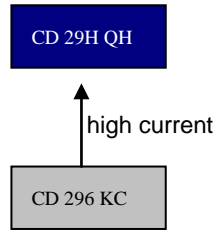


CD 29H QH SERIES



3000h at 105°C

- Long Useful life
- Highest Ripple Current
- Miniaturized
- Industrial Power Supplies and Inverters



Items	Characteristics												
Operating Temperature Range(°C)	-40 ~ +105												
Voltage Range (V)	160~500												
Capacitance Range(µF)	56~2200												
Capacitance Tolerance (20°C,120Hz)	±20%												
Leakage Current (µA)	After 5Minutes at 20°C application of rated voltage, leakage current is notMore than 0.01CV or 1.5mA, whichever is smaller C: Nominal Capacitance(µF) V: Rated Voltage(V)												
Dissipation Factor (20°C, 120Hz)	<table border="1"> <tr> <td>Rated Voltage(V)</td> <td>160</td> <td>200</td> <td>250</td> <td>350</td> <td>400~450</td> </tr> <tr> <td>Tan δ(max)</td> <td colspan="3">0.15</td> <td colspan="2">0.12</td> </tr> </table>	Rated Voltage(V)	160	200	250	350	400~450	Tan δ(max)	0.15			0.12	
	Rated Voltage(V)	160	200	250	350	400~450							
Tan δ(max)	0.15			0.12									
Stability at Low Temperature (Impedance Ratio at 120Hz)	<table border="1"> <tr> <td>Rated Voltage(V)</td> <td>160~450</td> </tr> <tr> <td>Z_{-40°C}/Z_{+20°C}</td> <td>4</td> </tr> </table>	Rated Voltage(V)	160~450	Z _{-40°C} /Z _{+20°C}	4								
Rated Voltage(V)	160~450												
Z _{-40°C} /Z _{+20°C}	4												

	Useful Life		Load Life	Endurance Test	Shelf Life
Life Time	5000h	>100000h	3000h	3000h	1000h
Leakage Current	NotMore than specified value		NotMore than specified value	NotMore than specified value	NotMore 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	NotMore than 300% of specified value		NotMore than 200% of specified value	NotMore than130% of specified value	NotMore than 200% of specified value
Condition:					<div style="border: 1px solid black; padding: 5px;"> After test: U_R = 0 I_R = 0 105°C U_R to be applied for 30min>24h before measurement </div>
Applied Voltage	U _R	U _R	U _R	U _R	
Applied Current	I _R	1.4×I _R	I _R	I _R = 0	
Applied Temperature	105°C	50°C	105°C	105°C	

Frequency coefficient

Frequency	50/60Hz	120Hz	300Hz	1kHz	10kHz	≥ 50kHz
coefficient	0.80	1.00	1.16	1.30	1.41	1.45

Temperature Coefficient

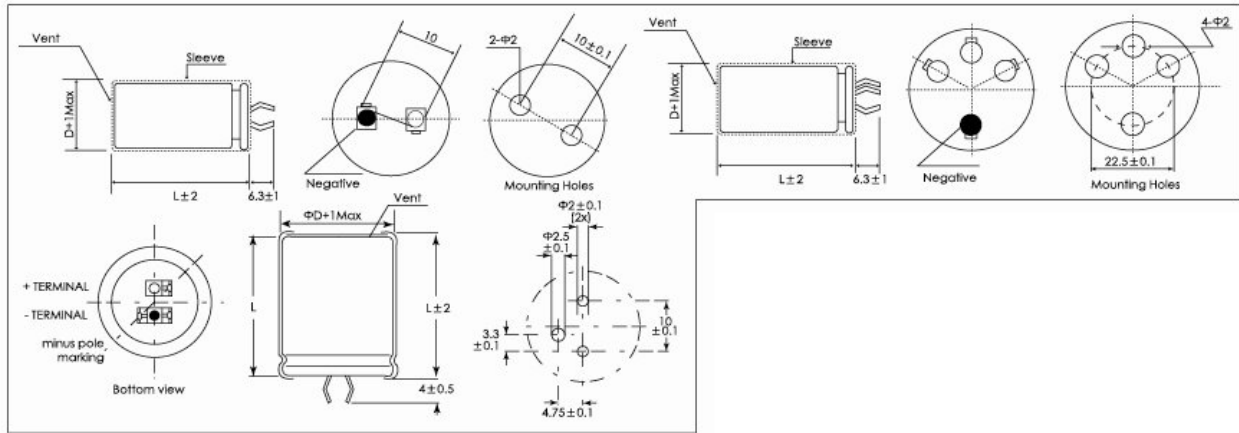
Temperature(°C)	+40	+55	+70	+85	+105
coefficient	2.7	2.5	2.1	1.7	1.0

