规 格 承 认 书

SPECIFICATION FOR APPROVAL

产品名称 Product Name	高频交流滤波电容 Heavy-Duty AC filter capacitor
客户产品型号 Customer Specification	---
客户产品编码 Customer Part No.	
产品型号 Specification	YZPST-FFC3SY 850-55.8
产品编码 Part No.	

1、产品特性 Product Features

- 可承受高有效值电流、高峰值电流 High Irms rating/ High Ipeak rating
- 自感低 Low self-inductance
- 可靠性高，使用寿命长 High reliability and long life expectancy
- 有自愈特性，采用金属化聚丙烯膜设计 Design of metallized polypropylene film with self-healing property
- 无极性介质 Non-polar

2、技术参数 Technical parameters

引用标准 Reference standard	GB/T17702,IEC61071
工作温度范围 Operation temperature range	-40℃～85℃
存储温度范围 Storage temperature range	-40℃～85℃
运行湿度 Operation Humidity	≤95%
阻燃等级 Flame retardant grade	UL94-V0
额定电压(Urms)	Urms=850Vac
额定电容量（Cn）	3*55.8uF（25℃,100Hz）
电容量允许偏差 Tolerance	±5%（J）
耐电压 Voltage Test	Ut-t 2.15Urms（10s，25℃）
	Ut-c 3800VAC (10s，50Hz，25℃)
损耗角正切 Loss angle of the capacitor tanδ	≤0.0010（25℃，100Hz）
介质损耗角正切 Dielectric loss factor $\tan\delta_0$	2×10^{-4}
等效串联电感（ESL）	≤130nH(1MHz，25℃)
等效串联电阻（ESR）	≤3.0mΩ(10KHz，25℃)
热阻 Rth	2.4℃/W hot-spot/Amb
有效值电流 Irms	45A (45℃)
过电压 Overvoltage	1.1Urms（30% of on_load_duration）
	1.15Urms（30min/day）
	1.2Urms（5min/day）
	1.3Urms（1min/day）
	1.5Urms (30ms every time，1000times during the life of the capacitor)
灌封料 Impregnation	Oil type
介质 Dielectric	金属化聚丙烯薄膜 Polypropylene film
工作最高海拔 Altitude	≤2000m

Please visit us on: www.yzpst.net www.yzpst.com E-mail: info@yzpst.com https://www.facebook.com/yzpst
https://www.linkedin.com/company/yzpst https://www.youtube.com/c/YangzhouPositioningTechCoLtd

引出方式 Lead type	三相角接 Three phase, Delta connection
预期寿命 Life expectancy	100,000h（Urms，Th≤70℃）

备注：Remarks:

1) *$\theta_{ambient}$:电容器周围温度，测试点为距离外壳 10cm 并且高度为电容器高度 2/3 的位置。

The temperature around the capacitor is 10 cm away from the shell and 2/3 of the height of the capacitor.

2) *ESR：一个有效电阻，当串联连接于一个理想电容器、其电容值与所探讨的电容器的电容值相等时，在规定运行条件下，其产生的损耗功率与电容器内消耗的有功功率相等。

An effective resistor, when connected in series to an ideal capacitor and its capacitance value is equal to the capacitance value of the capacitor discussed, generates the same loss power as the active power consumed in the capacitor under specified operating conditions.

3) * Th：产品核心温度 Product Core Temperature$\theta_{hotspot} \approx \theta_{ambient} + Irms^2 \times ESR \times R_{th}$

3、产品代码说明 Part No. Description

1	2-5	6	7-10	11	12	13	14	15	16	17	18	19
Series	Un	Type	Cn	Cn unit	Tolerance	Connection	Case	Terminal	Φ	H	Filling	Protection
L	0850	F	0560	U	J	D	1	R	K	U	2	P
FFC	Vrms	AC filter	55.8*10^0	μF	±5%	Three-Phase	Al.	Type R	Φ136	230	Oil	Over-pressure

