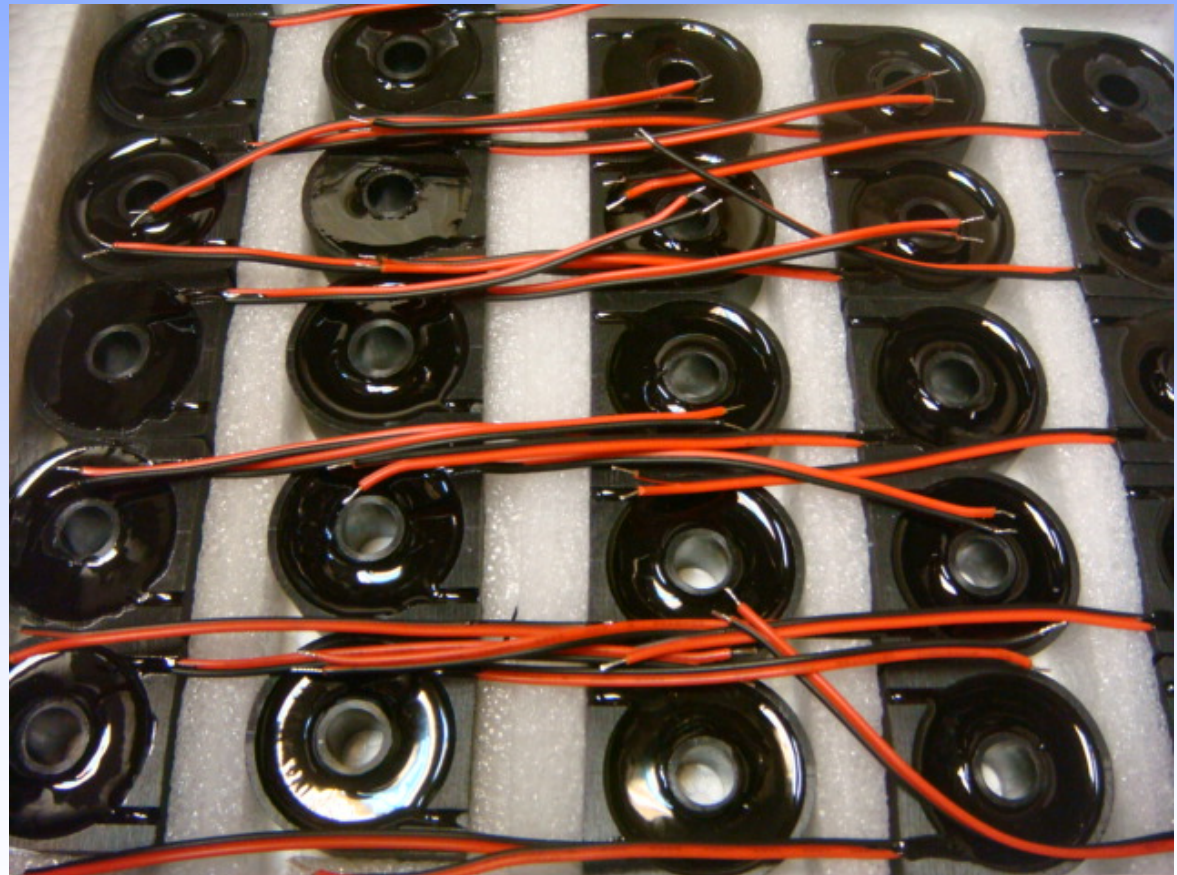
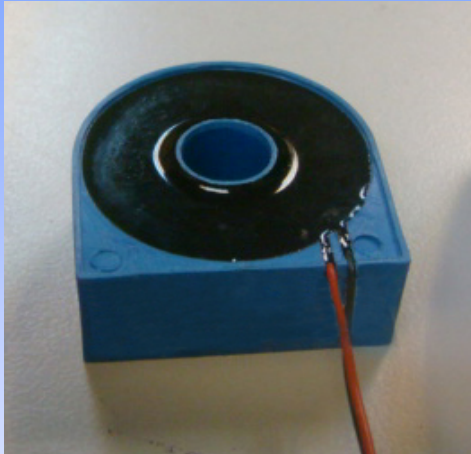
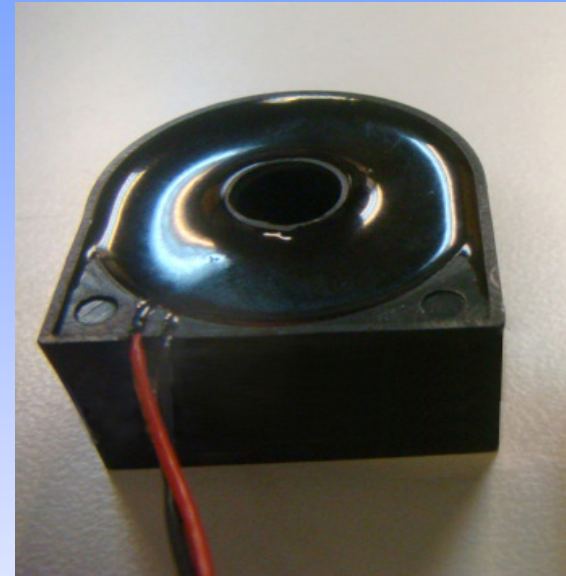


