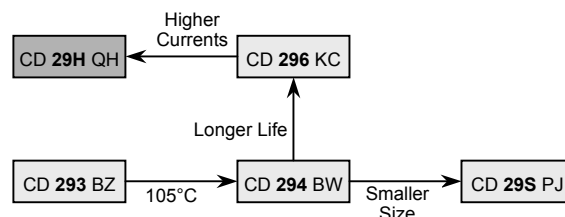




CD 29H QH Snap In SERIES

ALUMINUM ELECTROLYTIC CAPACITOR

- Long Useful Life: 5000 hours at 105°C
- Higher Ripple Current
- Miniaturized
- Industrial Power Supplies



● SPECIFICATIONS

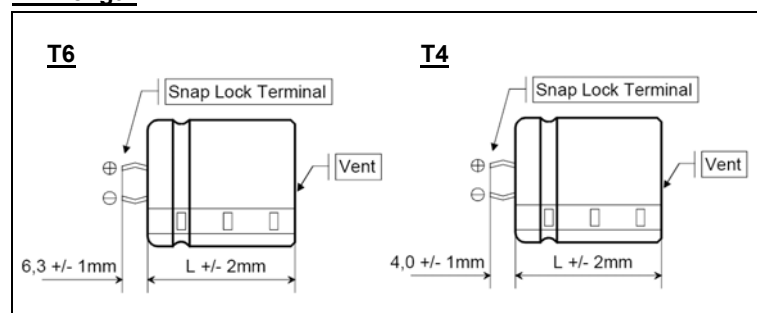
Item	Characteristics																				
Operating Temperature Range	-40 ~ 105°C																				
Rated Voltage Range	160V ~ 450V																				
Capacitance Tolerance (20°C, 120Hz)	±20%																				
Leakage Current (μA)	0.01CV or 1.5mA whichever is smaller (at 20°C, after 5 minutes) C: Nominal Capacitance (μF); V: Rated Voltage (V)																				
Dissipation Factor (20°C, 120Hz)	<table><tr><td>WV(V)</td><td>160</td><td>200</td><td>250</td><td>350</td><td>400</td><td>450</td></tr><tr><td>tanδ</td><td>0.15</td><td>0.15</td><td>0.15</td><td>0.15</td><td>0.12</td><td>0.12</td></tr></table>							WV(V)	160	200	250	350	400	450	tanδ	0.15	0.15	0.15	0.15	0.12	0.12
WV(V)	160	200	250	350	400	450															
tanδ	0.15	0.15	0.15	0.15	0.12	0.12															
Temperature stability (Impedance Ratio 120Hz)	<table><tr><td>WV(V)</td><td colspan="2">160 ~ 200</td><td colspan="3">250 ~ 450</td></tr><tr><td>Z_{-40°C/+20°C}</td><td colspan="2">4</td><td colspan="3">4</td></tr></table>							WV(V)	160 ~ 200		250 ~ 450			Z _{-40°C/+20°C}	4		4				
WV(V)	160 ~ 200		250 ~ 450																		
Z _{-40°C/+20°C}	4		4																		
Load Life	After life test at condition stated in the table below, the capacitors shall meet the following requirements																				
	Time		3000 hours																		
	Leakage Current		Not more than the specified value																		
	Capacitance Change		Within ±20% of initial value																		
	Dissipation Factor		Not more than 200% of the specified value																		
Conditions: U _R , I _R , 105°C																					
Useful Life	After life test at condition stated in the table below, the capacitors shall meet the following requirements (Failure Rate ≤ 1%)																				
	Time		5000 hours																		
	Leakage Current		Not more than the specified value																		
	Capacitance Change		Within ±30% of initial value																		
	Dissipation Factor		Not more than 300% of the specified value																		
Conditions: U _R , I _R , 105°C																					
Shelf Life	Time		1000 hours (No voltage applied)																		
	Leakage Current		Not more than the specified value																		
	Capacitance Change		Within ±20% of initial value																		
	Dissipation Factor		Not more than 200% of the specified value																		
	Conditions: 105°C, after test: U _R to be applied for 30 minutes, 24 to 48 hours before measurement																				

