

# KNSCHA

Empowering The World

## 广东科尼盛电子科技有限公司

### KNSCHA ELECTRONICS CO.,LIMITED

IATF16949:2016

ISO9001:2015

ISO14001:2015

## 部品规格书 APPROVE SHEET

|                          |                                                                   |
|--------------------------|-------------------------------------------------------------------|
| 客 户 名 称<br>Customer Name |                                                                   |
| 产 品 名 称<br>Product Name  | 高分子固态电解电容器<br>Conductive Polymer Aluminum Electrolytic Capacitors |
| 客 户 料 号<br>Customer P/N  |                                                                   |
| 科 尼 盛 料 号<br>KNSCHA P/N  | 218EC0018                                                         |
| 型 号 规 格<br>Product Type  | 16V/1000 $\mu$ F 3000Hours@105 $^{\circ}$ C 引线型,8x12mm KEP Series |
| 日 期<br>Date              | 2024年11月04日                                                       |

|                    |                 |
|--------------------|-----------------|
| 制 造<br>Manufacture |                 |
| 核 准<br>APPROVAL    | 制 作<br>PREPARED |
| * 工程课 *            |                 |
| 王 勃 刘 国 华          |                 |

|                                |                |                 |
|--------------------------------|----------------|-----------------|
| 客 户 承 认 栏<br>CUSTOMER APPROVED |                |                 |
| 核 准<br>APPROVED                | 确 认<br>CHECKED | 经 办<br>DESIGNED |
|                                |                |                 |

① 网址: [www.knscha.com](http://www.knscha.com) ② 邮箱: [sales@knscha.com](mailto:sales@knscha.com)

③ 电话: 0769-81035570 83698067 ④ 传真: 0769-83861559

⑤ 营业中心: 东莞市寮步镇香市科技产业园松湖智谷研发中心A3栋8层  
8th floor,Building A3,Songshan Lake Intelligent Valley,Dongguan,  
Guangdong,China

⑥ 总部基地: 广东省东莞市东坑镇农横路7号汇金展拓科技园  
Building 3, No.7 Nongheng Road, Dongkeng Town, Dongguan,  
Guangdong Province, China

⑦ 杭州分公司: 浙江省杭州市余杭区临平余之城1栋20楼  
⑧ 厦门办事处: 福建省厦门市集美区厦门软件园三期F12栋901-8室



联系我们 Contact Us

⑨ 投诉和建议: 13662958961 (微信同号)



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## KNSCHA ELECTRONICS CO., LIMITED