Elecmat Inc CTs for Watthour-Meters



Elecmat Inc CTs for Watthour-Meters



Nanocrystalline----Key factor of the CT performance

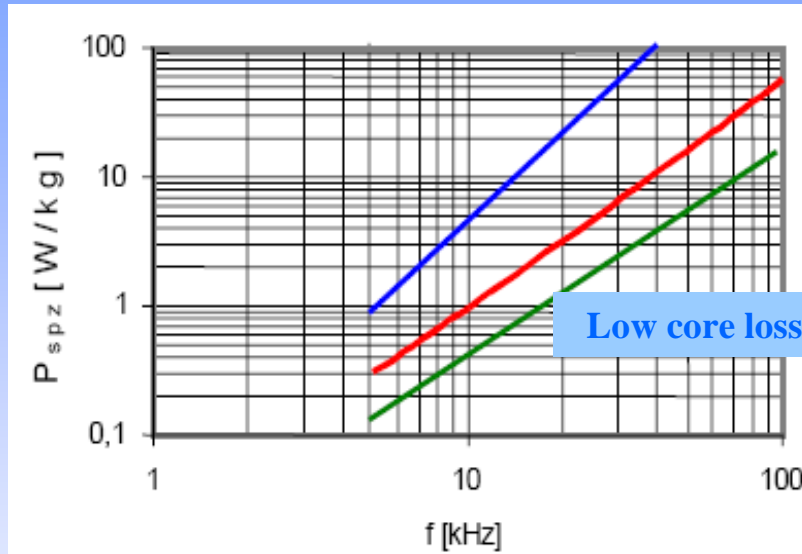
Result in CTs:

- **small amplitude error**
- **high linearity / easy to compensate**
- **low temperature drift**
- **high DC capability**

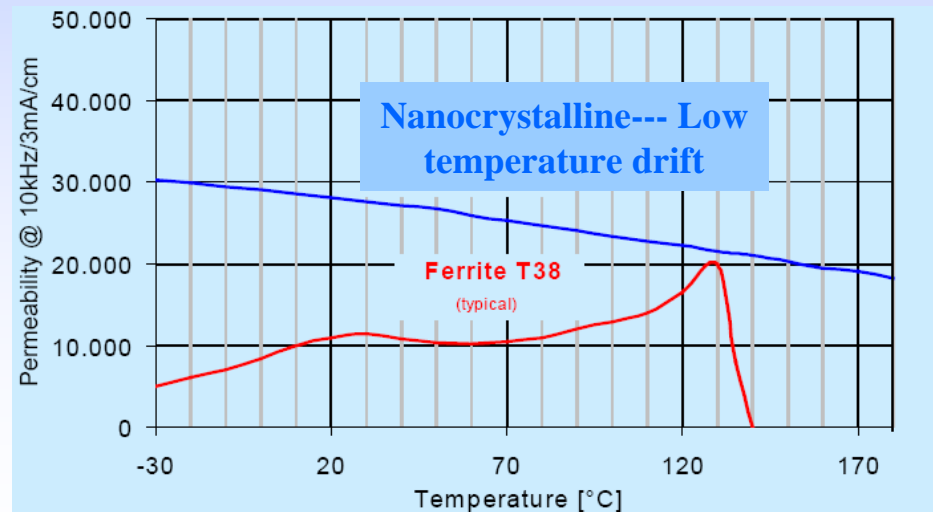
The excellent magnetic properties of nanocrystalline cores for Watthour-Meters

Saturation flux density B_{sat}	1.2	T
Saturation magnetostriction	< 0.5	ppm
Specific electrical resistivity	115	μOhmcm
Curie temperature T_c	600	$^{\circ}\text{C}$
Max. operational temperature T_{max}	120 (180)	$^{\circ}\text{C}$
Core losses (0.3T/100kHz, sine) P_v	< 110	W/kg
Tape thickness d	17 / 23	μm
Grain size (typ.)	10	nm
Permeability μ	1,200 - 20,000	

