

**Power Electronics
Components
[Catalog]**



HIDUST®
Cores for Choke Coil, Choke Coil

HIDUST® core is powder magnetic core made of high performance metal powder. Those cores and coils are suitable for choke coil for power factor correction, step-up/step-down converters, secondary smoothing and EMI filters, and contribute to downsizing and high performance of electric power conversion system.

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Materials Mag!c
Hitachi Metals

1. Features

1. High saturation resistance

Powder core using soft magnetic alloy is high resistance to over-current.

2. Low core loss

High performance soft magnetic alloy and our own process technology realizes low core loss.

3. Low audio noise*

Due to its composition with low magnetostriction, it allows reducing audible noise emission at audio-frequency excitation (20Hz~20kHz).

*Measured by Hitachi Metals, Ltd:

A-weight sound pressure level: 36dB at Bm=0.2T, and 10kHz

2. Standard Specifications

Table 1 HIDUST® Cores for Choke Coil

Operating temperature range:-25~+120°C (includes self temperature rise)

P/N	Dimensions(mm)			Le Typ. (mm)	Ae Typ. (mm ²)	AL Value ^{*2} Typ. (nH/N ²)	We Typ. (g)
	A MAX.	B MAX.	C MIN.				
DT-20	14.9	6.7	5.6	31.6	15.3	48.5	3
DT-22	18.6	8.0	8.8	41.3	23.3	56.8	7
DT-22W	18.8	14.2	8.6	41.3	44.6	108.5	12
DT-26	23.3	8.1	11.0	51.1	32.1	63.1	11
DT-26H	23.5	14.4	10.9	51.1	60.5	111.5	21
DT-28	25.1	9.4	10.6	51.9	45.5	88.1	17
DT-36S	28.4	8.8	13.6	62.3	43.7	70.5	19
DT-36	28.6	13.4	13.4	62.3	69.4	111.9	30
DT-40	34.9	14.2	18.5	80.5	79.3	86.7	42
DT-40H	35.1	19.8	18.3	80.5	108.5	110.1	58
DT-40W	35.3	27.4	18.1	80.5	158.6	173.4	85

Le: Mean magnetic path length, Ae: Effective sectional area, We: Weight

*Note 1: Outer diameter (A) is diameter of coated core

*Note 2: AL value is standard value for 20kHz at OA

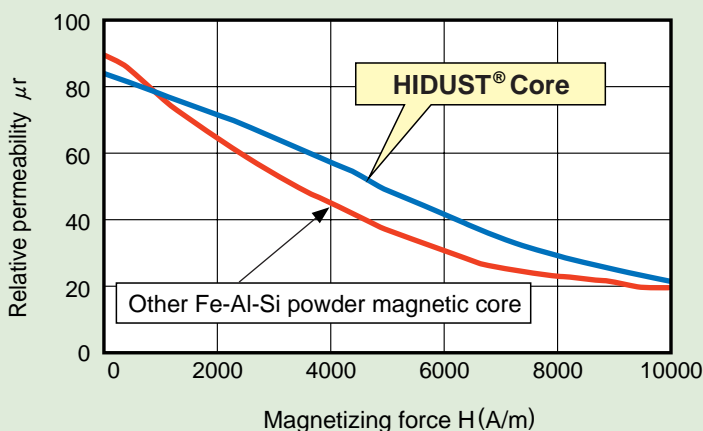


Fig.1 DC superposed characteristics

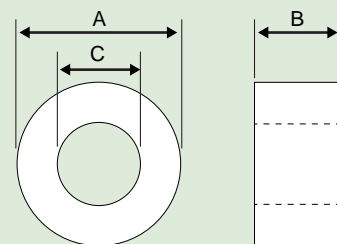


Fig.2 HIDUST® core for choke coil

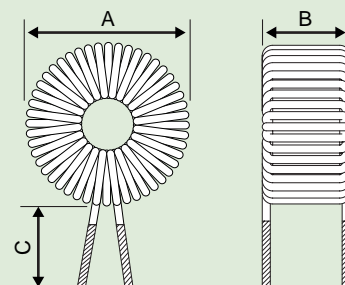


Fig.3 HIDUST® choke coil



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Table 2 HIDUST® Choke Coil

Operating temperature range:-25~+120°C (includes self temperature rise)