IATF16949:2016 ISO9001:2015 ISO14001:2015

### Aluminum Electrolytic Capacitors

- Source Manufacturer
- 25+ Years Experience
- 7X24 Hours Online Service



### Film Capacitors

- Source Manufacturer
- 10+ Years Experience





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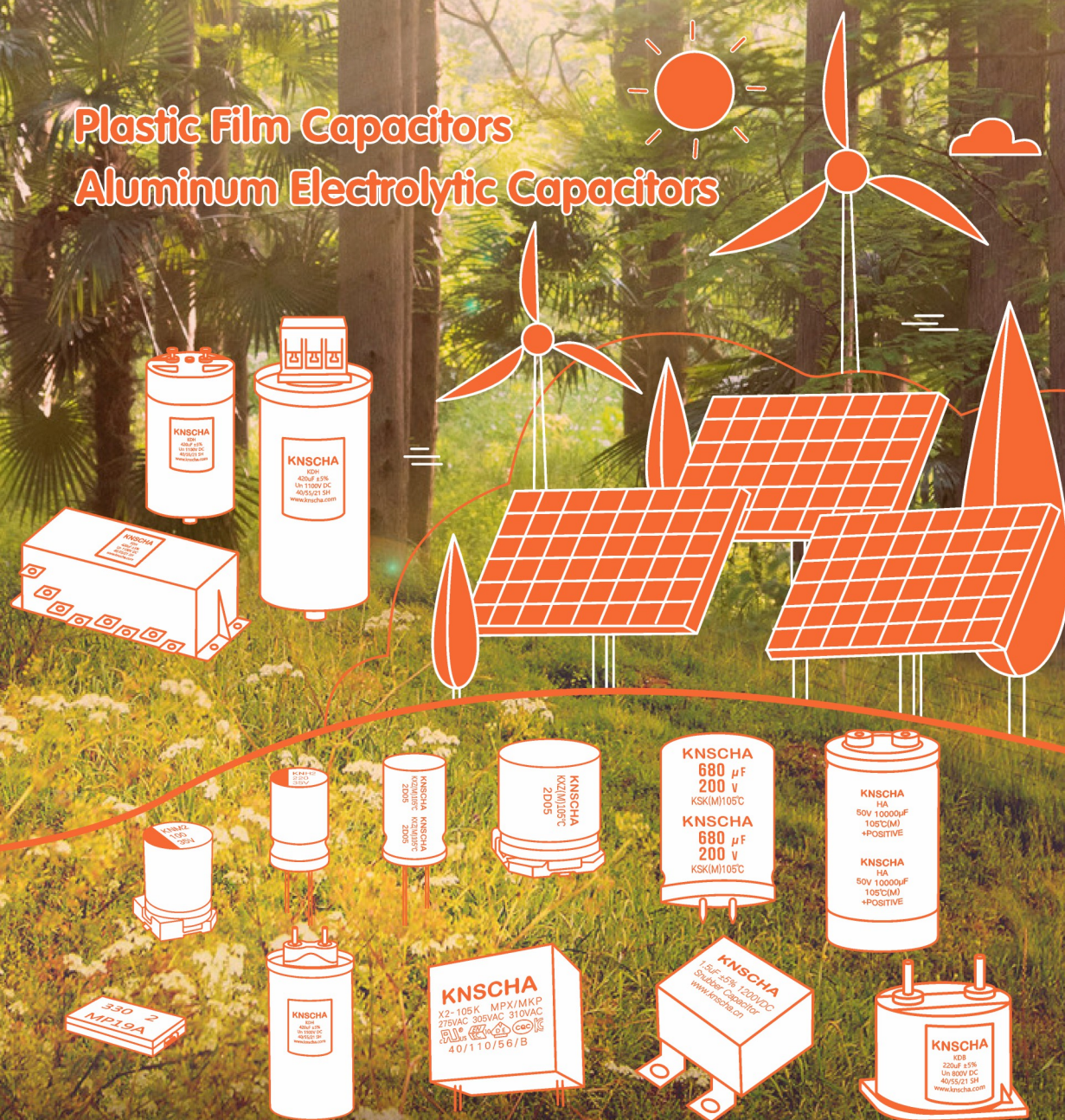
KNSCHA ELECTRONICS CO., LIMITED is a manufacturing high-tech enterprise founded in 1987 with aluminum electrolytic capacitors and film capacitors as its core for automotive, renewable energy, industrial and consumer electronics. We are working on developing aluminum electrolytic capacitors and plastic film capacitors having higher performance and higher reliability and its product chain extends to multiple categories such as electric double layer capacitors, ceramic capacitors and resistors under the trademark "KNSCHA", quickly responding to customer needs.

KNSCHA's manufacturing facilities are located in Guangdong, Hunan and Jiangxi and employ over 380 peoples. Our state-of-art manufacturing facilities including R&D, testing labs, automated manufacturing, warehousing and customer service are operate with high quality standard, using Lean manufacturing processes with a comprehensive ISO 9001/14001 and IATF 16949 management systems.

Our products have obtained UL, VDE, TÜV, ENEC10, KTL, and CQC safety certification, and comply with SGS's RoHS, Reach, AECQ-200 and National Grid Testing standards.

As a supporter of this advanced electronic industry, we are very pleased to have contributed to its development.

