TC/TB SERIES

TOROIDAL COILS.

Applications :

- Power supplies. Switching Circuits.
- SCR and Triac Controls. Output chokes.
- EMI / RFI chokes.
- Other filter .

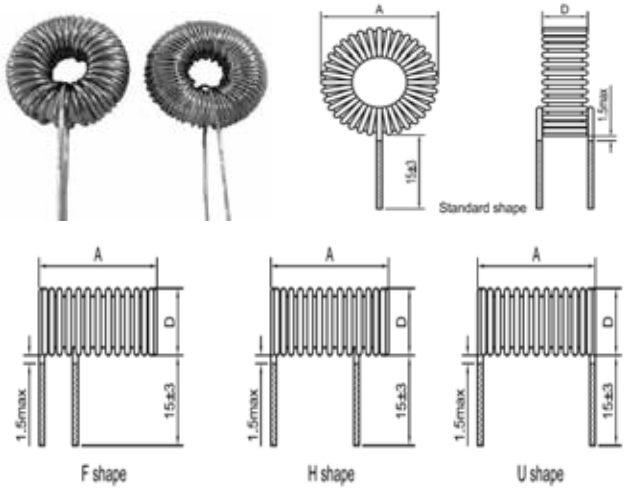
Features :

- Useful in a wide variety of power conversion and line filter applications .
- Cost effective design.
- Low volume hand wound to high volume automatic machine wound.
- 130℃ or 155℃ UEW-NY wire.
- High saturation current.
- Customer's specifications are welcome.

Characteristics :

- Temperature Rise Current(Irms): The current when when temperature of coil increase up to max. △T=40℃.(Ta=20℃)
- Operating temperature : -20 ℃ to 80 ℃.

Shape and Dimensions(unit:mm):



Product Identification :

TC - 101 M - 2A - 5026 - F

(1) (2) (3) (4) (5) (6)

(1) Type: **T**oroidal **C**oils; "**TB**": TC with Base; "**TBV**"- **V**ertical; "**TBH**"- **H**orizontal

(2) Inductance: Example : **101** for 100 uH

(3) Inductance tolerance: **K** : ±10% ; **M**: ± 20% .

(4) Rated current: **2.0**Amps .

(5) Core style : **OD** =0.5"(12.7mm). "**26**" is material.

(6) Shape: "**F. H. U**" shape; No code is standard shape.

Test equipments and test setup :

- L : HP4284A LCR meter or equal.
- L load: HP4284A with HP42841A.
- DCR : Milli-Ω meter .
- Electrical specifications at 25℃.

● TC series

Part No.	Inductance @ 1kHz		DCR	Irms	Dimension (mm)		Weight	Winding
	At Idc=0A (uH)	At Idc (uH)	(Ω) Max.	(A) Max.	A Max.	D Max.	(Grams) (For Ref.)	method
TC - 5R0M - 0.5A - 2026	5	4.9	0.007	0.5	7.5	4.5	0.4	Manual
TC - 9R0M - 0.3A - 2026	9	8.8	0.110	0.3	8.0	4.5	0.2	Manual
TC - 150M - 0.5A - 2026	15	13.5	0.070	0.5	7.5	4.5	0.4	Manual
TC - 200M - 0.2A - 2026	20	19.8	0.198	0.2	7.5	4.0	0.2	Manual
TC - 270M - 0.1A - 2026	27	27	0.033	0.1	7.5	4.0	0.2	Manual
TC - 270M - 0.3A - 2026	27	25.5	0.135	0.3	7.5	4.0	0.2	Manual
TC - 100M - 2A - 3026	10	7.7	0.017	2.0	11.0	6.5	1.6	Manual
TC - 120M - 1A - 3026	12	10.7	0.040	1.0	10.5	6.0	1.2	Manual
TC - 320M - 1A - 3026	32	25	0.058	1.0	10.5	6.0	1.4	Manual
TC - 370M - 0.5A - 3026	37	33.7	0.134	0.5	10.0	5.5	1.0	Manual

