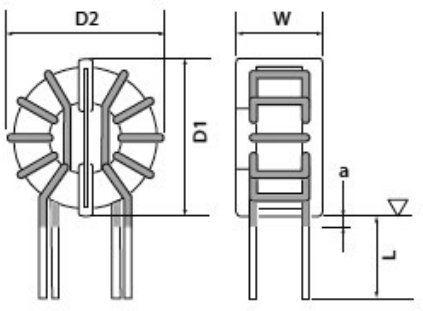
NANOCRYSTALLINE COMMON MODE COILS FOR SINGLE PHASE

FW New! Series

RoHS2 Compliant AEC-Q200



◆MAJOR USES

●AC/DC Common mode filter

◆FEATURES

●Greatly improved inductance (10kHz,100kHz).
●Improved impedance in the 150 kHz to 1 MHz frequency band when compared to the FL-V series coils.
●Deal with it by rated voltage 700V.
●Conforming to insulating type:B and incombustibility UL94V-0.

◆CORE STANDARD SPECIFICATIONS

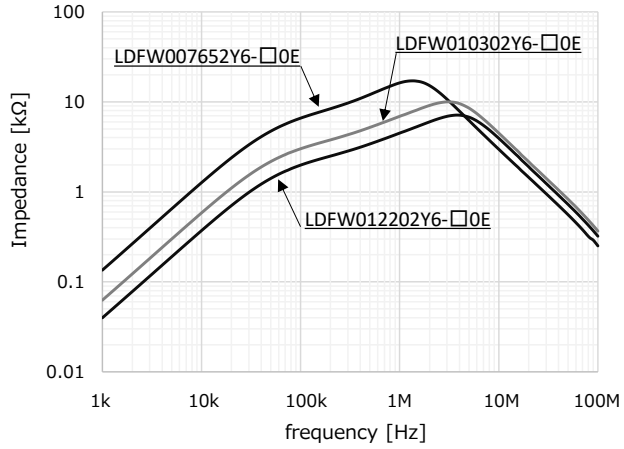
Coil Part No.*1	Core No.	Rated voltage [V]	Rated Current [A]	Inductance		D.C.R. [mΩ]	Winding mmϕ× lines	Outside Dimensions			Frequency Characteristics Graph	Temperature rise Graph
				10kHz [mH]	100kHz [mH]			D1 [mm]	D2 [mm]	W [mm]		
LDFW007652Y6-□0E	F221310	250	7	21.0	6.5	22	1.0×1P	29.0	31.0	21.0	1,2	A
LDFW010302Y6-□0E			10	9.7	3.0	11	1.2×1P					
LDFW012202Y6-□0E			12	6.5	2.0	7.5	1.3×1P					
LDFW008123YV-□0E	F251513	250	8	37.1	11.5	26	1.1×1P	30.5	34.0	23.5	3,4	B
LDFW011742YV-□0E			11	23.9	7.4	15	1.3×1P					
LDFW013412YV-□0E			13	13.2	4.1	10	1.4×1P					
LDFW016362Y8-□0E	F262115	500	16	11.6	3.6	7.5	1.8×1P	34.0	37.0	27.5	5,6	C
LDFW023162Y8-□0E			23	5.2	1.6	3.7	2.1×1P					
LDFW028102Y8-□0E			28	3.2	1.0	2.5	1.6×2P					
LDFW015372YBU□0E	F281815	700	15	11.9	3.7	6.7	1.7×1P	36.0	39.5	29.5	7,8	D
LDFW021252YBU□0E			21	8.1	2.5	4.5	1.9×1P					
LDFW026152YBU□0E			26	4.8	1.5	2.9	1.5×2P					
LDFW016732Y22□0E	F312115	500	16	23.5	7.3	7.9	1.9×1P	38.0	43.0	28.5	9,10	E
LDFW020412Y22□0E			20	13.2	4.1	4.9	2.1×1P					
LDFW025232Y22□0E			25	7.4	2.3	3.1	1.6×2P					
LDFW032142Y22□0E			32	4.5	1.4	1.9	1.8×2P					
LDFW020592YJU□0E	F372315	700	20	19.0	5.9	5.7	1.5×2P	48.0	50.0	32.5	11,12	F
LDFW027282YJU□0E			27	9.0	2.8	3.1	1.7×2P					
LDFW039172YJU□0E			39	5.5	1.7	1.8	2.0×2P					
LDFW030392Y28□0E	F443420	600	30	12.6	3.9	3.6	2.0×2P	53.0	59.5	39.0	13,14	G
LDFW036262Y28□0E			36	8.4	2.6	2.5	2.2×2P					

*1 About Coils Number, □mark means vertical=V, horizontal=H.

