

# 零 部 件 规 格 书

(铝电解电容类)

版本: A

深圳华秋电子有限公司

编制:

零部件型号: HP 系列

审核:

零部件专用号: /

批准:

日期: 2025-06-10

# 零部件规格书

表号: PDP03-069

版本: V1.0

生效日期: 2025.06.10

## 一、规格、性能参数

| 分发单位    | 份数 | 零部件名称        | 铝电解电容器 |      |                      |    |        |
|---------|----|--------------|--------|------|----------------------|----|--------|
|         |    | 专    用    号  | /      | 本体描述 | /                    | 版本 | A1     |
|         | 1  | 生产厂家         |        |      | 厂家型号                 |    | 页码     |
| IQC/JIT | 1  | 苏州松控电子科技有限公司 |        |      | HP152M400P800A    系列 |    | P5-P15 |
|         | 1  |              |        |      |                      |    |        |
|         | 1  |              |        |      |                      |    |        |
|         | 1  |              |        |      |                      |    |        |
|         | 1  |              |        |      |                      |    |        |

确认参数 (25°C)

[illegible]

# 零部件规格书

表号: PDP03-069

版本: V1.0

生效日期: 2025.06.10

## 承 认 书

### PRODUCT SPECIFICATION

No: SC250610

客 户: 深圳华秋电子有限公司  
CUSTOMER:

日 期: 2025-06-10  
DATE:

品名: 铝电解电容器

PATNAME: Aluminum Electrolytic Capacitors

型号/规格: 1500UF 400v 系列 SERIES: HP

用户承认 User

Approved by

注: ROHS 指令 (2024/95/EC) 已对应完毕

对此承认书确认后, 在用户承认栏注明确认印, 返传一份与敝公司

## 苏州松控电子科技有限公司

SONGCHUANG ELECTRONICS (HONGKONG) CO.,LTD

地址: 苏州市吴中区金枫南路 1330 号联东 U 谷 2 栋

ADD:

电话(TEL): 86-512-67685358 传真(FAX): 86-512-67685258

邮编(ZIP CODE): 215000

| 拟 制<br>Prepared | 审 核<br>Checked | 批 准<br>Approved |
|-----------------|----------------|-----------------|
| 王先琴             | 张振             | 王永松             |

# 零部件规格书

表号: PDP03-069

版本: V1.0

生效日期: 2025.06.10

## 文件内容修改历史记录 RECORD OF REVISION

## 规格表 Table

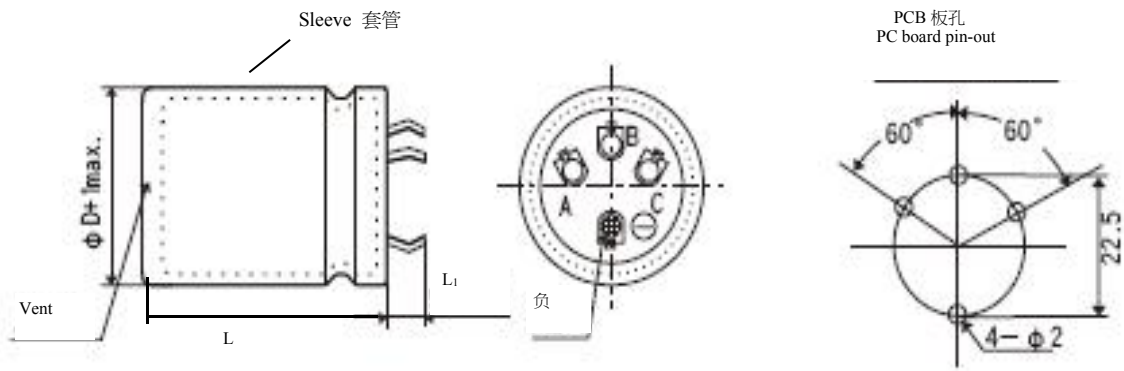
[illegible]

# 零部件规格书

表号: PDP03-069  
版本: V1.0  
生效日期: 2025.06.10

一、范围 Scope  
HP 105℃ 2000H TYPE (Snap in)

