



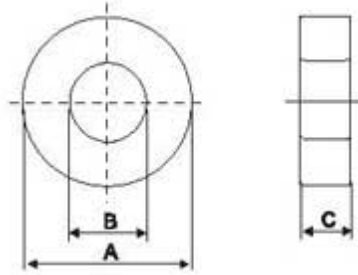
YUXIANG

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China Professional Ferrite Core Supplier

 print version

T CORES



Introduce of T-core

Toroid cores are the core type geometry of choice for optimizing performance. A toroid of round cross-section offers better performance than one of rectangular cross-section, but for practical and economic reasons, toroid cores of rectangular cross-section are much more prevalent. The symmetry of T cores circular geometry minimizes the amount of external magnetic flux produced. Consequently T cores produce much lower amounts of unwanted electromagnetic interference. Compared against other core types, a toroidal coil has a lot of surface area from which it can dissipate heat hence it cools much better than other core types. Cooler windings result in higher efficiency and may allow more utilization of the core's capability. Because of its circular nature, the magnetic path of a T-core is an unbroken continuous path unless intentionally broken. There is no air gap in the magnetic path (unless intentionally added) hence optimal use can be made of high permeability materials. Toroids are manufactured in practically all "soft" magnetic materials. Toroid Cores can be coated with insulation like powder coating core and parylene coated core to provide electrical isolation between the core and the winding(s). Some toroid cores are "boxed" to provide isolation, because the core material is sensitive to stresses produced by the winding processes.

Applications of T-core

T cores are widely applied in Power, Current transformer and Telecom field.

T-core used in power: power transformer core, power inductor core, DC-DC Converters, DC converter core, Compact Power Transformer, Small and Low Profile Power Inductors, Wideband transformers, and other inductive delay lines.

T-core used in telecom: xDSL pass-band Filters, Splitters, EMI Inductors, and Filter Inductors with Tight Tolerance.

T-core used in current transformer: EMI-suppression in power lines, EMI-suppression in mains filters.

Type	Dimensions(mm)		
	A	B	C
T4×2×2	4.0±0.3	2.0±0.3	2.0±0.3
T5×3×5	5.0±0.3	3.0±0.3	5.0±0.3
T6×3×4	6.0±0.3	3.0±0.3	4.0±0.3
T6.3×4×4	6.3±0.3	3.8±0.3	4.0±0.3
T7×4×4	7.0±0.3	4.0±0.3	4.0±0.3
T9×5×3	9.0±0.3	5.0±0.3	3.0±0.3
T10×6×5	10.0±0.4	6.0±0.4	5.0±0.3
T10×5×5	10.0±0.4	5.0±0.4	5.0±0.3
T12×6×4	12.0±0.4	6.0±0.4	4.0±0.3
T12.7×7.8×5	12.7±0.4	7.8±0.3	5.0±0.3
T13×7×5	13.0±0.5	7.0±0.4	5.0±0.3
T14×7×5	14.0±0.5	7.0±0.4	5.0±0.3
T16×12×8	16.0±0.5	12.0±0.4	8.0±0.3
T16×9×8	16.0±0.5	9.0±0.4	8.0±0.3
T16×9.5×8	16.0±0.5	9.5±0.4	8.0±0.3
T17×10×8	17.5±0.5	10.0±0.3	8.0±0.3
T18×10×10	18.0±0.5	10.0±0.4	10.0±0.3
T22×14×12	22.0±0.6	14.0±0.4	12.0±0.3
T22×10×10	22.0±0.6	10.0±0.4	10.0±0.3
T22.1×13.7×6.5	22.1±0.3	13.7±0.3	6.5±0.3
T25×15×7	25.0±0.6	15.0±0.4	7.0±0.3
T25×15×10	25.0±0.6	15.0±0.4	10.0±0.3
T27.5×17.5×7	27.5±0.6	17.5±0.5	7.0±0.4
T28×14×11	28.0±0.6	14.0±0.5	11.0±0.4
T30×11×8	30.0 ⁺⁰ -0.8	11.0 ^{+0.5} -0	8.0±0.4
T31×13×16	31.0±0.6	13.0±0.5	16.0±0.4
T31×19×13	31.0±0.6	19.0±0.5	13.0±0.4
T31×19×6	31.0±0.6	19.0±0.5	6.0±0.3
T68×44×13.5	68.0±1.5	44.0±1.2	13.5±1.0
T31×20×15	31.0±0.6	20.0±0.5	15.0±0.3
T36×23×19	36.0±0.6	23.0±0.5	19.0±0.3
T37×22×15.5	37.0±0.5	23.0±0.5	15.5±0.5
T50×35×20	50.0±0.8	35.0±0.7	20.0±0.5
T38×19×13	38.0±0.7	19.0±0.6	13.0±0.5
T50×25×20	50.0±0.8	25.0±0.7	20.0±0.5

