference Electromagnetic properties.

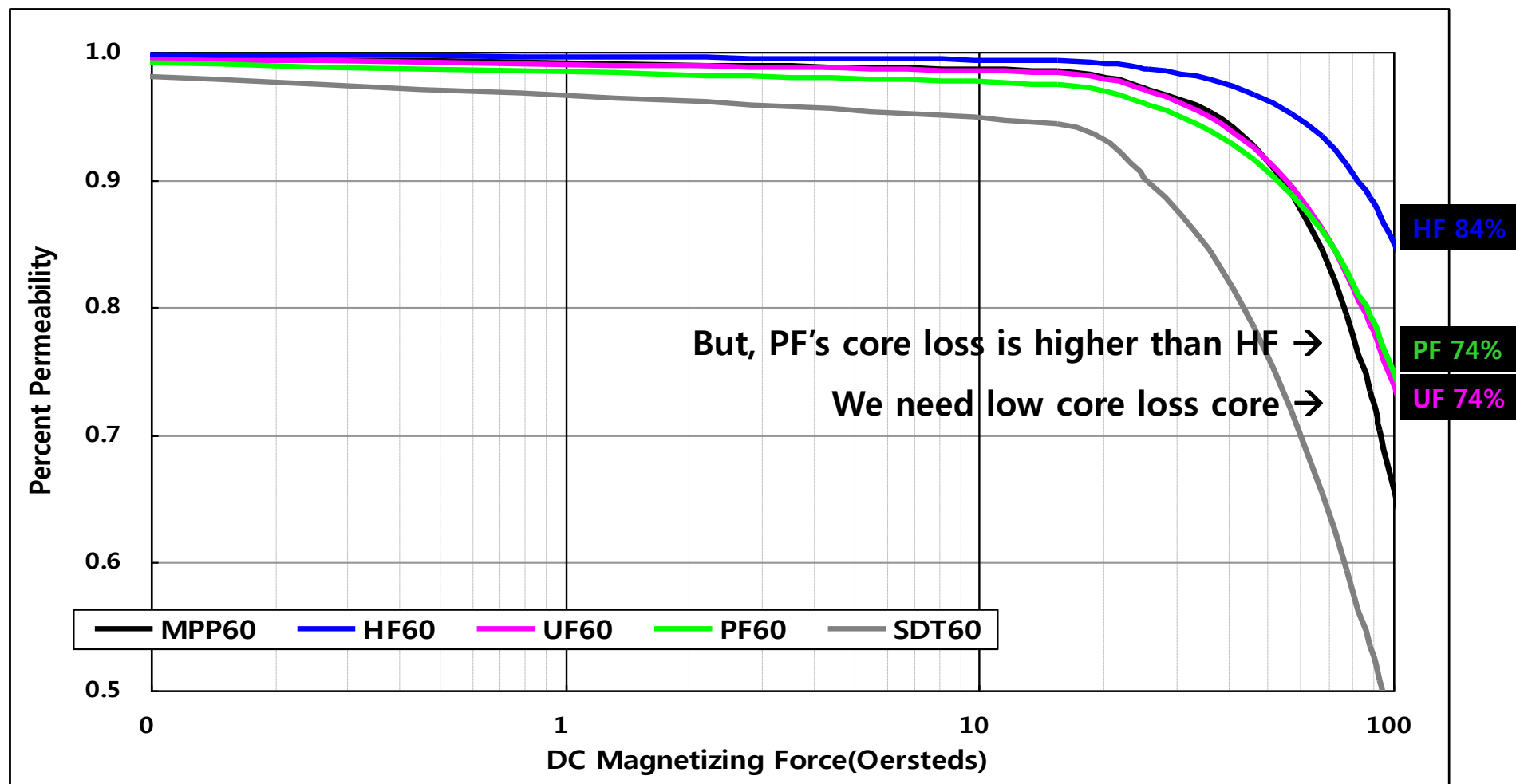
Core Materials	Core Loss	Perm. Vs DC Bias	Relative Cost	Frequency Range	Saturation Flux Density	Temp. Stability
MPP	Best	Better	High	1 MHz	7,000 G	Best
High Flux	Best	Best	Medium	1 MHz	15,000 G	Better
Sendust	Good	Good	Lowest	2 MHz	10,000 G	Good
Power Flux	Medium	Best	Low	1 MHz	16,000 G	Good
Ultra Flux *	Best	Best	Medium	1 MHz	14,000 G	Better

* Ultra Flux is New Dongbu's Materials

Current Achievements for Ultra Flux 60 μ

UF and PF are on a similar DC-Bias characteristic.

but UF's Core Loss is better than PF.



