

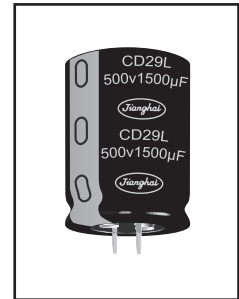
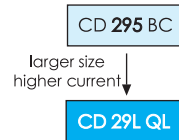
CD 29L QL SERIES



SNAP-IN/LUG

5000h at 85°C

- Larger Size Components
- Long Useful Life
- High Ripple Current
- Industrial Power Supplies

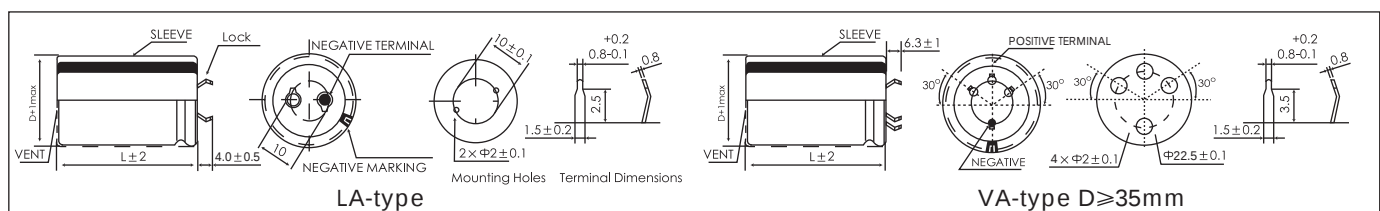


Items	Characteristics				
Operating Temperature Range (°C)	-40 ~ +85		-25 ~ +85		
Voltage Range (V)	160 ~ 400		450 ~ 500		
Capacitance Range (μF)	390 ~ 4700				
Capacitance Tolerance (20°C, 120Hz)	± 20%				
Leakage Current (μA)	After 5 minutes at 20°C application of rated voltage, leakage current is not more than 0.01CV or 1.5mA, whichever is smaller. C: Nominal Capacitance (μF) V: Rated Voltage (V)				
Dissipation Factor (20°C, 120Hz)	0.15				
Stability at Low Temperature (Impedance Ratio at 120Hz)	Rated Voltage (V)	160~200	250~400	450	500
	$Z_{-25^{\circ}\text{C}} / Z_{+20^{\circ}\text{C}}$	3	4		
	$Z_{-40^{\circ}\text{C}} / Z_{+20^{\circ}\text{C}}$	6	8	-	

	Useful Life		Load Life	Endurance Test	Shelf Life
Lifetime	7000h	>100000h	5000h	5000h	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 85°C	U_R $1.2 \times I_R$ 40°C	U_R I_R 85°C	U_R $I_R = 0$ 85°C	After test: U_R to be applied for 30min >24h before measurement

Dimensions

mm



Temperature Coefficient

Temperature(℃)		+40	+55	+70	+85
Coefficient	≥160V	1.7	1.5	1.3	1.0

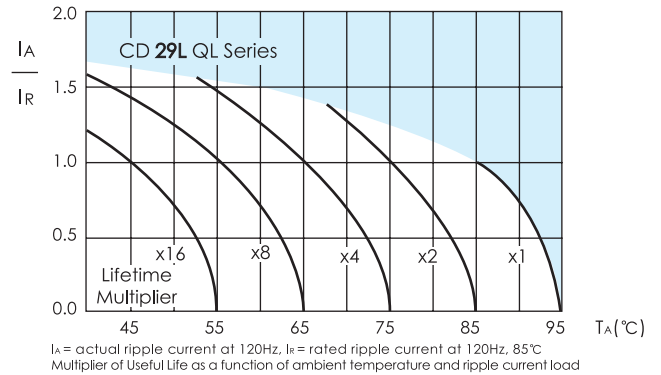
Frequency Coefficient

Frequency	50/60Hz	120Hz	300Hz	1kHz	10kHz	≥50kHz
Rated Voltage (V)	≥ 160					
	0.80	1.00	1.16	1.30	1.41	1.45

