

铝 电 解 电 容 器
ALUMINUM ELECTROLYTIC CAPACITORS

Product specification

产 品 规 格 书

产品系列(Products Series): YDK-CD136

产品规格(Products specification): 450V4700uF ±20%77*130mm

105°C (CHINA standard 2000H)

105°C MAX 4000H

(ENSURE 40000H) OPERATUIN AT 40°C LIFE: 5 年

(MAX 90000H) 40°C LITE 10 年=10*365*24H

电容的寿命同时也受其他的参数影响, 比如纹波电流, 使用温度, 频率 ...

认定结论 Test Result	
贵司认定盖章 Approval Signatures	

编号 (Number): YDK110803085

编 制 Designed	核 准 Approved	日 期 Date
张贺	君野	2011-08-03

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深圳市雅达康电子科技有限公司

SHENZHEN YADACON ELECT TECH CO.,LTD 1/5

铝 电 解 电 容 器

ALUMINUM ELECTROLYTIC CAPACITORS

● 铝电解电容器使用说明 Notes for use of aluminum electronic capacitors	
1.在电器回路不清楚或不明确线路之极性时,则建议使用无极性电解电容器。	1.If circuit polarities are uncertain, Non-polar capacitors are recommended.
2.无极性(或二极管)电解电容器,可使用在极性转换的回路或直流回路上。	2.Non-polar (or Bi-polar) capacitors can be used in polarity-changing circuits or DC circuits.
3.单极性电解电容器只能使用在直流电路上,其极性必需标明在适当之位置或在导针/端子之旁边。	3.Polarized capacitors can be used in DC circuits only. Its polarity must be marked on the proper side of wire/terminal.
4.电解电容器应储存于低温及干燥之处所。	4.Capacitors should be stored at a place of cool and dry.
5.电解电容器不可使用在周围温度超过标示之使用温度范围。	5.Capacitors cannot be used in a place of ambient temperature exceeding its marked temperature.
6.电解电容器不适用于超过可容许纹波电流范围之回路之上,假如有需要耐高温纹波电流之电解电容器,请与我们联系洽商详情	6.Capacitors cannot be used in a circuit where ripple current exceeds its allowed range. Please contact us if you have requirement for high temperature and ripple current capacitors
7.电解电容器经长久储存,如果漏电流超出规格值,使用前应以额定电压重新再老化 30~60 分钟。	7.If capacitors have been stored for a long time and its leakage current exceeds the specified value, please recharge for 30 to 60 minutes with rated voltage before using.
8.电解电容器一般品不适用于骤然间之充放电,如需使用在快速充放电的场合,请与我们联系洽商。	8.Capacitors cannot be used in a circuit charge or discharge, If use in a circuit of sudden charge is required, please contact us.
9.使用于电解电容器之工作电压,不得超过额定电压。	9.Application of working voltage to capacitors should not exceed its rated voltage.
10.为了保护电解电容器之内部结构,其导针或端子不容许过分之拉力或承受的拉力,请参考 JIS C 5102。	10.In order to protect the internal structure, capacitors cannot be applied with over pull-force. Please refer to JIS C 5102.
11.电烙铁应与电容器塑胶套管保持适当距离,以防止过热造成塑胶套管破裂。	11. Soldering iron should be kept in a suitable distance from vinyl sleeve of capacitor in order to avoid sleeve crack.
12.电解电容器经波峰焊锡之程序,其焊锡槽之温度绝对不容许超过 260℃±10℃,时间 10 秒钟。	12.For peak soldering, the solder temperature should not exceed 260℃±10℃ for 10 seconds.
13.为了保护塑胶套管、印刷标示以及封口材料不被破坏,电解电容器不得以卤化化学药品或类似溶剂,作为电解电容器洗涤之用,如三氯乙烯、二甲苯类或酮类等。	13.In order to protect PVC sleeve, printed marks and sealing material, capacitors can not be cleaned with halogenated chemicals or similar solvent such as trichlorethylene, Xylene or Acetone, etc.
14.本司规格之电容,品质依照 JIS C 5141 标准。	14.Quality of our capacitors is in accordance with JIS C 5141.
15.本公司之信赖性试验方法, JIS C 5102 标准。	15.Reliability test methods for our capacitors are in accordance with JIS C 5102.
16.本公司在生产过程中不使用破坏臭氧层之药品。	16.None of Ozone Depleting Chemicals (ODC) is used in any manufacturing processes of yadacon Company.