The excellent magnetic properties of nanocrystalline cores

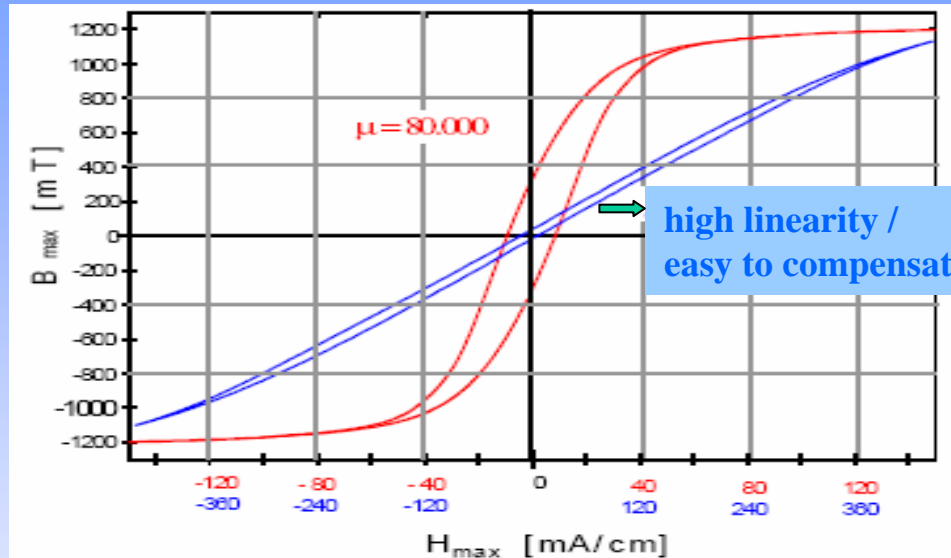


Low core loss--- small amplitude error

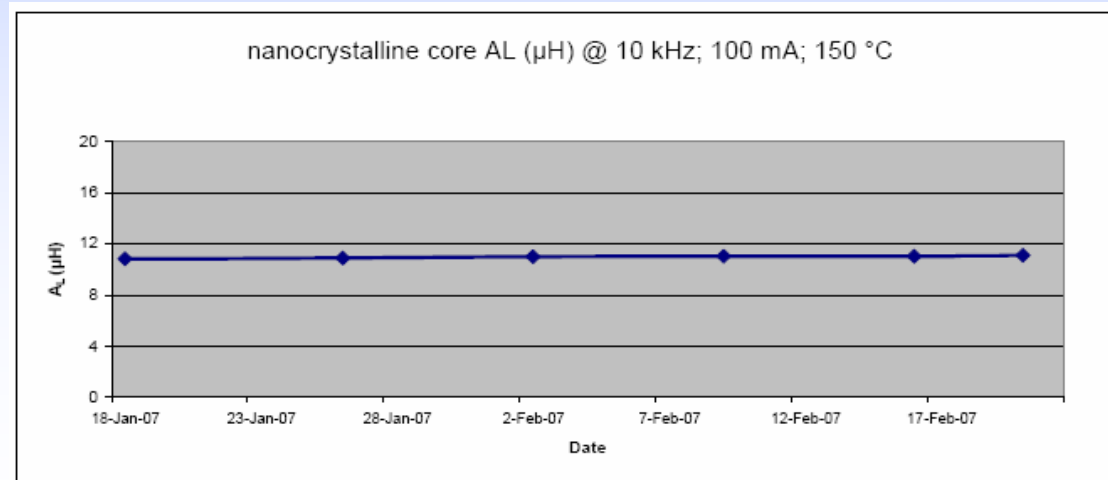


Nanocrystalline--- Low temperature drift

The excellent magnetic properties of nanocrystalline cores



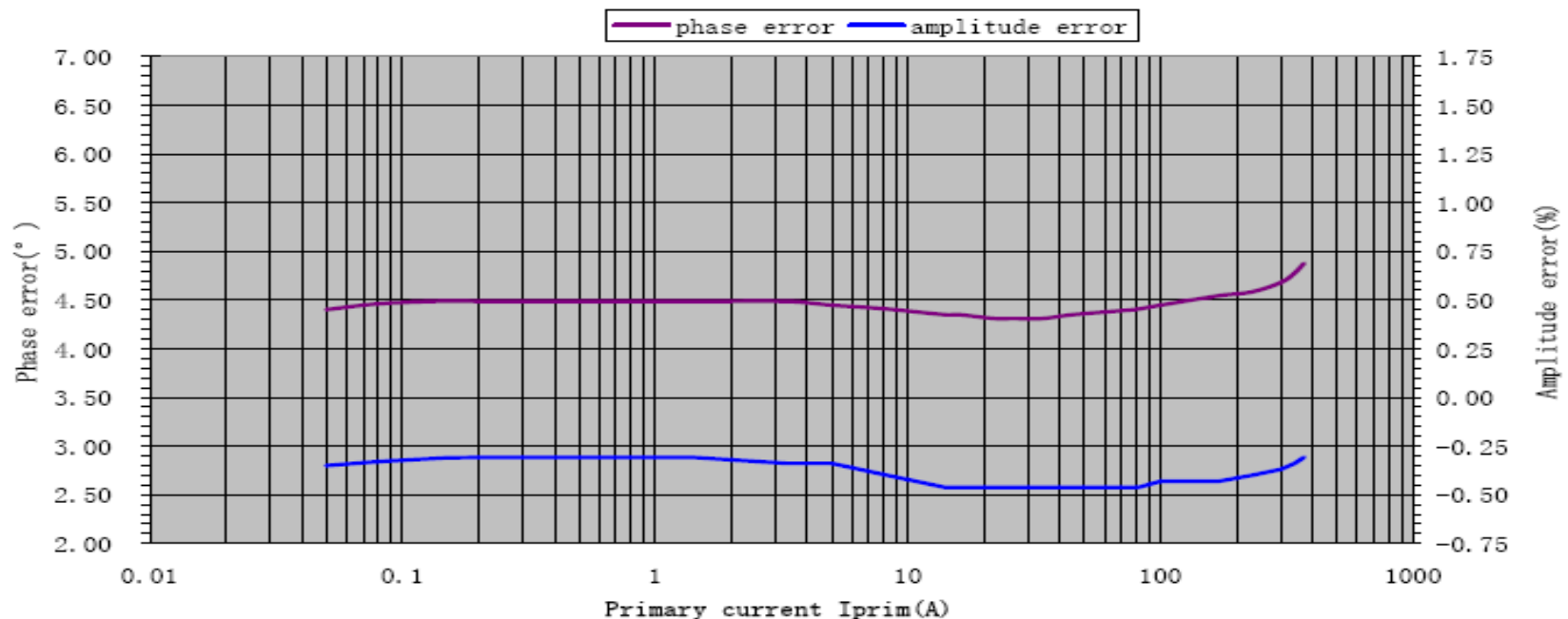
Thermal test---excellent thermal stability



The performance of CTs with optimized nanocrystalline ring cores

Linearity	DC-capability	Interference resistivity	Stability/Constancy	Size	Cost
very high	high	high	high	small	medium

EI60M-C phase error & amplitude error (@25°C)



Standard CTs with optimized nanocrystalline ring cores

Part No.	Primary Current	DC-Capability	Standards
EIxxxx	[A]		
EI20M	20	20	IEC 62053-21, -23
EI40M	40	40	IEC 62053-21, -23
EI60M(EI60M-C)	60	60	IEC 62053-21, -23
EI100M	100	100	IEC 62053-21, -23
