

Nanocrystalline Cores For Common Mode Chokes

DATA SHEET



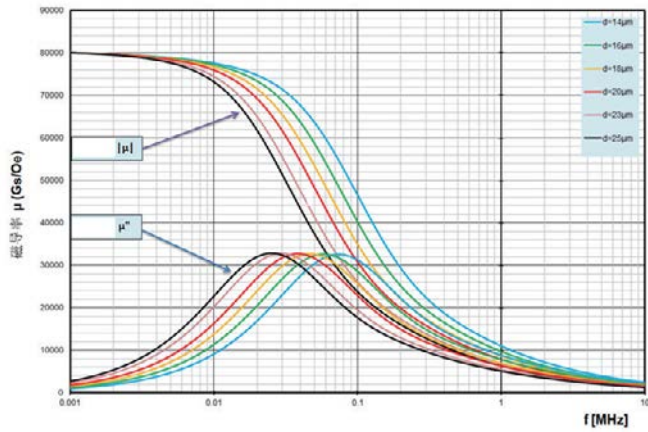
Part No.	VAC Part No.	Core Dimensions	Overall Dimensions	Iron X-section	Mean path length	Weight	AL nominal μH		Saturation Current typical (A)	
							10kHz	100kHz	10kHz	100kHz
		OD x ID x H mm	OD x ID x H mm	AFe cm^2	lFe cm	g				
NC-0100-L-C-01	W619	16x12.5x6	17.8x10.7x8	0.08	4.5	2.6	6	3.9	1.1	1.7
NC-0100-L-C-02	W620	16x12.5x6	17.8x10.7x8	0.08	4.5	2.6	15	4.8	0.5	0.8
NC-0035-L-C	W867	22x17x6	24x15.2x8	0.12	6.1	5.4	16.4	4.3	0.6	1.2
NC-0088-L-C-01	W622	25x20x10	27.3x17.5x12.3	0.19	7.1	9.9	22.5	7.2	0.7	1.4
NC-0088-L-C-02	W621	25x20x10	27.3x17.5x12.3	0.19	7.1	9.9	9	5.8	1.7	2.7
NC-0018-L-C-03	W676	30x25x13	32.3x22.7x17.5	0.27	8.6	17.4	26.5	8.5	0.9	1.7
NC-0008-L-C	W911	30x20x10	32.5x17.8x12.5	0.4	7.9	23.1	56	13.4	0.6	1.2
NC-0015-L-C	W624	40x32x15	42.3x29.1x17.8	0.44	11.3	36	32.5	10.3	1.1	2.2
NC-0015-L-C-01	W623	40x32x15	42.3x29.1x17.8	0.44	11.3	36	13	8.4	2.8	4.3
NC-0015-L-C-02	W886	45x32x15	47.3x29.8x17.8	0.71	12.1	63.3	19.7	12.8	3	4.6
NC-0016-L-C-01	W626	50x40x20	52.3x37.1x22.8	0.73	14.1	76	43	13.8	1.4	2.7
NC-0016-L-C-02	W625	50x40x20	52.3x37.1x22.8	0.73	14.1	76	17	11.2	3.6	5.4
NC-0299-L-C	W627	63x50x20	65.5x46.6x27.8	0.95	17.8	124	18	11.6	4.4	6.7
NC-0299-L-C-01	W721	63x50x20	65.5x46.6x27.8	0.95	17.8	124	11.5	10.4	6.9	8.7
NC-0300-L-C	W628	80x63x20	83x59.5x22.8	1.24	22.5	205	18.5	12	5.6	8.5
NC-0300-L-C-01	W722	80x63x20	83x59.5x22.8	1.24	22.5	205	11.9	10.7	8.7	11
NC-0230-L-C	W629	100x80x20	104x75x23	1.46	28.3	303	17.3	11.2	7.1	10.7
NC-0230-L-C-01	W723	100x80x20	104x75x23	1.46	28.3	303	11.2	10	10.9	13.8
NC-0186-L-C-01	W567	130x100x25	134.5x95x28.5	2.85	36.1	757	50	19.4	4.8	8.5
NC-0186-L-C	W630	130x100x25	134.5x95x28.5	2.74	36.1	727	25.4	16.5	9	13.6
NC-0186-L-C-02	W587	130x100x25	134.5x95x28.5	2.74	36.1	727	16.4	14.7	14	17.7
NC-0032-L-C	W631	160x130x25	165x125x28.5	2.74	45.6	917	20.1	13.1	11.3	17.1
NC-0032-L-C-01	W720	160x130x25	165x125x28.5	2.74	45.6	917	13	11.7	17.6	22.3
NC-0209-L-C-01	V105	194x155x25	200x149x28.5	3.71	54.8	1490	45.3	14.7	6.9	12.5
NC-0209-L-C	W908	194x155x25	200x149x28.5	3.71	54.8	1490	14.7	13.2	20.7	26.4

