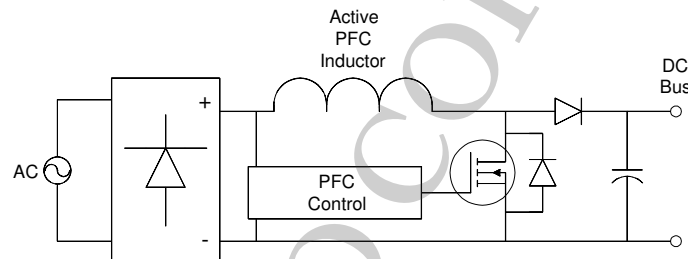


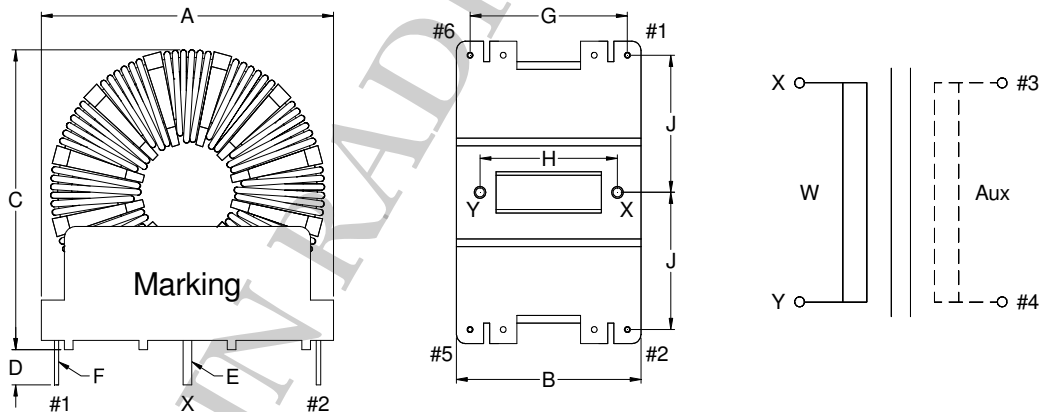
TL428 Series

- Rated voltage : 250Vac (50/60Hz) / 350Vdc
- High “Q” and low parasitic capacitance winding
- High resonant frequency owing to special winding technique
- High stable inductance with changing DC bias current
- Insulation material class F (155°C)
- Operating temperature: -40°C to 125°C
- With RoHS complied
- Custom-made are available upon request

Circuit Diagram



Physical Dimension (Fig. I – Single Core)



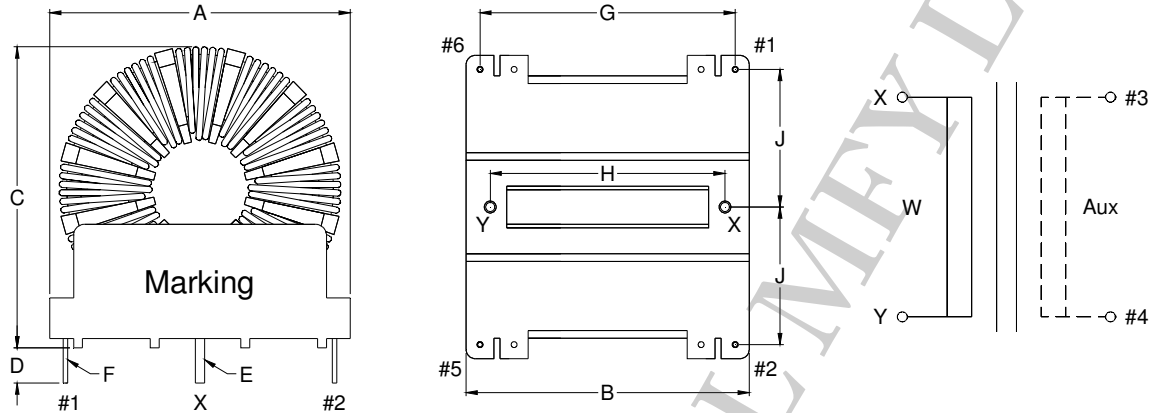
Note: Normally Aux. winding could be verified with the turn ratio 9:1.

Product Series	Dimension (mm)									Weight (g)
	A	B	C	D	E	F	G	H	J	
TL428D	37.5	26.0	36.0	5.0	(note 1)	∅1.0	21.0	20.0	16.0	67
TL428E	42.0	28.0	45.0	5.0	(note 1)	∅1.0	21.3	17.8	18.1	98
TL428F	50.0	31.5	51.0	5.0	(note 1)	∅1.0	26.1	22.8	22.0	180
TL428G	59.0	37.5	59.5	5.0	(note 1)	∅1.0	31.5	30.0	26.3	260
Tolerance	max.	max.	max.	± 1.0	± 0.1	± 0.1	± 0.5	± 1.0	± 1.0	approx.