CD 29H QH SERIES



Dimensions

mm



Ratings for CD29H QH Series

U_R (Surge Voltage) Code	Rated Capacitance	Max ESR 20°C, 120Hz	Typ ESR 20°C, 120Hz	Rated Ripple Current 105°C, 100kHz	Size Φ D x L	P/N
(v)	(μF)	(mΩ)	(mΩ)	(Arms)	(mm)	-
160 (200) 2C	330	603	355	1.42	22x25	ECS2CQH331M□□220025
	390	510	300	1.45	25x25	ECS2CQH391M□□250025
	470	424	245	1.63	22x35	ECS2CQH471M□□220035
	560	355	215	1.75	22x35	ECS2CQH561M□□220035
		355	215	175	25x30	ECS2CQH561M□□250030
		355	215	1.75	30x25	ECS2CQH561M□□300025
	680	293	178	1.98	22x40	ECS2CQH681M□□220040
		293	178	1.98	25x35	ECS2CQH681M□□250035
	820	243	145	2.35	22x50	ECS2CQH821M□□220050
		243	145	2.35	25x40	ECS2CQH821M□□250040
		243	145	2.35	30x30	ECS2CQH821M□□300030
		243	145	2.35	35x25	ECS2CQH821M□□350025
	1000	199	115	2.50	25x45	ECS2CQH102M□□250045
		199	115	2.50	30x35	ECS2CQH102M□□300035
		199	115	2.50	35x30	ECS2CQH102M□□350030
	1200	166	95	2.87	25x50	ECS2CQH122M□□250050
		166	95	2.87	30x40	ECS2CQH122M□□300040
		166	95	2.87	35x35	ECS2CQH122M□□350035
	1500	133	75	3.57	30x45	ECS2CQH152M□□300045
		133	75	3.60	35x40	ECS2CQH152M□□350040
1800	111	75	4.15	35x45	ECS2CQH182M□□350045	
2200	91	58	4.65	35x50	ECS2CQH222M□□350050	
200 (250) 2D	220	905	550	1.1	22x25	ECS2DQH221M□□220025
	270	737	460	1.17	22x25	ECS2DQH271M□□220025
	330	603	370	1.4	22x30	ECS2DQH331M□□220030
		603	370	1.4	25x25	ECS2DQH331M□□250025
	390	510	310	1.45	22x30	ECS2DQH391M□□220030
	470	424	260	1.55	22x35	ECS2DQH471M□□220035
		424	260	1.55	25x30	ECS2DQH471M□□250030
		424	260	1.6	30x25	ECS2DQH471M□□300025
	560	355	220	1.65	22x45	ECS2DQH561M□□220045
		355	220	1.65	25x35	ECS2DQH561M□□250035
	680	293	180	1.68	22x50	ECS2DQH681M□□220050
		293	180	1.92	25x40	ECS2DQH681M□□250040
		293	180	1.92	30x30	ECS2DQH681M□□300030