CD 29H QH Snap In SERIES

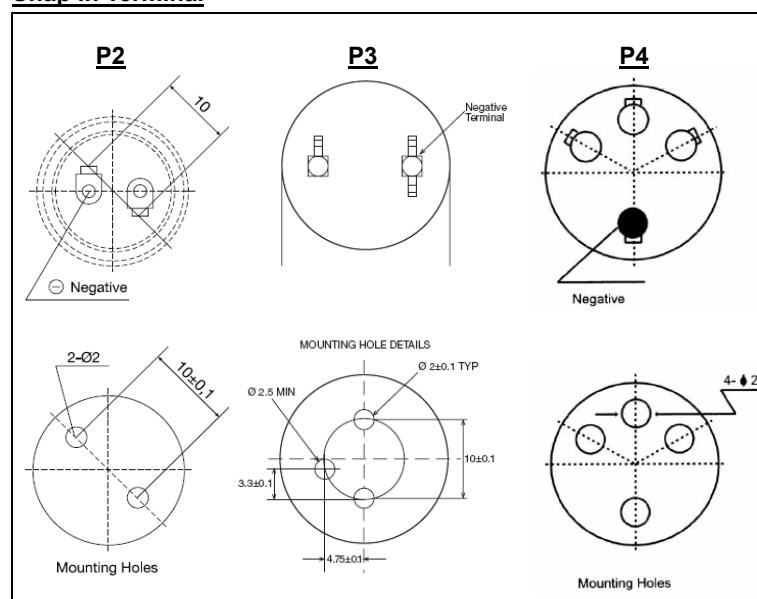
• DIMENSIONS

SNAP IN

Pin Length



Snap In Terminal



• MULTIPLIER FOR RIPPLE CURRENT

Frequency coefficient

Frequency (Hz)	50	120	1k	10k	100k
Coefficient	0.87	1.00	1.15	1.35	1.40

Temperature coefficient

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

CD 29H QH Snap In SERIES

• STANDARD SIZE

WV (V) (μF) Nominal Capacitance	160 (2C)				200 (2D)				250 (2E)			
	Ø DxL (mm)	120Hz 20°C (mΩ)		Max.Ripple Current 105°C 120Hz (Arms)	Ø DxL (mm)	120Hz 20°C (mΩ)		Max.Ripple Current 105°C 120Hz (Arms)	Ø DxL (mm)	120Hz 20°C (mΩ)		Max.Ripple Current 105°C 120Hz (Arms)
		ESR typ	ESR max			ESR typ	ESR max			ESR typ	ESR max	
180									22x25	620	260	1.00
220					22x25	550	784	1.10	22x30	570	723	1.20
270									25x25	570	723	1.20
330	22x25	355	560	1.50	22x25	460	630	1.17	22x35	470	589	1.25
390					22x35	370	520	1.40	22x40	380	482	1.30
470					25x25	370	520	1.40	25x30	380	482	1.35
560	25x25	306	476	1.60	22x30	310	440	1.45	30x25	380	482	1.35
680					22x35	260	365	1.55	22x45	325	408	1.40
820	22x35	245	390	1.80	25x30	260	365	1.55	25x35	325	408	1.45
1000					30x25	260	365	1.6	22x50	268	338	1.65
1200	22x35	210	330	2.10	22x45	220	308	1.65	30x30	268	338	1.65
1500	25x30	210	330	2.10	25x35	220	308	1.65	35x25	268	338	1.65
1800	30x25	210	330	2.10	25x35	220	308	1.65	25x45	225	284	1.85
2200					25x35	220	308	1.65	30x35	225	284	1.85
	22x40	175	273	2.60	22x50	180	253	1.68	35x30	225	284	1.85
	25x40	145	220	2.80	25x40	180	253	1.92	25x50	185	234	2.20
	30x30	145	220	2.90	30x30	180	253	1.92	30x40	185	234	2.20
	35x25	145	220	2.80	35x25	180	253	2.2	30x45	153	194	2.50
	22x50	145	220	2.80	25x45	150	210	2.2	30x50	153	194	2.50
	25x40	145	220	2.70	30x35	150	210	2.2				
	30x30	145	220	2.90	35x30	150	210	2.4				
	35x25	145	220	2.80								
	25x45	119	185	3.30	30x40	120	172	2.4	30x50	125	159	2.90
	30x35	119	185	3.40	35x35	120	172	2.4	35x40	125	159	2.90
	35x30	119	185	3.30								
	25x50	99	150	3.70	30x45	100	140	2.75	35x45	105	132	3.30
	30x40	99	150	3.80	35x40	100	140	2.75				
	35x35	99	150	3.60								
	30x45	79	125	4.40	35x40	80	115	3.45	35x50	85	106	3.8
	35x40	79	125	4.30								
	35x45	73	102	4.40								
	35x50	58	85	5.90								

