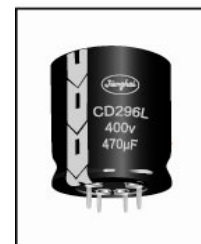
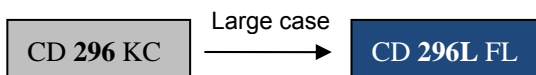


3000h at 105°C

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

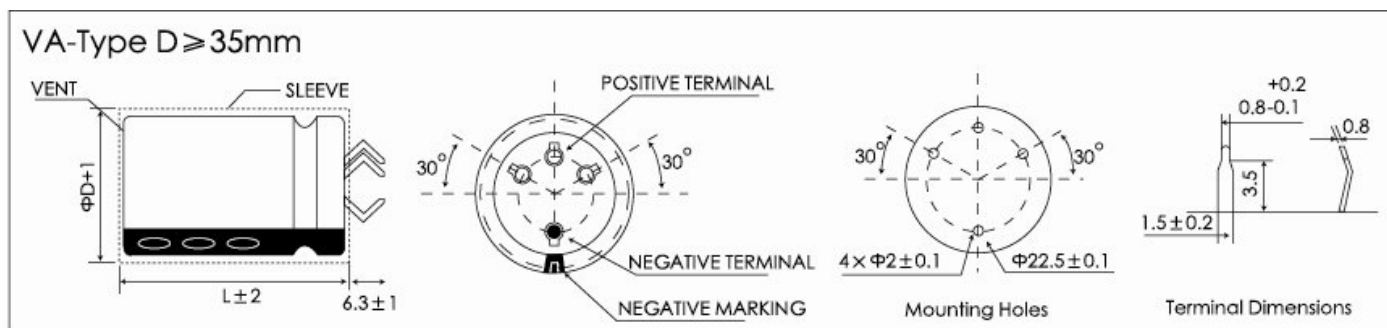


Items	Characteristics		
Operating Temperature Range(°C)	-40 ~ +105	-25 ~ +105	
Voltage Range (V)	350~420	450~500	
Capacitance Range(µF)	390~3300		
Capacitance Tolerance (20°C,120Hz)	±20%		
Leakage Current (µA)	After 5 minutes at 20°C application of rated voltage, leakage current is not more than 0.01CV or 1.5mA, whichever is smaller C:Nominal Capacitance(µF) V:Rated Voltage(V)		
Dissipation Factor (20°C, 120Hz)	WV(V)	350~500	
	Tan δ	0.15	
Stability at Low Temperature (Impedance Ratio at 120Hz)	Rated Voltage (V)	350~420	450~500
	$Z_{-25^{\circ}\text{C}} / Z_{+20^{\circ}\text{C}}$	4	7
	$Z_{-40^{\circ}\text{C}} / Z_{+20^{\circ}\text{C}}$	7	-

	Useful Life		Load Life	Endurance Life	Shelf Life
	Lifetime	6000h	>200000h	3000h	4000h
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	No 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 $1.2 \times I_R$ 40°C	U_R I_R 105°C	U_R $I_R = 0$ 105°C	$U_R = 0$ $I_R = 0$ 105°C
	<div style="border: 1px solid black; padding: 5px;"> After test: U_R to be applied for 30min>24h before measurement </div>				

Dimensions

mm



Frequency Coefficient

Frequency	50/60Hz	120Hz	300Hz	1kHz	10kHz	$\geq 50\text{kHz}$
Factor	0.80	1.00	1.16	1.30	1.41	1.43