二、外形图及尺寸表 Case size table



单位：(mm)

|                                                                 |     |
|-----------------------------------------------------------------|-----|
| $\varnothing D \begin{smallmatrix} +1.0 \\ 0 \end{smallmatrix}$ | 35  |
| $L \begin{smallmatrix} +2.5 \\ 0 \end{smallmatrix}$             | 80  |
| $L_1 \pm 0.5$                                                   | 6.0 |

三、技术性能 Specifications

| 项目 Item                                                           | 特性 Performance Characteristics                                                                                                             |  |                    |     |            |     |            |   |
|-------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------|-----|------------|-----|------------|---|
| 使用温度范围 Operating temperature                                      | -25℃ ~ +105℃                                                                                                                               |  |                    |     |            |     |            |   |
| 额定电压范围 Rated voltage range                                        | 400V                                                                                                                                       |  |                    |     |            |     |            |   |
| 标称电容量允许偏差(120Hz, +20℃)<br>Capacitance tolerance                   | ±20% (120Hz, +20℃)                                                                                                                         |  |                    |     |            |     |            |   |
| 漏电流 Leakage current                                               | I ≤0.01CV(μA) 1 分钟 取较小值 ( after 1 minutes , Whichever is smaller )                                                                         |  |                    |     |            |     |            |   |
| 损耗角正切值 (tg δ ) Dissipation factor<br>(+20℃, 120Hz)                | 0.15                                                                                                                                       |  |                    |     |            |     |            |   |
| 温度特性<br>Temperature Characteristics<br>(Impedance ratio at 120Hz) | <table><tr><td>U<sub>R</sub> (V)</td><td>400</td></tr><tr><td>Z-25℃/+20℃</td><td>8</td></tr><tr><td>Z-40℃/+20℃</td><td>-</td></tr></table> |  | U <sub>R</sub> (V) | 400 | Z-25℃/+20℃ | 8   | Z-40℃/+20℃ | - |
| U <sub>R</sub> (V)                                                | 400                                                                                                                                        |  |                    |     |            |     |            |   |
| Z-25℃/+20℃                                                        | 8                                                                                                                                          |  |                    |     |            |     |            |   |
| Z-40℃/+20℃                                                        | -                                                                                                                                          |  |                    |     |            |     |            |   |
| 浪涌电压<br>Surge voltage                                             | <table><tr><td>W.V</td><td>400</td></tr><tr><td>S.V.</td><td>450</td></tr></table>                                                         |  | W.V                | 400 | S.V.       | 450 |            |   |
| W.V                                                               | 400                                                                                                                                        |  |                    |     |            |     |            |   |
| S.V.                                                              | 450                                                                                                                                        |  |                    |     |            |     |            |   |

# 零部件规格书

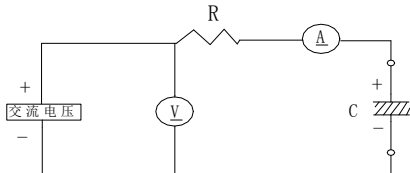
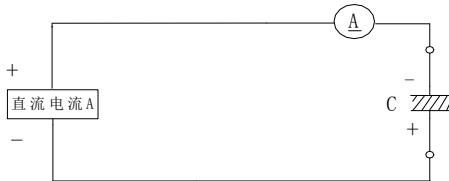
表号: PDP03-069  
版本: V1.0  
生效日期: 2025.06.10

