

CLA Series

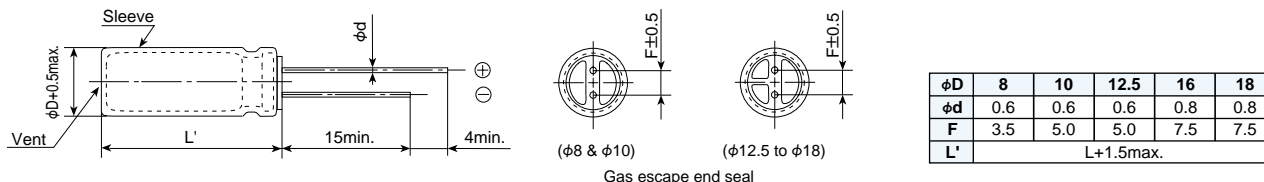
- For electronic ballast circuits
- Endurance with ripple current : 105°C 4000 to 5000 hours
- Non solvent-proof type



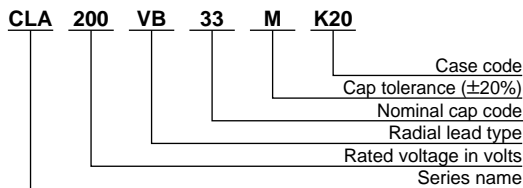
◆SPECIFICATIONS

Items	Characteristics			
Category Temperature Range	-40 to +105°C (200 to 400V _{dc}) -25 to +105°C (450V _{dc})			
Rated Voltage Range	200 to 450V _{dc}			
Capacitance Tolerance	±20% (M) (at 20°C, 120Hz)			
Leakage Current	CV	time	After 1 minute	After 5 minutes
	CV ≤ 1000		I = 0.1CV + 40	I = 0.03CV + 15
	CV > 1000		I = 0.04CV + 100	I = 0.02CV + 25
	Where, I : Max. leakage current (µA), C : Nominal capacitance (µF), V : Rated voltage (V) (at 20°C)			
Dissipation Factor (tanδ)	Rated voltage (V _{dc})	200 & 250V	350 & 400V	450V
	tanδ (Max.)	0.20 0.24 0.24 (at 20°C, 120Hz)		
Low Temperature Characteristics (Max. Impedance Ratio)	Rated voltage (V _{dc})	200 & 250V	350 & 400V	450V
	Z(-25°C)/Z(+20°C)	3	5	6
	Z(-40°C)/Z(+20°C)	6	6	- (at 120Hz)
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20°C after subjected to DC voltage with the rated ripple current is applied for 5000 hours (4000 hours for φ8 and φ10×12.5L) at 105°C.			
	Capacitance change	≤±25% of the initial value		
	D.F. (tanδ)	≤200% of the initial specified value		
	Leakage current	≤The initial specified value		
Shelf Life	The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1000 hours at 105°C without voltage applied.			
	Capacitance change	≤±20% of the initial value		
	D.F. (tanδ)	≤200% of the initial specified value		
	Leakage current	≤500% of the initial specified value		

◆DIMENSIONS (Radial Lead Type=VB) [mm]



◆PART NUMBERING SYSTEM



Capacitance	Code
6.8µF	6R8
10µF	10

◆RATED RIPPLE CURRENT MULTIPLIERS

- Frequency Multipliers

Capacitance (µF)	Frequency (Hz)			
	120	1k	10k	100k
1 to 22	1.00	2.00	2.80	3.10
33 to 220	1.00	1.80	2.45	2.60

