



**CAPACITOR
COMPETENCE**
since 1958

ALUMINUM ELECTROLYTIC CAPACITORS

ALUMINUM ELECTROLYTIC CAPACITORS · SNAP-IN TYPE

CD 892 ZL SERIES

JIANGHAI EUROPE
Electronic Components GmbH

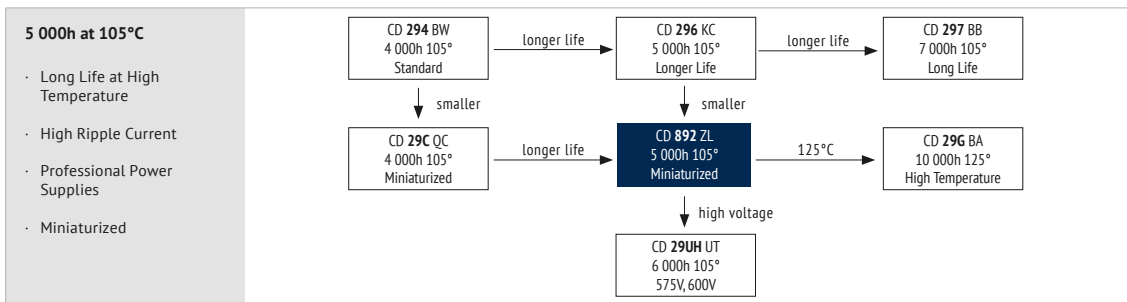


ENGINEERED SOLUTIONS

v2019.1

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ITEM CHARACTERISTICS

Operating Temperature Range (°C)	-25 - +105	
Voltage Range (V)	400 - 500	
Capacitance Range (µF)	47 - 18 000	
Capacitance Tolerance (20°C, 120Hz)	± 20%	
Leakage Current	After 5 minutes at 20°C application of rated voltage, leakage current is not more than specified in table.	
Stability at Low Temperature (Impedance Ratio at 120Hz)	Rated Voltage (V)	400 - 500
	$Z_{-25°C} / Z_{+20°C}$	4
Fast Charge-Discharge	ⓘ Please contact Jianghai for an appropriate choice of the capacitor or possible technical adaptations, esp. for applications like: Welding, Photoflash, Servo motors, X-Ray	

! The usage at lower temperatures than indicated may be possible. Please contact the Jianghai Europe sales office for approval.

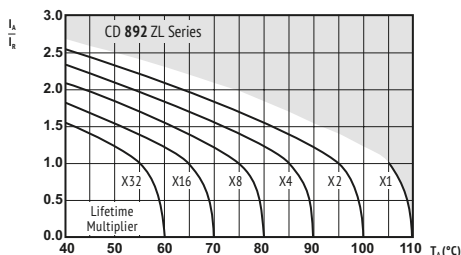
ITEM	USEFUL LIFE		LOAD LIFE	ENDURANCE TEST	SHELF LIFE	
Lifetime	5 000h	> 200 000h	3 000h	4 000h	1 000h	
Leakage Current	Not more than specified value		Not more than specified value	Not more than specified value	Not more than specified value	
Capacitance Change	Within ± 30% of initial value		Within ± 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_n I_n 105°C	U_n $1,4 \times I_n$ 40°C	U_n I_n 105°C	U_n $I_n = 0$ 105°C IEC 60384	$U_n = 0$ $I_n = 0$ 105°C	After test: U_n to be applied for 30 min > 24h before measurement

MULTIPLIER FOR RIPPLE CURRENT (FREQUENCY COEFFICIENT)

Frequency	50Hz	120Hz	300Hz	1kHz	10kHz	≥ 50 kHz
Coefficient	0,80	1,00	1,16	1,30	1,41	1,43

Multipliers for typical operating conditions.

MULTIPLIER FOR LIFETIME (LIFETIME DIAGRAM)



I_n = actual ripple current at 120Hz,
 I_n = rated ripple current at 120Hz, 105°C
Multiplier of Useful Life as a function of ambient temperature & ripple current load

ENVIRONMENTAL

The products are RoHS, WEEE and REACH compliant. The detailed version please see separate "Environmental Certificates" document or www.jianghai-europe.com

! SAFETY FACTOR

This diagram includes a safety margin. In many cases the allowed current capability/lifetime may be increased. For details and approvals please contact the Jianghai Europe sales office.