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铝 电 解 电 容 器

ALUMINUM ELECTROLYTIC CAPACITORS

1. 产品名称(Products Name):

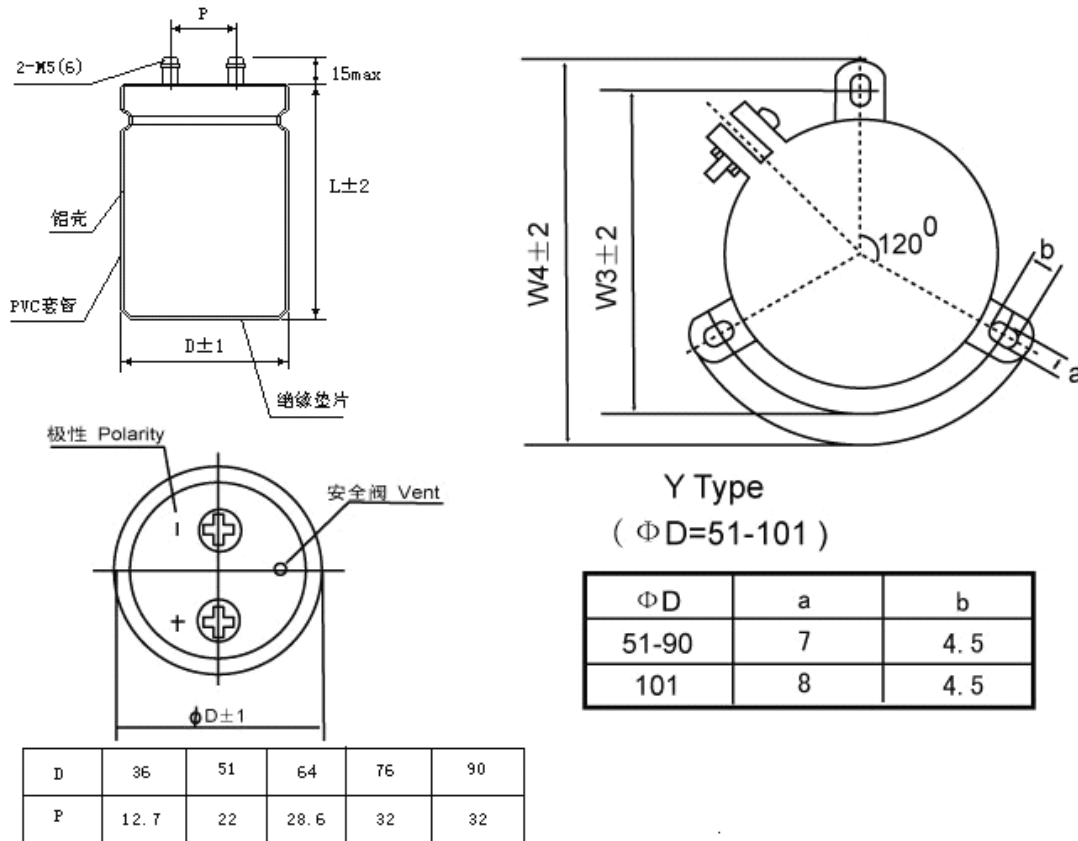
YDK-CD136 系列铝电解电容器

YDK-CD136series aluminum electrolytic capacitors

2. 产品外形及安装(Products Configuration and Installation):

圆柱形、金属外壳、单向引出、引出方式为螺栓式,有极性、有压力释放装置(采用点动防燃装置,当电容器内压增加或产品发生击穿时不会有易燃品飞出)。采用卡环固定安装,不适用于直接安装在线路板上。

Cylindrical form, metal case, unidirectional leads, derivative fashion is screw, polarity, press release device (It is from a point. When the capacitor's internal pressure was increased or product was broken ,inflammable materials will not fly down)。Adoption card wreath fix install, not well used for direct install Circuit plank top



3.适用范围及特征(The Scope and Characteristics):

该产品主要应用于工业变频器、UPS 电源、整流电源等电子设备的开关电源电路。具有可靠性高,能承受大纹波电流等特点。壳号可根据顾客要求适当调整。(The products are mainly used in Disply, Inverter, UPS Electrical Source and other Switching power supply circuits of electronic equipments. They have high reliability, withstand the large ripple current and other characteristics. Case can be adjusted appropriate under the request of the customer.)