Part No.	Inductance @ 1kHz		DCR	Irms	Dimension (mm)		Weight	Winding
	At Idc=0A (uH)	At Idc (uH)	(Ω) Max.	(A) Max.	A Max.	D Max.	(Grams) (For Ref.)	method
TC - 141M - 0.5A - 3026	140	107	0.265	0.5	10.0	6.0	1.2	Manual
TC - 8R2M - 2A - 3726	8.2	7.2	0.017	2.0	12.5	6.0	2.0	Manual
TC - 220M - 2A - 3726	22	17	0.030	2.0	14.5	7.5	2.4	Manual
TC - 240M - 1A - 3726	24	22	0.046	1.0	12.0	5.5	1.6	Manual
TC - 560M - 0.5A - 3726	56	53	0.181	0.5	12.5	5.5	1.4	Manual
TC - 680M - 1A - 3726	68	53	0.090	1.0	12.0	6.0	2.0	Manual
TC - 241M - 0.5A - 3726	240	190	0.039	0.5	12.0	6.0	1.6	Manual
TC - 150M - 2A - 4426	15	12.6	0.023	2.0	14.0	7.0	2.8	Manual
TC - 430M - 1A - 4426	43	37	0.074	1.0	14.0	6.5	2.6	Manual
TC - 680M - 2A - 4426	68	42	0.045	2.0	14.5	8.0	3.8	Manual
TC - 111M - 0.5A - 4426	110	100	0.250	0.5	14.0	6.5	2.4	*Machine*
TC - 141M - 1A - 4426	140	104	0.140	1.0	14.0	7.5	3.2	*Machine*
TC - 361M - 0.5A - 4426	360	285	0.045	0.5	14.0	6.5	2.8	*Machine*
TC - 200M - 3A - 5026	20	15	0.021	3.0	16.5	9.0	4.4	Manual
TC - 300M - 2A - 5026	30	25	0.035	2.0	16.0	8.0	4.0	Manual
TC - 600M - 3A - 5026	60	35	0.038	3.0	17.0	9.0	5.8	Manual
TC - 680M - 1A - 5026	68	60	0.101	1.0	16.0	7.5	3.6	*Machine*
TC - 101M - 2A - 5026	100	63	0.080	2.0	16.0	9.0	5.2	Manual
TC - 221M - 1A - 5026	220	162	0.170	1.0	16.5	8.0	4.4	*Machine*
TC - 220M - 5A - 6026	22	15	0.013	5.0	21.0	10.5	8.0	Manual
TC - 290M - 4A - 6026	29	20	0.020	4.0	19.0	9.0	7.8	Manual
TC - 350M - 3A - 6026	35	28	0.035	3.0	20.5	10.5	7.6	Manual
TC - 580M - 2A - 6026	58	45	0.050	2.0	19.0	10.0	7.2	Manual
TC - 900M - 3A - 6026	90	52.5	0.044	3.0	20.5	12.5	9.2	Manual
TC - 111M - 2A - 6026	110	79	0.069	2.0	18.5	10.0	8.0	Manual
TC - 131M - 1A - 6026	130	116	0.180	1.0	19.0	9.0	6.4	*Machine*
TC - 471M - 1A - 6026	470	310	0.350	1.0	19.5	10.0	7.6	*Machine*
TC - 250M - 5A - 6826	25	18	0.016	5.0	22.0	9.0	9.2	Manual
TC - 320M - 4A - 6826	32	24	0.021	4.0	22.0	9.0	9.0	Manual
TC - 430M - 3A - 6826	43	30	0.028	3.0	21.0	8.5	8.8	Manual
TC - 650M - 4A - 6826	65	55	0.055	2.0	22.0	9.0	8.2	Manual
TC - 111M - 4A - 6826	110	56	0.042	4.0	23.0	11.0	11.4	Manual
TC - 131M - 3A - 6826	130	77	0.055	3.0	23.0	10.5	10.6	Manual
TC - 151M - 1A - 6826	150	137	0.160	1.0	21.5	9.0	7.6	*Machine*
TC - 231M - 2A - 6826	230	148	0.108	2.0	22.5	9.5	9.8	*Machine*
TC - 501M - 1A - 6826	500	355	0.300	1.0	22.0	9.0	8.6	*Machine*
TC - 500M - 5A - 8026	50	33	0.022	5.0	24.5	10.0	14.2	Manual
TC - 600M - 4A - 8026	60	42	0.030	4.0	25.0	11.0	13.7	Manual
TC - 750M - 3A - 8026	75	54	0.039	3.0	24.0	11.0	13.0	Manual
TC - 820M - 3A - 8026	82	60	0.042	3.0	24.0	10.5	13.0	Manual
TC - 101M - 5A - 8026	100	53	0.033	5.0	25.0	11.5	16.8	Manual
TC - 111M - 2A - 8026	110	90	0.074	2.0	25.5	10.0	12.0	*Machine*
TC - 151M - 5A - 8026	150	68	0.042	5.0	25.0	13.0	18.0	Manual
TC - 221M - 4A - 8026	220	105	0.059	4.0	26.0	13.0	17.9	Manual
TC - 271M - 3A - 8026	270	140	0.100	3.0	27.0	11.5	16.6	*Machine*
TC - 321M - 2A - 8026	320	193	0.131	2.0	27.0	11.0	14.0	*Machine*