## Plastic Film Capacitors Aluminum Electrolytic Capacitors



**KNSCHA has knowledge and know-how as a capacitor professional manufacturer.**  
**We are always comitted to the original performance our customers need.**  
**We solves problems together with our customers.**



# KNSCHA

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**Cathy Ren** (Sales Director)  
Mobile: + 86-136 8622 1567

☎ +86(769)83698067

🌐 [www.knscha.cn](http://www.knscha.cn)

📱 Whatsapp: +8613686221567

🏢 8th floor, Building A3, Songshan Lake Intelligent Valley, Dongguan, Guangdong, China

🏠 Building 3, No.7 Nongheng Road, Dongkeng Town, Dongguan, Guangdong Province, China

☎ +86(769)83861559

✉ [cathy@knscha.com](mailto:cathy@knscha.com)

💬 Skype: knscha



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IATF16949:2016 ISO9001:2015 ISO14001:2015



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KNSCHA ELECTRONICS CO.,LIMITED

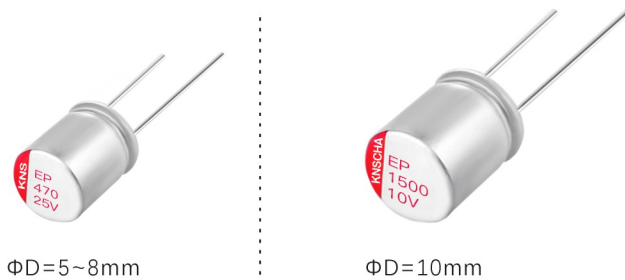
IATF16949:2016      ISO9001:2015      ISO14001:2015

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### 特性/ Features

- Load Life: 3000 hours at 105°C
- Ultra low ESR with large permissible ripple current
- RoHS Compliant
- 105°C 负荷寿命3000小时
- 极低等效串联电阻(ESR)并可承受大纹波电流
- 符合RoHS指令