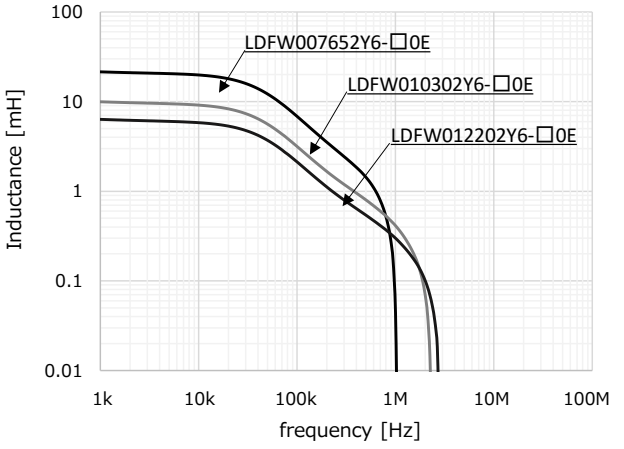
FW Series

Frequency characteristics Ambient temperature:25℃

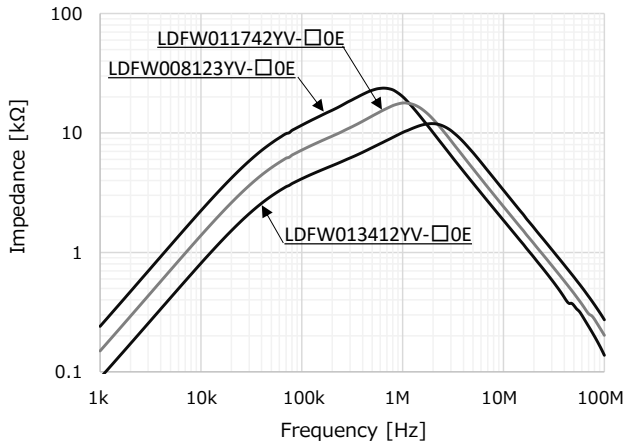
graph-1 (Y6)



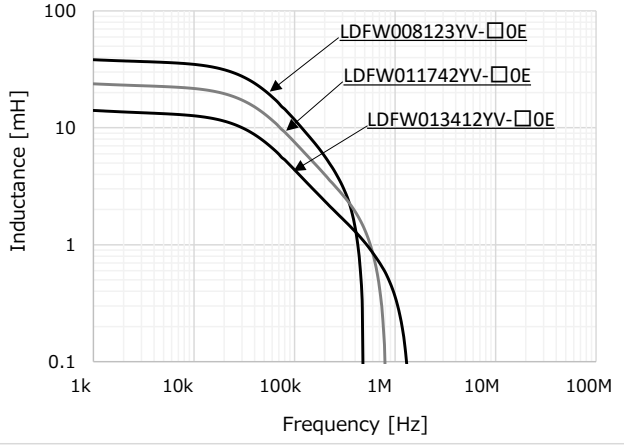
graph-2 (Y6)



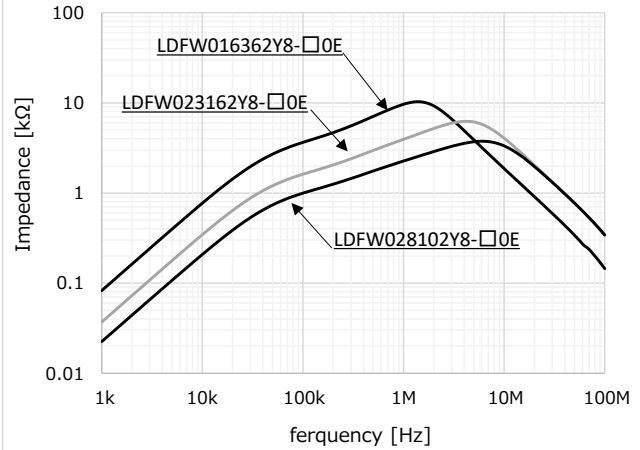
Graph-3 (YV)



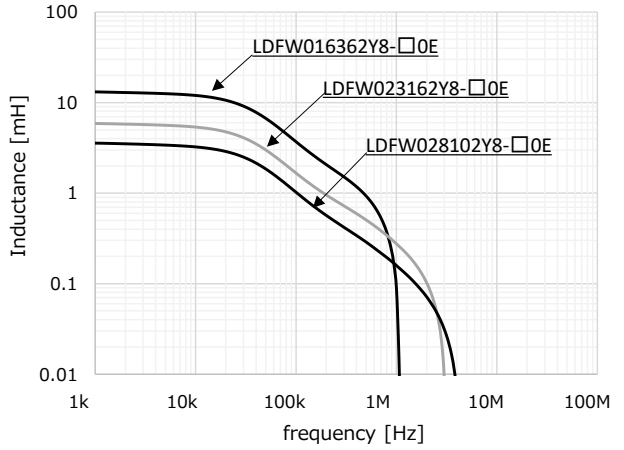
Graph-4 (YV)



graph-5 (Y8)



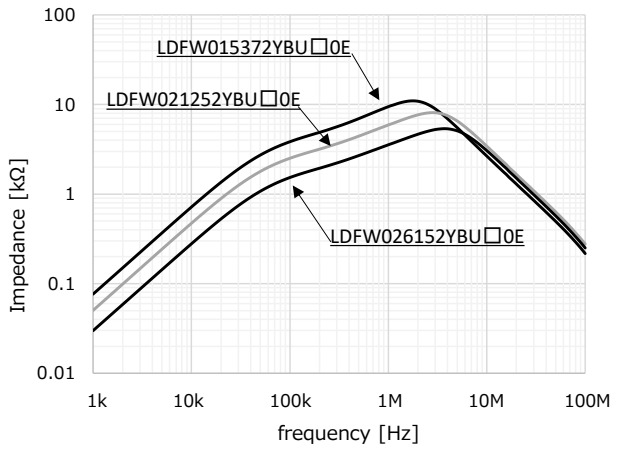
graph-6 (Y8)