Part No.	VAC Part No.	Core Dimensions	Overall Dimensions	Iron X-section	Mean path length	Weight	AL nominal μ H		Saturation Current typical (A)	
							10kHz	100kHz	10kHz	100kHz
		OD x ID x H mm	OD x ID x H mm	AFe cm ²	IFe cm	g				
NC-0178-L-W	W914	9.8x6.5x4.5	11.2x5.1x5.8	0.06	2.6	1.1	25.5	6.4	0.2	0.4
NC-0010-L-W	W902	12x8x4.5	14.1x6.6x6.3	0.07	3.1	1.7	28	6.8	0.2	0.4
NC-0226-L-W	W498	12.5x10x5	14.3x8.5x7.0	0.05	3.5	1.3	10	3.6	0.4	0.8
NC-0039-L-W	W865	15x10x4.5	17.1x7.9x6.5	0.09	3.9	2.6	27	6.7	0.3	0.5
NC-0217-L-W	W403	16x10x6	17.9x8.1x8.1	0.14	4.1	4	43	10.1	0.3	0.6
NC-0217-L-W-01	W308	16x10x6	17.9x8.1x8.1	0.14	4.1	4	11.7	6.5	1.2	1.7
NC-0179-L-W	W515	17.5x12.6x6	19x11x8	0.12	4.7	4.1	30	6.9	0.3	0.7
NC-0044-L-W-01	W838	19x15x10	21.2x13.0x12.3	0.16	5.3	6.3	36.1	8.8	0.4	0.7
NC-0038-L-W	W409	20x12.5x8	22.6x10.3x10.2	0.24	5.1	9	55.2	13.6	0.4	0.7
NC-0038-L-W-01	W450	20x12x8	22.6x10.3x10.2	0.24	5.1	9	14.3	9.1	1.4	2.1
NC-0088-L-W-03	W523	25x20x10	27.6x17.4x12.8	0.2	7.1	10.4	28.4	7.3	0.6	1.1
NC-0141-L-W-01	W380	25x16x10	27.9x13.6x12.5	0.36	6.4	17	65.5	15.5	0.4	0.9
NC-0141-L-W-02	W451	25x16x10	27.9x13.6x12.5	0.36	6.4	17	17	11.5	1.7	2.6
NC-0141-L-W-04	W980	25x16x10	27.9x13.6x12.5	0.36	6.4	17	3.2	3.1	9.3	9.6
NC-0008-L-W-01	W423	30x20x10	21.8x17.6x12.5	0.4	7.9	23	59.3	14	0.5	1
NC-0008-L-W-14	W358	30x20x10	21.8x17.6x12.5	0.4	7.9	23	15.5	11.1	2.1	3.1
NC-0008-L-W-11	W981	30x20x10	21.8x17.6x12.5	0.4	7.9	23	2.9	2.8	11.4	11.8
NC-0058-L-B	W514	30x20x15	32.8x17.5x17.8	0.57	7.9	33	88	20	0.5	1.1
NC-0015-L-W-03	W422	40x32x15	43.1x28.7x18.5	0.46	11.3	38	47.2	11.1	0.8	1.5
NC-0015-L-W-04	W452	40x32x15	43.1x28.7x18.5	0.46	11.3	38	12.2	7.9	3.7	5.1
NC-0015-L-W-10	W964	40x32x15	43.1x28.7x18.5	0.46	11.3	38	2.3	2.2	16.6	17.1
NC-0023-L-B-02	W424	40x25x15	48.3x26.4x18.2	0.86	10.2	64	101	23.1	0.7	1.4
NC-0023-L-B-06	W453	40x25x15	48.3x26.4x18.2	0.86	10.2	64	25.4	17.2	2.9	4.2
NC-0177-L-B	V102	45x30x15	48.3x26.4x18.2	0.86	11.8	74	87.5	20.3	0.8	1.6
NC-0177-L-B-01	V118	45x30x15	48.3x26.4x18.2	0.86	11.8	74	24.3	15.9	3	4.5
NC-0177-L-B-02	V101	45x30x15	48.3x26.4x18.2	0.86	11.8	74	15.7	14.3	4.6	5.8
NC-0016-L-W-02	W516	50x40x20	53.5x36.3x23.4	0.76	14.1	79	45.3	14	1.4	2.7
NC-0016-L-W-03	W565	50x40x20	53.5x36.3x23.4	0.76	14.1	79	18	10	3.5	5.3
NC-0017-L-B	W517	63x50x25	67.3x46.5x28.6	1.24	17.8	161	58.6	18.1	1.8	3.5
NC-0017-L-B-01	V110	63x50x25	67.3x46.5x28.6	1.24	17.8	161	23.3	13.5	4.4	6.7
NC-0017-L-B-02	W985	63x50x25	67.3x46.5x28.6	1.24	17.8	163	3.3	3.2	30.2	30.9
NC-0147-L-B	V140	80x50x20	86.0x44.7x25.7	2.28	20.4	342	94	28	1.4	2.8
NC-0147-L-B-02	W531	80x50x20	86.0x44.7x25.7	2.28	20.4	342	35	24	5.5	8.2
NC-0147-L-B-04	V091	80x50x20	86.0x44.7x25.7	2.28	20.4	347	9.6	9.2	26.4	27.3
NC-0096-L-B-01	W518	90x60x20	95.4x54.7x24.7	2.28	23.6	395	81	25.1	2.4	4.5
NC-0096-L-B-02	W984	90x60x20	95.4x54.7x24.7	2.28	23.6	400	4.6	4.5	40.9	41.8
NC-0188-L-W	V082	100x80x25	105.5x75x29.6	1.90	28.3	379	56.3	16.9	2.8	5.3
NC-0188-L-W-01	V081	100x80x25	105.5x75x29.6	1.90	28.3	379	14.5	13.1	10.9	13.8
NC-0144-L-B	W468	102x76x25	108.1x70x30.3	2.47	28	508	68.8	21.6	3.8	6.7

