规 格 承 认 书

SPECIFICATIONFOR APPROVAL

产品名称 Product Name	直流支撑电容 DCL-LINK CAPACITOR
客户产品型号 Customer Specification	---
客户产品编码 Customer Part No.	---
胜业产品型号 Sheng Ye Specification	**SNUT1SY1000-1**
胜业产品编码 Sheng Ye Part No.	--

厂商认可

客户名称 Customer	**Platan**
客户确认 APPROVED	

胜业股份电气有限公司 ShengYe Electric Co.,ltd			
拟制： DRAWN Liang Senwei	审核： CHECK He Zhikang	批准： APPROVED Luo Jiefeng	日期 Issue Date 2024/11/7

胜业电气股份有限公司 PEC技术部 SHENGYE ELECTRIC CO.,LTD

胜业电气股份有限公司 Sheng Ye Electric Co.,ltd

地址：广东省佛山市顺德区伦教新熹四路四号

Add：No.4, Lunjiao Xinxi 4th Road, Shunde, Foshan City ,Guangdong PR.China

TEL：0086-757-27830197 FAX：0086-757-27830135

Mail：pec.en1@shengye.com Web: www.shengye.com

版本更新记录 Version update records				
现有版本 Version	前版本 Original Version	日期 Date	编写者 Drawn	更改内容 Description
A 版	---	2024-11-7	Liang Senwei	First Version

目录 content

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 典型应用 Typical applications

- 高性能直流支撑、直流滤波、储能等 High quality DC-Link, DC filter, ESS, etc
- 工业和高端电源 Industry and high-level power supply
- 变频器 Frequency converter
- 光伏逆变器 PV inverter