Ratings for CD 29L QL Series

U _r (Surge Voltage) Code	Rated Capacitance	Max ESR 20°C, 120Hz	Typ ESR 20°C, 120Hz	Rated Ripple Current 85°C, 120Hz	Size ΦD x L	P/N
(V)	(μF)	(mΩ)	(mΩ)	(Arms)	(mm)	-
160 (200) 2C	2200	91	63	4.9	35 × 45	ECS2CQL222M□□350045
	2700	74	52	5.3	35 × 50	ECS2CQL272M□□350050
	3300	60	42	5.5	35 × 70	ECS2CQL332M□□350070
		60	42	5.5	40 × 60	ECS2CQL332M□□400060
	3900	51	36	5.9	35 × 80	ECS2CQL392M□□350080
200 (250) 2D	4700	42	30	7.3	40 × 80	ECS2CQL472M□□400080
	1500	133	93	4.3	35 × 40	ECS2DQL152M□□350040
	1800	111	77	4.7	35 × 45	ECS2DQL182M□□350045
	2200	91	63	5.4	35 × 50	ECS2DQL222M□□350050
		91	63	5.4	40 × 40	ECS2DQL222M□□400040
	2700	74	52	5.9	35 × 60	ECS2DQL272M□□350060
		74	52	5.9	40 × 50	ECS2DQL272M□□400050
	3300	60	42	6.5	35 × 80	ECS2DQL332M□□350080
		60	42	6.5	40 × 60	ECS2DQL332M□□400060
	3900	51	36	7.0	40 × 80	ECS2DQL392M□□400080
	4700	42	30	9.2	40 × 90	ECS2DQL472M□□400090
250 (300) 2E	1000	199	139	3.5	35 × 35	ECS2EQL102M□□350035
	1200	166	116	3.6	35 × 40	ECS2EQL122M□□350040
	1500	133	93	4.2	35 × 45	ECS2EQL152M□□350045
	1800	111	77	4.6	35 × 50	ECS2EQL182M□□350050
		111	77	4.6	40 × 40	ECS2EQL182M□□400040
	2200	91	77	5.1	35 × 60	ECS2EQL222M□□350060
	2700	74	63	6.0	40 × 60	ECS2EQL272M□□400060
400 (450) 2G	560	355	249	3.0	35 × 45	ECS2GQL561M□□350045
		355	249	2.8	40 × 40	ECS2GQL561M□□400040
	680	293	205	3.5	35 × 50	ECS2GQL681M□□350050
		293	205	3.3	40 × 40	ECS2GQL681M□□400040
	820	242	170	3.8	35 × 50	ECS2GQL821M□□350050
		242	170	4.1	40 × 50	ECS2GQL821M□□400050
	1000	199	139	4.4	35 × 55	ECS2GQL102M□□350055
		199	139	4.8	40 × 60	ECS2GQL102M□□400060
	1200	166	116	5.3	35 × 70	ECS2GQL122M□□350070
		166	116	5.5	40 × 60	ECS2GQL122M□□400060
	1500	133	93	6.5	40 × 80	ECS2GQL152M□□400080
		133	93	6.3	45 × 60	ECS2GQL152M□□450060
	1800	111	77	7.3	35 × 90	ECS2GQL182M□□350090
		111	77	7.9	40 × 100	ECS2GQL182M□□400100
	2200	91	63	8.6	40 × 100	ECS2GQL222M□□400100
		91	63	8.1	45 × 80	ECS2GQL222M□□450080
450 (500) 2W	470	424	296	2.7	35 × 45	ECS2WQL471M□□350045
	560	355	249	3.1	35 × 50	ECS2WQL561M□□350050
		355	249	3.1	40 × 40	ECS2WQL561M□□400040
	680	293	205	3.5	35 × 60	ECS2WQL681M□□350060
		293	205	3.4	40 × 50	ECS2WQL681M□□400050
	820	243	170	4.4	35 × 70	ECS2WQL821M□□350070
		243	170	4.4	40 × 60	ECS2WQL821M□□400060
	1000	199	139	5.2	35 × 80	ECS2WQL102M□□350080
		199	139	5.2	40 × 60	ECS2WQL102M□□400060
	1200	166	116	5.9	40 × 70	ECS2WQL122M□□400070
		166	116	6.0	45 × 60	ECS2WQL122M□□450060
	1500	133	93	6.8	40 × 85	ECS2WQL152M□□400085
		133	93	6.7	45 × 70	ECS2WQL152M□□450070
	1800	111	77	7.6	40 × 100	ECS2WQL182M□□400100
	2200	91	64	8.6	45 × 100	ECS2WQL222M□□450100
500 (550) 2H	390	510	357	2.4	35 × 45	ECS2HQL391M□□350045
	470	424	296	2.8	35 × 50	ECS2HQL471M□□350050
		355	249	3.3	35 × 60	ECS2HQL561M□□350060
	560	355	249	3.3	40 × 50	ECS2HQL561M□□400050
		293	205	3.8	35 × 70	ECS2HQL681M□□350070
	680	293	205	3.7	40 × 60	ECS2HQL681M□□400060
		243	170	4.6	35 × 80	ECS2HQL821M□□350080
	820	243	170	4.6	40 × 70	ECS2HQL821M□□400070
		199	139	5.4	40 × 80	ECS2HQL102M□□400080
	1000	199	139	5.4	45 × 70	ECS2HQL102M□□450070
		166	116	6.4	40 × 90	ECS2HQL122M□□400090
	1500	133	93	7.2	40 × 100	ECS2HQL152M□□400100

Lifetime Diagram



Customer products are available on request.