P/N	Rated current (A)	Inductance L (μH) +25%/-20%		Wire diameter φ (mm)	Dimensions (mm)			DC resistance Typ. (mΩ)	W _e Typ. (g)
		at 0A	at rated current		A MAX.	B MAX.	C ±5		
DT-201	1	200	175	0.5	18.0	8.5	30.0	130	7
DT-202	2	60	50	0.7	18.5	10.5	30.0	40	7
DT-203	3	30	27	0.8	19.0	10.5	30.0	20	7
DT-221	1	550	475	0.5	21.0	11.5	30.0	210	11
DT-222	2	165	135	0.7	21.0	12.0	30.0	60	12
DT-223	3	105	85	0.8	21.0	12.5	30.0	40	12
DT-225	5	42	32	1.0	22.0	12.0	30.0	15	13
DT-261	1	1000	850	0.5	25.0	12.5	30.0	325	18
DT-262	2	500	375	0.7	26.0	13.5	30.0	115	20
DT-263	3	175	135	0.8	26.5	13.5	30.0	50	18
DT-265	5	90	65	1.0	27.0	13.0	30.0	25	19
DT-362S	2	2000	1200	0.7	33.0	15.5	30.0	250	39
DT-363S	3	440	325	0.8	33.0	14.0	30.0	90	29
DT-365S	5	390	215	1.0	33.0	15.0	30.0	55	35
DT-366S	6	82	62	1.2	34.0	15.0	30.0	20	31
DT-3610S	10	55	37	1.6	35.0	16.0	30.0	9	38
DT-362	2	1300	1050	0.7	32.5	17.5	30.0	210	55
DT-363	3	310	275	0.8	32.5	18.0	30.0	75	39
DT-365	5	185	150	1.0	33.0	19.0	30.0	45	42
DT-366	6	60	50	1.2	34.0	18.0	30.0	18	40
DT-3610	10	42	35	1.6	35.0	20.0	30.0	8	46
DT-3620	20	50	24	1.8	35.0	21.0	30.0	8	54
DT-403	3	725	560	0.8	39.5	18.5	30.0	125	62
DT-405	5	625	390	1.0	39.5	20.0	30.0	75	67
DT-406	6	330	230	1.2	41.0	21.5	30.0	40	68
DT-408	8	320	180	1.4	41.0	23.0	30.0	30	75
DT-4010	10	150	90	1.6	41.0	22.0	30.0	16	70
DT-4020	20	33	21	1.8	41.0	22.0	30.0	8	62
DT-4021	20	20	15	1.6x2P	42.0	22.0	30.0	4	72
DT-4030	30	20	15 at 20A	1.8x2P	42.0	23.0	30.0	3	75
DT-406H	6	600	400	1.2	42.0	27.0	30.0	56	102
DT-4010H	10	220	140	1.6	43.0	27.0	30.0	21	107
DT-4020H	20	100	50	2.0	43.0	27.0	30.0	9	111
DT-406W	6	570	410	1.2	43.0	34.0	30.0	60	129
DT-4010W	10	300	200	1.6	43.0	35.0	30.0	25	142
DT-4020W	20	105	55	2.0	43.0	35.0	30.0	9	136



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Hitachi Metals, Ltd. <http://www.hitachi-metals.co.jp>

Soft Magnetic Materials Company Head Office

2-1 Shibaura 1-chome, Seavans North Bldg.
Minato-ku, Tokyo 105-8614, Japan
Tel:+81-3-5765-4042 Fax: +81-3-5765-8313

Kansai Sales Office

5-29 Kitahama 3-chome, Nissei Yodoyabashi building
Chuo-ku, Osaka 541-0041, Japan
Tel:+81-6-6203-9751 Fax:+81-6-6222-3414

Chubu-Tokai Sales Office

13-19 Nishiki 2-chome, Takisada building, Naka-ku
Nagoya-shi, Aichi, 460-0003, Japan
Tel:+81-52-220-7470 FAX:+81-52-220-7486

Hitachi Metals America, Ltd.

Cicago Office

2101 S. Arlington Heights Road Suite 116
Arlington Heights, IL 60005-4142
Tel:847-364-7200 Fax:847-364-7279

Detroit Office

41800 W. Eleven Mile Road Suite 100
Novi, MI 48375-1818
Tel:248-465-6400 Fax:248-465-6020

Hitachi Metals Europe GmbH

Head Office

Immermannstrasse 14-16,
40210 Duesseldorf, Germany
Tel:+49-211-16009-57 Fax:+49-211-16009-60

Hitachi Metals Singapore Pte. Ltd.

12 Gul Avenue, Singapore 629656
Tel:+65-6861-7711 Fax:+65-6861-9554

Hitachi Metals (Shanghai) Ltd.

11F, Tian An Center, No.338 NanJing Road(West),
Shanghai, 200003, China
Tel:+86-21-6358-6334 Fax:+86-21-6431-8067

Hitachi Metals Hong Kong Ltd.

Units 2212-14, 22/F., Miramar Tower,
132 Nathan Road, Tsimshatsui,
Kowloon, Hong Kong
Tel:+852-2724-4183 Fax:+852-2311-2095

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• Above contact addresses are as of March 2007. The addresses are subject to change without notice.

If you find difficulty contacting Hitachi Metals, please contact below:

• Hitachi Metals Ltd. Corporate Communication Group.

Tel : +81-3-5765-4076 Fax : +81-3-5765-8312

E-mail : hmcc@hitachi-metals.co.jp