Marking color: Red

引线型Radial

表1 规格表 Specifications

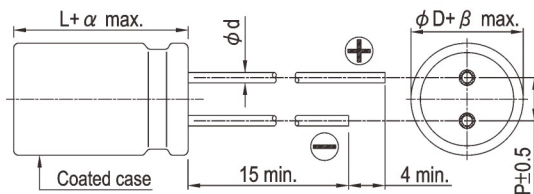
| 项目 Items                              | 性 能 Performance                                                                |                          |     |     |                        |               |      |                                                         |    |      |      |  |
|---------------------------------------|--------------------------------------------------------------------------------|--------------------------|-----|-----|------------------------|---------------|------|---------------------------------------------------------|----|------|------|--|
| 工作温度范围<br>Operating Temperature Range | -55℃~+105℃                                                                     |                          |     |     |                        |               |      |                                                         |    |      |      |  |
| 额定静电容量容许误差值<br>Capacitance Tolerance  | ± 20% (120 Hz, 20℃)                                                            |                          |     |     |                        |               |      |                                                         |    |      |      |  |
| 漏电流<br>Leakage Current(at 20℃)        | 测试时间<br>Time                                                                   | 2 分钟后<br>after 2 minutes |     |     | 漏电流<br>Leakage Current |               |      | I≤0.2CV or 300(uA/微安)<br>之中任一较大值以下which ever is greater |    |      |      |  |
| 损失角正切值<br>Tanδ (at 120 Hz, 20℃)       | 参阅标准品一览表                                                                       |                          |     |     |                        |               |      |                                                         |    |      |      |  |
| 等效串联电阻 ESR (mΩ/at 100k Hz, 20℃ max.)  | 参阅标准品一览表                                                                       |                          |     |     |                        |               |      |                                                         |    |      |      |  |
| 耐久性<br>Endurance                      | 在 105℃环境中，连续加载额定电压 30,00 小时后、待温度恢复到 20℃进行测量时，应满足以下要求。                          |                          |     |     |                        |               |      |                                                         |    |      |      |  |
|                                       | 外观                                                                             |                          |     |     |                        | 无明显变化         |      |                                                         |    |      |      |  |
|                                       | 静电容量变化率                                                                        |                          |     |     |                        | ≤ 初始值的± 20%   |      |                                                         |    |      |      |  |
|                                       | 损失角正切值                                                                         |                          |     |     |                        | ≤ 初始规格值的 150% |      |                                                         |    |      |      |  |
|                                       | 等效串联电阻(ESR)                                                                    |                          |     |     |                        | ≤ 初始规格值的 150% |      |                                                         |    |      |      |  |
|                                       | 漏电流                                                                            |                          |     |     |                        | ≤ 初始规格值       |      |                                                         |    |      |      |  |
| 耐湿性<br>Moisture Resistance            | 在60℃90 ~ 95%RH 环境中，连续加载额定电压1,000 小时后，待温度恢复到20℃进行测量时，应满足以下要求。                   |                          |     |     |                        |               |      |                                                         |    |      |      |  |
|                                       | 外观                                                                             |                          |     |     |                        | 无明显变化         |      |                                                         |    |      |      |  |
|                                       | 静电容量变化率                                                                        |                          |     |     |                        | ≤ 初始值的± 20%   |      |                                                         |    |      |      |  |
|                                       | 损失角正切值                                                                         |                          |     |     |                        | ≤ 初始规格值       |      |                                                         |    |      |      |  |
|                                       | 等效串联电阻(ESR)                                                                    |                          |     |     |                        | ≤ 初始规格值的 150% |      |                                                         |    |      |      |  |
|                                       | 漏电流                                                                            |                          |     |     |                        | ≤ 初始规格值       |      |                                                         |    |      |      |  |
| 浪涌电压特性                                | 在105℃环境中，按照充电30 秒、放电5 分30 秒连续加载浪涌电压1,000 次(Rc = 1kΩ) 后，待温度恢复到20℃进行测量时，应满足以下要求。 |                          |     |     |                        |               |      |                                                         |    |      |      |  |
|                                       | 额定电压 (RV)                                                                      | 2.5                      | 4   | 6.3 | 7.5                    | 10            | 12   | 16                                                      | 20 | 25   | 35   |  |
|                                       | 浪涌电压 (SV)                                                                      | 2.9                      | 4.6 | 7.2 | 8.6                    | 11.5          | 13.8 | 18.4                                                    | 23 | 28.8 | 40.3 |  |
|                                       | 外观                                                                             |                          |     |     |                        | 无明显变化         |      |                                                         |    |      |      |  |
|                                       | 静电容量变化率                                                                        |                          |     |     |                        | ≤ 初始值的± 20%   |      |                                                         |    |      |      |  |
|                                       | 损失角正切值                                                                         |                          |     |     |                        | ≤ 初始规格值       |      |                                                         |    |      |      |  |
|                                       | 等效串联电阻(ESR)                                                                    |                          |     |     |                        | ≤ 初始规格值的 150% |      |                                                         |    |      |      |  |
| 漏电流                                   |                                                                                |                          |     |     | ≤ 初始规格值                |               |      |                                                         |    |      |      |  |

表2 纹波电流的频率系数  
Srequency Coefficient For Ripple Current

| Frequency   | 120Hz≤freq.<br><1KHz | 1KHz≤freq.<br><10KHz | 10KHz≤freq.<br><100KHz | 100KHz≤freq.<br><300KHz |
|-------------|----------------------|----------------------|------------------------|-------------------------|
| Coefficient | 0.05                 | 0.3                  | 0.7                    | 1                       |

表3 外形尺寸 Dimensions(mm)

| Lead Spacing and Diameter |     |     |     |     |      |
|---------------------------|-----|-----|-----|-----|------|
| Unit: mm                  |     |     |     |     |      |
| ΦD                        | 5.0 | 5.5 | 6.3 | 8.0 | 10.0 |
| P                         | 2.0 | 2.5 | 2.5 | 3.5 | 5.0  |
| Φd                        | 0.5 | 0.5 | 0.5 | 0.6 | 0.6  |
| β                         | 0.5 |     |     |     |      |
| α                         | 1.0 |     |     |     |      |



Marking

ΦD=5~8

ΦD=10