CD 29H QH Snap In SERIES

• STANDARD SIZE

WV (V) (μF) Nominal Capacitance	350 (2V)				400 (2G)				450 (2W)			
	Ø D x L (mm)	120Hz 20°C (mΩ)		Max.Ripple Current 105°C 120Hz (Arms)	Ø D x L (mm)	120Hz 20°C (mΩ)		Max.Ripple Current 105°C 120Hz (Arms)	Ø D x L (mm)	120Hz 20°C (mΩ)		Max.Ripple Current 105°C 120Hz (Arms)
		ESR typ	ESR max			ESR typ	ESR max			ESR typ	ESR max	
47					22x25	1835	2823	0.40				
56									22x25	1360	2510	0.50
68	22x25	1280	1790	0.70	22x25	1260	1950	0.48	22x30	1170	2340	0.60
82					22x30	1050	1615	0.57	22x35	970	1940	0.65
					25x25	1050	1615	0.56				
100	22x30	1060	1590	0.87	22x35	860	1326	0.65	22x35	790	1592	0.72
	25x25	1060	1590	0.87	25x25	860	1326	0.65	25x30	790	1592	0.72
									30x25	790	1592	0.72
120	22x35	880	1326	0.90	22x35	718	1103	0.71	22x45	660	1325	0.80
					25x30	718	1103	0.71				
					30x25	718	1103	0.71				
150	22x40	700	1060	0.98	22x40	575	884	0.85	22x50	530	1060	0.95
	25x30	700	1060	1.02	25x35	575	884	0.85	25x40	530	1060	0.95
									30x30	530	1060	0.95
	30x25	700	1060	1.02	30x25	575	884	0.85	35x25	530	1060	0.95
180	22x45	580	881	1.11	22x50	479	737	1.00	25x45	440	884	1.05
	25x35	580	881	1.11	25x40	479	737	1.00				
					30x30	479	737	1.00				
	30x30	580	881	1.12	35x25	479	737	1.00	30x35	440	884	1.05
220	22x50	480	723	1.16	25x45	292	603	1.20	25x50	360	722	1.30
	25x40	480	723	1.20	30x35	292	603	1.20	30x40	360	722	1.30
	35x25	480	723	1.20	35x30	292	603	1.20	35x30	360	722	1.30
270	25x50	390	589	1.26	25x50	319	490	1.35	30x45	295	589	1.50
	30x35	390	589	1.31	30x40	319	490	1.35				
	35x50	390	589	1.26	35x30	319	490	1.35	35x35	295	589	1.50
330	30x45	320	480	1.45	30x45	260	402	1.60	30x50	240	482	1.90
	35x35	320	480	1.45	35x35	260	402	1.60	35x40	240	482	1.90
390	30x50	270	408	1.58	30x50	220	340	1.80	35x45	205	408	1.90
	35x40	270	408	1.58	35x40	220	340	1.80				
470	35x45	225	335	1.69	35x45	183	282	2.10	35x50	170	338	2.20
560	35x50	190	284	1.89	35x50	154	236	2.30				

• Ordercode

ECS	2V	QH	181	M	T6	P2	2535
Snap-In Electrolytic Capacitor	Rated Voltage Code	Series Code	Capacitance Code :	Capacitance Tolerance	Snap In	Snap In	Dimension
	160 = 2C		33 = 330	±20% = M	4mm Pin Length = T4	2 Pin = P2	25 x 35
	200 = 2D		470 = 471	±10% = K	6mm Pin Length = T6	3 Pin = P3	
	250 = 2E		5600 = 562	+30/10% = Q		4 Pin = P4	
	350 = 2V			+20/-0% = R			
	400 = 2G						
	450 = 2W						

preferred