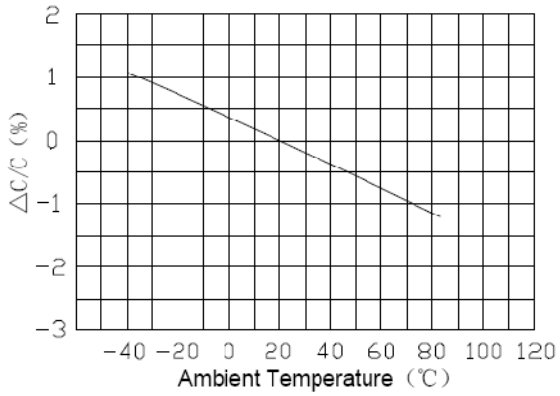
4、电容器使用海拔高度与电流降额系数的关系

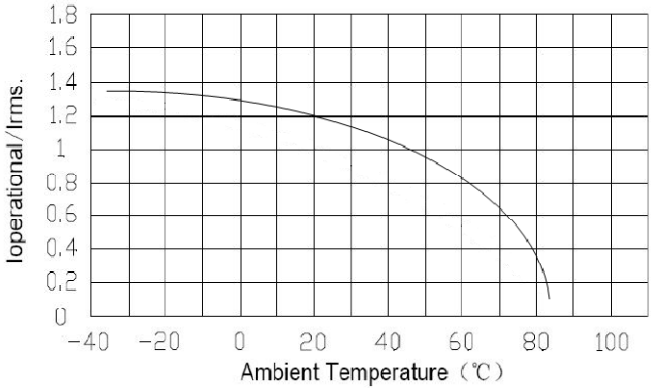
The current derating against altitude

海拔高度 Altitude	电流降额系数 Current derating factor
2500m	0.90
3000m	0.88
3500m	0.85
4000m	0.81
5000m	0.76

5、特征图表 Feature graph

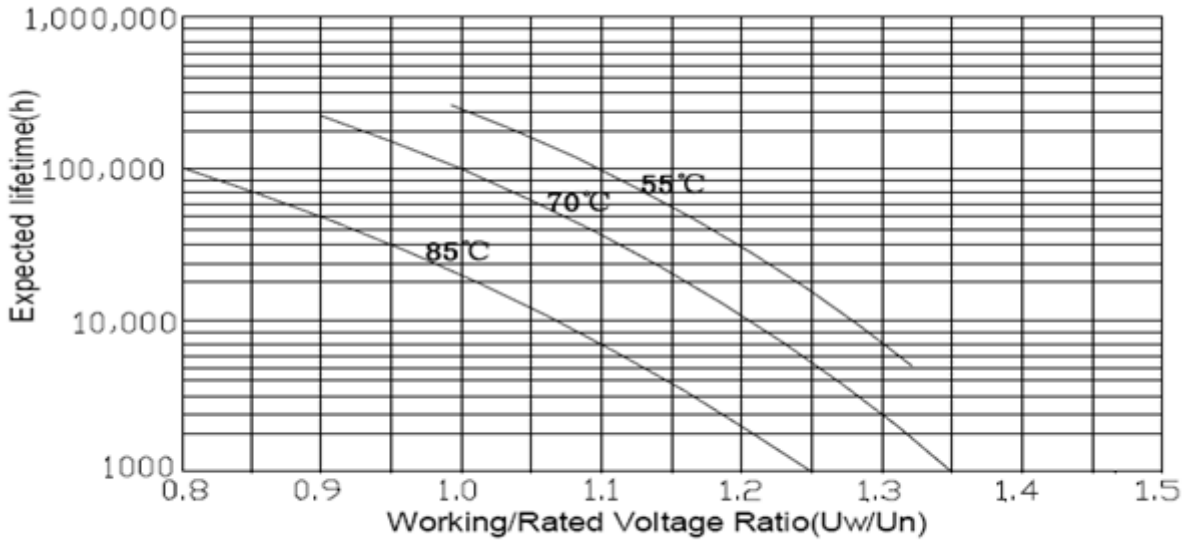
5.1 电容量随环境温度变化曲线 The graph of Capacitance VS Ambient Temperature





5.2 电流与运行温度之间的曲线 The graph of Imax VS operation temperature

5.3 预期寿命曲线 The graph of Life expectancy



备注：此处温度为产品核心温度($T_{hotpsot}$)

Remark: The temperature in this graph is the hotspot temperature of the capacitor.