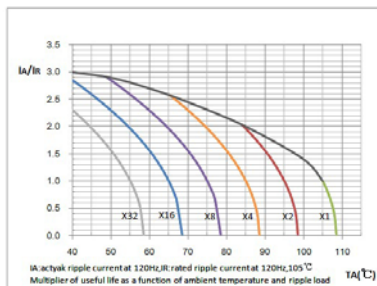
Temperature Coefficient

Temperature(°C)	+40	+55	+70	+85	+105
Factor	3.0	2.8	2.5	2.0	1.0

Ratings for CD 296L FL series

U _R (Surge Voltage) Code	Rated Capacitance	Max ESR 20°C, 120Hz	Typ ESR 20°C, 120Hz	Rated Ripple Current 105°C, 120Hz	Size ΦD×L	P/N
(v)	(μF)	(mΩ)	(mΩ)	(Arms)	(mm)	-
350 (400) 2V	560	355	178	2.30	30x55	ECS2VFL561M□□300055
		355	178	2.33	35x40	ECS2VFL561M□□350040
	680	293	146	2.73	35x50	ECS2VFL681M□□350050
		293	146	2.68	40x40	ECS2VFL681M□□400040
	820	243	121	2.99	35x60	ECS2VFL821M□□350060
		243	121	3.05	40x45	ECS2VFL821M□□400045
		243	121	2.85	45x40	ECS2VFL821M□□450040
	1000	199	100	3.50	35x65	ECS2VFL102M□□350065
		199	100	3.37	40x55	ECS2VFL102M□□400055
		199	100	3.06	45x45	ECS2VFL102M□□450045
	1200	166	83	3.81	35x75	ECS2VFL122M□□350075
		166	83	3.81	40x65	ECS2VFL122M□□400065
		166	83	3.47	45x50	ECS2VFL122M□□450050
	1500	133	66	4.62	40x80	ECS2VFL152M□□400080
		133	66	4.27	45x65	ECS2VFL152M□□450065
	1800	111	55	5.43	40x95	ECS2VFL182M□□400095
		111	55	4.93	45x75	ECS2VFL182M□□450075
	2200	90	45	5.86	45x90	ECS2VFL222M□□450090
		90	45	5.86	50x75	ECS2VFL222M□□500075
	2700	74	37	6.77	45x100	ECS2VFL272M□□450100
74		37	6.77	50x90	ECS2VFL272M□□500090	
3300	60	30	6.77	50x105	ECS2VFL332M□□500105	
400 (450) 2G	470	423	169	2.11	35x45	ECS2GFL471M□□350045
		423	169	2.14	40x40	ECS2GFL471M□□400040
	560	355	142	2.48	35x50	ECS2GFL561M□□350050
		355	142	2.43	40x45	ECS2GFL561M□□400045
		355	142	2.35	45x40	ECS2GFL561M□□450040
	680	293	117	2.73	35x60	ECS2GFL681M□□350060
		293	117	2.78	40x50	ECS2GFL681M□□400050
		293	117	2.59	45x40	ECS2GFL681M□□450040
	820	243	97	3.17	35x65	ECS2GFL821M□□350065
		243	97	3.05	40x55	ECS2GFL821M□□400055
		243	97	2.77	45x45	ECS2GFL821M□□450045
	1000	199	80	3.48	35x80	ECS2GFL102M□□350080
		199	80	3.48	40x65	ECS2GFL102M□□400065
		199	80	3.17	45x55	ECS2GFL102M□□450055
	1200	166	66	4.13	35x90	ECS2GFL122M□□350090
		166	66	4.13	40x80	ECS2GFL122M□□400080
		166	66	3.70	45x60	ECS2GFL122M□□450060
	1500	133	53	4.39	40x90	ECS2GFL152M□□400090
		133	53	4.39	45x75	ECS2GFL152M□□450075
		133	53	4.39	50x70	ECS2GFL152M□□500070
1800	111	44	5.30	45x90	ECS2GFL182M□□450090	
	111	44	5.30	50x80	ECS2GFL182M□□500080	
2200	90	36	5.90	50x90	ECS2GFL222M□□500090	
2700	74	29	6.50	50x105	ECS2GFL272M□□500105	
420 (470) 2X	390	600	221	1.92	35x40	ECS2XFL391M□□350040
		600	221	1.95	40x35	ECS2XFL391M□□400035
	470	500	184	2.27	35x45	ECS2XFL471M□□350045
		500	184	2.23	40x40	ECS2XFL471M□□400040
	560	420	154	2.56	35x50	ECS2XFL561M□□350050
		420	154	2.52	40x45	ECS2XFL561M□□400045
		420	154	2.35	45x40	ECS2XFL561M□□450040
	680	340	127	2.81	35x60	ECS2XFL681M□□350060
		340	127	2.78	40x50	ECS2XFL681M□□400050
		340	127	2.52	45x45	ECS2XFL681M□□450045
	820	290	105	3.26	35x70	ECS2XFL821M□□350070
		290	105	3.05	40x60	ECS2XFL821M□□400060
		290	105	2.87	45x50	ECS2XFL821M□□450050
	1000	240	86	3.67	35x80	ECS2XFL102M□□350080
		240	86	3.67	40x70	ECS2XFL102M□□400070
		240	86	3.38	45x60	ECS2XFL102M□□450060

