CD 29F CF SERIES

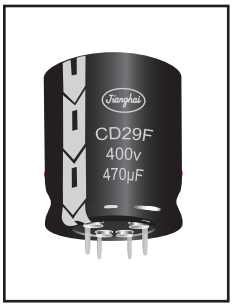
SNAP-IN/LUG

3000h at 105℃

- Long Life at High Temperature
- High Ripple Current
- Suit for high frequency regenerative voltage for AC servomotor, general inverter.

CD 296 KC → CD 29F CF

High speed charge and discharge



Items	Characteristics
Operating Temperature Range (℃)	-25 ~ +105
Voltage Range (V)	350 ~ 450
Capacitance Range (μF)	120 ~ 820
Capacitance Tolerance (20℃, 120Hz)	± 20%
Leakage Current (μA)	After 5 minutes at 20℃ application of rated voltage, leakage current is not more than 0.01CV or 1.5mA, whichever is smaller. C: Nominal Capacitance (μF) V: Rated Voltage (V)

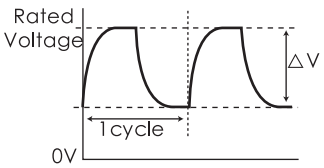
Dissipation Factor (20℃, 120Hz)

Rated Voltage (V)	350	400	450
Tan δ (max)	0.15		

Charge and discharge

After an application of charge and discharge with the voltage waveform shown below, for 50million times (charge and discharge voltage difference △V=rated voltagex0.35,cycle 3Hz) at 15~35℃, the capacitor shall meet the following specifications.

Capacitance Change	Within ±20% of initial value
Tan δ	200% or less of initial specified value
Leakage Current	Initial specified value or less
Appearance	There shall be found to no remarkable abnormality on the capacitor

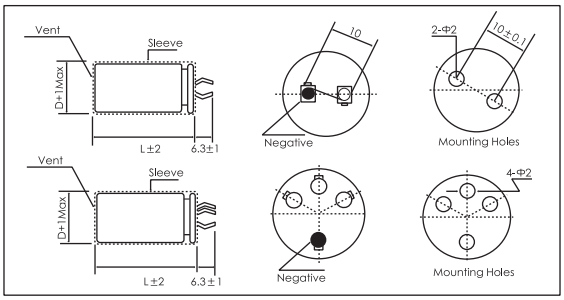


Stability at Low Temperature (Impedance Ratio at 120Hz)

Rated Voltage (V)	350	400	450
$Z_{-25℃} / Z_{+20℃}$	8		

	Useful Life		Load Life	Endurance Test	Shelf Life
Lifetime	6000h	⩾200000h	3000h	3000h	1000h
Leakage Current	Not more than specified value		Not more than specified value	Not more than specified value	Not more than specified value
Capacitance Change	Within ± 30% of initial value		Within ± 20% of initial value	Within ± 20% of initial value	Within ± 20% of initial value
Dissipation Factor	Not more than 300% of specified value		Not more than 200% of specified value	Not more than 200% of specified value	Not more than 200% of specified value
Condition: Applied Voltage Applied Current Applied Temperature	U_R I_R 105℃	U_R 1.4 x I_R 40℃	U_R I_R 105℃	U_R I_R = 0 105℃	U_R = 0 I_R = 0 105℃ After test: U_R to be applied for 30min >24h before measurement

Dimensions mm



Frequency Coefficient

Frequency(Hz)	50/60	120	300	1K	10K	⩾50K
Factor	0.80	1.00	1.16	1.30	1.41	1.45

Temperature Coefficient

Temperature(℃)	40	55	70	80	105
Factor	2.7	2.5	2.1	1.7	1.0

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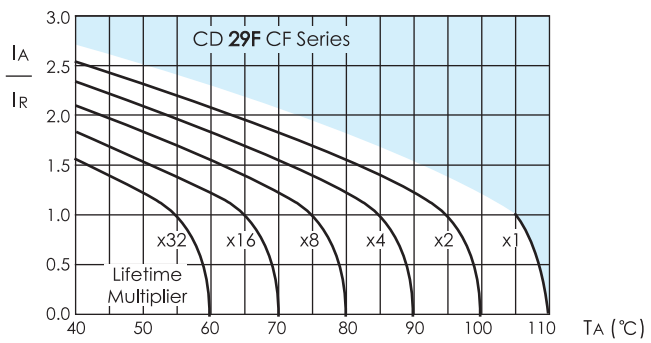
Ratings for CD **29F** CF Series

