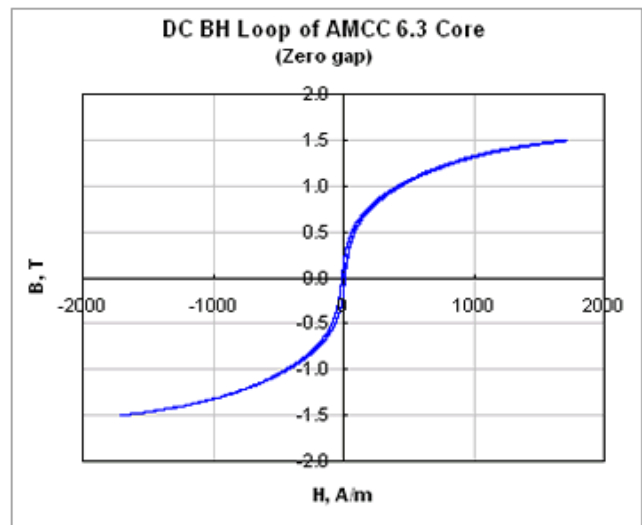


POWERLITE® C-Cores, are manufactured with iron based Metglas® amorphous alloy 2605SA1. Their unique combination of low loss and high saturation flux density take advanced power conditioning applications to higher performance levels than previously possible with conventional ferromagnetic materials.



Applications

For a wide range of high frequencies and hot-spot temperatures (up to Class F), POWERLITE C-Cores are used in a growing list of advanced power conditioning applications including:

- UPS and SMPS Power Factor Correction Chokes
- UPS Harmonic Filter Inductors
- High-Power Outdoor Industrial Ballasts
- Welding Power Supplies
- High-Speed Rail Power Systems

Benefits

Manufactured in a variety of ultra-efficient core configurations, POWERLITE C-Cores provide significant cost, design and performance benefits over ordinary Si-Fe, ferrite and MPP cores such as:

- High Saturation Flux Density (1.56 T)
- Low Profile – enables weight and volume reductions of up to 50%
- Low Temperature Rise – enabling smaller compact designs
- Low Loss – resulting from micro-thin Metglas ribbon (25 µm)

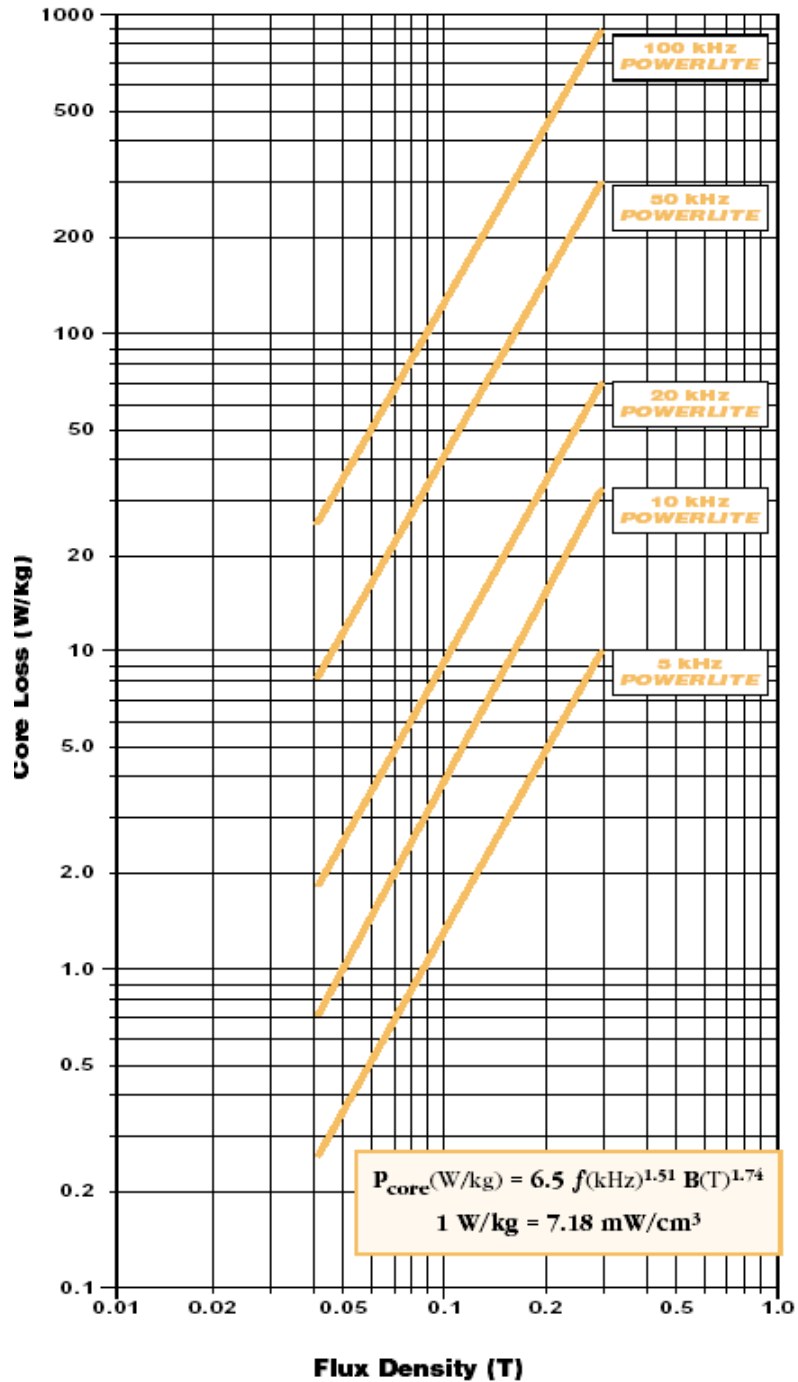
Physical Properties METGLAS Alloy 2605SA1