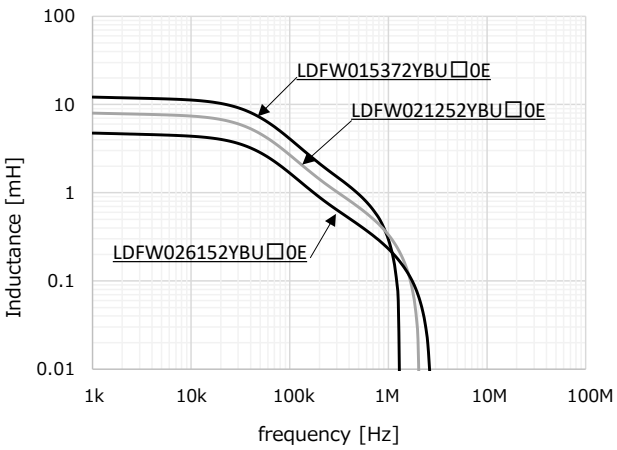
FW Series

Frequency characteristics Ambient temperature:25℃

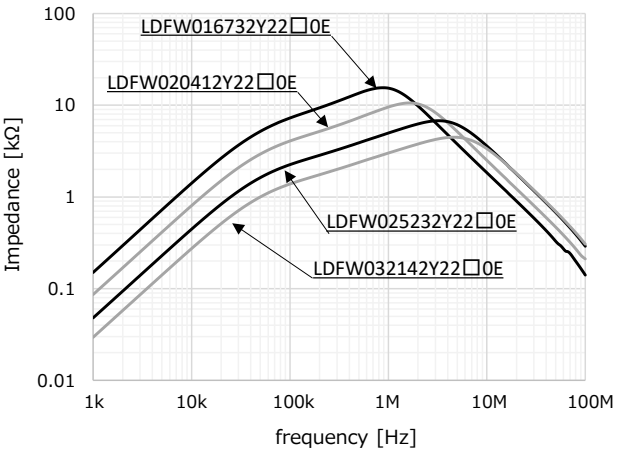
graph-7 (YBU)



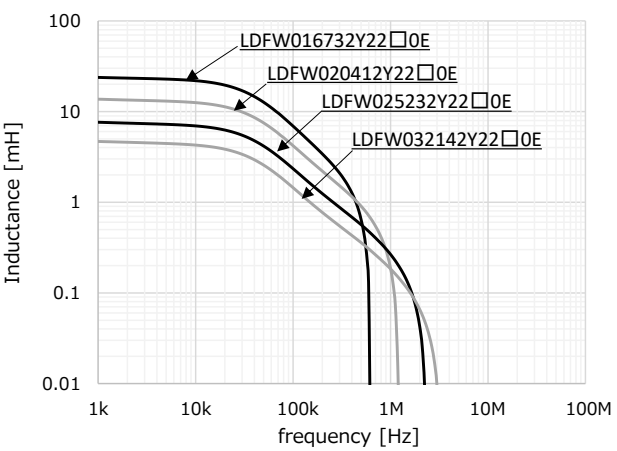
graph-8 (YBU)



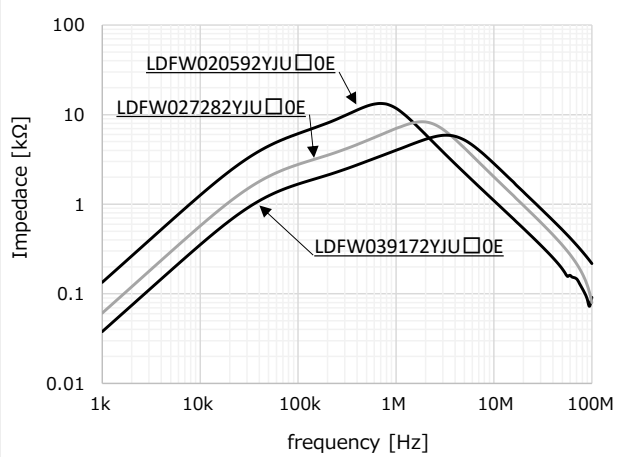
graph-9 (Y22)



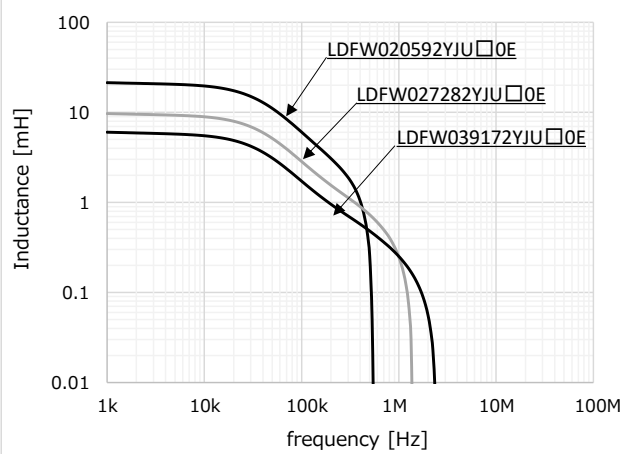
graph-10 (Y22)



graph-11 (YJU)