6. 测试项目 Test Items

型式试验测试 Type test

序号 No.	项目 Test Item	性能要求 Requirements	测试标准和条件 Test standard and condition
1	振动 Vibration	外观无可见损伤； No visible damage	f=10～55Hz；a=±0.35mm 每一轴向实验持续时间为10个频率周期（3个轴向互成90°），每分钟一倍频程 f=10～55Hz；a=±0.35mm Test duration per axis = 10 frequency cycles (3 axes offset from each other by 90°), 1 octave/min
2	温度快速变化 Environmental	外观无可见损伤， Δ C/C≤±1%，损耗角正切：（100Hz） Δtanδ≤1.2×tgδ0（初始测量值）+1×10^{-4} No visible damage Δ C/C≤±1%，tgδ≤1.2×tanδ0+1×10^{-4} (100Hz)	θA=-40℃，θB=+85℃ 5次循环 持续时间：t=2h,中间切换时间≤3min θA =-40℃, θB =+85℃ 5cycles Duration: 2 hours, switchine period≤3min
3	热稳定实验 Thermal stability	电容量C：（100 Hz） Δ C /C0≤±0.5% 损耗角正切tanδ（100 Hz） tanδ≤1.2× tanδ0+1×10^{-4} Δ C/C < ±0.5%， tanδ≤1.2×tgδ0+1×10^{-4} at 100Hz	试验温度：常温 电容电流：Irms (Irms@常温) 纹波频率：10KHz（或客户要求） 实验时最后1h，至少测量4次电容外壳温度，温升增加量应小于1℃，时间：≥8h Test temperature：normal temperature Applied current：1Irms Frequency：10KHz Duration: ≥8h During the last 1 hour, the case temperature shall be measured at least 4 times; throughout this period of 1 hour, the temperature rise shall not increase by more than 1 K.
4	稳态湿热 Damp heat, Steady state	外观无可见损伤，Δ C/C≤±5% tanδ≤1.2×tgδ0（初始值）+1×10-4 绝缘电阻IR :≥额定值得50%(100Hz) No visible damage Δ C/C≤±5% tanδ≤1.2×tanδ0+1×10-4 RC≥ RC0 * 50% at 100Hz	温度：40℃±2℃ 湿度：80%～85%RH 持续时间：56天 Temperature: 40℃±2℃ Humidity:80%～85%RH Duration: 66 days
5	耐久性测试 Endurance	Δ C/C≦±3% tanδ≤1.2×tanδ0+1×10-4	在1.35Urms，70℃条件下运行250h后进行充放电实验，放电电流：1.4Ip，次数：1000次，再在1.35Urms，70℃条件下运行250h Apply 1.35Un, 70℃, running 250hours; discharge by 1.4Ip, 1000 times; Apply 1.35Un, 70℃, running 250hours

7、包装和运输 Packaging and transportation

包装好的电容器允许任何运输方式，但是要避免接触雨水，雪和机械损伤。

The packed capacitors can be transported by any way. But should avoid mechanical damage and keep away from rain and snow.

8、注意事项 Matters needing attention

1) 该电容器没有内置电阻，所以电容器内部可能会残留致命的电荷，使用前请先用电阻放电，不允许使用短路线直接放电，电容器不使用时需短接两极端子防止电荷残留。

There's no internal discharge resistor in this capacitor. Lethal electric power may remain inside. Please discharge it by resistor before using. Direct discharge by short-circuit is not permitted.

2) 定期检查电容端子的松紧程度。

Check the tightness of the capacitor connection regularly.

