

NANOCRYSTALLINE COMMON MODE COILS

L_**-V**_{Series}



MAJOR USES

Common mode noise filter for AC/DC

♦FEATURES

•Significantly improved inductance performance when compared to the FL Series Achieved high impedance over a broad range of frequencies when compared to the FL Series



CORE STANDARD SPECIFICATIONS

Coil Part No. ^{⁺1}	Core Part No.	Rated voltage [V]	Rated	Inductance		D.C.R.	Winding	Outside Dimensions			Frequency	Temperature
			Current [A]	10kHz [mH]	100kHz [mH]	mΩ (max)	mm $\phi \times$ lines	D1 [mm]	D2 [mm]	W [mm]	Characteristics Graph	_{rise} Graph
LDFL004272VS-00E	F110705	250	3.5	6.0	2.7	38	0.55×1P	15.0 16.0	10.0	10.0		_
LDFL006102VS-D0E			5.5	2.3	1.0	16	0.7×1P		12.0	1,2	A	
LDFL006832VD-0E	- F221407	250	5.5	18.3	8.3	26	0.9×1P	27.0	31.0	17.5	3,4	В
LDFL009412VD-0E			9	9.1	4.1	16	1.1×1P					
LDFL012282VD-0E			12	6.2	2.8	9.5	1.3×1P					
LDFL014172VD-□0E	-		14	3.8	1.7	7	1.4×1P					
LDFL007652V6-□0E		250	7	16.3	6.5	22	1.0×1P	29.0	31.0	21.0	5,6	С
LDFL010302V6-00E	F221310		10	6.7	3.0	11	1.2×1P					
LDFL012202V6-00E			12	4.5	2.0	7.5	1.3×1P					
LDFL008123VV-□0E		250	8	25.3	11.5	26	1.1×1P	30.5	34.0	23.5	7,8	D
LDFL011742VV-□0E	F251513		11	16.2	7.4	15	1.3×1P					
LDFL013412VV-□0E			13	9.1	4.1	10	1.4×1P					
LDFL016362V8-□0E		500	16	7.8	3.6	7.5	1.8×1P	34.0	37.0	27.5	9,10	E
LDFL023162V8-0E	F262115		23	3.4	1.6	3.7	2.1×1P					
LDFL028102V8-0E			28	2.2	1.0	2.5	1.6×2P					
LDFL015372VBU 0E	F281815	700	15	8.1	3.7	6.7	1.7×1P	36.0	39.5	29.5	11,12	F
LDFL021252VBU 0E			21	5.4	2.5	4.5	1.9×1P					
LDFL026152VBU 0E			26	3.3	1.5	2.9	1.5×2P					
LDFL016732V22□0E	- F312115	500	16	16.0	7.3	7.9	1.9×1P	38.0	43.0	28.5	13,14	G
LDFL020412V22□0E			20	9.0	4.1	4.9	2.1×1P					
LDFL025232V22 0E			25	5.0	2.3	3.1	1.6×2P					
LDFL032142V2200E			32	3.0	1.4	1.9	1.8×2P					
LDFL020592VJUD0E	F372315	5 700	20	12.9	5.9	5.7	1.5×2P	48.0	50.0	32.5	15,16	н
LDFL027282VJUD0E			27	6.2	2.8	3.1	1.7×2P					
LDFL039172VJUD0E			39	3.7	1.7	1.8	2.0×2P					
LDFL030392V28 0E	F443420	120 600	30	8.5	3.9	3.6	2.0×2P	53.0	53.0 59.5	39.0	17,18	J
LDFL036262V28 0E	1 770420	000	36	5.6	2.6	2.5	2.2×2P	55.0				

*1 For Coil Part No., vertical type=V, horizontal type=H are used



0.1

0.01

1k

10k

100k

1M

frequency [Hz]

10M

100M



Frequency Characteristics Ambient temperature : 25°C

10M

100M

0.1

0.01

1k

10k

100k

1M

frequency [Hz]





Frequency Characteristics Ambient temperature : 25°C





Frequency Characteristics Ambient temperature : 25°C



FL-V_{Series}

Temperature rise Ambient temperature: 25°C (calm) Saturation temperature for the DC current flow * Installation conditions or the influence of heat emitted by surrounding components are not considered in this data.





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Rise temperature: Ambient temperature=25°C Saturated temperature due to DC current application. *This data don't consider set situation, influence of around parts.



Notes

- The lead wire have made of copper, Please be careful not to repeat the strong force and bending.
- Please do not hit the coil against a hard sharp object. Scratch on the coating, possibly impairing performance.
- Heat-resistant temperature 130°C means the surface temperature including coil self-heating.
- In high-temperature,-humidity environment, There is a possibility to occur hydrolyze and insulation deterioration.
- Common mode coils, by the unbalanced current, it may cause a magnetic saturation.
- We do not acquire safety standards with coil only.



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Series





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♦CORE STANDARD SPECIFICATIONS



Maximum outer diameter : D1(Vertical), D2(Horizontal) Maximum width : W Total lead length* : L=15±5mm Soldering boundary* : a=1.5mmMAX

*The bottom of the core or coil (▽) is defined as base surface.

	Datad	Induc	tance			Outside Dimensions			
Coil Part No.	Rated Current A	10kHz (Typical)	100kHz (Rating)	D.C.R. mΩ (max)	Winding $mm \phi \times lines$	D1 mm	D2 mm	W mm	
		mH	mH						
LDFL010143V72H0E	10	30.7	14.0	18	1.5×1P	56.0	56.0	32.0	
LDFL020502V72H0E	20	11.1	5.0	6	2.0×1P	56.0	56.0	32.0	
LDFL015163VGQH0E	15	34.5	15.7	15	2.0×1P	65.0	65.0	35.0	
LDFL020792VGQH0E	20	17.3	7.9	6	2.3×1P	65.0	65.0	35.0	
LDFL025542VGQH0E	25	11.7	5.4	5	1.8×2P	65.0	65.0	35.0	
LDFL030332VGQH0E	30	7.2	3.3	4	2.0×2P	65.0	65.0	35.0	

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MAJOR USES

•Common mode noise filter for AC/DC •Zero-phase reactor

♦FEATURES

•Achieved high impedance over a broad range of frequencies when compared to the FL Series

RoHS

♦CORE STANDARD SPECIFICATIONS



	Cross	Magnetic		Nomi	inal dimen	Inductance Coefficient (AL Value) [µH] 100kHz at 0A	
Core Part No.	Sectional Path Area Length cm ² cm		Weight g	φD mm	φd mm		
LRF251510MKCX	0.41	6.38	25	28.3	12.7	12.3	25.2
LRF251515MKCX	0.63	6.38	35	28.3	12.7	17.5	38.1
LRF322015MKCX	0.69	8.09	50	35.2	17.5	17.3	33.1
LRF372315MKCX	0.83	9.33	70	40.5	19.5	18.0	34.7
LRF462715MKCX	1.14	11.47	110	49.4	22.7	18.0	38.7
LRF462725MKCX	1.90	11.47	165	49.4	22.7	28.0	64.6
LRF624520MKCX	1.36	16.81	200	66.0	41.0	24.0	31.5

♦DIMENSIONS OF CORE



FI_-V_{Series}

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FREQUENCY - IMPEDANCE CHARACTERISTICS

LRF251510MKCX



•LRF322015MKCX



LRF462715MKCX



LRF624520MKCX