Ribbon Thickness (µm) . . . . .	.23
Density (g/cm ³) . . . . .	.718
Thermal Expansion (ppm/°C) . . . . .	.7.6
Crystallization Temperature (°C) . . . . .	.508
Curie Temperature (°C) . . . . .	.399
Continuous Service Temperature (°C) . . . . .	.150
Tensile Strength (MN/m ²) . . . . .	.1k-1.7k
Elastic Modulus (GN/m ²) . . . . .	.100-110
Vicker's Hardness (50g load) . . . . .	.900

Magnetic Properties METGLAS Powerlite Cores

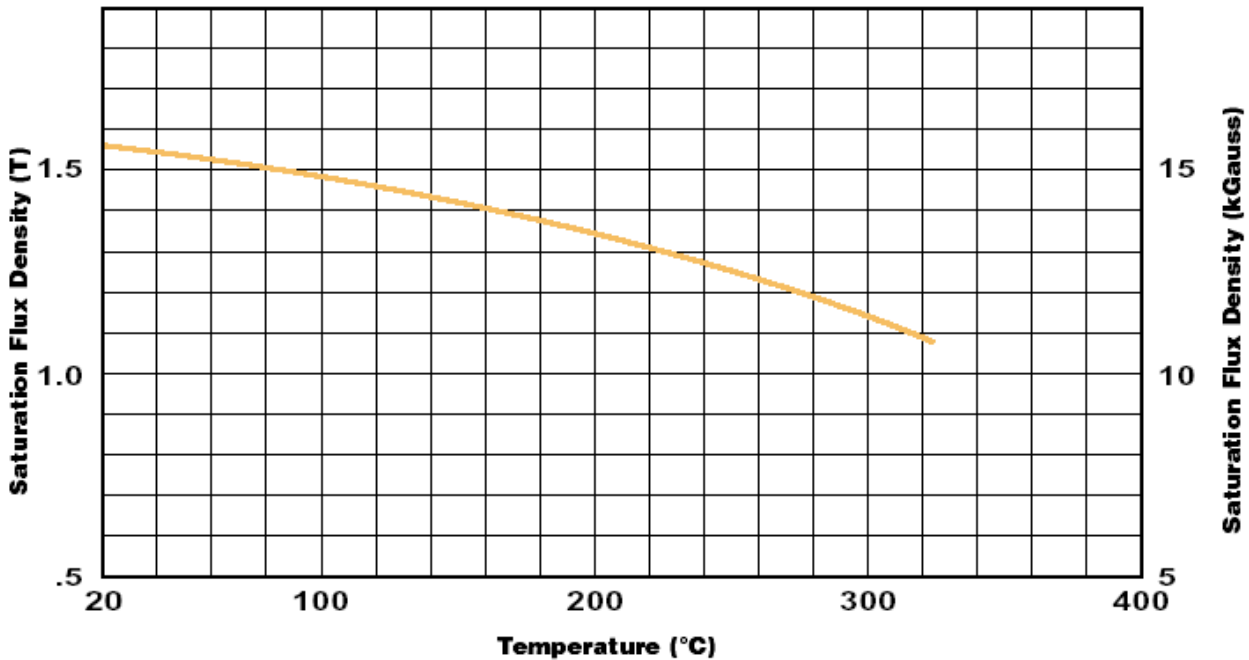
Saturation Flux Density (T) . . . . .	.1.56
Permeability (depending on gap size) . . . . .	.VARIABLE
Saturation Magnetostriction (ppm) . . . . .	.27
Electrical Resistivity (µΩ.cm) . . . . .	.130