U_R (Surge Voltage) Code	Rated Capa-citance	Max ESR 20℃, 120Hz	Typ ESR 20℃, 120Hz	Rated Ripple Current 105℃, 120Hz	Size ΦD x L	P/N
(V)	(μF)	(mΩ)	(mΩ)	(Arms)	(mm)	-
350 (400) 2V	150	1327	487	0.89	22×35	ECS2VCF151M□□220035
		1327	487	0.89	25×30	ECS2VCF151M□□250030
	180	1106	405	0.92	22×35	ECS2VCF181M□□220035
		1106	405	0.92	25×30	ECS2VCF181M□□250030
	220	905	332	1.05	22×40	ECS2VCF221M□□220040
		905	332	1.05	25×35	ECS2VCF221M□□250035
		905	332	1.05	30×30	ECS2VCF221M□□300030
	270	737	270	1.10	22×45	ECS2VCF271M□□220045
		737	270	1.10	25×40	ECS2VCF271M□□250040
		737	270	1.10	30×30	ECS2VCF271M□□300030
	330	603	221	1.21	22×50	ECS2VCF331M□□220050
		603	221	1.21	25×45	ECS2VCF331M□□250045
		603	221	1.21	30×40	ECS2VCF331M□□300040
	390	510	177	1.32	25×50	ECS2VCF391M□□250050
		510	177	1.32	30×45	ECS2VCF391M□□300045
		510	177	1.32	35×35	ECS2VCF391M□□350035
	470	423	147	1.40	30×45	ECS2VCF471M□□300045
		423	147	1.40	35×40	ECS2VCF471M□□350040
	560	355	123	1.50	30×50	ECS2VCF561M□□300050
		355	123	1.50	35×45	ECS2VCF561M□□350045
	680	293	101	1.72	35×45	ECS2VCF681M□□350045
	820	243	89	1.95	35×50	ECS2VCF821M□□350050
400 (450) 2G	150	1327	487	0.85	22×35	ECS2GCF151M□□220035
	180	1106	405	0.95	22×40	ECS2GCF181M□□220040
	220	905	332	1.05	22×45	ECS2GCF221M□□220045
		905	332	1.05	25×40	ECS2GCF221M□□250040
	270	737	270	1.22	22×50	ECS2GCF271M□□220050
		737	270	1.22	25×45	ECS2GCF271M□□250045
		737	270	1.22	30×40	ECS2GCF271M□□300040
	330	603	201	1.45	25×50	ECS2GCF331M□□250050
		603	201	1.45	30×40	ECS2GCF331M□□300040
	390	510	170	1.55	30×45	ECS2GCF391M□□300045
		510	170	1.55	35×40	ECS2GCF391M□□350040
	470	423	136	1.75	30×50	ECS2GCF471M□□300050
		423	136	1.75	35×45	ECS2GCF471M□□350045
	560	355	114	1.92	35×45	ECS2GCF561M□□350045
	680	293	88	2.12	35×50	ECS2GCF681M□□350050
450 (500) 2W	120	1659	608	0.72	22×35	ECS2WCF121M□□220035
	150	1327	487	0.79	22×40	ECS2WCF151M□□220040
	180	1106	405	0.88	22×45	ECS2WCF181M□□220045
		1106	405	0.88	25×40	ECS2WCF181M□□250040
	220	905	332	1.04	25×45	ECS2WCF221M□□250045
		905	332	1.04	30×40	ECS2WCF221M□□300040
	270	737	270	1.25	25×50	ECS2WCF271M□□250050
		737	270	1.25	30×45	ECS2WCF271M□□300045
	330	603	201	1.37	30×45	ECS2WCF331M□□300045
	390	510	170	1.60	35×40	ECS2WCF391M□□350040
	470	423	136	1.80	30×50	ECS2WCF471M□□300050
		423	136	1.80	35×45	ECS2WCF471M□□350045
	560	355	114	2.00	35×50	ECS2WCF561M□□350050

Customer products are available on request.

Lifetime Diagram



IA = actual ripple current at 120Hz, IR = rated ripple current at 120Hz, 105℃
Multiplier of Useful Life as a function of ambient temperature and ripple current load