Part No.	Inductance @ 1kHz		DCR	Irms	Dimension (mm)		Weight	Winding
	At Idc=0A (uH)	At Idc (uH)	(Ω) Max.	(A) Max.	A Max.	D Max.	(Grams) (For Ref.)	method
TC - 431M - 2A - 8026	430	246	0.145	2.0	26.0	11.0	15.0	*Machine*
TC - 961M - 1A - 8026	960	625	0.450	1.0	26.0	11.0	13.0	*Machine*
TC - 900M - 5A - 9026	90	54	0.034	5.0	28.0	14.5	23.6	Manual
TC - 141M - 3A - 9026	140	98	0.082	3.0	29.0	13.0	22.0	*Machine*
TC - 201M - 2A - 9026	200	154	0.114	2.0	28.5	13.0	20.8	*Machine*
TC - 321M - 5A - 9026	320	120	0.068	5.0	29.0	16.0	29.6	Manual
TC - 451M - 2A - 9026	450	280	0.174	2.0	29.0	14.0	23.0	*Machine*
TC - 471M - 1A - 9026	470	398	0.354	1.0	26.5	13.0	19.5	*Machine*
TC - 471M - 3A - 9026	470	225	0.150	3.0	29.5	14.0	27.0	*Machine*
TC - 182M - 1A - 9026	1800	1130	0.680	1.0	27.5	14.0	22.4	*Machine*
TC - 820M - 5A - 9426	82	52	0.033	5.0	31.0	15.5	22.4	Manual
TC - 101M - 4A - 9426	100	69	0.042	4.0	29.5	13.5	21.9	Manual
TC - 131M - 3A - 9426	130	96	0.061	3.0	29.0	13.0	21.6	*Machine*
TC - 221M - 2A - 9426	220	170	0.121	2.0	28.5	12.0	20.6	*Machine*
TC - 301M - 5A - 9426	300	120	0.064	5.0	30.0	15.5	28.8	Manual
TC - 391M - 4A - 9426	390	165	0.088	4.0	29.5	15.0	27.2	Manual
TC - 471M - 1A - 9426	470	400	0.342	1.0	27.5	11.5	19.0	*Machine*
TC - 501M - 3A - 9426	500	242	0.124	3.0	31.0	14.5	26.0	*Machine*
TC - 781M - 2A - 9426	780	428	0.220	2.0	30.0	13.5	24.1	*Machine*
TC - 132M - 1A - 9426	1300	933	0.585	1.0	28.5	12.5	21.2	*Machine*
TC - 300M - 10A - 10626	30	21	0.009	10.0	36.0	19.5	42.0	Manual
TC - 350M - 10A - 10626	35	25	0.010	10.0	36.0	19.5	43.0	Manual
TC - 560M - 7A - 10626	56	41.5	0.020	7.0	34.0	18.0	40.0	Manual
TC - 680M - 7A - 10626	68	46	0.021	7.0	34.0	18.0	40.0	Manual
TC - 820M - 7A - 10626	82	53	0.023	7.0	34.0	18.0	41.0	Manual
TC - 101M - 5A - 10626	100	75	0.036	5.0	33.5	17.0	39.0	Manual
TC - 151M - 4A - 10626	150	110	0.053	4.0	32.5	16.5	38.4	Manual
TC - 201M - 3A - 10626	200	157	0.078	3.0	34.0	15.0	37.8	*Machine*
TC - 301M - 2A - 10626	300	250	0.150	2.0	34.0	15.0	37.8	*Machine*
TC - 851M - 2A - 10626	850	567	0.300	2.0	35.0	16.5	41.8	*Machine*
TC - 750M - 10A - 13026	75	43	0.014	10.0	42.0	19.5	64.0	Manual
TC - 131M - 7A - 13026	130	79	0.031	7.0	41.0	18.0	58.0	Manual
TC - 201M - 5A - 13026	200	134	0.056	5.0	39.0	17.0	55.6	Manual
TC - 251M - 10A - 13026	250	105	0.027	10.0	42.5	21.5	82.0	Manual
TC - 471M - 7A - 13026	470	190	0.064	7.0	40.5	19.5	72.0	Manual
TC - 681M - 5A - 13026	680	295	0.105	5.0	39.0	18.5	65.2	Manual