Core Loss vs. Flux Density† @ 25°C

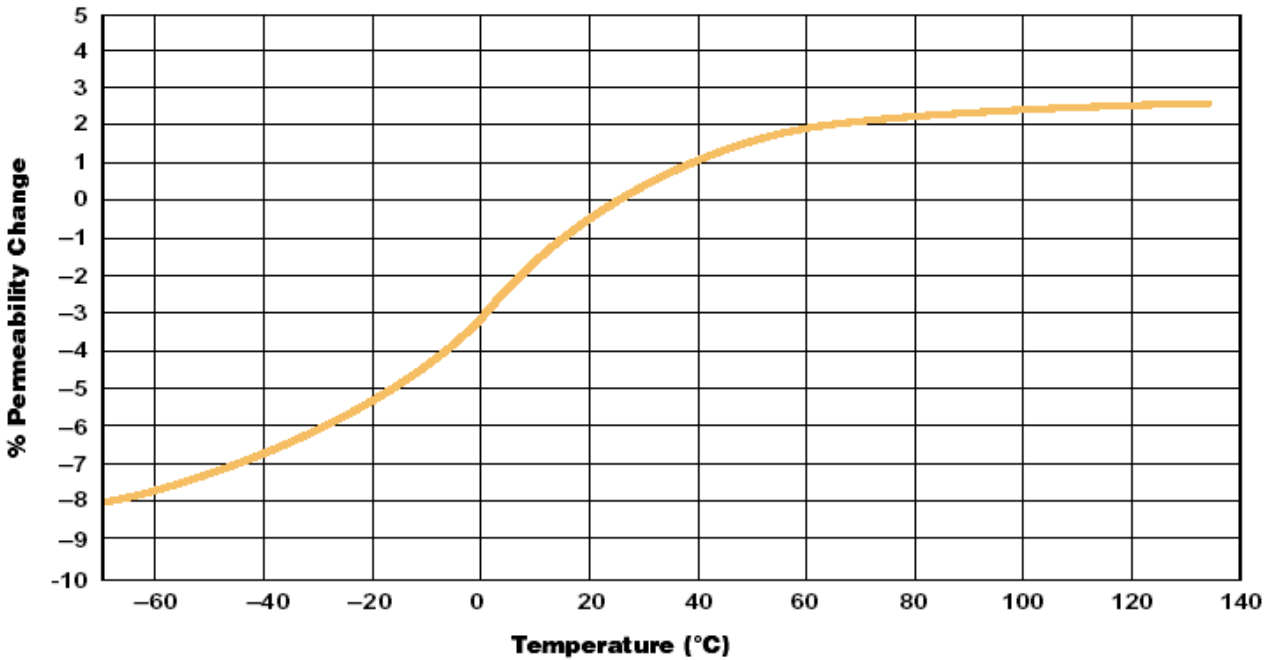


† These curves were determined from ac data; use 1/2 the actual .B to determine core loss for unidirectional applications.

**Saturation Induction vs. Temperature
POWERLITE® C-Cores**

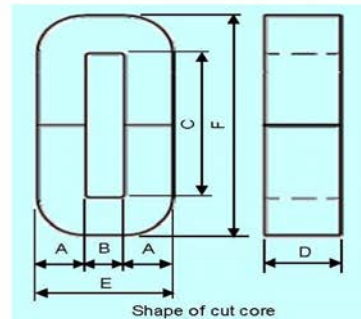


**Permeability vs. Temperature
POWERLITE® C-Cores**



Apr. 2011

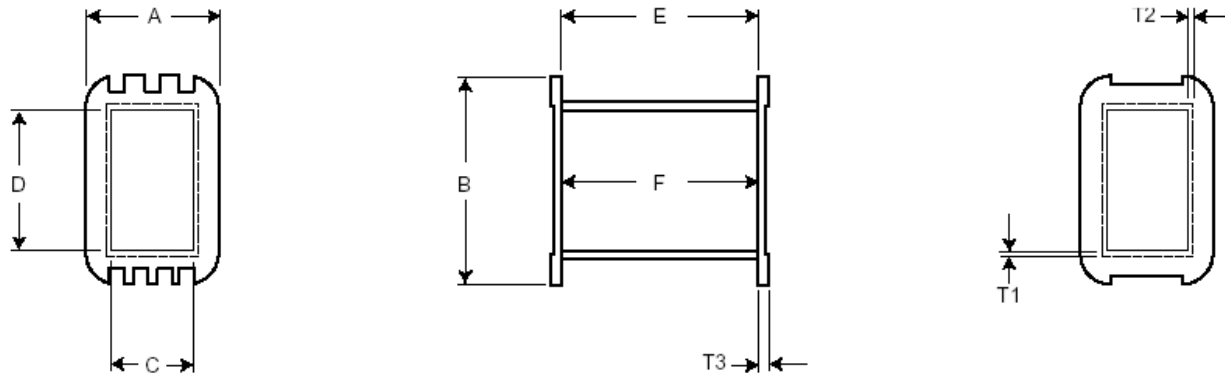
Standard specifications for AMCC series cut cores