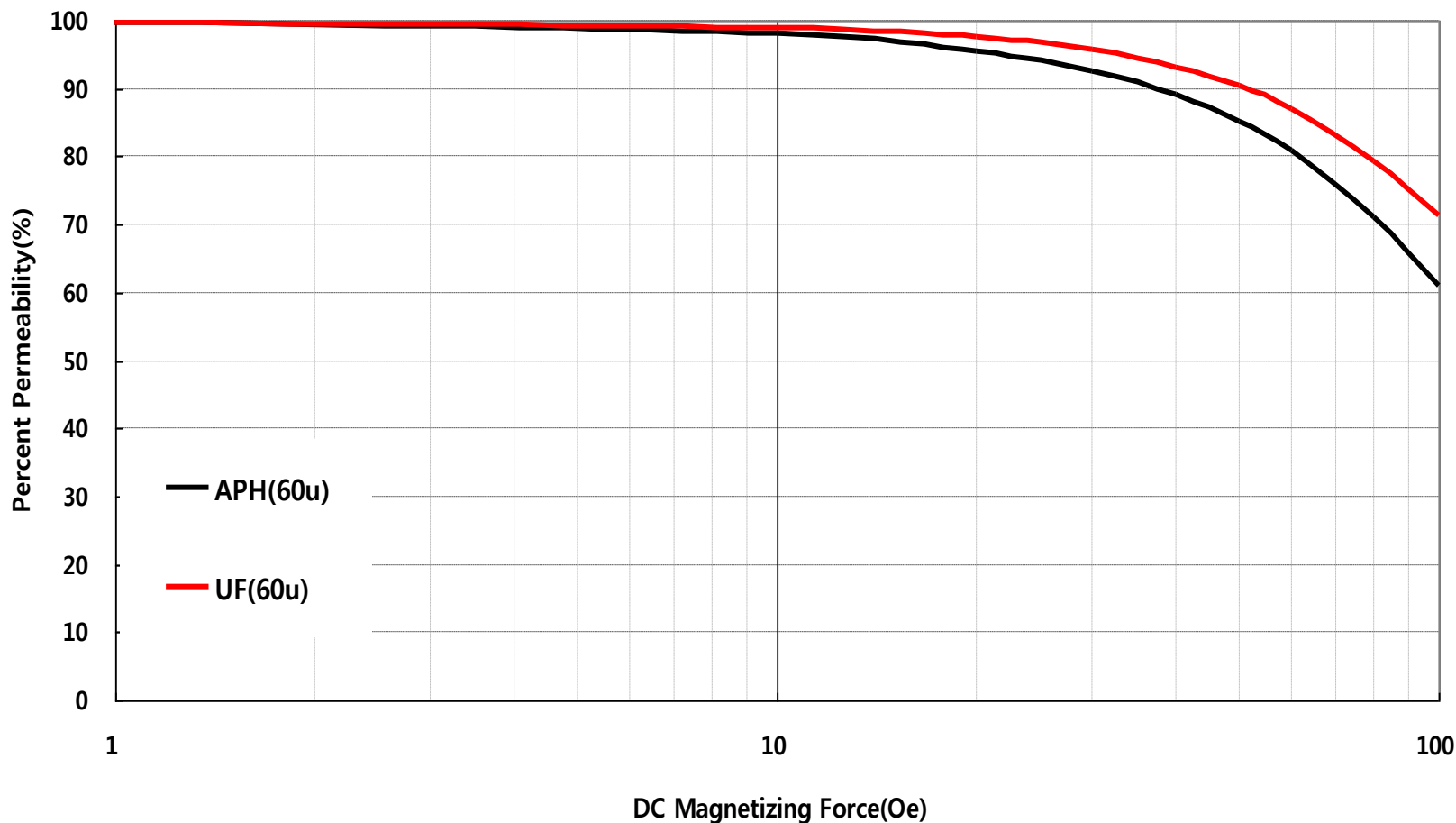
Current Achievements for Ultra Flux 60 μ

Suggestion : Amorphous powder core applications.

