



**CAPACITOR
COMPETENCE**
since 1958

ALUMINUM ELECTROLYTIC CAPACITORS

ALUMINUM ELECTROLYTIC CAPACITORS · SNAP-IN TYPE

CD 295S BS SERIES

JIANGHAI EUROPE
Electronic Components GmbH

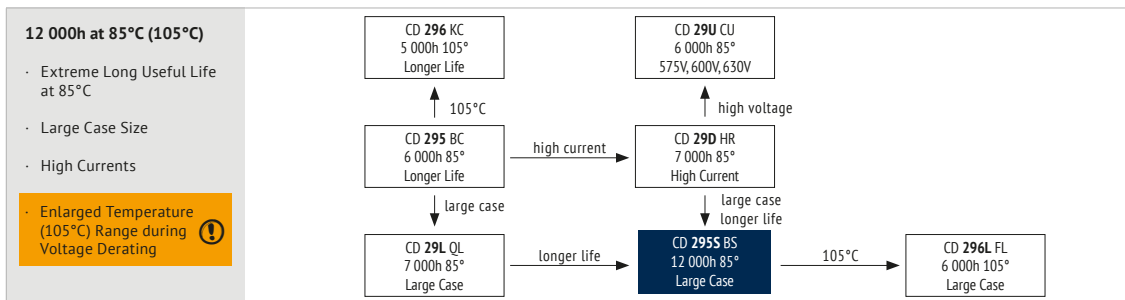


ENGINEERED SOLUTIONS

v2019.1

CD 295S BS SERIES

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ITEM CHARACTERISTICS

Operating Temperature Range (°C)	-40 ~ +85	-25 ~ +85	The usage at lower temperatures than indicated may be possible. Please contact the Jianghai Europe sales office for approval. Additionally please ask for series CD 295D ZD with temperature range -55°C ~ +85°C and 10 000h useful life.
Voltage Range (V)	160 - 400	450 - 500	
Capacitance Range (µF)	390 - 4 700		
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.

Enlarged Temperature Range: **The maximum temperature at hotspot of 105°C is allowed, if the maximum voltage is limited to 0,93*U_n (Voltage Derating)**

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	-

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**

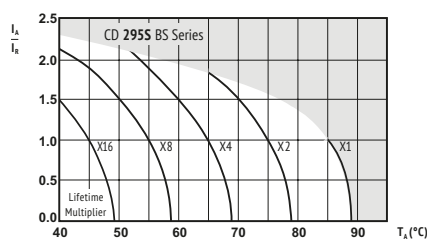
ITEM	USEFUL LIFE		LOAD LIFE	ENDURANCE TEST	SHELF LIFE	
Lifetime	12 000h	> 100 000h	5 000h	7 000h	1 000h	
Leakage Current	Not more than specified value		Not more than specified value	Not more than specified value	Not more than specified value	
Capacitance Change	Within ± 30% of initial value		Within ± 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:	U _R	U _R	U _R	U _R	U _R = 0	After test: U _R to be applied for 30 min > 24h before measurement
Applied Voltage	I _R	1,2 x I _R	I _R	I _R = 0	I _R = 0	
Applied Current	85°C	40°C	85°C	85°C	85°C	
Applied Temperature				IEC 60384		

MULTIPLIER FOR RIPPLE CURRENT (FREQUENCY COEFFICIENT)

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

Multipliers for typical operating conditions.

MULTIPLIER FOR LIFETIME (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 & 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.