Type	Core parameter				weight (g/pr.)	A _i (nH/N ²)±25%		
	C1 (mm ⁻¹)	Ae (mm ²)	Ie (mm)	Ve (mm ³)		F3	F2BD	F2B1
T4×2×2	4.55	1.9	8.74	16.73	0.09	820	690	630
T5×3×5	2.55	4.9	12.0	58.93	0.3	1200	1000	900
T6×3×4	2.35	5.8	13.1	75.33	0.37	1400	1130	1030
T6.3×4×4	5.05	3.1	15.2	46.53	0.26	640	520	470
T7×4×4	2.85	5.8	16.4	95.93	0.48	1120	950	900
T9×5×3	3.05	5.8	20.8	121.1	0.7	800	750	620
T10×6×5	2.55	9.8	24.1	235.6	1.2	1300	1100	950
T10×5×5	1.7	12.9	22.2	286.1	1.5	2000	1650	1480
T12×6×4	2.35	11.5	26.1	301.3	1.6	2100	1400	1200
T12.7×7.8×5	2.65	12.0	31.0	371.8	1.9	1400	1150	1000
T13×7×5	2.05	14.5	29.5	428.6	2.2	1630	1430	1300
T14×7×5	1.85	16.8	30.5	512.7	2.6	2000	1600	1400
T16×12×8	2.75	15.9	43.4	689.3	3.4	1270	1040	950
T16×9×8	1.45	27.2	37.2	1012.9	5.0	2400	2000	1800
T16×9.5×8	1.5	25.4	38.3	973.5	5.2	2450	2000	1800
T17×10×8	1.55	27.4	40.5	1107.3	5.5	2380	2000	1800
T18×10×10	1.25	38.9	41.5	1614.9	7.9	2800	2500	2100
T22×14×12	1.25	47.2	54.7	2879.9	13.5	2900	2450	2250
T22×10×10	0.88	57.0	45.4	2587.8	14	3850	3400	3080
T22.1×13.7×6.5	2.0	26.8	54.1	1450.4	7.2	1780	1500	1400
T25×15×7	1.85	34.2	60.2	2061.1	12	2000	1600	1500
T25×15×10	0.98	63.6	60.2	3827.8	20.5	3500	3000	2800
T27.5×17.5×7	2.0	34.3	68.3	2351.4	13	1800	1500	1400
T28×14×11	0.8	74.0	61.0	4511.3	23.5	4600	3800	3500
T30×11 ×8	0.8	69.9	54.7	3828.5	20.5	4600	3800	3500
T31×13×16	0.5	135.3	61.1	8268.4	41.5	7000	6000	5500
T31×19×13	1.0	76.53	75.5	5771.9	29	3500	3000	2900
T31×19×6	2.1	35.33	75.5	2663.9	15	1650	3000	1200
T68×44×13.5					137			2700
T31×20×15	1.0	81.23	77.6	6300.7	34	3500	3000	2900
T36×23×19	0.7	121.5	89.6	10888.1	55	5000	4000	3800
T37×22×15.5	0.9	106.5	90.8	9667.1	48	3900	4400	3100
T50×35×20	0.9	148.4	130.7	19402.7	98	3950	3450	3150
T38×19×13	0.7	118.7	82.7	9820	49	5000	3000	2900
T50×25×20	0.5	240.2	108.9	26156	127	7000	6000	5000