PF core applications.(Needs of lower core loss than PF)

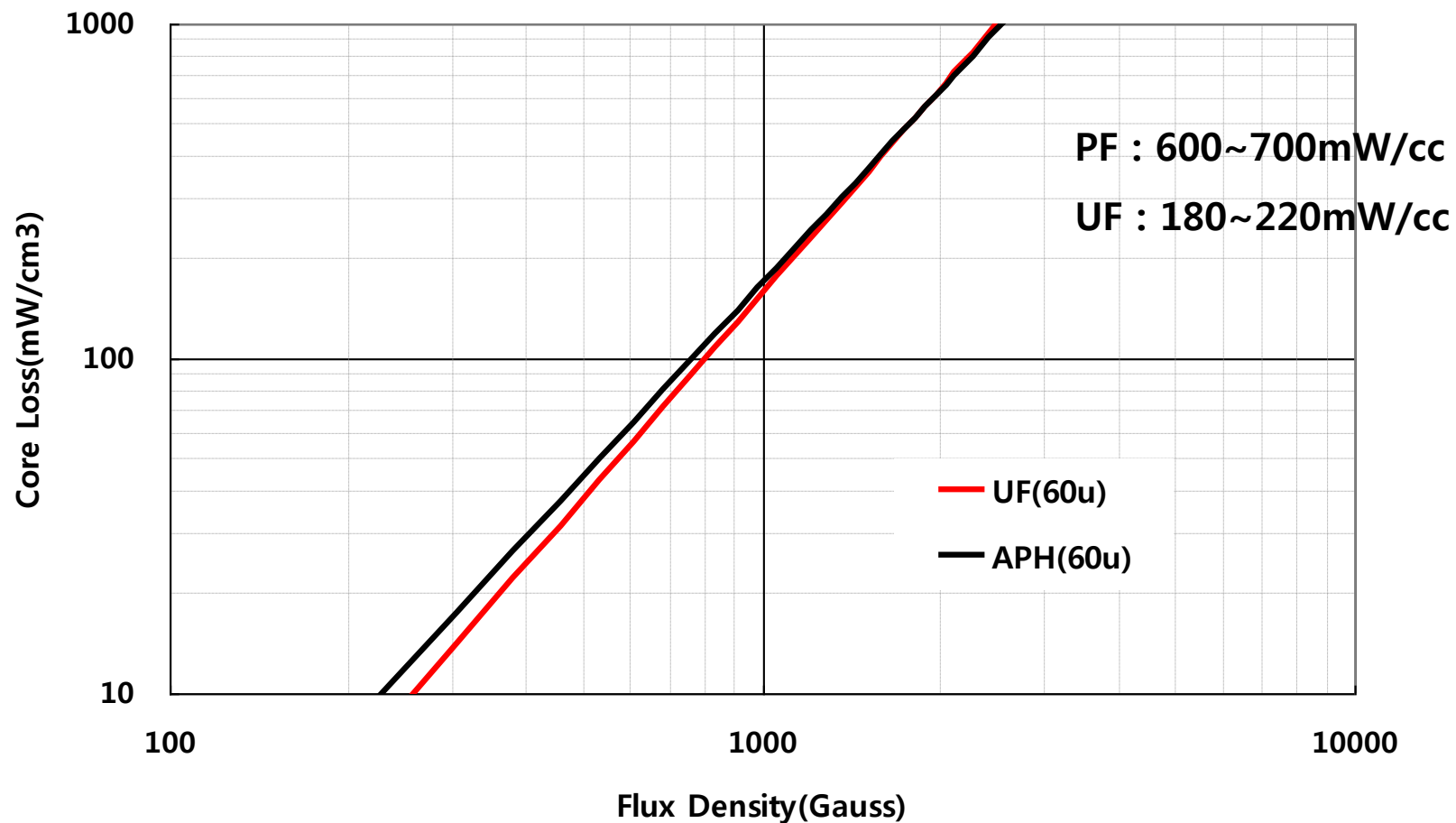
HF core applications.

Permeability vs. DC Bias Curves of Ultra Flux 60 μ



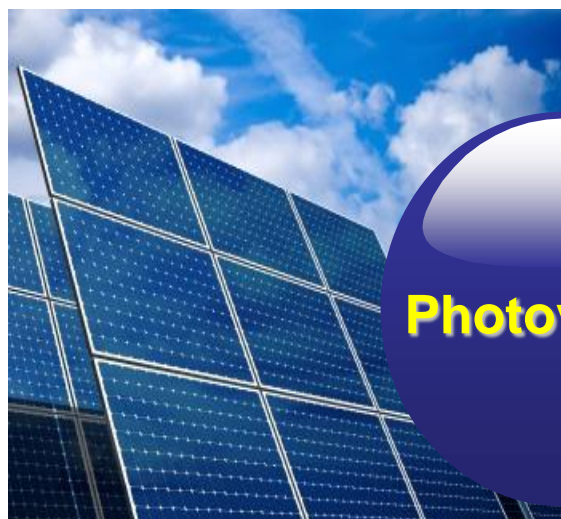
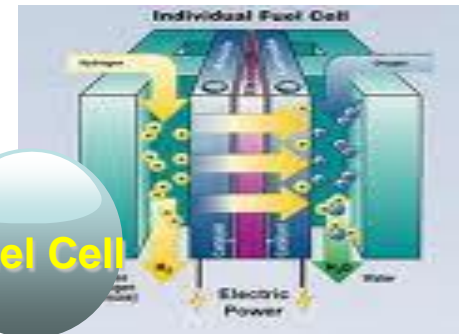
Current Achievements for Ultra Flux 60 μ