## 四、试验方法及要求 Tests

| No | 项目 Item                              | 试验条件 Test Conditions                                                                                                                                                                               | 性能要求 Requirements                                                                                       |                                                    |
|----|--------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|----------------------------------------------------|
| 1  | 浪涌电压<br>Surge Voltage                | 温度 15~35℃, 充电 30 秒, 放电 5 分 30 秒, 共循环 1000 次。<br>At 15~35℃, 1000 cycles of 30s on and 330s off.                                                                                                     | 无可见损伤 No visible damage                                                                                 |                                                    |
|    |                                      |                                                                                                                                                                                                    | $\Delta C/C$                                                                                            | $\leq \pm 15\%$                                    |
|    |                                      |                                                                                                                                                                                                    | $\text{tg } \delta$                                                                                     | $\leq$ 初始规定值 Initial specified value               |
|    |                                      |                                                                                                                                                                                                    | I                                                                                                       | $\leq$ 初始规定值 Initial specified value               |
| 2  | 耐久性<br>Load Life                     | +105℃施加带额定纹波电流的额定电压 2000 小时, 恢复 16 小时后:<br>After applying rated voltage with specified ripple current for 2000 hours at +105℃and then resumed 16 hours.                                            | $\Delta C/C$                                                                                            | $\pm 20\%$ 初始测量值以内<br>Initial measured value       |
|    |                                      |                                                                                                                                                                                                    | $\text{tg } \delta$                                                                                     | $\leq 200\%$ 初始规定值 2times Initial specified value  |
|    |                                      |                                                                                                                                                                                                    | I                                                                                                       | $\leq$ 初始规定值 Initial specified value               |
| 3  | 高温贮存<br>Shelf Life                   | +105℃, 1000 小时贮存后, 加额定工作电压处理 30 分钟,恢复 16 小时后:<br>After storage for 1000 hours at +105℃,U <sub>R</sub> to be applied for 30 minutes and then resumed 16 hours.                                      | $\Delta C/C$                                                                                            | $\pm 20\%$ 初始测量值以内<br>Initial measured value       |
|    |                                      |                                                                                                                                                                                                    | $\text{tg } \delta$                                                                                     | $\leq 200\%$ 初始规定值 2 times Initial specified value |
|    |                                      |                                                                                                                                                                                                    | I                                                                                                       | $\leq$ 初始规定值 Initial specified value               |
| 4  | 引出端强度<br>Tension Strength            | IEC 68-2 试验 Ua: 拉力 10N , 10 秒<br>IEC 68-2 Test Ua<br>Loading force 10N for 10S                                                                                                                     | 电容及端子没有损伤<br>Performance of capacitor shall not have changed and leads shall be undamaged.              |                                                    |
| 5  | 可焊性<br>Solderability                 | IEC 68-2 试验 Ta: 焊料槽温度为 235±5℃, 浸渍深度占整个引出线的 90%, 浸渍持续时间为 2 秒。<br>IEC 68-2 Test Ta: Tank temperature : 235±5℃;<br>Impregnating depth: $\geq 90\%$ of the total lead wire;<br>Impregnating depth: 2s. | 引出端的良好镀层, 焊料自由流动, 引出端湿润。<br>The lead wire is coated by tin and wet.                                     |                                                    |
| 6  | 耐焊接热<br>Resistance to soldering heat | IEC 68-2 试验 Tb 方法 1A: 焊料槽温度为 260±5℃, 浸渍深度 6mm, 浸渍持续时间为 10 秒。<br>IEC 68-2 Test Ta: Tank temperature: 260±5℃;<br>Impregnating depth: 6mm; Impregnating time: 10s.                                    | 无可见损伤, 标志清晰, 电容量变化率 $\leq \pm 5\%$ 。<br>No visible damage; marking legible. $\Delta C/C \leq \pm 5\%$ . |                                                    |

零部件规格书

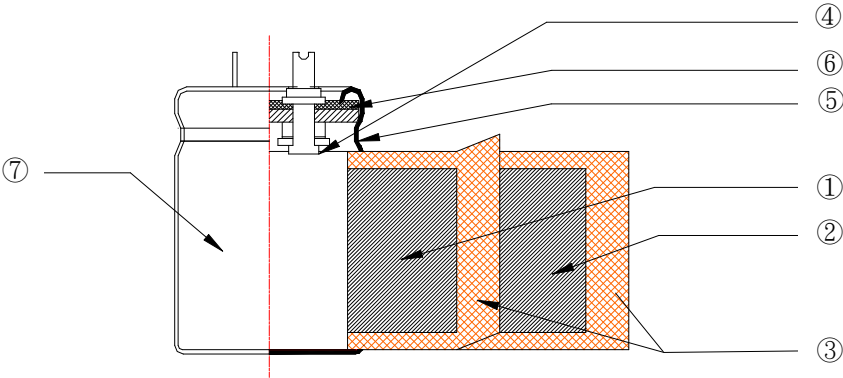
表号: PDP03-069  
版本: V1.0  
生效日期: 2025.06.10