CD 295S BS SERIES

ALUMINUM ELECTROLYTIC CAPACITORS · SNAP-IN TYPE

U _{RDC} (Surge Voltage) Code	C _R Rated Capacitance (μF)	ESR _{max} Equivalent Series Resistance 20°C (mΩ)	ESR _{typ} Equivalent Series Resistance 20°C (mΩ)	tanδ Dissipation Factor 20°C (mΩ)	I _{leak} Leakage Current (mA)	I _{RAC} Rated Ripple Current 85°C (Arms)	Size øD x L (mm)	ORDER CODE ◇◇ = pin style & length △△ = pin number Details: Page 4	
160 (200) 2C	2 200	91	63	0,15	1,5	4,9	35 x 45	ECS2CBS222M◇◇△△3545	
	2 700	74	52	0,15	1,5	5,3	35 x 50	ECS2CBS272M◇◇△△3550	
	3 300	61	42	0,15	1,5	5,5	35 x 70	ECS2CBS332M◇◇△△3570	
		61	42	0,15	1,5	5,5	40 x 60	ECS2CBS332M◇◇△△4060	
	3 900	52	36	0,15	1,5	5,9	35 x 80	ECS2CBS392M◇◇△△3580	
	4 700	43	30	0,15	1,5	7,3	40 x 80	ECS2CBS472M◇◇△△4080	
200 (250) 2D	1 500	133	93	0,15	1,5	4,3	35 x 40	ECS2DBS152M◇◇△△3540	
		111	77	0,15	1,5	4,7	35 x 45	ECS2DBS182M◇◇△△3545	
	2 200	91	63	0,15	1,5	5,4	35 x 50	ECS2DBS222M◇◇△△3550	
		91	63	0,15	1,5	5,4	40 x 40	ECS2DBS222M◇◇△△4040	
	2 700	74	52	0,15	1,5	5,9	35 x 60	ECS2DBS272M◇◇△△3560	
		74	52	0,15	1,5	5,9	40 x 50	ECS2DBS272M◇◇△△4050	
	3 300	61	42	0,15	1,5	6,5	35 x 80	ECS2DBS332M◇◇△△3580	
		61	42	0,15	1,5	6,5	40 x 60	ECS2DBS332M◇◇△△4060	
	3 900	52	36	0,15	1,5	7,0	40 x 80	ECS2DBS392M◇◇△△4080	
	4 700	43	30	0,15	1,5	9,2	40 x 90	ECS2DBS472M◇◇△△4090	
	250 (300) 2E	1 000	199	139	0,15	1,5	3,7	35 x 40	ECS2EBS102M◇◇△△3540
		1 200	166	116	0,15	1,5	3,8	35 x 45	ECS2EBS122M◇◇△△3545
133			93	0,15	1,5	4,4	35 x 50	ECS2EBS152M◇◇△△3550	
1 500		133	93	0,15	1,5	4,5	40 x 40	ECS2EBS152M◇◇△△4040	
		111	77	0,15	1,5	5,0	35 x 70	ECS2EBS182M◇◇△△3570	
1 800		111	77	0,15	1,5	5,0	40 x 50	ECS2EBS182M◇◇△△4050	
		91	63	0,15	1,5	5,4	35 x 70	ECS2EBS222M◇◇△△3570	
2 700		74	52	0,15	1,5	6,9	40 x 80	ECS2EBS272M◇◇△△4080	
350 (400) 2V	680	293	205	0,15	1,5	3,6	35 x 45	ECS2VBS681M◇◇△△3545	
		293	205	0,15	1,5	3,6	40 x 40	ECS2VBS681M◇◇△△4040	
	820	243	170	0,15	1,5	4,5	35 x 60	ECS2VBS821M◇◇△△3560	
		243	170	0,15	1,5	4,5	40 x 50	ECS2VBS821M◇◇△△4050	
	1 000	199	139	0,15	1,5	5,2	35 x 70	ECS2VBS102M◇◇△△3570	
		199	139	0,15	1,5	4,9	40 x 60	ECS2VBS102M◇◇△△4060	
	1 200	166	116	0,15	1,5	5,5	35 x 80	ECS2VBS122M◇◇△△3580	
		166	116	0,15	1,5	5,6	40 x 70	ECS2VBS122M◇◇△△4070	
	1 500	133	93	0,15	1,5	6,5	40 x 80	ECS2VBS152M◇◇△△4080	
		133	93	0,15	1,5	6,2	45 x 70	ECS2VBS152M◇◇△△4570	
	1 800	111	77	0,15	1,5	7,9	40 x 100	ECS2VBS182M◇◇△△40100	
		111	77	0,15	1,5	7,1	45 x 70	ECS2VBS182M◇◇△△4570	
	2 200	91	63	0,15	1,5	8,7	40 x 100	ECS2VBS222M◇◇△△40100	
	400 (450) 2G	560	356	249	0,15	1,5	3,2	35 x 50	ECS2GBS561M◇◇△△3550
356			249	0,15	1,5	2,8	40 x 40	ECS2GBS561M◇◇△△4040	
680		293	205	0,15	1,5	3,7	35 x 60	ECS2GBS681M◇◇△△3560	
		293	205	0,15	1,5	3,8	40 x 50	ECS2GBS681M◇◇△△4050	
820		243	170	0,15	1,5	4,2	35 x 60	ECS2GBS821M◇◇△△3560	
		243	170	0,15	1,5	4,1	40 x 50	ECS2GBS821M◇◇△△4050	
1 000		199	139	0,15	1,5	4,9	35 x 70	ECS2GBS102M◇◇△△3570	
		199	139	0,15	1,5	4,8	40 x 60	ECS2GBS102M◇◇△△4060	
1 200		199	139	0,15	1,5	4,6	45 x 50	ECS2GBS102M◇◇△△4550	
		166	116	0,15	1,5	5,8	35 x 80	ECS2GBS122M◇◇△△3580	
1 500		166	116	0,15	1,5	5,5	40 x 70	ECS2GBS122M◇◇△△4070	
		133	93	0,15	1,5	6,6	40 x 80	ECS2GBS152M◇◇△△4080	
1 800		133	93	0,15	1,5	6,6	45 x 70	ECS2GBS152M◇◇△△4570	
		133	93	0,15	1,5	6,8	45 x 80	ECS2GBS152M◇◇△△4580	
1 800		111	77	0,15	1,5	7,9	40 x 90	ECS2GBS182M◇◇△△4090	
		111	77	0,15	1,5	7,3	45 x 80	ECS2GBS182M◇◇△△4580	
450 (500) 2W		470	424	296	0,15	1,5	3,0	35 x 50	ECS2WBS471M◇◇△△3550
			424	296	0,15	1,5	3,0	40 x 40	ECS2WBS471M◇◇△△4040
	560	356	249	0,15	1,5	3,1	35 x 50	ECS2WBS561M◇◇△△3550	
		356	249	0,15	1,5	3,3	35 x 60	ECS2WBS561M◇◇△△3560	
	680	356	249	0,15	1,5	3,4	40 x 50	ECS2WBS561M◇◇△△4050	
		293	205	0,15	1,5	3,5	35 x 60	ECS2WBS681M◇◇△△3560	
	820	293	205	0,15	1,5	3,8	35 x 70	ECS2WBS681M◇◇△△3570	
		293	205	0,15	1,5	3,8	40 x 60	ECS2WBS681M◇◇△△4060	
	820	243	170	0,15	1,5	4,6	35 x 80	ECS2WBS821M◇◇△△3580	
		243	170	0,15	1,5	4,4	40 x 60	ECS2WBS821M◇◇△△4060	