品名コード Product Code	品名 Part Name	A (mm) TYP.	B (mm) TYP.	C (mm) TYP.	D (mm) TYP.	E (mm) TYP.	F (mm) TYP.	L _m (mm) TYP.	A _e (mm ²) TYP.	Mass (g) TYP.
AMCC0004	AMCC-4	9	10	32.8	15	28	50.8	122	111	99
AMCC06R3	AMCC-6.3	10	11	33	20	31	53	128	164	154
AMCC0008	AMCC-8	11	13	30	20	35	52	130	180	172
AMCC0010	AMCC-10	11	13	40	20	35	62	150	180	198
AMCC016A	AMCC-16A	11	13	40	25	35	62	150	226	248
AMCC016B	AMCC-16B	11	13	50	25	35	72	170	226	281
AMCC0020	AMCC-20	11	13	50	30	35	72	170	271	337
AMCC0025	AMCC-25	13	15	56	25	41	82	194	267	379
AMCC0032	AMCC-32	13	15	56	30	41	82	194	320	454
AMCC0040	AMCC-40	13	15	56	35	41	82	194	373	530
AMCC0050	AMCC-50	16	20	70	25	52	102	244	328	586
AMCC0063	AMCC-63	16	20	70	30	52	102	244	394	703
AMCC0080	AMCC-80	16	20	70	40	52	102	244	525	938
AMCC0100	AMCC-100	16	20	70	45	52	102	244	590	1055
AMCC0125	AMCC-125	19	25	83	35	63	121	292	545	1166
AMCC0160	AMCC-160	19	25	83	40	63	121	292	623	1333
AMCC0200	AMCC-200	19	25	83	50	63	121	292	779	1666
AMCC0250	AMCC-250	19	25	90	60	63	128	306	935	2095
AMCC0320	AMCC-320	22	35	85	50	79	129	328	902	2167
AMCC0400	AMCC-400	22	35	85	65	79	129	328	1173	2817
AMCC0500	AMCC-500	25	40	85	55	90	135	350	1128	2890
AMCC0630	AMCC-630	25	40	85	70	90	135	350	1435	3678
AMCC800A	AMCC-800A	25	40	85	85	90	135	350	1743	4466
AMCC800B	AMCC-800B	30	40	95	85	100	155	390	2091	5972
AMCC1000	AMCC-1000	33	40	105	85	106	171	422	2300	7109

L_m: Mean magnetic pass length
A_e: Effective cross section area

POWERLITE® C-Cores - Bobbins



BOBBIN NUMBER	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	T1 (mm)	T2 (mm)	T3 (mm)
AMCC-6.3BOB	21	31.5	11.5	21.5	30	32	1.0	1.0	2.0
AMCC-8BOB	24.5	34	13	21.5	27.5	29.5	1.0	1.0	2.0
AMCC-10BOB	25	34	12	20.5	38	40	1.0	1.0	2.0
AMCC-16ABOB	25	39	12	25.5	38	40	1.0	1.2	2.0
AMCC-16BBOB	25	39	12	25.5	48	50	1.0	1.2	2.0
AMCC-20BOB	25	44	12	30.5	48	50	1.0	1.2	2.0
AMCC-25BOB	27.5	42.5	15.5	26.5	52.5	55	1.0	1.2	2.2
AMCC-32BOB	28	49	14	30.5	53	56	1.2	1.5	2.2
AMCC-40BOB	27.5	55	15.5	38.5	52	54.5	1.0	1.2	2.2
AMCC-50BOB	36	48	17	25.5	67	70	1.5	1.8	2.4
AMCC-63BOB	35	56	18	31.5	66	68	1.2	1.8	2.4
AMCC-80BOB	36	63	17	41	67	70	1.2	1.8	2.4
AMCC-100BOB	35.5	70	18	47	66.5	69.5	1.2	1.8	2.4

POWERLITE® C-Core Bobbins - Material Properties

MATERIAL: Arnite

FLAMMABILITY RATING: UL94V0

TEMPERATURE RATING: Vical Softening Point = 200°C

Contact Information:

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