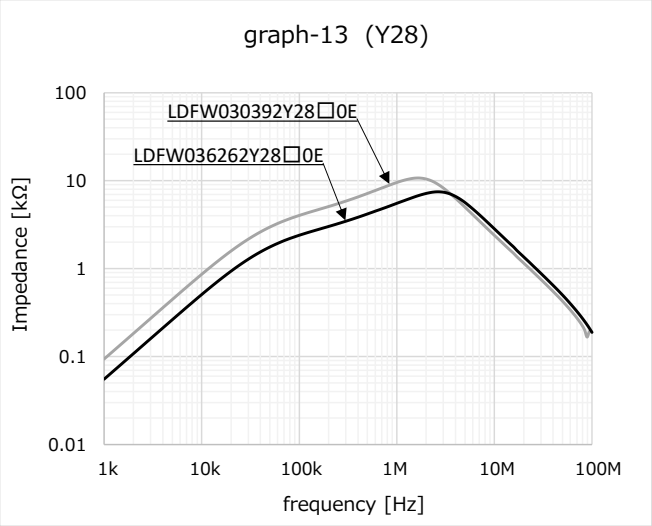


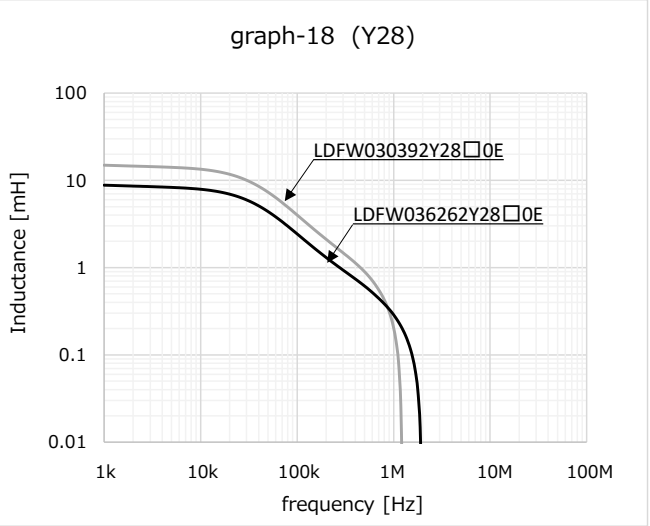
graph-12 (YJU)



FW Series

Frequency characteristics Ambient temperature:25℃

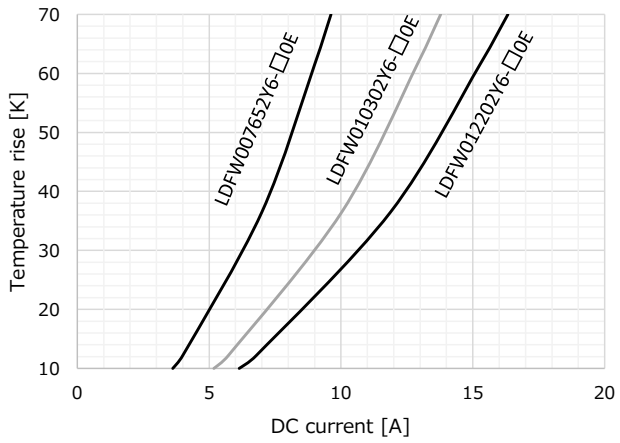




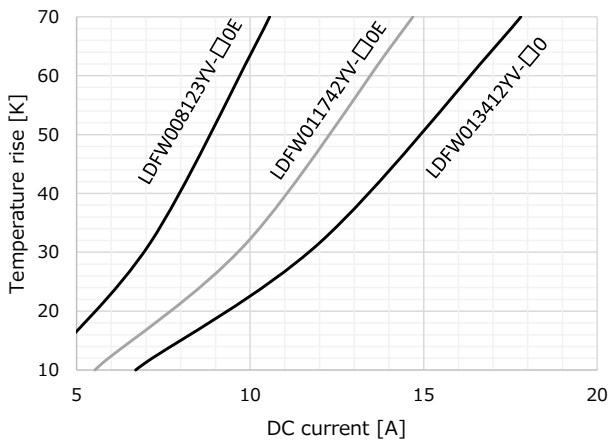
FW Series

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

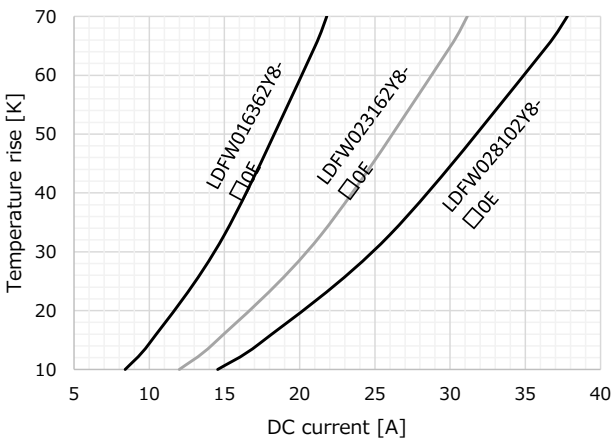
graph-A (Y6)