JIANGHAI EUROPE

Electronic Components GmbH



ENGINEERED SOLUTIONS

Customer specific adaptations needed? Please contact Jianghai Europe GmbH:
TELEFON: +49 (0) 2151 652088-72 | E-MAIL: INFO@JIANGHAI-EUROPE.COM

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CD 892 ZL SERIES

ALUMINUM ELECTROLYTIC CAPACITORS · SNAP-IN TYPE

U_{RDC} (Surge Voltage) Code	C_R Rated Capacitance	ESR_{max} Equivalent Series Resistance 20°C 120Hz	ESR_{typ} Equivalent Series Resistance 20°C 120Hz	$\tan\delta$ Dissipation Factor 20°C 120Hz	I_{leak} Leakage Current	I_{RAC} Rated Ripple Current 105°C 120Hz	Size øD x L (mm)	ORDER CODE ◇◇ = pin style & length △△ = pin number Details: Page 4		
400 (450) 2G	47	4233	2350	0,15	0,2	0,39	22 x 20	ECS2GZL470M◇◇△△2220		
		2427	1340	0,15	0,3	0,56	22 x 25	ECS2GZL820M◇◇△△2225		
		1990	1035	0,15	0,4	0,65	22 x 25	ECS2GZL101M◇◇△△2225		
	100	82	1990	1035	0,15	0,4	0,70	22 x 30	ECS2GZL101M◇◇△△2230	
			1990	1035	0,15	0,4	0,58	25 x 25	ECS2GZL101M◇◇△△2525	
		150	100	1990	1035	0,15	0,4	0,72	25 x 30	ECS2GZL101M◇◇△△2530
				1327	690	0,15	0,6	0,88	25 x 30	ECS2GZL151M◇◇△△2530
			120	1106	575	0,15	0,7	0,70	22 x 45	ECS2GZL181M◇◇△△2245
				1106	575	0,15	0,7	0,95	22 x 50	ECS2GZL181M◇◇△△2250
	220	150	1106	575	0,15	0,7	0,82	25 x 35	ECS2GZL181M◇◇△△2535	
			1106	575	0,15	0,7	0,78	35 x 20	ECS2GZL181M◇◇△△3520	
		220	180	905	471	0,15	0,9	1,00	25 x 45	ECS2GZL221M◇◇△△2545
				905	471	0,15	0,9	0,86	30 x 30	ECS2GZL221M◇◇△△3030
				905	471	0,15	0,9	1,10	35 x 25	ECS2GZL221M◇◇△△3525
		270	220	905	471	0,15	0,9	1,30	35 x 30	ECS2GZL221M◇◇△△3530
				737	385	0,15	1,1	1,35	25 x 45	ECS2GZL271M◇◇△△2545
				737	385	0,15	1,1	1,48	30 x 30	ECS2GZL271M◇◇△△3030
			330	270	737	385	0,15	1,1	1,58	30 x 40
603					314	0,15	1,3	1,50	25 x 50	ECS2GZL331M◇◇△△2550
603					314	0,15	1,3	1,11	30 x 40	ECS2GZL331M◇◇△△3040
390		330	603	314	0,15	1,3	1,10	35 x 30	ECS2GZL331M◇◇△△3530	
	603		314	0,15	1,3	1,70	35 x 40	ECS2GZL331M◇◇△△3540		
	470	390	511	266	0,15	1,5	1,15	30 x 45	ECS2GZL391M◇◇△△3045	
			511	266	0,15	1,5	1,26	35 x 35	ECS2GZL391M◇◇△△3535	
	560	470	424	221	0,15	1,5	1,31	30 x 50	ECS2GZL471M◇◇△△3050	
			424	221	0,15	1,5	1,50	35 x 35	ECS2GZL471M◇◇△△3535	
		820	560	424	221	0,15	1,5	2,30	35 x 40	ECS2GZL471M◇◇△△3540
				424	221	0,15	1,5	1,65	40 x 40	ECS2GZL471M◇◇△△4040
	680	560	424	221	0,15	1,5	3,30	45 x 50	ECS2GZL471M◇◇△△4550	
			356	185	0,15	1,5	1,90	30 x 45	ECS2GZL561M◇◇△△3045	
356			185	0,15	1,5	1,75	35 x 45	ECS2GZL561M◇◇△△3545		
293			153	0,15	1,5	2,20	30 x 55	ECS2GZL681M◇◇△△3055		
820		680	293	153	0,15	1,5	2,10	35 x 45	ECS2GZL681M◇◇△△3545	
			293	153	0,15	1,5	2,50	35 x 50	ECS2GZL681M◇◇△△3550	
			293	153	0,15	1,5	2,15	40 x 40	ECS2GZL681M◇◇△△4040	
			243	145	0,15	1,5	3,50	35 x 55	ECS2GZL821M◇◇△△3555	