EI120M	120	120	IEC 62053-21, -23
EI60S	60	60	IEC 62053-21, -23
EI06S	6	--	IEC 62053-22
EI20A	20	--	ANSI C12.xx
EI100A	100	--	ANSI C12.xx
EI200A	200	--	ANSI C12.xx

Specification of EI's CT (for example)

Elecmat Inc		
SPECIFICATION		
Current Transformer	Customer:	Date:2008.1
Part Number: EI60S	Customer P/N:	
Dimensional Data:		
Note: dimensions in mm.		
		<p>Connections: 2 x 0.14mm²</p> <p>N2 = 2500±1% Turns</p>
Electrical Data:		
L = 4.6 H±25%, f = 50 Hz, U _{AC} = 100 mV	U _{p,eff} = 2.5 kV, 2 s	
R _{Cu2} = 88±2 Ω	ambient temperature: -40° C..+70° C	
I _{DC,max} = 60 A	storage temperature: -40° C..+85° C	
R _B = 12.5 Ω		
Created: Harry W. 2008.1.12	Approved: William G. 2008.1.18	Released: Henry K. 2008.1.28

Note: Elecmat Inc reserves the right to change specification data as required without notice.

Specification of EI's CT EI60S

EI60S phase error & amplitude error
(@25°C)