3) 产品要求室内立式固定安装（端子朝上）；安装环境污秽等级Ⅲ级；产品在粉尘较多的环境中，需定期维护和清洁电极间的粉尘，避免两极之间短路。

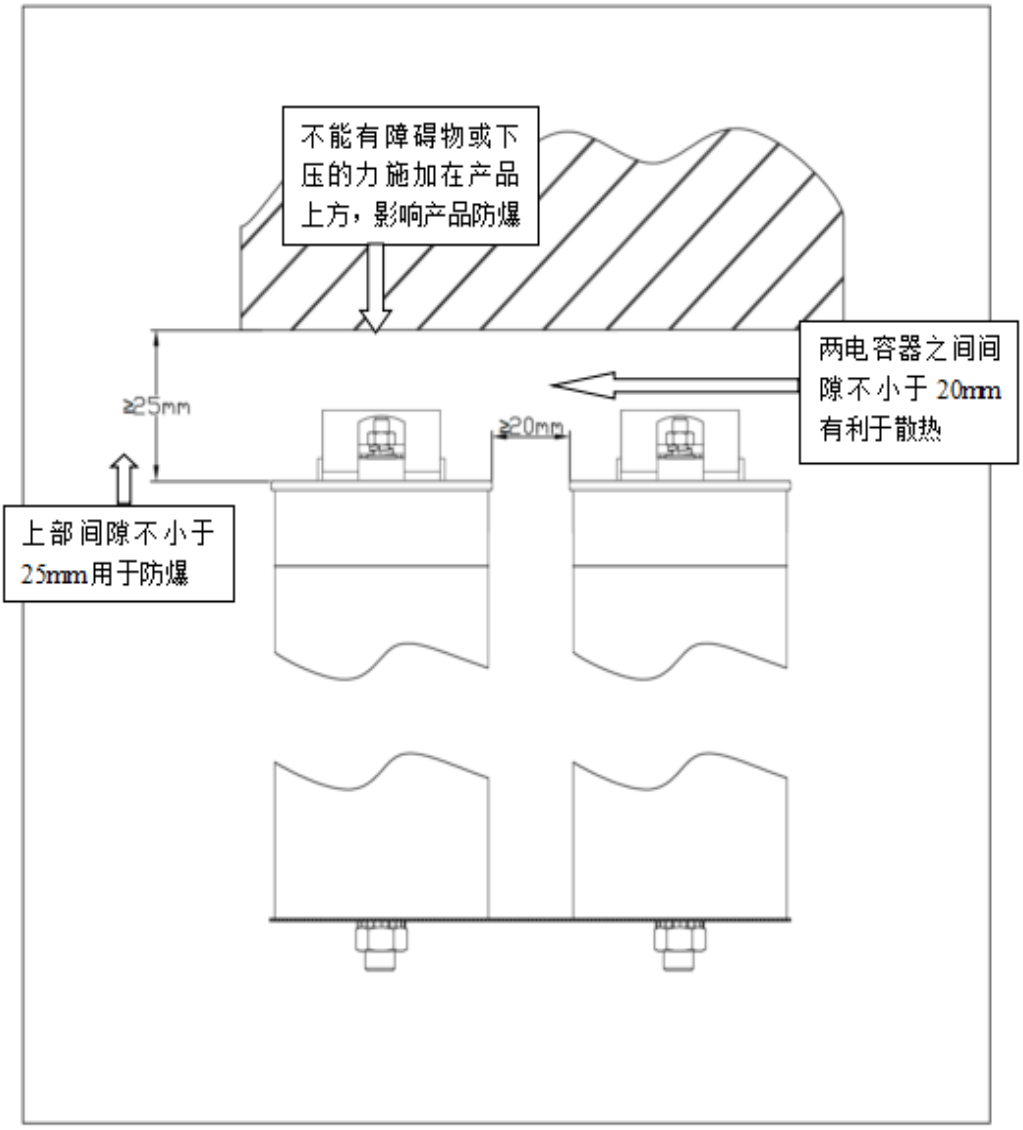
The product should be installed in upright direction indoor (terminals facing upwards); permitted installation environment grade is pollution grade III; in the environment with more dust, When the capacitor be used in the dusty environment, regularly cleaning of the dusty on the terminals is necessary, to avoid occur of short circuit between terminals.

4) 如果电容器有超过 1mm 深的凹坑或其他机械损伤，请不要使用该电容器。

Do not use the capacitor if it has pits or other mechanical damage more than 1mm deep.

5) 有任何疑问或者需要更多详细的信息，请随时联系我们的技术服务部门。If there's any questions or need more detailed information, please feel free to contact our technical services department

9、安装指引 Guide on installation



10、产品图纸 Product outline drawing