| 7                   | 稳态湿热<br>Stable Humidity        | IEC 68-2 试验 Ca: +40℃, 湿度 90~95%, 不施加电压 21 天,<br>IEC 68-2 Test Ca:21 days at 40℃ ,RH 90 to 95 %,no voltage applied.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 无可见损伤和电解液漏出, 且标志清晰<br>No visible damage; no leakage of electrolyte; marking legible.                           |                                         |   |          |      |        |        |      |          |       |            |          |          |   |                     |                    |              |   |              |    |                                                                                                                                                                                                                                                                                                                                                                                                         |  |
|---------------------|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|-----------------------------------------|---|----------|------|--------|--------|------|----------|-------|------------|----------|----------|---|---------------------|--------------------|--------------|---|--------------|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|                     |                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Δ C/C                                                                                                          | ≤±20%                                   |   |          |      |        |        |      |          |       |            |          |          |   |                     |                    |              |   |              |    |                                                                                                                                                                                                                                                                                                                                                                                                         |  |
|                     |                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | tg δ                                                                                                           | ≤120%初始规定值 1. 2 Initial specified value |   |          |      |        |        |      |          |       |            |          |          |   |                     |                    |              |   |              |    |                                                                                                                                                                                                                                                                                                                                                                                                         |  |
|                     |                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | I                                                                                                              | ≤120%初始规定值 1. 2Initial specified value  |   |          |      |        |        |      |          |       |            |          |          |   |                     |                    |              |   |              |    |                                                                                                                                                                                                                                                                                                                                                                                                         |  |
| 8                   | 耐振性<br>Resistance to vibration | IEC 68-2 试验 Fc: 频率范围 10~55Hz, 振幅为 0.35mm, 持续时间为 3×0.5 小时。<br>IEC 68-2 Test Fc : Frequency:10~55Hz;<br>Amplitude:0.35mm;3 direction ,0.5 hours rer direction.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 无可见损伤和电解液漏出, 且标志清晰, 电容量变化率≤±5%。<br>No visible damage ; no leakage of electrolyte; marking legible ; Δ C/C≤±5%. |                                         |   |          |      |        |        |      |          |       |            |          |          |   |                     |                    |              |   |              |    |                                                                                                                                                                                                                                                                                                                                                                                                         |  |
| 9                   | 防爆阀测试<br>Safety vent           | <p>1)交流电压法 AC voltage</p>  <p>Ⓐ 交流电流表 R: 串联电阻<br/>Ⓥ 交流电压表 C: 试验电容器</p> <table><tr><th>标称容量 C/μF</th><th>串联电阻 R/Ω</th></tr><tr><td>1</td><td>1000±100</td></tr><tr><td>1~10</td><td>100±10</td></tr><tr><td>10~100</td><td>10±1</td></tr><tr><td>100~1000</td><td>1±0.1</td></tr><tr><td>1000~10000</td><td>0.1±0.01</td></tr><tr><td>10000 以上</td><td>*</td></tr></table> <p>施加电压: 以额定电压 0.7 倍的电压或 250Vmax 两者中取小值, 但是 30Amax 以上时调整到 30Amax。<br/>Apply AC voltage 0.7 time the rated voltage or AC 220V(effective value),whichever is smaller, through a 30A fuse and 1Ω resister.</p> <p>(2)直流反向电压法 DC Inverse voltage</p>  <p>Ⓐ 直流电流表 C: 试验电容器</p> <table><tr><th>标称外形直径 Diameter /mm</th><th>直流电流 DC Current /A</th></tr><tr><td>22.4 以下 less</td><td>1</td></tr><tr><td>22.4 以上 more</td><td>10</td></tr></table> | 标称容量 C/μF                                                                                                      | 串联电阻 R/Ω                                | 1 | 1000±100 | 1~10 | 100±10 | 10~100 | 10±1 | 100~1000 | 1±0.1 | 1000~10000 | 0.1±0.01 | 10000 以上 | * | 标称外形直径 Diameter /mm | 直流电流 DC Current /A | 22.4 以下 less | 1 | 22.4 以上 more | 10 | <p>(1) 不允许出现爆炸和着火 (Not appear detonate and be on fire)</p> <p>(2) 防爆装置要打开, 不允许从封口卷边处释放气体 (Vent should be opened, the gas not be allowed be set free from rubber)</p> <p>(3) 不允许出现电容器外壳和芯子飞溅的危险状态 (the case and the pistil of the capacitor can't be splashed)</p> <p>在试验中如果试验时间经历 30 分钟后不释放气体, 则可认为合格 ( It's is not eligible if the vent can't be open when the test be lasted out for 30 minutes.)</p> |  |
|                     |                                | 标称容量 C/μF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 串联电阻 R/Ω                                                                                                       |                                         |   |          |      |        |        |      |          |       |            |          |          |   |                     |                    |              |   |              |    |                                                                                                                                                                                                                                                                                                                                                                                                         |  |
|                     |                                | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 1000±100                                                                                                       |                                         |   |          |      |        |        |      |          |       |            |          |          |   |                     |                    |              |   |              |    |                                                                                                                                                                                                                                                                                                                                                                                                         |  |
|                     |                                | 1~10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 100±10                                                                                                         |                                         |   |          |      |        |        |      |          |       |            |          |          |   |                     |                    |              |   |              |    |                                                                                                                                                                                                                                                                                                                                                                                                         |  |
| 10~100              | 10±1                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                |                                         |   |          |      |        |        |      |          |       |            |          |          |   |                     |                    |              |   |              |    |                                                                                                                                                                                                                                                                                                                                                                                                         |  |
| 100~1000            | 1±0.1                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                |                                         |   |          |      |        |        |      |          |       |            |          |          |   |                     |                    |              |   |              |    |                                                                                                                                                                                                                                                                                                                                                                                                         |  |
| 1000~10000          | 0.1±0.01                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                |                                         |   |          |      |        |        |      |          |       |            |          |          |   |                     |                    |              |   |              |    |                                                                                                                                                                                                                                                                                                                                                                                                         |  |
| 10000 以上            | *                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                |                                         |   |          |      |        |        |      |          |       |            |          |          |   |                     |                    |              |   |              |    |                                                                                                                                                                                                                                                                                                                                                                                                         |  |
| 标称外形直径 Diameter /mm | 直流电流 DC Current /A             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                |                                         |   |          |      |        |        |      |          |       |            |          |          |   |                     |                    |              |   |              |    |                                                                                                                                                                                                                                                                                                                                                                                                         |  |
| 22.4 以下 less        | 1                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                |                                         |   |          |      |        |        |      |          |       |            |          |          |   |                     |                    |              |   |              |    |                                                                                                                                                                                                                                                                                                                                                                                                         |  |
| 22.4 以上 more        | 10                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                |                                         |   |          |      |        |        |      |          |       |            |          |          |   |                     |                    |              |   |              |    |                                                                                                                                                                                                                                                                                                                                                                                                         |  |

