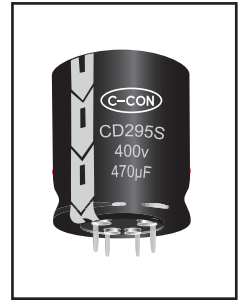


5000h at 85°C

- Larger Size Components
- Long Useful Life
- High Ripple Current
- Industrial Power Supplies
- Voltage derating ( $0.93 \cdot V_R$ ) enables 105°C operation



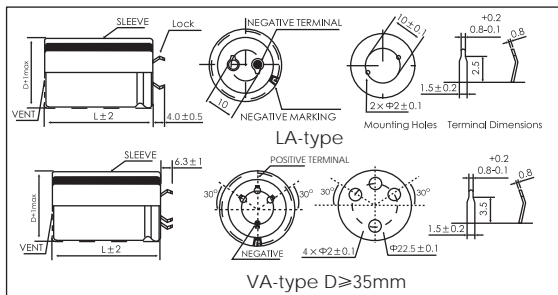
SNAP-IN/LUG

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)	WV (V)	160~500		
	Tan δ	0.15		
Stability at Low Temperature (Impedance Ratio at 120Hz)	Rated Voltage (V)	160~200	250~400	450~500
	$Z_{-25°C} / Z_{+20°C}$	3	4	
	$Z_{-40°C} / Z_{+20°C}$	6	8	-

	Useful Life		Load Life	Endurance Test	Shelf Life
Lifetime	12000h	>100000h	5000h	7000h	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	$U_R = 0$ $I_R = 0$ 85°C After test: $U_R$ to be applied for 30min >24h before measurement

**Dimensions**

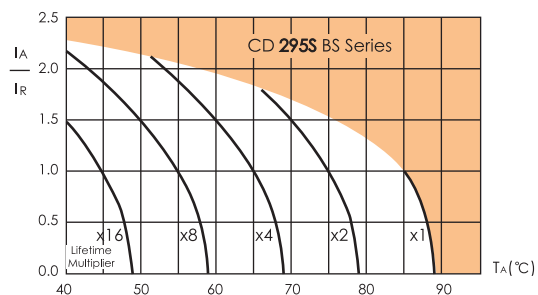
mm



**Frequency Coefficient**

Frequency	50/60Hz	120Hz	300Hz	1kHz	10kHz	≥50kHz
Factor	0.8	1.0	1.16	1.3	1.41	1.45

**Lifetime Diagram**



$I_a$  = actual ripple current at 120Hz,  $I_r$  = rated ripple current at 120Hz, 85°C  
Multiplier of Useful Life as a function of ambient temperature and ripple current load

**Temperature Coefficient**

Temperature(°C)	+40	+55	+70	+85
Factor	2.3	2.1	1.75	1.0

## Ratings for CD 295S Series

U <sub>R</sub> (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
(V)	(μF)	(mΩ)	(mΩ)	(Arms)	(mm)
160 (200) 2C	2200	91	63	4.9	35×45
	2700	74	52	5.3	35×50
	3300	60	42	5.5	35×70
		60	42	5.5	40×60
	3900	51	36	5.9	35×80
200 (250) 2D	4700	42	30	7.3	40×80
	1500	133	93	4.3	35×40
	1800	111	77	4.7	35×45
	2200	91	63	5.4	35×50
		91	63	5.4	40×40
	2700	74	52	5.9	35×60
		74	52	5.9	40×50
	3300	60	42	6.5	35×80
		60	42	6.5	40×60
	3900	51	36	7.0	40×80
4700	42	30	9.2	40×90	
250 (300) 2E	1000	199	139	3.7	35×40
	1200	166	116	3.8	35×45
	1500	133	93	4.4	35×50
		133	93	4.5	40×40
	1800	111	77	5.0	35×70
		111	77	5.0	40×50
	2200	91	63	5.4	35×70
2700	74	52	6.9	40×80	
350 (400) 2V	680	293	205	3.6	35×45
		293	205	3.6	40×40
	820	243	170	4.5	35×60
		243	170	4.5	40×50
	1000	199	139	5.2	35×70
		199	139	4.9	40×60
	1200	166	116	5.5	35×80
		166	116	5.6	40×70
	1500	133	93	6.5	40×80
		133	93	6.2	45×70
	1800	111	77	7.9	40×100
		111	77	7.1	45×70
	2200	91	63	8.7	40×100
400 (450) 2G	560	355	249	3.2	35×50
		355	249	2.8	40×40
	680	293	205	3.7	35×60
		293	205	3.8	40×50
	820	243	170	4.2	35×60
		243	170	4.1	40×50
	1000	199	139	4.9	35×70
		199	139	4.8	40×60
		199	139	4.6	45×50
	1200	166	116	5.8	35×80
		166	116	5.5	40×70
	1500	133	93	6.9	40×80
		133	93	6.6	45×70
		133	93	6.8	45×80
	1800	111	77	7.9	40×90
	111	77	7.3	45×80	
450 (500) 2W	470	424	296	3.0	35×50
		424	296	3.0	40×40
	560	355	249	3.1	35×50
		355	249	3.3	35×60
		355	249	3.4	40×50
	680	293	205	3.5	35×60
		293	205	3.8	35×70
		293	205	3.8	40×60
	820	243	170	4.6	35×80
		243	170	4.4	40×60
	1000	199	139	5.7	35×80
		199	139	5.2	40×60
	1200	166	116	5.9	40×70
		166	116	6.2	45×70
	1500	133	93	7.3	40×100
	133	93	7.0	45×80	
1800	111	77	7.9	45×100	
500 (550) 2H	390	510	357	1.9	35×50
	470	424	296	2.3	35×60
	560	355	249	2.5	35×60
		355	249	2.7	40×60
	680	293	205	3.1	35×80
		293	205	2.8	40×70
	820	243	170	3.4	35×90
		243	170	3.3	40×70
	1000	199	139	3.9	40×80
		199	139	3.9	45×70
	1200	166	116	4.3	40×90
	1500	133	93	4.8	45×100