U_{RDC} (Surge Voltage) Code	C_R Rated Capacitance	ESR_{max} Equivalent Series Resistance 20°C 120Hz	ESR_{typ} Equivalent Series Resistance 20°C 120Hz	$\tan\delta$ Dissipation Factor 20°C 120Hz	I_{leak} Leakage Current	I_{RAC} Rated Ripple Current 105°C 120Hz	Size øD x L (mm)	ORDER CODE ◇◇ = pin style & length △△ = pin number Details: Page 4			
420 (470) 2X	100	2653	1300	0,20	0,4	0,70	22 x 30	ECS2XZL101M◇◇△△2230			
		2653	1300	0,20	0,4	0,60	25 x 25	ECS2XZL101M◇◇△△2525			
		2211	1100	0,20	0,5	0,71	25 x 30	ECS2XZL121M◇◇△△2530			
	150	120	1769	890	0,20	0,6	0,78	22 x 40	ECS2XZL151M◇◇△△2240		
			1769	890	0,20	0,6	0,72	25 x 35	ECS2XZL151M◇◇△△2535		
		180	150	1769	890	0,20	0,6	0,72	30 x 25	ECS2XZL151M◇◇△△3025	
				1769	890	0,20	0,6	0,72	35 x 30	ECS2XZL151M◇◇△△3530	
			270	180	1474	737	0,20	0,8	0,81	25 x 30	ECS2XZL181M◇◇△△2530
					1206	603	0,20	0,9	0,90	25 x 40	ECS2XZL221M◇◇△△2540
	220	220	1206	603	0,20	0,9	0,85	30 x 35	ECS2XZL221M◇◇△△3035		
			1206	603	0,20	0,9	0,85	35 x 25	ECS2XZL221M◇◇△△3525		
		270	220	983	492	0,20	1,1	0,90	25 x 45	ECS2XZL271M◇◇△△2545	
				983	492	0,20	1,1	1,10	25 x 50	ECS2XZL271M◇◇△△2550	
		330	270	804	402	0,20	1,4	1,20	30 x 45	ECS2XZL331M◇◇△△3045	
				804	402	0,20	1,4	1,20	35 x 35	ECS2XZL331M◇◇△△3535	
		390	330	681	340	0,20	1,5	1,30	30 x 50	ECS2XZL391M◇◇△△3050	
				565	282	0,20	1,5	1,60	30 x 55	ECS2XZL471M◇◇△△3055	
			470	390	565	282	0,20	1,5	1,40	35 x 45	ECS2XZL471M◇◇△△3545
474					237	0,20	1,5	1,70	30 x 60	ECS2XZL561M◇◇△△3060	
680		560	474	237	0,20	1,5	1,80	35 x 55	ECS2XZL561M◇◇△△3555		
			391	196	0,20	1,5	2,50	35 x 50	ECS2XZL681M◇◇△△3550		
	820	680	391	196	0,20	1,5	3,30	35 x 55	ECS2XZL681M◇◇△△3555		