4. 性能要求(Performance Requirements):

项目 Item	特征 Characteristics
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ALUMINUM ELECTROLYTIC CAPACITORS

环境温度 Operating Temperature Rang (°C)	-40°C~105°C(300~600wv,-25°C~105°C)		
静电容量变化率 Capacitance Tolerance (20°C \\120Hz)	±20%		
漏电流 Leakage Current (μ A)	0.01CV or 5mA,whichever is smaller. 取小值 (at 20°C,after 5 minutes 5 分钟后)C:Nominal Capacitance (μ F),V:Rated Voltage(V)		
损失角正切值 Dissipation Factor(20°C 、 120Hz)	小于规格表值 Less than the value specified in the standed Products tables		
寿命试验 Load Life	+105°C	2000h	
	+95°C	4000h	
	+85°C	8000h	
	+75°C	16000h	
	+65°C	32000h	
	+40°C	40000h	
	漏电流 Leakage current	小于规定值 Not more than the specidied value	
	容量变化率 Capacitance change	初始值的±20%以内 Within ±20%of the initial value	
	损失角正切值 Dissipation Factor	不大于 2 倍规定值 Not more than 200% of specified value	
贮存试验 Shelf Life (+105°C)	时间 Time	2000h	
	漏电流 Leakage current	小于规定值 Not more than the specidied value	
	容量变化率 Capacitance change	初始值的±20%以内 Within ±20%of the initial value	
	损失角正切值 Dissipation Factor	不大于 2 倍规定值 Not more than200% of specified value	
	After test:uR to be applied for 30 minutes,12 to 24 hours before measurement 试验后: 施加额定电压 30 分钟, 放置 12~24 小时后测试		
标准 Standards	GB/T 2693-2001 总规范 (General norms) GB/T 5993-2003 分规范 (Sub-standard) GB/T 5994-2003 空白详细规范(Blank detailed standard) Q/YDK.004-2005 YDK-CD136 型铝电解电容器 YDK-CD136 series aluminum electrolytic capacitors		

5. 规格表(Specification Table)

额定电压 Rated	标称静电容 量	漏电流 Leakage	损耗角正切 Dissipation	允许纹波电流 Ripple Current	外形尺寸 Size
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Voltage VDC	Cap (μ F)	Curent (μ A)	Factor tan(δ)	(Arms)	Φ D*L (mm)
450	4700	5000	0.2	12.94	77*130

漏 电 流(Leakage Curent): 20°C, 2 分钟测试(2-minute test)

损耗角正切(tg δ): 20°C, 120Hz

纹波电流(Ripple Current): 105°C, 120Hz

6. 纹波电流校正系数 MUTIPLIER FOR RIPPLE CURRENT

Frequency coefficient

Frequency(HZ)	50	120	300	1K	3K	5K	10K	20K
Rated Voltage(V)								
10-50	0.95	1.00	1.04	1.10	1.12	1.13	1.15	1.15
63-100	0.95	1.00	1.06	1.16	1.20	1.25	1.30	1.36
160-200	0.90	1.00	1.10	1.20	1.35	1.40	1.48	1.52
250-450	0.80	1.00	1.10	1.20	1.35	1.40	1.50	1.55
500-600	0.76	1.00	1.15	1.30	1.40	1.45	1.55	1.58

Temperature coefficient

Temperature(°C)	+40	+55	+70	+85	+105
Rated Voltage(V)					
10-100	2.5	2.1	1.8	1.5	1.0
160-450	3.1	2.6	2.2	1.7	1.0
500-600	3.4	2.8	2.4	1.9	1.0

7 电感内阻频率 (INDUCTANCE ESR FREQUANCY)

频率 (HZ)	120	1K	10K
ESR (欧姆)	0.045	0.040	0.038
ESL电感 (nH)	23		

8. 印记 MARKING

商标名称: Trademark name : YDK

系列 Series: YDK-CD136

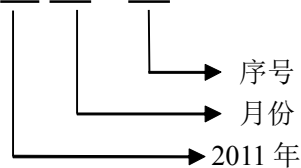
标称电压和容量 Rated voltage and nominal capacitance:

400V4700uF \pm 20% 77*130MM

套管颜色 Sleeve color: black 黑色

印记颜色 Marking color:white 白色

日期代码 Date code: 11 01 01



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