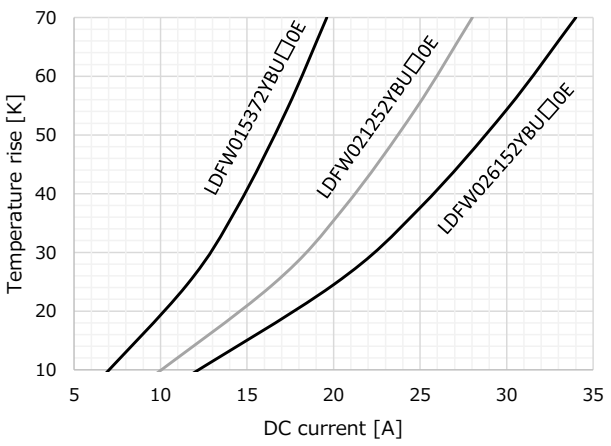
Graph-B (YV)



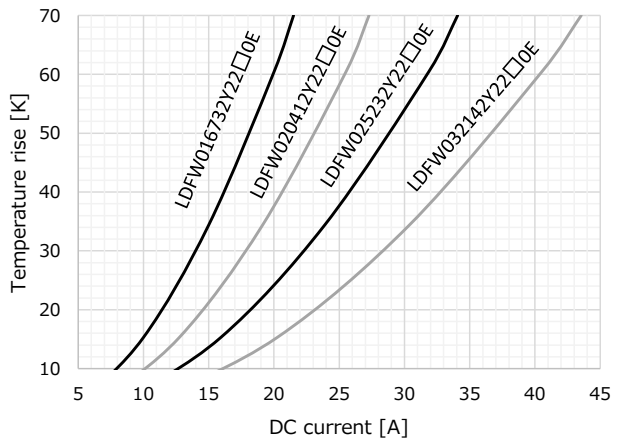
graph-C (Y8)



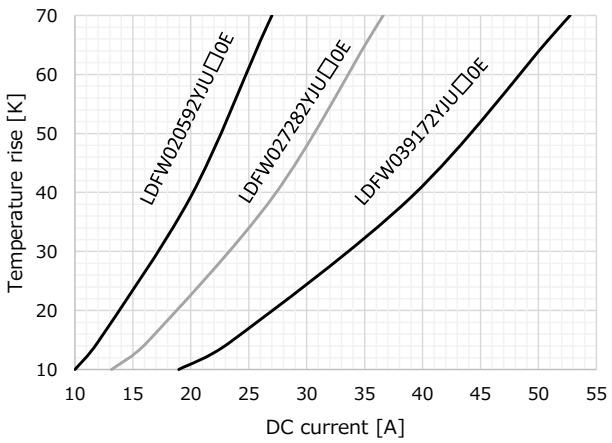
graph-D (YBU)



graph-E (Y22)

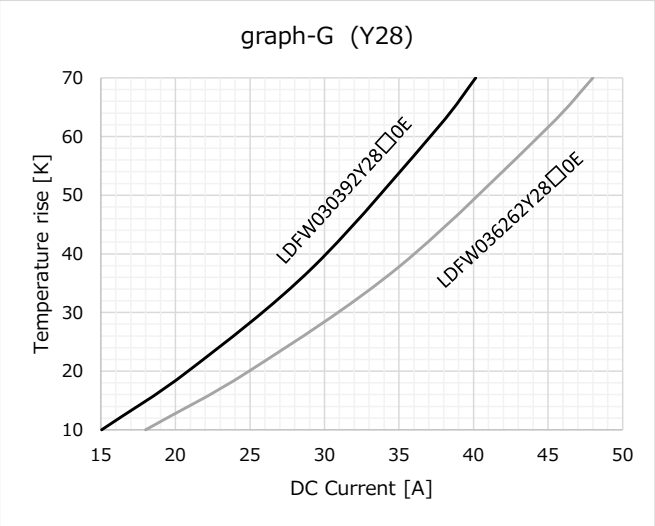


graph-F (YJU)



FW Series

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



Notes

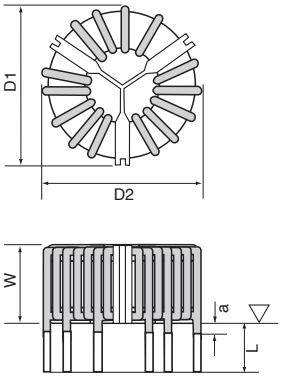
- The lead wire have made of copper, Please be careful not to repeat the strong force and bending.
- Please do not hit the coil against a hard sharp object. Scratch on the coating, possibly impairing performance.
- Heat-resistant temperature 130 means the surface temperature including coil self-heating.
- 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.

NANOCRYSTALLINE COMMON MODE COILS

FW New! Series

RoHS2 Compliant AEC-Q200

For three-phase circuit



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.

◆MAJOR USES

●Noise filter for inverter and large-capacity power supply

◆FEATURES

●Greatly improved inductance (10kHz,100kHz).
●Improved impedance in the 150 kHz to 1 MHz frequency band when compared to the FL-V series coils.
●Conforming to insulating type:B and incombustibility UL94V-0.
●Deal with it by rated voltage 500V.

