

3000h at 105°C

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

FHX

Rated Voltage Series Rated Capacitance

Capacitance tolerance

Terminal Code

DXL

Sleeve Color



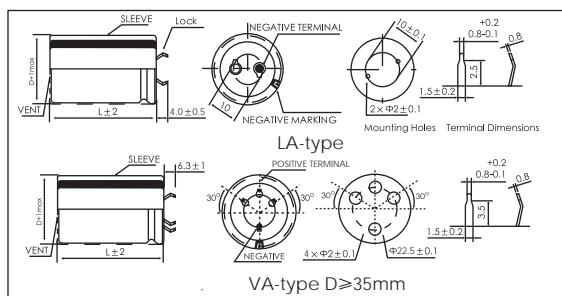
Items	Characteristics			
Operating Temperature Range (°C)	-25 ~ +105			
Voltage Range (V)	350 ~ 450			
Capacitance Range (μF)	150 ~ 820			
Capacitance Tolerance (20°C, 120Hz)	± 20%			
Leakage Current (μA)	After 5 minutes at 20°C application of rated voltage, leakage current is not more than 0.01CV or 1.5mA, whichever is smaller. C: Nominal Capacitance (μF) V: Rated Voltage (V)			
Dissipation Factor (20°C, 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 ΔV =rated voltage×0.35, cycle 3Hz) at 15~35°C, 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
	$Z_{-25^\circ\text{C}} / Z_{+20^\circ\text{C}}$	8		

	Useful Life		Load Life	Endurance Test	Shelf Life
Lifetime	6000h		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°C	U_R $1.4 \times I_R$ 40°C	U_R I_R 105°C	$U_R = 0$ $I_R = 0$ 105°C	After test: U_R to be applied for 30min I_R >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

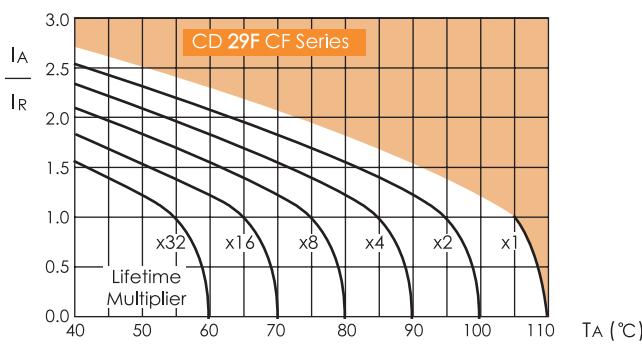
Temperature Coefficient

Temperature(°C)	40	55	70	85	105
Factor	2.7	2.5	2.1	1.7	1.0

Ratings for CD 29F Series

U_r (Surge Voltage) Code	Rated Capaci- tance	Max ESR 20°C, 120Hz	Typ ESR 20°C, 120Hz	Rated Ripple Current 105°C, 120Hz	Size $\phi D \times L$
(V)	(μF)	(mΩ)	(mΩ)	(Amps)	(mm)
350 (400) 2V	220	905	332	1.05	22×40
		905	332	1.05	25×35
		905	332	1.05	30×30
	270	737	270	1.10	22×45
		737	270	1.10	25×40
		737	270	1.10	30×30
	330	603	221	1.21	22×50
		603	221	1.21	25×45
		603	221	1.21	30×40
	390	510	177	1.32	25×50
		510	177	1.32	30×45
		510	177	1.32	35×35
	470	423	147	1.40	30×45
		423	147	1.40	35×40
	560	355	123	1.50	30×50
		355	123	1.50	35×45
	680	293	101	1.72	35×45
	820	243	89	1.95	35×50
400 (450) 2G	180	1106	405	0.95	22×40
	220	905	332	1.05	22×45
		905	332	1.05	25×40
	270	737	270	1.22	22×50
		737	270	1.22	25×45
	330	603	201	1.45	25×50
		603	201	1.45	30×40
	390	510	170	1.55	30×45
		510	170	1.55	35×40
	470	423	136	1.75	30×50
		423	136	1.75	35×45
	560	355	114	1.92	35×45
		680	293	2.12	35×50
450 (500) 2W	150	1327	487	0.79	22×40
	180	1106	405	0.88	22×45
		1106	405	0.88	25×40
	220	905	332	1.04	25×45
		905	332	1.04	30×40
	270	737	270	1.25	25×50
		737	270	1.25	30×45
	330	603	201	1.37	30×45
		510	170	1.60	35×40
	390	423	136	1.80	30×50
		423	136	1.80	35×45
	470	355	114	2.00	35×50
		560	114		

Lifetime Diagram



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