U_R (Surge Voltage) Code	Rated Capacitance	Max ESR 20°C, 120Hz	Typ ESR 20°C, 120Hz	Rated Ripple Current 105°C, 100kHz	Size Φ D x L	P/N	
(v)	(μF)	(mΩ)	(mΩ)	(Arms)	(mm)	-	
400 (450) 2G	68	2342	1260	0.48	22x25	ECS2GQH680M□□220025	
	82	1942	1050	0.57	22x30	ECS2GQH820M□□220030	
		1942	1050	0.56	25x25	ECS2GQH820M□□250025	
	100	1592	860	0.65	22x35	ECS2GQH101M□□220035	
		1592	860	0.65	25x25	ECS2GQH101M□□250025	
	120	1327	718	0.71	22x35	ECS2GQH121M□□220035	
		1327	718	0.71	25x30	ECS2GQH121M□□250030	
		1327	718	0.71	30x25	ECS2GQH121M□□300025	
	150	1062	575	0.85	22x40	ECS2GQH151M□□220040	
		1062	575	0.85	25x35	ECS2GQH151M□□250035	
		1062	575	0.85	30x25	ECS2GQH151M□□300025	
	180	885	479	1	22x50	ECS2GQH181M□□220050	
		885	479	1	25x40	ECS2GQH181M□□250040	
		885	479	1	30x30	ECS2GQH181M□□300030	
		885	479	1	35x25	ECS2GQH181M□□350025	
	220	724	292	1.2	25x45	ECS2GQH221M□□250045	
		724	292	1.2	30x35	ECS2GQH221M□□300035	
		724	292	1.2	35x30	ECS2GQH221M□□350030	
	270	590	319	1.35	25x50	ECS2GQH271M□□250050	
		590	319	1.35	30x40	ECS2GQH271M□□300040	
		590	319	1.35	35x30	ECS2GQH271M□□350030	
	330	483	260	1.6	30x45	ECS2GQH331M□□300045	
		483	260	1.6	35x35	ECS2GQH331M□□350035	
	390	408	220	1.8	30x50	ECS2GQH391M□□300050	
		408	220	1.8	35x40	ECS2GQH391M□□350040	
	470	339	183	2.1	35x45	ECS2GQH471M□□350045	
	560	284	154	2.3	35x50	ECS2GQH561M□□350050	
	450 (500) 2W	56	2844	1360	0.5	22x25	ECS2WQH560M□□220025
		68	2342	1170	0.6	22x30	ECS2WQH680M□□220030
		82	1942	970	0.65	22x35	ECS2WQH820M□□220035
100		1592	790	0.72	22x35	ECS2WQH101M□□220035	
	1592	790	0.72	25x30	ECS2WQH101M□□250030		
	1592	790	0.72	30x25	ECS2WQH101M□□300025		
120	1327	660	0.8	22x45	ECS2WQH121M□□220045		
	1327	660	0.8	25x35	ECS2WQH121M□□250035		