◆CORE STANDARD SPECIFICATIONS

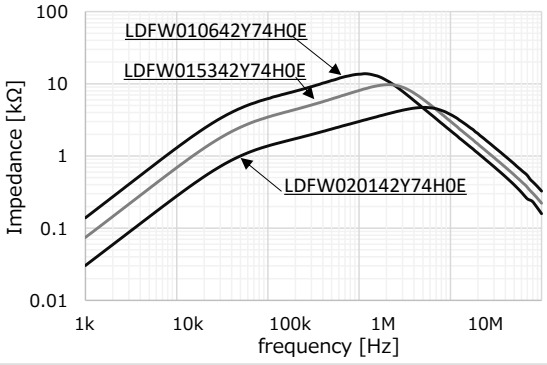
Coil Part No.	Core No.	Rated voltage [V]	Rated Current [A]	Inductance		D.C.R. [mΩ]	Winding mmϕ× lines	Outside Dimensions			Frequency Graph
				10kHz [mH]	100kHz [mH]			D1 [mm]	D2 [mm]	W [mm]	
LDFW010642Y74H0E	F312115	500	10	20.7	6.4	13.0	1.4×1P	42.0	42.0	27.5	1,2
LDFW015342Y74H0E	F312115	500	15	11.1	3.4	6.6	1.7×1P	42.0	42.0	27.5	
LDFW020142Y74H0E	F312115	500	20	4.5	1.4	3.1	2.0×1P	42.0	42.0	27.5	
LDFW015422YJQH0E	F372315	500	15	13.5	4.2	6.4	1.8×1P	48.5	48.5	27.5	3,4
LDFW020282YJQH0E	F372315	500	20	9.0	2.8	4.5	2.0×1P	48.5	48.5	27.5	
LDFW025172YJQH0E	F372315	500	25	5.5	1.7	2.6	2.3×1P	48.5	48.5	27.5	
LDFW030132YJQH0E	F372315	500	30	4.0	1.3	2.0	2.3×1P	48.5	48.5	27.5	
LDFW020422Y72H0E	F422615	500	20	16.2	5.0	5.6	2.1×1P	56.0	56.0	32.0	5,6
LDFW025282Y72H0E	F422615	500	25	9.1	2.8	3.6	2.3×1P	56.0	56.0	32.0	
LDFW030172Y72H0E	F422615	500	30	5.5	1.7	2.4	1.8×2P	56.0	56.0	32.0	
LDFW035132Y72H0E	F422615	500	35	4.0	1.3	1.7	2.0×2P	56.0	56.0	32.0	
LDFW030332Y73H0E	F503415	500	30	10.6	3.3	4.0	2.0×2P	65.0	65.0	35.0	7,8
LDFW035222Y73H0E	F503415	500	35	7.1	2.2	2.3	2.1×2P	65.0	65.0	35.0	
LDFW040172Y73H0E	F503415	500	40	5.6	1.7	1.9	2.2×2P	65.0	65.0	35.0	
LDFW050102Y73H0E	F503415	500	50	3.2	1.0	1.2	2.4×2P	65.0	65.0	35.0	

FW Series

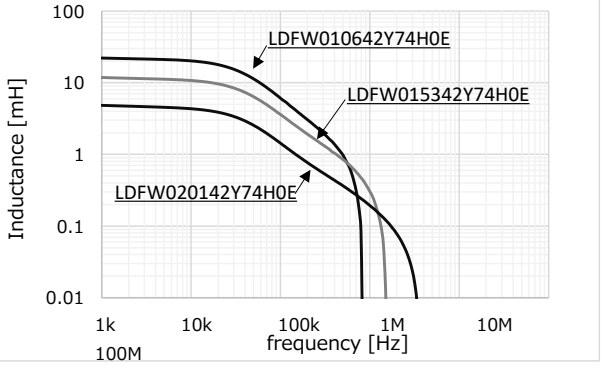
For three-phase circuit

Frequency characteristics Ambient temperature:25℃

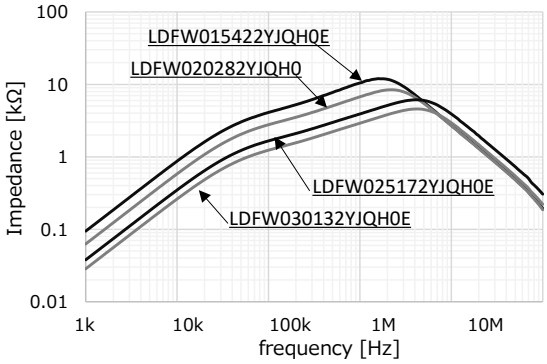
graph-1 (Y74)



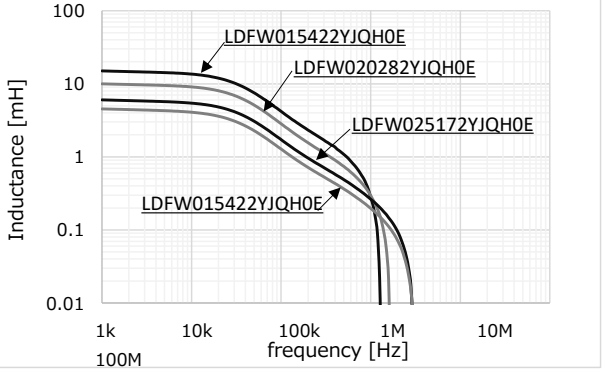
graph-2 (Y74)



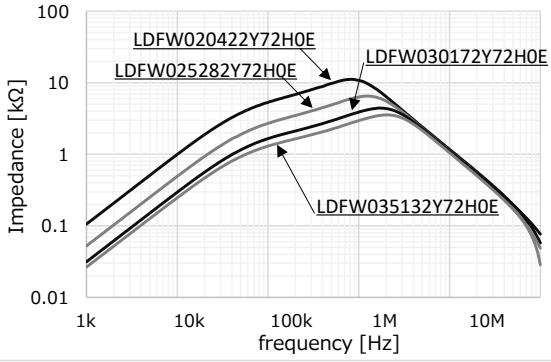
graph-3 (YJQ)