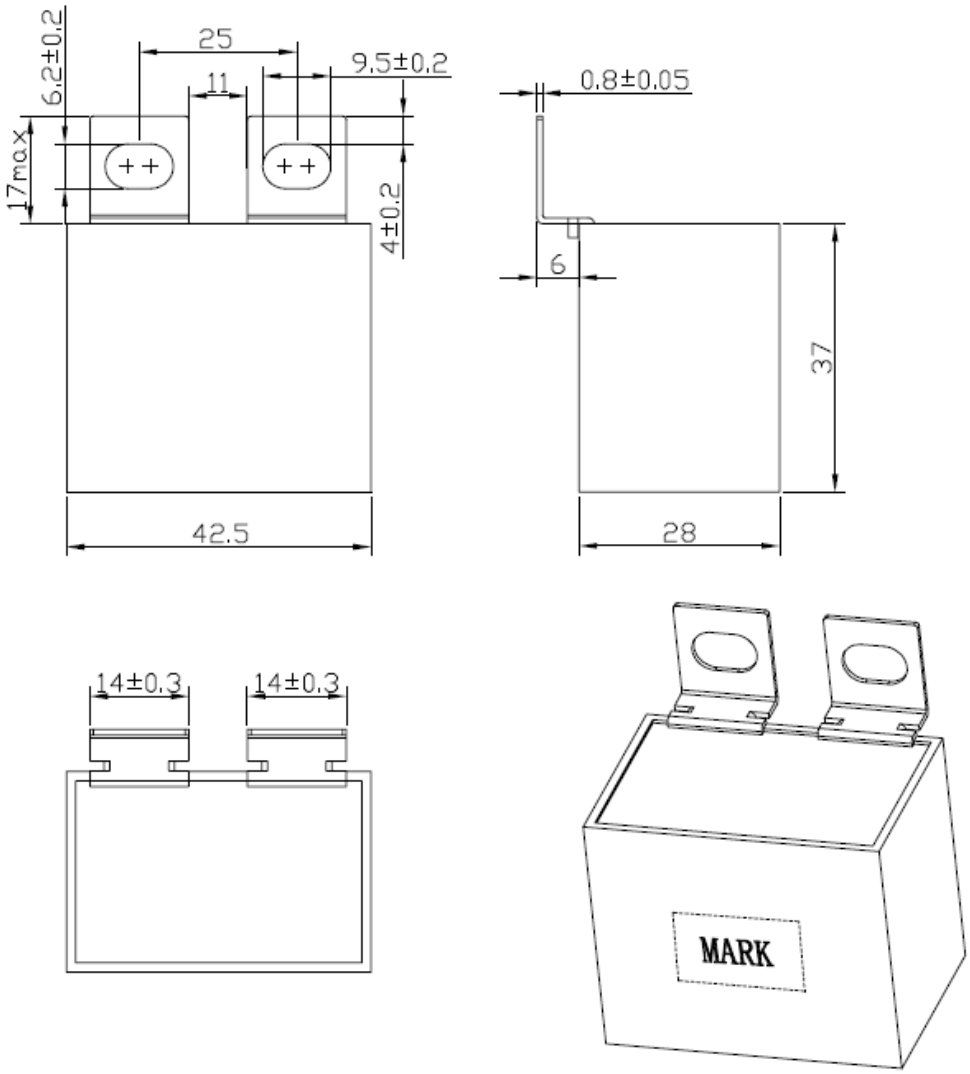
3 技术要求 Technical request

工作温度范围 Working temperature range	-40℃～85℃
存储温度范围 Storage temperature range	-40℃～85℃
阻燃等级 Flame retardant grade	UL94-V0
额定电压(UN)	1000VDC
额定电容量（Cn）	1.0uF
电容量允许偏差 Tolerance	±10%
耐电压 Withstand voltage	Ut-t : 1500Vdc (10s，25℃)
	Ut-c : 3000VAC (10s，50Hz，25℃)
损耗角正切 Loss angle of the capacitortanδ	≤0.0004（25℃，10kHz）
介质损耗角正切 Dielectric loss factor tanδ0	2×10^{-4}
绝缘电阻 Insulation resistance	＞10000s (100VDC, 60s, 25℃)
等效串联电感（ESL）	≤30nH
等效串联电阻（ESR）	≤6.4mΩ , 10kHz
最大电流 Imax	18 A @ 10kHz 45℃
峰值电流 Ipeak	480A
电压变化斜率 dv/dt	＞480V/us
灌封料 Impregnation	环氧树脂 epoxy resin
介质 Dielectric	金属化聚丙烯薄膜 Polypropylene film
接线端子 Terminal	镀锡铜片 Tinned copper sheet
外壳 Enclosure	Plastic shell
相对湿度 Relative Humidity	≤90%
工作最高海拔 Altitude	≤2000m
失效率 Failure rate	≤100fit
重量 Weight	≈61g

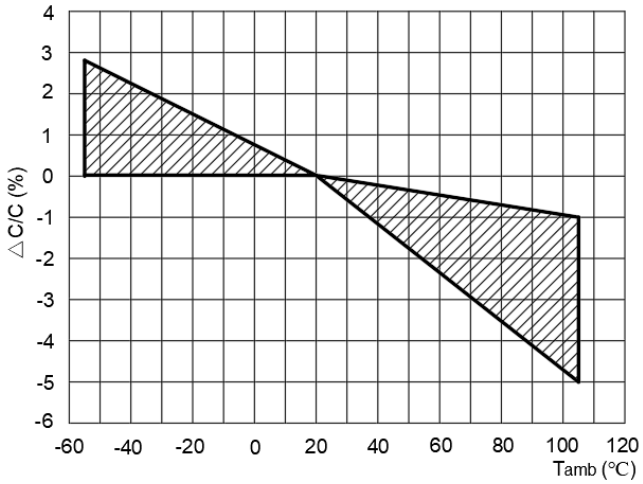
(1) I_{max} 是在 θ_{amb}=45℃，f=10kHz，外壳表面温升ΔT≤15℃时的最大电流有效值。

Imax means the max. permitted current, when at 70℃ ambient temperature, f=10kHz and the capacitor's surface temperature rising ΔT≤15℃.

4 外形尺寸 Outline Drawing

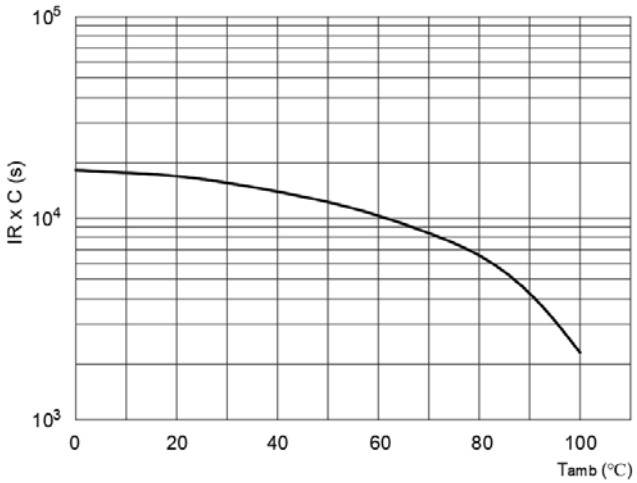


5 特征图表(典型值) Feature graph (Typical value)



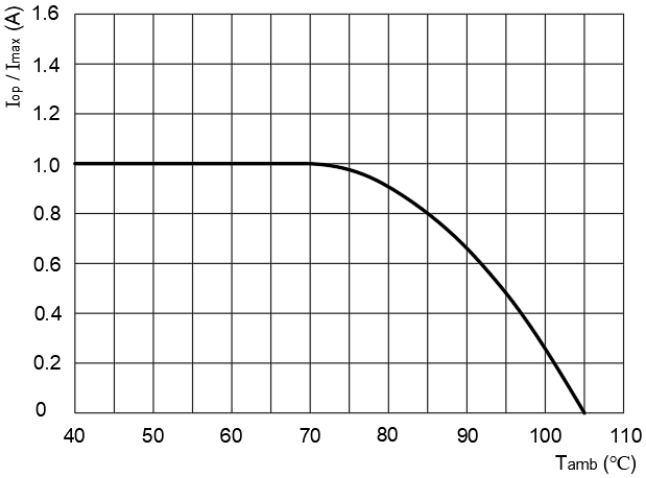
容量随温度变化曲线(典型值)