U_{RDC} (Surge Voltage) Code	C_R Rated Capacitance	ESR_{max} Equivalent Series Resistance 20°C 120Hz	ESR_{typ} Equivalent Series Resistance 20°C 120Hz	$\tan\delta$ Dissipation Factor 20°C 120Hz	I_{leak} Leakage Current	I_{RAC} Rated Ripple Current 105°C 120Hz	Size øD x L (mm)	ORDER CODE ◇◇ = pin style & length △△ = pin number Details: Page 4			
450 (500) 2W	47	5644	2890	0,20	0,2	0,35	20 x 25	ECS2WZL470M◇◇△△2025			
		5644	2890	0,20	0,2	0,42	22 x 25	ECS2WZL470M◇◇△△2225			
		3901	1951	0,20	0,3	0,55	22 x 25	ECS2WZL680M◇◇△△2225			
	82	68	3235	1618	0,20	0,4	0,50	22 x 25	ECS2WZL820M◇◇△△2225		
			2653	1327	0,20	0,5	0,60	22 x 30	ECS2WZL101M◇◇△△2230		
		100	82	2653	1327	0,20	0,5	0,64	22 x 35	ECS2WZL101M◇◇△△2235	
				2653	1327	0,20	0,5	0,80	25 x 30	ECS2WZL101M◇◇△△2530	
			120	100	2211	1106	0,20	0,5	1,00	22 x 35	ECS2WZL121M◇◇△△2235
					2211	1106	0,20	0,5	0,70	25 x 30	ECS2WZL121M◇◇△△2530
	150	120	2211	1106	0,20	0,5	0,70	30 x 25	ECS2WZL121M◇◇△△3025		
			1769	885	0,20	0,7	0,90	22 x 50	ECS2WZL151M◇◇△△2250		
		150	180	1769	885	0,20	0,7	0,73	25 x 35	ECS2WZL151M◇◇△△2535	
				1769	885	0,20	0,7	0,73	30 x 25	ECS2WZL151M◇◇△△3025	
				1474	737	0,20	0,8	1,00	22 x 40	ECS2WZL181M◇◇△△2240	
		220	180	1474	737	0,20	0,8	1,00	30 x 30	ECS2WZL181M◇◇△△3030	
				1474	737	0,20	0,8	1,00	35 x 25	ECS2WZL181M◇◇△△3525	
				1206	603	0,20	1,0	1,10	25 x 40	ECS2WZL221M◇◇△△2540	
			270	220	1206	603	0,20	1,0	1,10	30 x 30	ECS2WZL221M◇◇△△3030
983					492	0,20	1,2	0,97	25 x 50	ECS2WZL271M◇◇△△2550	
983					492	0,20	1,2	0,97	30 x 40	ECS2WZL271M◇◇△△3040	
330		270	983	492	0,20	1,2	1,30	30 x 60	ECS2WZL271M◇◇△△3060		
	983		492	0,20	1,2	1,50	35 x 30	ECS2WZL271M◇◇△△3530			
	804		402	0,20	1,5	1,30	25 x 55	ECS2WZL331M◇◇△△2555			
	390	330	804	402	0,20	1,5	1,10	30 x 45	ECS2WZL331M◇◇△△3045		
			804	402	0,20	1,5	1,18	35 x 30	ECS2WZL331M◇◇△△3530		
			804	402	0,20	1,5	1,80	35 x 35	ECS2WZL331M◇◇△△3535		

U_{RDC} (Surge Voltage) Code	C_R Rated Capacitance	ESR_{max} Equivalent Series Resistance 20°C 120Hz	ESR_{typ} Equivalent Series Resistance 20°C 120Hz	$\tan\delta$ Dissipation Factor 20°C 120Hz	I_{leak} Leakage Current	I_{RAC} Rated Ripple Current 105°C 120Hz	Size øD x L (mm)	ORDER CODE ◇◇ = pin style & length △△ = pin number Details: Page 4			
500 (550) 2H	180	1474	737	0,20	0,9	1,10	35 x 30	ECS2HZL181M◇◇△△3530			
		390	804	402	0,20	1,5	1,30	30 x 50	ECS2HZL331M◇◇△△3050		
		681	341	0,20	1,5	1,70	35 x 50	ECS2HZL391M◇◇△△3550			
	470	330	565	286	0,20	1,5	1,70	35 x 50	ECS2HZL471M◇◇△△3550		
			565	286	0,20	1,5	1,80	35 x 55	ECS2HZL471M◇◇△△3555		
		560	470	565	286	0,20	1,5	2,00	35 x 60	ECS2HZL471M◇◇△△3560	
				474	241	0,20	1,5	1,80	35 x 60	ECS2HZL561M◇◇△△3560	
			820	560	474	241	0,20	1,5	2,20	40 x 60	ECS2HZL561M◇◇△△4060
					391	200	0,20	1,5	2,50	35 x 80	ECS2HZL681M◇◇△△3580
	820	820	324	165	0,20	1,5	2,70	35 x 90	ECS2HZL821M◇◇△△3590		