U _{RDC} (Surge Voltage) Code	C _R Rated Capacitance (μF)	ESR _{max} Equivalent Series Resistance 20°C (mΩ)	ESR _{typ} Equivalent Series Resistance 20°C (mΩ)	tanδ Dissipation Factor 20°C (mΩ)	I _{leak} Leakage Current (mA)	I _{RAC} Rated Ripple Current 85°C (Arms)	Size øD x L (mm)	ORDER CODE ◇◇ = pin style & length △△ = pin number Details: Page 4
450 (500) 2W	1 000	199	139	0,15	1,5	5,7	35 x 80	ECS2WBS102M◇◇△△3580
		199	139	0,15	1,5	5,2	40 x 60	ECS2WBS102M◇◇△△4060
	1 200	166	116	0,15	1,5	5,9	40 x 70	ECS2WBS122M◇◇△△4070
		166	116	0,15	1,5	6,2	45 x 70	ECS2WBS122M◇◇△△4570
	1 500	133	93	0,15	1,5	7,3	40 x 100	ECS2WBS152M◇◇△△40100
		133	93	0,15	1,5	7,0	45 x 80	ECS2WBS152M◇◇△△4580
1 800	111	77	0,15	1,5	7,9	45 x 100	ECS2WBS182M◇◇△△45100	
500 (550) 2H	390	511	357	0,15	1,5	1,9	35 x 50	ECS2HBS391M◇◇△△3550
	470	424	296	0,15	1,5	2,3	35 x 60	ECS2HBS471M◇◇△△3560
		356	249	0,15	1,5	2,5	35 x 60	ECS2HBS561M◇◇△△3560
	560	356	249	0,15	1,5	2,7	40 x 60	ECS2HBS561M◇◇△△4060
		293	205	0,15	1,5	3,1	35 x 60	ECS2HBS681M◇◇△△3560
	680	293	205	0,15	1,5	2,8	40 x 70	ECS2HBS681M◇◇△△4070
		243	170	0,15	1,5	3,4	35 x 90	ECS2HBS821M◇◇△△3590
	820	243	170	0,15	1,5	3,3	40 x 70	ECS2HBS821M◇◇△△4070
		199	139	0,15	1,5	3,9	40 x 80	ECS2HBS102M◇◇△△4080
	1 000	199	139	0,15	1,5	3,9	45 x 70	ECS2HBS102M◇◇△△4570
		166	116	0,15	1,5	4,3	40 x 90	ECS2HBS122M◇◇△△4090
	1 500	133	93	0,15	1,5	4,8	45 x 100	ECS2HBS152M◇◇△△45100