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◆STANDARD RATINGS

Voltage (V)	Capacitance (μF)	Case size (φD×L)	Case code	Ripple current (mA _{rms})		Life time (hours)	Part number description
				120Hz	100kHz		
200	6.8	10×12.5	J12	80	250	4000	CLA200VB6R8MJ12
	10	10×12.5	J12	95	300	4000	CLA200VB10MJ12
		10×16	J16	105	330	5000	CLA200VB10MJ16
	15	10×16	J16	130	405	5000	CLA200VB15MJ16
		10×20	J20	140	435	5000	CLA200VB15MJ20
	22	10×16	J16	155	480	5000	CLA200VB22MJ16
		10×20	J20	170	530	5000	CLA200VB22MJ20
	33	10×20	J20	210	545	5000	CLA200VB33MJ20
		12.5×20	K20	230	600	5000	CLA200VB33MK20
	47	10×25	J25	260	680	5000	CLA200VB47MJ25
		12.5×20	K20	280	730	5000	CLA200VB47MK20
	68	12.5×25	K25	355	925	5000	CLA200VB68MK25
16×20		L20	355	925	5000	CLA200VB68ML20	
100	12.5×25	K25	430	1120	5000	CLA200VB100MK25	
	16×20	L20	430	1120	5000	CLA200VB100ML20	
150	16×25	L25	565	1470	5000	CLA200VB150ML25	
	18×20	M20	565	1470	5000	CLA200VB150MM20	
220	18×25	M25	730	1900	5000	CLA200VB220MM25	
250	6.8	10×12.5	J12	80	250	4000	CLA250VB6R8MJ12
	10	10×12.5	J12	95	300	4000	CLA250VB10MJ12
		10×16	J16	105	330	5000	CLA250VB10MJ16
	15	10×20	J20	140	435	5000	CLA250VB15MJ20
		10×20	J20	170	530	5000	CLA250VB22MJ20
	22	12.5×20	K20	190	600	5000	CLA250VB22MK20
		10×20	J20	210	545	5000	CLA250VB33MJ20
	33	12.5×20	K20	230	600	5000	CLA250VB33MK20
		12.5×20	K20	280	730	5000	CLA250VB47MK20
	47	12.5×25	K25	300	780	5000	CLA250VB47MK25
		12.5×25	K25	355	925	5000	CLA250VB68MK25
	68	16×20	L20	355	925	5000	CLA250VB68ML20
16×25		L25	465	1210	5000	CLA250VB100ML25	
100	18×20	M20	465	1210	5000	CLA250VB100MM20	
	18×25	M25	600	1560	5000	CLA250VB150MM25	
350	1.5	8×11.5	H11	23	72	4000	CLA350VB1R5MH11
	1.8	8×11.5	H11	24	75	4000	CLA350VB1R8MH11
	2.2	8×11.5	H11	25	78	4000	CLA350VB2R2MH11
		10×12.5	J12	45	140	4000	CLA350VB2R2MJ12
	3.3	8×11.5	H11	29	90	4000	CLA350VB3R3MH11
		10×12.5	J12	55	170	4000	CLA350VB3R3MJ12
	4.7	8×15	H15	33	102	4000	CLA350VB4R7MH15
		10×12.5	J12	65	205	4000	CLA350VB4R7MJ12
		10×16	J16	75	235	5000	CLA350VB4R7MJ16
	6.8	10×12.5	J12	80	250	4000	CLA350VB6R8MJ12
		10×16	J16	90	280	5000	CLA350VB6R8MJ16
	10	10×16	J16	105	330	5000	CLA350VB10MJ16
		10×20	J20	115	360	5000	CLA350VB10MJ20
	15	10×20	J20	140	435	5000	CLA350VB15MJ20
		10×25	J25	170	525	5000	CLA350VB22MJ25
	22	12.5×20	K20	190	590	5000	CLA350VB22MK20
		12.5×25	K25	250	650	5000	CLA350VB33MK25
	33	16×20	L20	250	650	5000	CLA350VB33ML20
16×25		L25	320	835	5000	CLA350VB47ML25	
47	18×20	M20	320	835	5000	CLA350VB47MM20	
	18×25	M25	405	1060	5000	CLA350VB68MM25	

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Voltage (V)	Capacitance (μF)	Case size (φD×L)	Case code	Ripple current (mA _{rms})		Life time (hours)	Part number description
				120Hz	100kHz		
400	1	8×11.5	H11	22	68	4000	CLA400VB1MH11
	1.2	8×11.5	H11	22	68	4000	CLA400VB1R2MH11
	1.5	8×11.5	H11	23	72	4000	CLA400VB1R5MH11
	1.8	8×11.5	H11	24	75	4000	CLA400VB1R8MH11
	2.2	8×11.5	H11	25	78	4000	CLA400VB2R2MH11
		10×12.5	J12	45	140	4000	CLA400VB2R2MJ12
	3.3	8×11.5	H11	29	90	4000	CLA400VB3R3MH11
		10×12.5	J12	55	170	4000	CLA400VB3R3MJ12
	4.7	10×12.5	J12	65	205	4000	CLA400VB4R7MJ12
		10×16	J16	75	235	5000	CLA400VB4R7MJ16
	6.8	10×16	J16	90	280	5000	CLA400VB6R8MJ16
	10	10×16	J16	105	330	5000	CLA400VB10MJ16
		10×20	J20	115	360	5000	CLA400VB10MJ20
	15	10×20	J20	140	435	5000	CLA400VB15MJ20
		12.5×20	K20	190	590	5000	CLA400VB22MK20
	22	12.5×25	K25	205	640	5000	CLA400VB22MK25
12.5×25		K25	250	650	5000	CLA400VB33MK25	
33	16×20	L20	250	650	5000	CLA400VB33ML20	
	16×25	L25	320	835	5000	CLA400VB47ML25	
47	18×20	M20	320	835	5000	CLA400VB47MM20	
	18×25	M25	405	1060	5000	CLA400VB68MM25	
450	2.2	10×12.5	J12	45	140	4000	CLA450VB2R2MJ12
	3.3	10×16	J16	60	185	5000	CLA450VB3R3MJ16
	4.7	10×16	J16	75	235	5000	CLA450VB4R7MJ16
		10×20	J20	80	250	5000	CLA450VB4R7MJ20
	6.8	10×20	J20	95	295	5000	CLA450VB6R8MJ20
	10	10×20	J20	115	360	5000	CLA450VB10MJ20
		12.5×20	K20	130	405	5000	CLA450VB10MK20
	15	10×25	J25	135	420	5000	CLA450VB15MJ25
		12.5×20	K20	155	485	5000	CLA450VB15MK20
	22	12.5×25	K25	205	640	5000	CLA450VB22MK25
		16×20	L20	205	640	5000	CLA450VB22ML20
	33	16×25	L25	265	690	5000	CLA450VB33ML25
18×20		M20	265	690	5000	CLA450VB33MM20	
47	18×25	M25	340	890	5000	CLA450VB47MM25	

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