Core Loss at 50kHz of Ultra Flux 60 μ



Renewable Energy System

- ⊙ Photovoltaic Generation System
- ⊙ Wind Power Generation System
- ⊙ Fuel Cell Generation System



Photovoltaic

**Large
Current
Inverter**

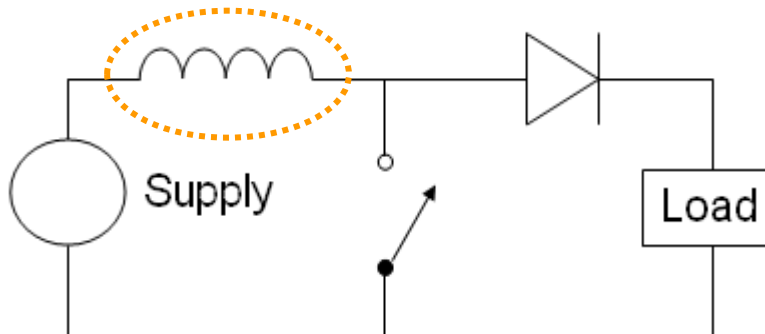
Wind Power



Inverter

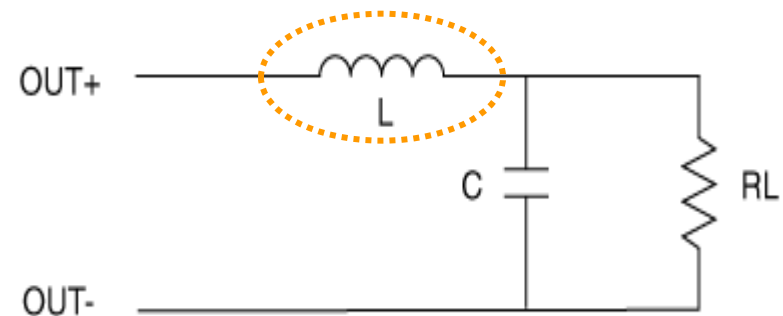
Boost Converter

is a power converter with an output DC voltage greater than its input DC voltage.