零部件规格书

表号: PDP03-069  
版本: V1.0  
生效日期: 2025.06.10

五、材料表 Frame drawing and materials



| 序号<br>No. | 部件名称<br>Parts           | 材料名称<br>Material                       | 主要供应商<br>Main supplier                             |
|-----------|-------------------------|----------------------------------------|----------------------------------------------------|
| 1         | 阳极箔 AL – foil(+)        | 铝<br>Aluminum                          | 新疆众和/立业/南辉<br>Xinjiangzhonghe/Dongyangguang/NANHUI |
| 2         | 阴极箔 AL – foil(-)        | 铝<br>Aluminum                          | 飞乐<br>Feile                                        |
| 3         | 电解纸 Separator paper     | 电解电容器纸<br>Electrolytic Capacitor paper | /凯恩/SPO<br>KAN/SPO                                 |
| 4         | 引线条 Snap-in<br>Terminal | 铝<br>Aluminum                          | 飞乐<br>Feile                                        |
| 5         | 铝壳 AL- case             | 铝<br>Aluminum                          | 奥星/飞辰<br>Aoxing/Lianyi                             |
| 6         | 盖板 Cover                | 酚醛树脂+合成橡胶<br>P.F + Synthetic rubber    | 漂阳鑫晨 天阳<br>Xinchen Liyang Tianyang                 |
| 7         | 套管 Sleeve               | P.V.C<br>(Poly vinyl chloride)         | 韩国无等/苏州顺鹏<br>MOODEUNG (Korea)/Suzhoushunpeng       |

| 序号 No. | 项目 Item                     |
|--------|-----------------------------|
| 1      | 商标 Brand                    |
| 2      | 产品型号 Products type          |
| 3      | 产品规格 Products specification |
| 4      | 气候类别 Climate Category       |