Note: 1) Detail pin diameter will be shown at product specification.

2) Unused pins are omitted for standard parts.

Physical Dimension (Fig. II – Double Core)



Note: Normally Aux. winding could be verified with the turn ratio 9:1.

Product Series	Dimension (mm)									Weight (g)
	A	B	C	D	E	F	G	H	J	
TL428K	37.5	37.0	36.0	5.0	(note 1)	∅1.0	32.0	31.0	16.0	86
TL428L	42.0	38.0	44.5	5.0	(note 1)	∅1.0	32.4	31.0	18.1	130
TL428M	50.0	47.0	51.5	5.0	(note 1)	∅1.0	41.5	38.5	22.05	250
TL428P	59.0	56.5	59.5	5.0	(note 1)	∅1.0	50.2	48.7	26.3	390
Tolerance	max.	max.	max.	± 1.0	± 0.1	± 0.1	± 0.5	± 1.0	± 0.5	approx.

Note: 1) Detail pin diameter will be shown at product specification.

2) Unused pins are omitted for standard parts.

Part Number Designation:

TL428X-RRR-ZZZY

Where TL428 = Series

X = Case size

RRR = Current

ZZZ = 3 digit number indicate the core material.

(012) = MPP core (015) = Mega Flux core

(013) = High Flux core (016) = Iron Powder core

(014) = Sendust core

Y = A : With Aux. winding

B : Double permeability (Lo x 2)

Part Number	Nominal Current Idc (A)	Inductance Lo (μH)	DC Resistance (mΩ, nominal)	Inductance (with dc bias) Ldc (μH)				
				(012)	(013)	(014)	(015)	(016)
TL428D-030-ZZZY	3.0	378	125	351	367	306	353	329
TL428D-040-ZZZY	4.0	307	91	267	289	230	281	250
TL428D-050-ZZZY	5.0	244	64	217	227	185	219	191
TL428D-060-ZZZY	6.0	188	45	168	180	144	169	149
TL428D-070-ZZZY	7.0	139	31	122	133	111	125	105
TL428E-040-ZZZY	4.0	610	130	520	565	425	545	453
TL428E-050-ZZZY	5.0	483	98	380	395	315	425	342
TL428E-070-ZZZY	7.0	371	56	260	315	215	309	240
TL428E-080-ZZZY	8.0	273	40	185	235	155	235	180
TL428E-100-ZZZY	10.0	123	24	100	110	85	106	87
TL428F-050-ZZZY	5.0	810	86	680	720	565	741	563
TL428F-060-ZZZY	6.0	641	68	510	555	420	584	430
TL428F-080-ZZZY	8.0	492	53	355	430	290	415	303
TL428F-120-ZZZY	12.0	363	35	215	300	175	289	189
TL428F-150-ZZZY	15.0	254	24	145	195	115	198	128
TL428G-080-ZZZY	8.0	822	80	590	730	513	725	500
TL428G-100-ZZZY	10.0	606	59	408	528	360	519	365
TL428G-120-ZZZY	12.0	423	39	290	368	250	365	236
TL428G-150-ZZZY	15.0	273	25	185	236	162	236	157
TL428G-180-ZZZY	18.0	156	16	111	138	100	136	95
TL428K-050-ZZZY	5.0	487	98	415	450	340	430	370
TL428K-060-ZZZY	6.0	375	70	320	350	255	335	285
TL428K-070-ZZZY	7.0	277	50	240	260	190	250	205
TL428L-070-ZZZY	7.0	547	62	420	485	340	470	365
TL428L-080-ZZZY	8.0	396	45	315	360	250	350	275
TL428L-100-ZZZY	10.0	247	33	195	220	160	215	175
TL428M-080-ZZZY	8.0	663	66	520	580	425	585	415
TL428M-120-ZZZY	12.0	526	46	320	425	265	425	270
TL428M-150-ZZZY	15.0	405	32	215	315	180	310	190
TL428P-120-ZZZY	12.0	596	43	455	535	395	535	375
TL428P-150-ZZZY	15.0	432	29	325	390	275	390	270
TL428P-180-ZZZY	18.0	294	20	230	280	190	270	190

Note: (1) The advantage of double core models: smaller size & higher inductance.

(2) Testing condition of inductance: 10kHz, 0.1V.

(3) DC resistance is measured at room temperature 25°C.