* Due to the limited space, the catalogue shows the typical specifications only. For more specific details (characteristics graph, reliability, and others), kindly invite you to access 3L official website www.3lcoil.com for better known.

TC series

Shape and Dimensions(unit:mm) :

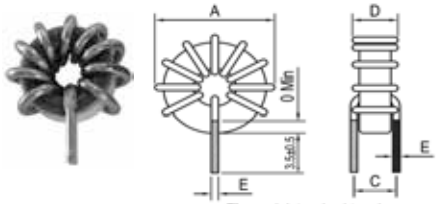


Figure 1 (standard type)

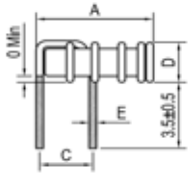


Figure 3 (standard F type)

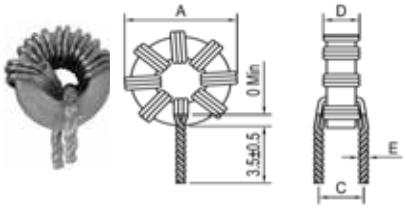


Figure 2 (multiwire type)

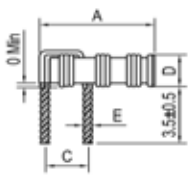


Figure 4 (multiwire F type)

Part No.	L At Idc=0A (uH)	DCR (mΩ) Max.	Rated Current (A) Max.	Dimension (mm) A Max.	C ±1.0	D Max.	E	Fig
TC - R82M - 10A - 3018	0.82	4.2	10	10.5	5.5	6.0	1.0±0.2	2
TC - R60M - 14A - 3818	0.6	2.2	14	13.0	7.0	7.5	1.4±0.2	2
TC - 1R0M - 10A - 3818	1.0	3.3	10	14.0	7.0	8.0	1.4±0.2	2
TC - 1R2M - 14A - 4453	1.2	3.0	14	15.5	5.5	8.0	1.1±0.1	1
TC - 2R2M - 10A - 4453	2.2	4.0	10	15.5	5.5	8.0	1.0±0.1	1
TC - R60M - 25A - 5018	0.6	1.4	25	16.5	7.5	8.0	1.6±0.3	2
TC - 1R2M - 18A - 5018	1.2	1.9	18	16.5	9.0	11.5	1.9±0.3	2
TC - 1R5M - 10A - 5052B	1.5	2.6	10	17.5	8.0	10.0	1.2±0.1	1
TC - 1R6M - 18A - 5053B	1.6	3.0	18	17.5	9.0	10.5	1.9±0.3	2
TC - 1R2M - 20A - 6018 - F	1.2	2.1	20	19.0	6.5	9.5	1.7±0.3	4
TC - 1R2M - 25A - 6053	1.2	1.9	25	19.0	9.0	9.5	1.9±0.3	2
TC - 2R2M - 15A - 6018	2.2	2.7	15	19.0	8.5	9.0	1.8±0.3	2
TC - 3R0M - 10A - 6052 - F	3.0	4.0	10	21.0	5.5	10.0	2.2±0.2	4