# 零部件规格书

表号: PDP03-069

版本: V1.0

生效日期: 2025.06.10

## 七、铝电解电容器的使用注意事项 Guidelines For Using Aluminum Electrolytic Capacitor

为使您获得电解电容器的最佳性能和延长电解电容器的使用寿命, 在使用电解电容器前, 请务必阅读本注意事项。

Upon using Aluminum Electrolytic Capacitors, please proper handing and observing to following important points will insure optimum capacitor performance and long life.

1. 直流电解电容器是有极性的 DC electrolytic capacitors are polarized.

确定极性, 极性标志在电容器的基体上。以免因极性反可能引起电路短路或电容器损坏, 当极性不固定或不确定的, 使用双极性电容器。注意直流电解电容器不能使用于交流。

Make sure of the polarity. The polarity is marked on the body of the capacitor. Application of the reversed voltage cause a short circuit or damage to the capacitor. Use bipolar capacitors when the polarity is not determined or unknown. Note that DC electrolytic capacitors can not be used for AC application.

2. 使用电压不要大于额定电压 Do not apply voltage greater than rated voltage.

使用电压大于额定电压, 漏电流会增大, 可能损坏电容器。建议工作电压为额定电压的百分之七十~八十, 电容器在建议的工作电压下使用可延长电容器的寿命。

If a voltage exceeding the rated voltage is applied, the leakage current will increase, which damage the capacitor. Recommended working voltage is 70 to 80 percent of tatted voltage. Using capacitors at recommended working voltage prolongs capacitor life.

3. 不要使过量的纹波电流通过电容器 Do not allow excessive ripple current through the capacitor.

流过电容器的纹波电流超过许可值, 将会引起电容器发热, 电容量减少, 损害电容器。通过电容器的纹波电流不要大于允许值。

The flow of ripple current over permissible ripple current will cause heat of the capacitor, which may decrease the capacitance and damage the capacitor. Ripple current on the capacitor must be at or bellow allowable level.

4. 快速的充放电电路中, 使用专门设计的电容器 Use specially designed capacitors for the circuits where charge and discharge are frequency repeated.

在经受快速的周期性充放电电路中, 电容器可能受损害, 它的寿命因容量下降、温升等原因而缩短, 在这种电路中, 一定要使用专门设计的电容器。

In the circuit subjected to rapid charge cycles, capacitors may be damaged; its life may be shortened by capacitance decrease, heat rise, ect. Be sure and use special capacitors in these applications.

5. 工作温度范围 Operating temperature range.

电容器的特性随工作温度而变化, 在温度较高的情况下, 容量、漏电流增大, 损耗减少; 在低温情况下, 容量和漏电流下降, 损耗增大。电容器在较低的温度下使用会确保延长寿命。

The characteristics of capacitors change with the operating temperature. The capacitance and leakage current increase and  $\text{tg } \delta$  decrease at higher temperatures. The capacitance and leakage current decrease and  $\text{tg } \delta$  at increase lower temperature. Usage at lower temperature will ensure longer life.

6. 核对工作频率 Check operating frequency.

电解电容器的容量通常是在 100Hz 或 120Hz 下测得的。然而要记住容量随频率的升高而下降,  $\text{tg } \delta$  随频率的升高而增大, 并使周围温度升高。

The capacitance of electrolytic capacitors is usually measured at 100Hz or 120Hz. However, remember that capacitance decrease and  $\text{tg } \delta$  increase as the applied frequency becomes higher whereas the ambient temperature becomes higher.

7. 长时间存放的电容器, 在使用前加额定直流电压处理 Apply rated DC voltage treatment to the capacitors which have been stored for a long time .