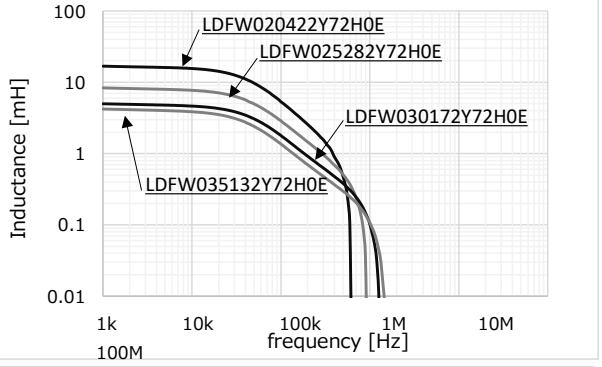
graph-4 (YJQ)



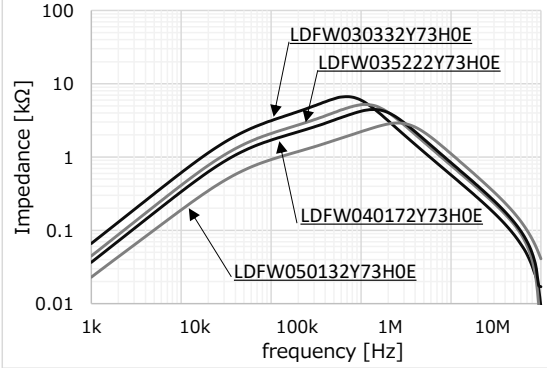
graph-5 (Y72)



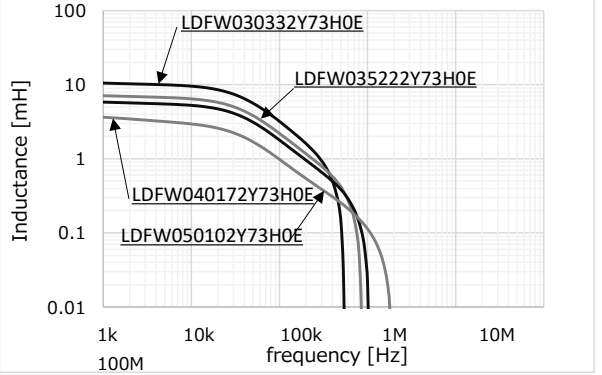
graph-6 (Y72)



graph-7 (Y73)



graph-8 (Y73)



NANOCRYSTALLINE CORES

FW New! Series

RoHS2 Compliant AEC-Q200

◆MAJOR USES

- ●Signal line noise filter
- ●Noise filter for DC power lines
- ●Noise filter for AC power lines
- ●Zero-phase reactor

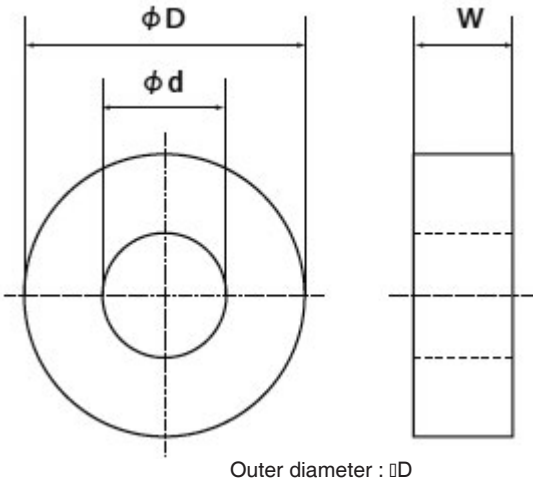
◆FEATURES

- ●Achieved high impedance over a broad range of frequencies when compared to the FL Series.
- ●Improved impedance in the 150 kHz to 1 MHz frequency band when compared to the FL-V series coils.
- ●Conforming to insulating type:B and incombustibility UL94V-0.

◆CORE STANDARD SPECIFICATIONS

Coil Part No.	Cross Sectional Area [cm^2]	Magnetic Path Length [cm]	Weight [g]	Outside Dimensions			Inductance Coefficient (AL Value [$\mu H/N^2$] at 0A)	
				ϕD [mm]	ϕd [mm]	W [mm]	10 [kHz]	100 [kHz]
LRF251510MKDX	0.41	6.38	21	28.3	12.7	12.3	83.7	25.9
LRF251515MKDX	0.63	6.38	32	28.3	12.7	17.5	126.4	39.2
LRF322015MKDX	0.69	8.09	60	35.2	17.5	17.3	106.8	33.1
LRF372315MKDX	0.83	9.33	80	40.5	19.5	18.0	114.9	35.6
LRF462715MKDX	1.14	11.47	98	49.4	22.7	18.0	124.8	38.7
LRF462725MKDX	1.90	11.47	162	49.4	22.7	28.0	208.4	64.6
LRF624520MKDX	1.36	16.81	173	66.0	41.0	24.0	104.1	32.3