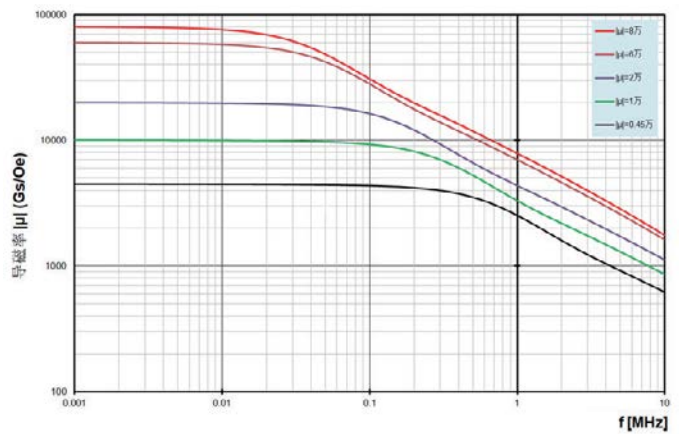
Part No.	VAC Part No.	Core Dimensions	Overall Dimensions	Iron X-section	Mean path length	Weight	AL nominal μH		Saturation Current typical (A)	
							10kHz	100kHz	10kHz	100kHz
		OD x ID x H mm	OD x ID x H mm	AFe cm ²	IFe cm	g				
NC-0144-L-B-02	V080	102x76x25	108.1x70x30.3	2.47	28	508	19.1	17.2	10.7	13.6
NC-0144-L-B-01	W947	102x76x25	108.1x70x30.3	2.47	28	515	4.3	4.2	47.4	48.5
NC-0032-L-B-03	V074	160x130x25	166.9x123.9x30.5	2.74	45.6	917	26.3	13.7	8.4	13.6
NC-0032-L-B-02	V088	160x130x25	166.9x123.9x30.5	2.74	45.6	917	20.1	13.1	11.3	17.1
NC-0032-L-B	V066	160x130x25	166.9x123.9x30.5	2.74	45.6	917	12.9	11.7	17.6	22.3
NC-0032-L-B-04	W982	160x130x25	166.9x123.9x30.5	2.85	45.6	967	3	2.9	79.3	81.1