Capacitance VS Temperature (Typical value)



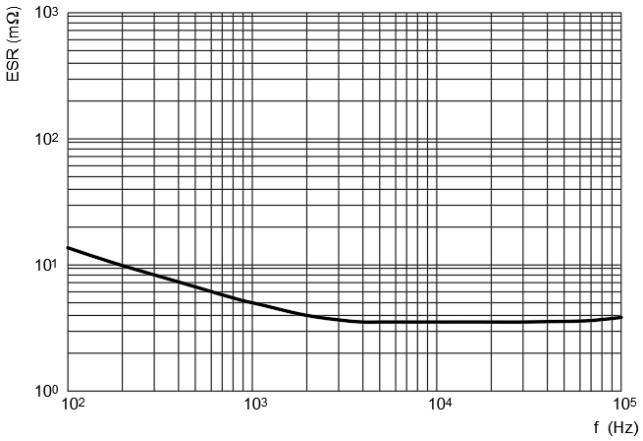
绝缘电阻随温度变化曲线(典型值)

Insulation resistor VS Temperature (Typical value)



电流随温度变化曲线(典型值)

Imax VS Temperature (Typical value)



ESR 随频率变化曲线(典型值)

ESR VS frequency (Typical value)

6 试验项目 Test Items

序号 No.	项目 Test Item	测试标准和条件 Test standard and condition	性能要求 Requirements
1	外观检查 External inspection	目视及量规测量。Visual check and Gauge measurement	符合规格书内图纸要求 Comply with the drawing require
2	极间电压试验 Voltage test between terminals	U=1.5Un（10s，25℃）	无击穿和闪络，允许有自愈性击穿。 neither puncture nor flashover shall occur. Self-healing breakdowns are permitted.
3	极壳电压试验 Voltage test between terminals to case	U=3000Vac（10s，25℃）	无击穿和闪络。 neither puncture nor flashover shall occur.
4	电容和 tanδ 测量 Capacitance and tanδmeasurements	在端子间的电压试验之后进行，测试频率100Hz。Shall be measured after voltage test between terminals, measured at 100Hz	容量 Capacitance tolerance: ±5% @100Hz 损耗tanδ≤0.0010 @1kHz

7 贮存条件 Storage condition

由于大气中存在氢氯化物、氢硫化物、硫酸物质等，所以产品贮存在大气中，必须注意引出端的可焊性会变差。产品不能暴露在高温和高湿状态，必须保存在以下环境中(在不拆开原包装的基础上)：

温度：-40℃ ~ +40℃

湿度：年平均值不超过 70%RH

全年任意 30 天不超过 80%RH，电容器表面不允许有凝露

产品贮存时间(从产品包装或产品本体上的日期算起)：不超过 24 个月

超期影响：引出端可焊性可能变差，电容量可能存在轻微漂移。

Due to the presence of hydrochloride, hydrosulfide, sulfuric acid, etc. in the atmosphere, when the product is stored in the atmosphere, attention must be paid to the deterioration of the solder ability of the terminal. The product cannot be exposed to high temperature and high humidity, and must be stored in the following environment (based on not opening the original packaging):

Temperature: -40℃ ~ +40℃

Humidity: Annual average does not exceed 70%RH

No more than 80%RH for any 30 days of the year, no condensation on the capacitor surface

Product storage time (calculated from the date on the product packaging or product body): no more than 24 months

Effect of overdue period: The solder ability of the terminals may be deteriorated, and the capacitance may change slightly.

8 注意事项 Matters need attention

- 避免过载使用电容器
- 使用时不可以超过产品允许的最高温度
- 不可以对电容器端子施加任何机械应力
- 避免任何压缩、拉伸或弯曲应力
- 不可以在腐蚀性的环境中使用或储存电容器，在有灰尘的环境中，应定期对电容器特别是端子进行维护和清洁，以防端子之间或端子与地之间形成导电路径
- 电容器焊接在 PC 板上之后，不可以移动或晃动电容器
- 不可以通过抓取已焊接在 PC 板上的电容器来拿起 PC 板
- 不可以将电容器放置在电镀孔间距与电容器指定的引线间距不一致的 PC 板上
- 避免外部能源输入，如火灾或电力
- 电容器的使用寿命不是无限的，最大使用寿命可能会随电容器的使用状况而变化
- Avoid use of capacitors under overloading
- Do not exceed the max temperature during operation
- Do not apply any mechanical stress to the capacitor terminals
- Avoid any compression, tension or bending stress
- Do not use or store capacitors in a corrosive environment. In a dusty environment, the capacitors, especially the terminals, should be maintained and cleaned regularly to prevent the formation of conductive paths between the terminals or between the terminals and the ground.
- After the capacitor is soldered on the PC board, do not move or shake the capacitor
- Do not pick up the PC board by grabbing the capacitors that have been soldered on the PC board
- Do not place the capacitor on the PC board where the pitch of the plating holes is inconsistent with the specified lead pitch of the capacitor
- Avoid external energy input, such as fire or electricity
- The service life of the capacitor is not unlimited, the maximum service life may vary with the use of the capacitor