◆DIMENSIONS OF CORE

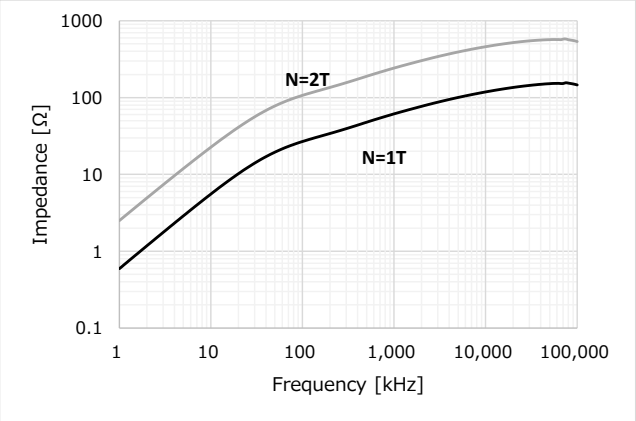


Outer diameter : ϕD
Inner diameter : ϕd
Width : W

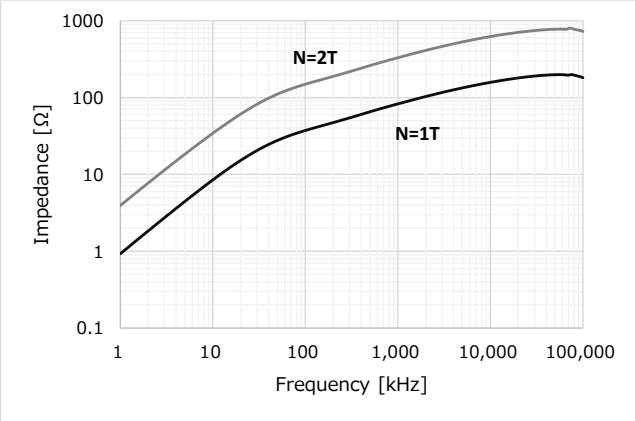
FW Series

Frequency impedance characteristics

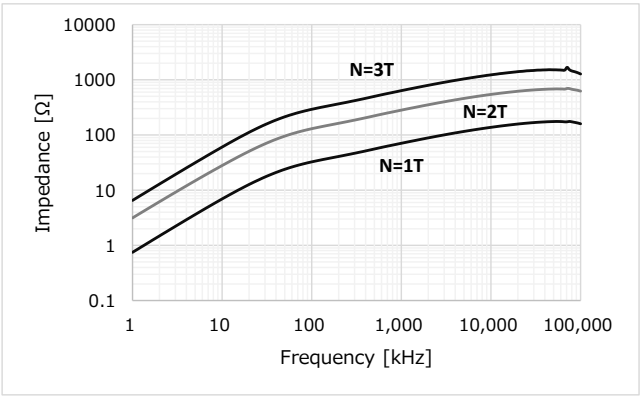
● LRF251510MKDX



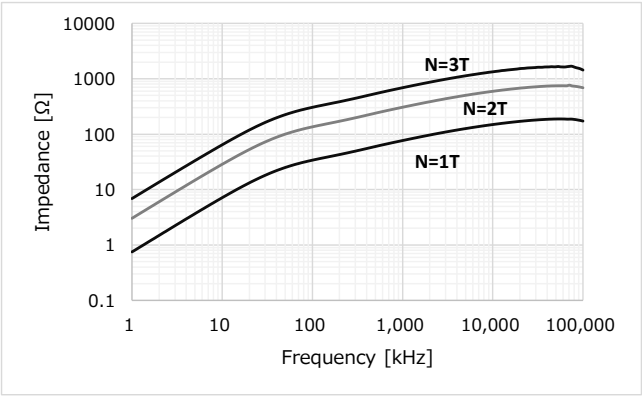
● LRF251515MKDX



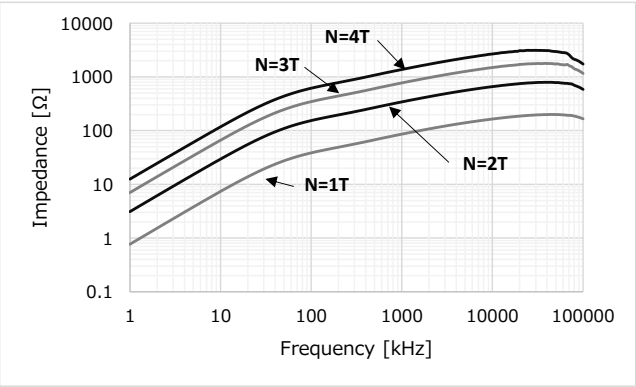
● LRF322015MKDX



● LRF372315MKDX



● LRF462715MKDX



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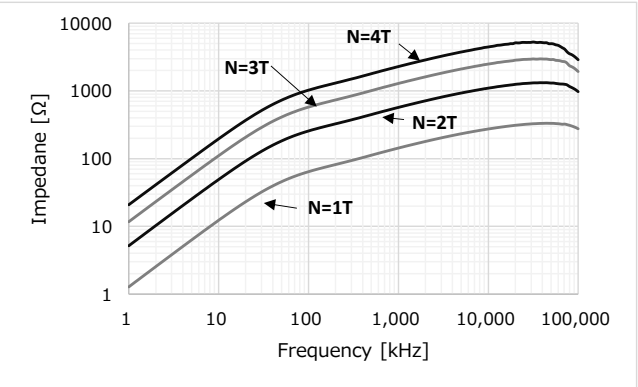

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