U _R (Surge Voltage) Code	Rated Capacitance	Max ESR 20°C, 120Hz	Typ ESR 20°C, 120Hz	Rated Ripple Current 105°C, 120Hz	Size ΦD×L	P/N
(v)	(μF)	(mΩ)	(mΩ)	(Arms)	(mm)	-
420 (470) 2X	1200	200	72	4.33	40x80	ECS2XFL122M□□400080
		200	72	3.92	45x65	ECS2XFL122M□□450065
	1500	160	58	4.62	45x80	ECS2XFL152M□□450080
		160	58	4.62	50x75	ECS2XFL152M□□500075
	1800	130	48	5.42	45x95	ECS2XFL182M□□450095
		130	48	5.42	50x85	ECS2XFL182M□□500085
2200	130	39	6.00	50x100	ECS2XFL222M□□500100	
450 (500) 2W	390	510	225	2.00	35x40	ECS2WFL391M□□350040
		423	186	2.27	35x45	ECS2WFL471M□□350045
		423	186	2.23	40x40	ECS2WFL471M□□400040
	470	423	186	2.15	45x35	ECS2WFL471M□□450035
		355	156	2.47	35x55	ECS2WFL561M□□350055
		355	186	2.52	40x50	ECS2WFL561M□□400050
	560	355	186	2.35	45x40	ECS2WFL561M□□450040
		293	129	2.89	35x65	ECS2WFL681M□□350065
		293	129	2.78	40x60	ECS2WFL681M□□400060
	680	293	129	2.61	45x50	ECS2WFL681M□□450050
		243	107	3.24	35x75	ECS2WFL821M□□350075
		243	107	3.24	40x65	ECS2WFL821M□□400065
	820	243	107	3.10	45x50	ECS2WFL821M□□450050
		199	88	3.77	35x90	ECS2WFL102M□□350090
		199	88	3.77	40x80	ECS2WFL102M□□400080
	1000	199	88	3.68	45x65	ECS2WFL102M□□450065
		166	73	4.43	40x95	ECS2WFL122M□□400095
		166	73	4.23	45x75	ECS2WFL122M□□450075
	1200	166	73	4.23	50x65	ECS2WFL122M□□500065
		133	58	4.84	40x100	ECS2WFL152M□□400100
		133	58	4.84	45x90	ECS2WFL152M□□450090
	1500	133	58	4.84	50x80	ECS2WFL152M□□500080
		111	49	5.30	45x105	ECS2WFL182M□□450105
		111	49	5.30	50x95	ECS2WFL182M□□500095
500 (550) 2H	390	510	225	1.80	35x50	ECS2HFL391M□□350050
		510	225	1.80	40x45	ECS2HFL391M□□400045
	470	423	186	2.00	35x55	ECS2HFL471M□□350055
		423	186	2.00	40x50	ECS2HFL471M□□400050
		423	186	2.00	45x40	ECS2HFL471M□□450040
	560	355	156	2.25	35x65	ECS2HFL561M□□350065
		355	156	2.25	40x55	ECS2HFL561M□□400055
		355	156	2.25	45x50	ECS2HFL561M□□450050
	680	293	129	2.60	35x75	ECS2HFL681M□□350075
		293	129	2.60	40x70	ECS2HFL681M□□400070
		293	129	2.60	45x55	ECS2HFL681M□□450055
	820	243	107	2.85	40x75	ECS2HFL821M□□400075
		243	107	2.85	45x60	ECS2HFL821M□□450060
		199	88	3.30	40x90	ECS2HFL102M□□400090
	1000	199	88	3.30	45x75	ECS2HFL102M□□450075
		166	73	4.00	40x100	ECS2HFL122M□□400100
	1200	166	73	4.00	45x85	ECS2HFL122M□□450085
		166	73	4.00	50x80	ECS2HFL122M□□500080
		133	58	4.45	45x100	ECS2HFL152M□□450100
	1500	133	58	4.45	50x95	ECS2HFL152M□□500095
		111	49	4.85	50x105	ECS2HFL152M□□500105



Lifetime Diagram

Customer products are available on request.