长时间的存放, 实际对电容器的容量和  $\text{tg } \delta$  没有多大的影响, 然而往往会使漏电流增大, 耐压降低。长时间存放后的电容器处理, 首先逐渐施加直流电压至额定电压, 然后再使用。

Long periods of storage have virtually no effect on a capacitor's capacitance and  $\text{tg } \delta$  . Such periods tend however, to increase leakage current and decreases withstand voltage. After removing capacitors from long-duration storage, first apply a gradually increasing DC voltage to rated voltage and then use them.

8. 电容器外壳与阴极端是不绝缘的 The capacitor case is not insulated from the cathode terminal.

电容器外壳与阴极端是通过电解液连接的, 如果电容器的外壳必须与线路绝缘, 则电容器的安装位置处, 一定要采取绝缘措施。

The capacitor's case and cathode terminal connect through the electrolyte. If the case is to be completely insulated, that insulation must be at the capacitor's mounting point.

9. 电容器的端子或引线上不要施加过大的力 Do not apply excessive force to the terminals and leads.

过大的力施加到端子和引线上, 可能引起引线的断裂或端子分裂, 转而会引起内部连接的破坏。

The excessive strong force applied to the terminals and lead wires may cause leads to break or terminals to separate and, in turn, cause the internal contact to fail.

零部件规格书

表号: PDP03-069  
版本: V1.0  
生效日期: 2025.06.10

有害物质管理目录表

| 区分         | 物质名称(中文名)   | 物质名称 (英文名)                               | 有害物质包含与否 |    |
|------------|-------------|------------------------------------------|----------|----|
|            |             |                                          | 有        | 无  |
| Level A-I  | 铅以及它的化合物    | Lead and its compounds                   |          | ND |
|            | 镉以及它的化合物    | Cadmium and its compounds                |          | ND |
|            | 水银以及它的化合物   | Mercury and its compounds                |          | ND |
|            | 六价铬以及它的化合物  | Hexavalent chromium and its compounds    |          | ND |
|            | 多溴化的联苯      | Polybrominated biphenyls                 |          | ND |
|            | 聚 溴 二 苯 醚   | Polybrominated diphenylethers            |          | ND |
| Level A-II | 多氯化联苯(PCB)  | Polychlorinated biphenyls (PCB)          |          | 无  |
|            | 多氯化萘 (PCN)  | Polychlorinated naphthalenes (PCN)       |          | 无  |
|            | 三磷酸盐        | Polychlorinated terphenyls (PCT)         |          | 无  |
|            | 氯化涂石蜡(SCCP) | Short-chain Chlorinated paraffins (SCCP) |          | 无  |
|            | 石棉以及它的化合物   | Asbestos and its compounds               |          | 无  |
|            | 臭气层破坏物质     | Ozone Depleting Substances               |          | 无  |
|            | 偶氮化合物       | Azo compounds                            |          | 无  |
|            | 镍以及它的化合物    | Nickel and its compounds                 |          | 无  |
|            | 有机锡类化合物     | Specific Organic tin compounds           |          | 无  |
|            | 砷以及它的化合物    | Arsenic and its compounds                |          | 无  |
|            | 甲醛          | Formaldehydes                            |          | 无  |
| Level B    | 氯化乙烯树脂      | Polyvinyl chloride, (PVC)                |          | 无  |
|            | 邻苯二甲酸盐      | Phthalates                               |          | ND |
|            | 铍以及它的化合物    | Beryllium and its compounds              |          | 无  |
|            | 锑以及它的化合物    | Antimony and its compounds               |          | 无  |
|            | 硒以及它的化合物    | Selenium and its compounds               |          | 无  |
|            | 钯以及它的化合物    | Palladium and its compounds              |          | 无  |
|            | 铋以及它的化合物    | Bismuth and its compounds                |          | 无  |
|            | 其它氯类难燃剂     | Other chlorinated flame retardants       |          | 无  |
|            | 其它溴类难燃剂     | Other brominated flame retardants        |          | 无  |

Note.

1. 原则上按照公司的管理规定，但由管理总部提出按根据 Buyer 等交易商的要求制定的另行有害物质管理目录来执行的要求时，应优先按照管理总部的管理目录来记载。
2. 确认合作企业现在是否在使用这类物质，应纪录使用与否。