Typical electromagnetic performance curve

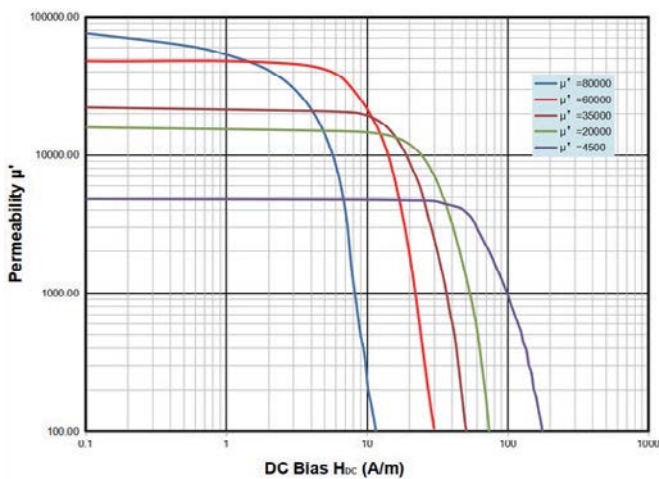
Material Thickness and Permeability (μ) VS Frequency of 1K107B Nanocrystalline



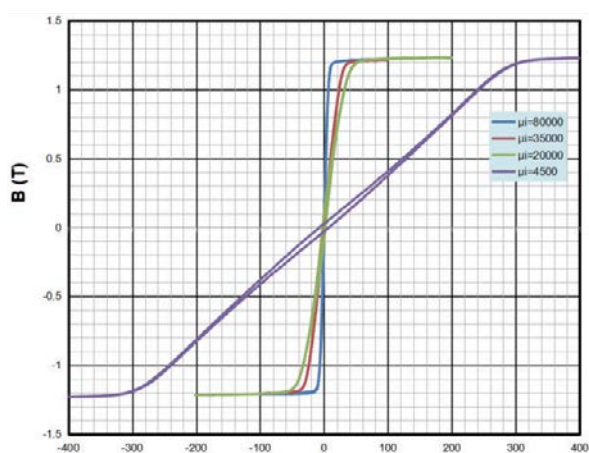
Permeability (μ) vs Frequency of Nanocrystalline



Permeability (μ) VS DC Bias of Nanocrystalline



Magnetic Hysteresis Loop for Different Permeabilities



Permeability VS Temperature Variation Curve