·These parts designed for computer main board. / Inductance measuring frequency: @200kHz 0.25V.
·Customer's specifications are welcome.
·Rated Current: Obtained when temperature rise to 40℃ and the initial inductance drop by 20%.

● TBV/TBKM/TBH series

Shape and Dimensions(unit:mm) :



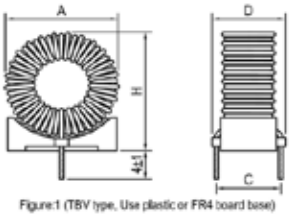


Figure:1 (TBV type, Use plastic or FR4 board base)

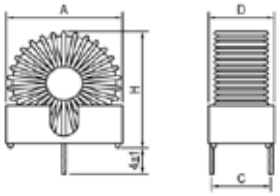


Figure:2 (TBKM type, Use KM series base)

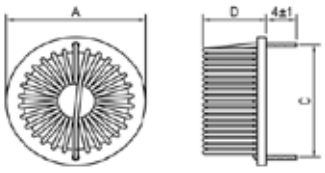


Figure:3 (TBH type, Use FR4 board base)

Part No.	Inductance At Idc=0A (uH)	Inductance At Idc (uH)	DCR (Ω) Max.	Irms (A) Max.	Dimension (mm) A Max.	C ±0.5	D Max.	H Max.	Fig
TBV - 3R3M - 2A - 3826	3.3	3.1	0.010	2.0	13.0	6.0	8.0	14.0	1
TBV - 5R0M - 2A - 3826	5.0	4.8	0.011	2.0	13.0	6.0	8.0	14.0	1
TBV - 200M - 3A - 6826	20.0	17.5	0.026	3.0	22.0	10.0	12.5	24.0	1
TBV - 101M - 3A - 6826	100.0	56.0	0.060	3.0	22.0	10.0	12.5	24.0	1
TBKM - 150M - 2A - 4426	15.0	12.6	0.023	2.0	15.0	5.6	9.0	18.0	2
TBKM - 680M - 2A - 4426	68.0	42.0	0.056	2.0	15.0	5.6	9.0	18.0	2
TBKM - 600M - 3A - 5026B	60.0	41.0	0.038	3.0	17.0	7.6	11.8	20.0	2
TBKM - 101M - 2A - 5026B	100.0	71.0	0.081	2.0	17.0	7.6	11.8	20.0	2
TBKM - 470M - 3A - 6826A	47.0	36.0	0.030	3.0	21.5	7.6	11.8	24.5	2
TBKM - 111M - 4A - 6826A	110.0	46.0	0.042	5.0	21.5	7.6	11.8	24.5	2
TBKM - 680M - 7A - 8026B	68.0	33.0	0.035	5.0	24.5	11.4	15.5	27.5	2
TBKM - 101M - 4A - 8026B	100.0	70.0	0.039	4.0	24.5	11.4	15.5	27.5	2
TBKM - 101M - 5A -10626	100.0	75.0	0.036	5.0	32.0	12.7	18.2	35.0	2
TBKM - 201M - 3A -10626	200.0	157.0	0.078	3.0	32.0	12.7	18.2	35.0	2
TBH - 471M - 3A - 9026	470.0	233.0	0.150	3.0	31.0	27.0	16.5		3

·Same overall size available with different material.
·Customer's specifications are welcome.

* Due to the limited space, the catalogue shows the typical specifications only. For more specific details (characteristics graph, reliability, and others), kindly invite you to access 3L official website www.3lcoil.com for better known.