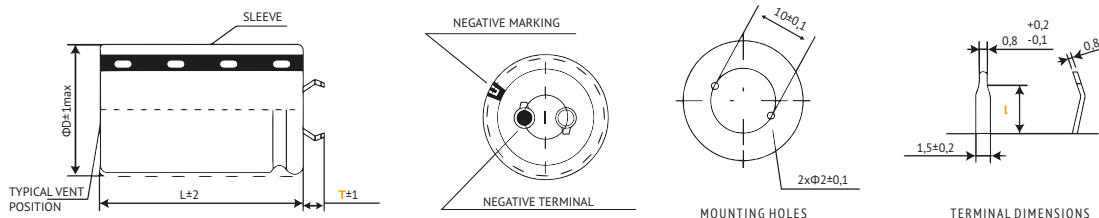
ORDER CODE SNAP-IN TYPE

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 1J								

■ = preferred



2 PIN TYPE: T6P2 / T4P2 STANDARD

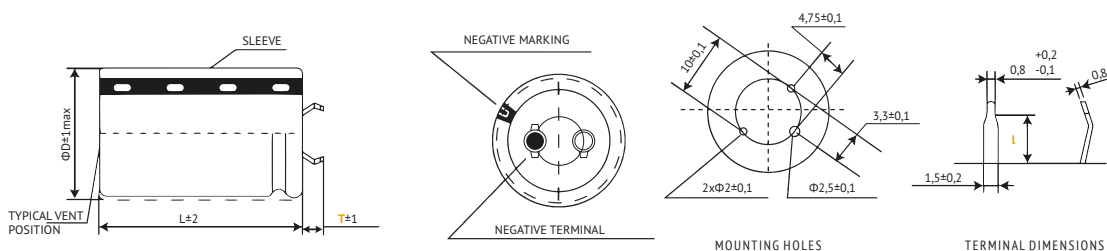


Standard Version: Self-Lock Terminal. Other terminal types and styles on request.
For diameter $\Phi D \geq 45 \text{ mm}$ the safety vent is typically placed at the side of the housing.

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

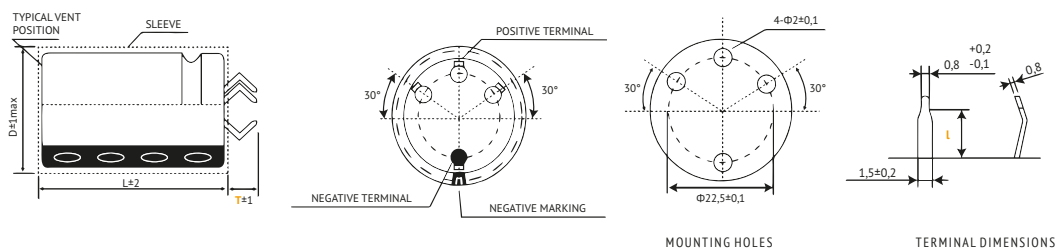


For diameter $\Phi D \geq 45 \text{ mm}$ the safety vent is typically placed at the side of the housing.

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 $\Phi D \geq 30 \text{ mm}$ only.
For diameter $\Phi D \geq 45 \text{ mm}$ 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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