Filter

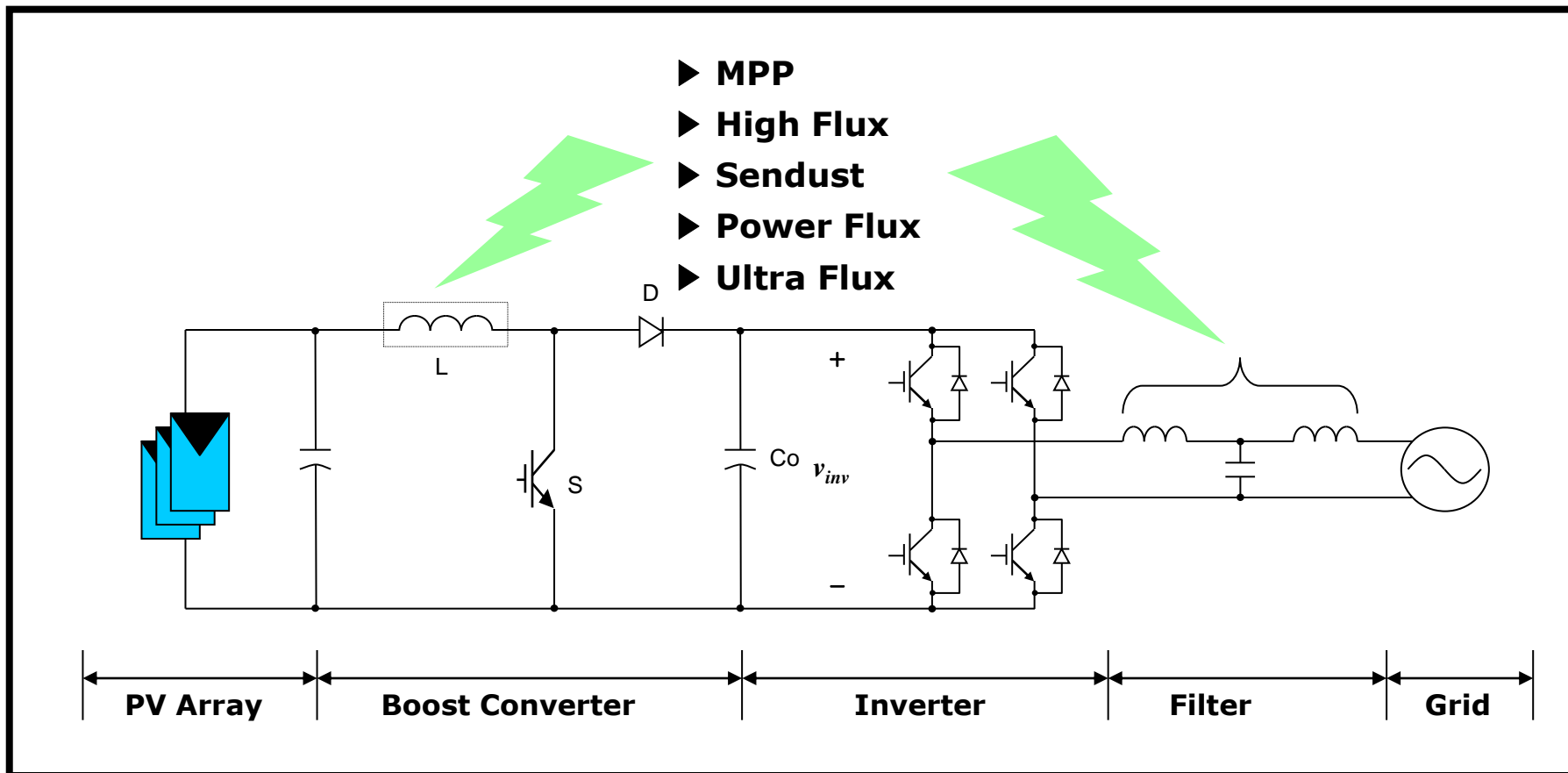
is a device that passes frequencies within a certain range and rejects frequencies outside that range.



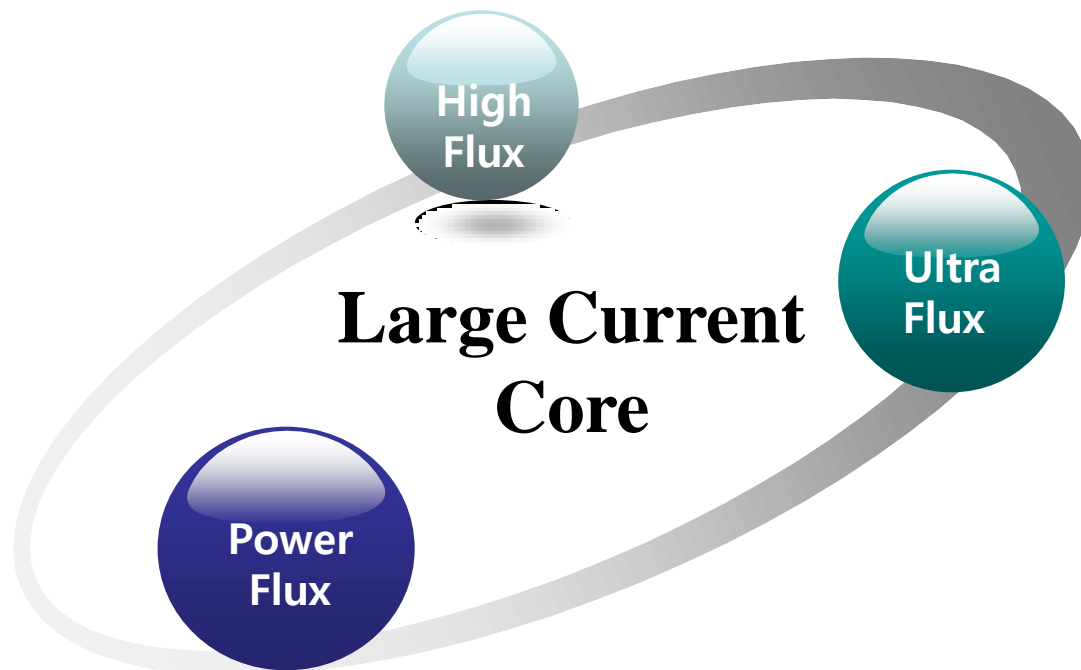
Photovoltaic Generation System

◎ Transformerless Type

Miniaturization, Quiet, High Efficiency



Dongbu Magnetic Core



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