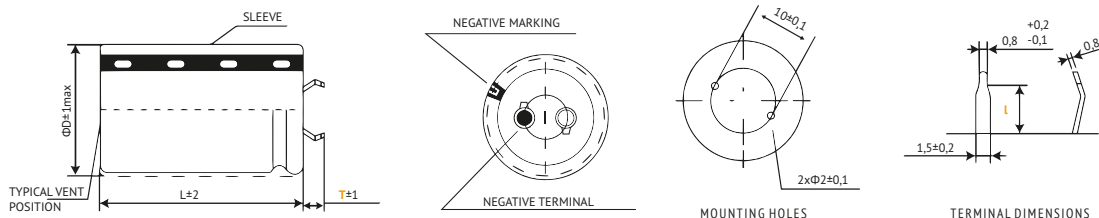


ORDER CODE SNAP-IN TYPE

EC	S	2G	QC	221	M	T6	P2	2535	-	JExxxx
Technology	Terminal Type	Rated Voltage Code	Series Code	Capacitance Code	Capacitance Tolerance	Terminal Style	Terminal / Pitch	Dimension (mm)	Material Code	for Specials only
EC Electrolytic Capacitor	Snap-In S	6,3V OJ	CD 293 BZ	0,1 OR1	±20% M	4,0mm Pin Length T/L4	2 Pin P2	22x40 2240	Standard -	
		10V 1A	CD 294 BW	0,47 R47	±10% K	6,3mm Pin Length T/L6	3 Pin P3	30x45 3045	PVC V	
		16V 1C	CD 295 BC	1,0 O10	+30/-10% Q	Soldering Pin S4	4 Pin P4	35x80 3580	PET E	
		20V 1D	CD 295S BS	2,2 2R2	+20/-0% R		5 Pin P5	45x100 45100		
		25V 1E	CD 296 KC	100 101	±15% L	on request: alternative pin types	6 Pin P6	50x105 50105		
		35V 1V	CD 296L FL	1 000 102	+20/-10% V					
		40V 1G	CD 297 BB	10 000 103						
		50V 1H	CD 299 PG							
		63V 1J	CD 29C QC							
		80V 1K	CD 29D HR							
		100V 2A	CD 29G BA							
		125V 2B	CD 29H QH							
		160V 2C	CD 29HD QF							
		180V 2K	CD 29L QL							
		200V 2D	CD 29U CU							
		250V 2E	CD 29UH UT							
		385V 2J	CD 840 ZQ							
		400V 2G	CD 891 ZI							
		415V 2P	CD 892 ZL							
		420V 2X	CD 895 ZK							
		450V 2W								
		500V 2H								
		550V 2Y								
		575V 2Z								
		600V 2S								
		630V J2								

■ = preferred

2 PIN TYPE: T6P2 / T4P2 STANDARD

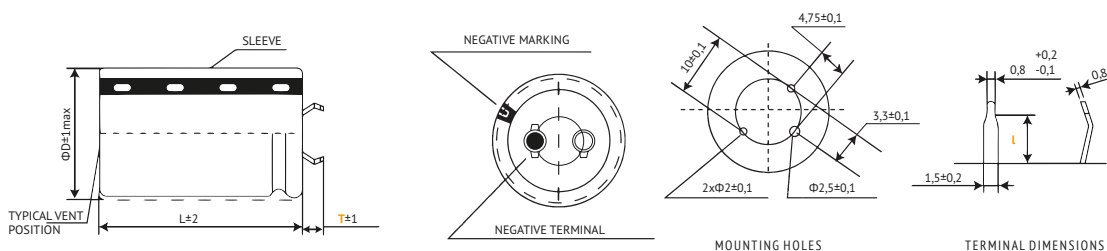


Standard Version: Self-Lock Terminal. Other terminal types and styles on request.
For diameter $\Phi D \geq 45$ mm the safety vent is typically placed at the side of the housing.

Terminal	T6 (preferred)	T4
Pin Length T	6,3 mm	4,0 mm
Pin Detail L	3,5 mm	2,5 mm

in mm

3 PIN TYPE: T4P3

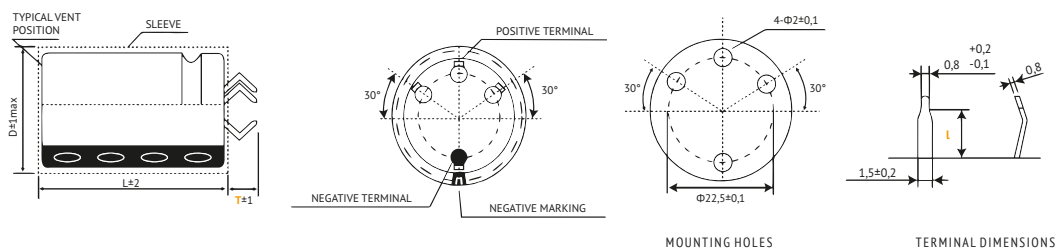


For diameter $\Phi D \geq 45$ mm the safety vent is typically placed at the side of the housing.

Terminal	T6	T4
Pin Length T	-	4,0 mm
Pin Detail L	-	2,5 mm

in mm

4 PIN TYPE: T6P4/T4P4 STANDARD



Standard Version: Non-Lock-Terminal. Other terminal types and styles on request.
For $\Phi D \geq 30$ mm only.
For diameter $\Phi D \geq 45$ mm the safety vent is typically placed at the side of the housing.

Terminal	T6 (preferred)	T4
Pin Length T	6,3 mm	4,0 mm
Pin Detail L	3,5 mm	2,5 mm

in mm

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