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	820	293	180	2.2	35x25	ECS2DQH681M□□350025
		243	150	2.2	25X45	ECS2DQH821M□□250045
		243	150	2.2	30x35	ECS2DQH821M□□300035
		243	150	2.4	35x30	ECS2DQH821M□□350030
	1000	199	120	2.4	30x40	ECS2DOH102M□□300040
		199	120	2.4	35X35	ECS2DQH102M□□350035
	1200	166	100	2.75	30X45	ECS2DQH122M□□300045
		166	100	2.75	35x40	ECS2DQH122M□□350040
	1500	133	80	3.45	35x40	ECS2DQH152M□□350040
	1800	111	68	4	35X45	ECS2DQH182M□□350045
2200	91	56	4.5	35x50	ECS2DQH222M□□350050	
250 (300) 2E	180	1106	620	1	22x25	ECS2EOH181M□□220025
	220	905	570	1.2	22x30	ECS2EQH221M□□220030
		905	570	1.2	25x25	ECS2EQH221M□□250025
	270	737	470	1.25	22x35	ECS2EQH271M□□220035
	330	603	380	1.3	22x40	ECS2EQH331M□□220040
		603	380	1.35	25x30	ECS2EOH331M□□250030
		603	380	1.35	30x25	ECS2EQH331M□□300025
	390	510	325	1.4	22X45	FCS2FQH391M□□220045
		510	325	1.45	25x35	FCS2FOH391M□□250035
	470	424	268	1.65	22x50	ECS2EQH471M□□220050
		424	268	1.65	30x30	ECS2EQH471M□□300030
		424	268	1.65	35x25	ECS2EQH471M□□350025
	560	355	225	1.85	25x45	ECS2EOH561M□□250045
		355	225	1.85	30x35	FCS2FOH561M□□300035
		355	225	1.85	35x30	FCS9FOH561M□□350030
	680	293	185	2.2	25x50	FCS9FOH681M□□250050
		293	185	2.2	30x40	FCS9FOH681M□□300040
	820	243	153	2.5	30x45	FCS9FOH891M□□300045
		243	153	2.5	30x50	FCS9FOH891M□□300050
	1000	199	125	2.9	30x50	FCS9FOH109M□□300050
199		125	2.9	35X40	ECS2EQH102M□□350040	
1200	166	105	3.3	35X45	ECS2EOH122M□□350045	
1500	133	85	3.8	35X50	ECS2EQH152M□□350050	
350 (400) 2V	68	2927	1280	0.7	22X25	ECS2VQH680M□□220025
	100	1990	1060	0.87	22x30	ECS2VQH101M□□220030
		1990	1060	0.87	25x25	ECS2VQH101M□□250025
	120	1659	880	0.9	22x35	ECS2VQH121M□□220035
	150	1327	700	0.98	22x40	ECS2VQH151M□□220040
		1327	700	1.02	25x30	ECS2VQH151M□□250030
		1327	700	1.02	30x25	ECS2VQH151M□□300025
	180	1106	580	1.11	22X45	ECS2VQH181M□□220045
		1106	580	1.11	25x35	ECS2VQH181M□□250035
		1106	580	1.12	30x30	ECS2VQH181M□□300030
	220	905	480	1.16	22x50	ECS2VQH221M□□220050
		905	480	1.2	25X40	ECS2VQH221M□□250040
		905	480	1.2	35x25	ECS2VQH221M□□350025
	270	737	390	1.26	25x50	ECS2VQH271M□□250050
		737	390	1.31	30x35	ECS2VQH271M□□300035
		737	390	1.26	35x30	ECS2VQH271M□□350030
	330	603	320	1.45	30X45	ECS2VQH331M□□300045
		603	320	1.45	35x35	ECS2VQH331M□□350035
	390	510	270	1.58	30x50	ECS2VQH391M□□300050
		510	270	1.58	35x40	ECS2VQH391M□□350040
470	424	228	1.69	35X45	ECS2VQH471M□□350045	
560	355	190	1.89	35x50	ECS2VQH561M□□350050	

150	1062	530	0.95	22x50	ECS2WQH151M□□220050
	1062	530	0.95	25x40	ECS2WQH151M□□250040
	1062	530	0.95	30x30	ECS2WQH151M□□300030
	1062	530	0.95	35x25	ECS2WQH151M□□350025
180	885	440	1.05	25x45	ECS2WQH181M□□250045
	885	440	1.05	30x35	ECS2WQH181M□□300035
220	724	360	1.3	25x50	ECS2WQH221M□□250050
	724	360	1.3	30x40	ECS2WQH221M□□300040
	724	360	1.3	35x30	ECS2WQH221M□□350030
270	590	295	1.5	30x45	ECS2WQH271M□□300045
	590	295	1.5	35x35	ECS2WQH271M□□350035
330	483	240	1.9	30x50	ECS2WQH331M□□300050
	483	240	1.9	35x40	ECS2WQH331M□□350040
390	408	205	1.9	35x45	ECS2WQH391M□□350045
470	339	170	2.2	35x50	ECS2WQH471M□□350050

Customer products are available on request.

Lifetime Diagram

