



## Aluminum Electrolytic Capacitors

Snap-in capacitors

**Series/Type:**            **B43644**

**Date:**                    June 22, 2018

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## Long-life grade capacitors

### 长寿命电容器

## Applications

### 应用

- Solar inverters  
太阳能逆变器
- Frequency converters  
变频器
- Uninterruptible power supplies  
不间断电源
- Professional power supplies in industrial electronics  
工业电子中的专业电源

## Features

### 特点

- Long useful life, ultra compact  
长寿命, 超紧凑型
- High reliability  
高可靠性与高耐纹波电流能力
- High ripple current capability  
耐纹波电流能力高
- RoHS-compatible  
符合RoHS要求

## Construction

### 结构

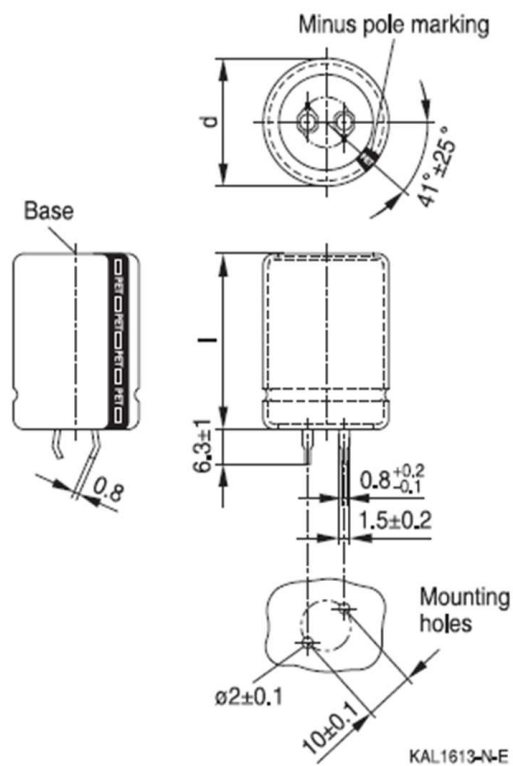
- Fully insulated with PVC, and PET also available  
PVC或PET套管和底垫绝缘
- Overload protection by safety vent on the base  
底部安全阀过载保护

**Specifications and characteristics in brief**
**规格性能参数一览表**

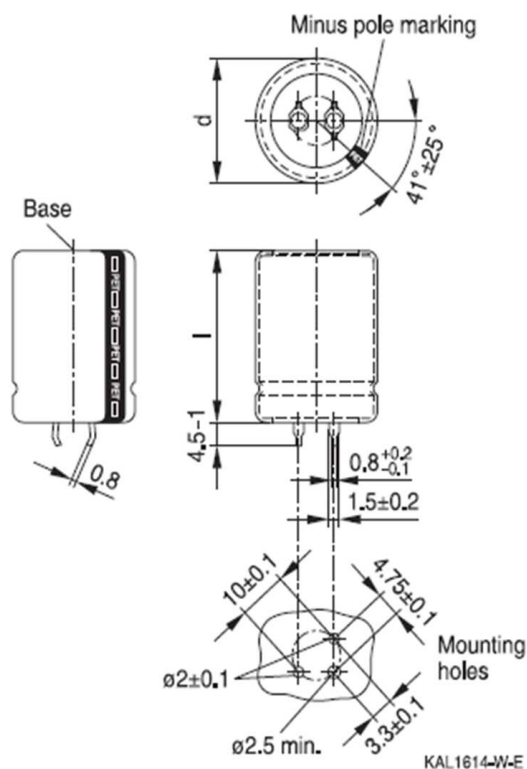
Rated voltage $V_R$ 额定电压 $V_R$	200 ... 450 V DC	
Surge voltage $V_S$ 浪涌电压 $V_S$	1.15 · $V_R$ (for $V_R \leq 250$ V DC) 1.10 · $V_R$ (for $V_R \geq 400$ V DC)	
Operating temperature range 工作温度范围	-40 °C...+105 °C	
Rated capacitance $C_R$ 额定容量 $C_R$ (20 °C, 120 Hz)	68 ... 2700 $\mu$ F	
Capacitance tolerance 电容公差	±20% (M)	
Dissipation factor (max.) 损耗正切角(最大值)	$V_R \leq 250$ V DC: $\tan \delta \leq 0.15$ $V_R \geq 400$ V DC: $\tan \delta \leq 0.20$	
Leakage current $I_{leak}$ (20 °C, after 5 minutes) 漏电流 $I_{leak}$ (20 °C, 5分钟后)	$I_{leak} \leq 0.3 \mu\text{A} \cdot \left( \frac{C_R}{\mu\text{F}} \cdot \frac{V_R}{\text{V}} \right)^{0.7} + 4 \mu\text{A}$	
Useful life 使用寿命 (105 °C, $V_R$ , $I_{AC,R}$ )	5000 h	Requirements 要求:
		$\Delta C/C \leq \pm 20\%$ of initial value 初始值的±20% $\tan \delta \leq 2$ times initial specified limit 2倍初始规定值 $I_{leak} \leq$ initial specified limit 初始规定值
Temperature & frequency multiplier for rated ripple current 额定纹波电流温度/频率系数	Specific part number's Temperature and Frequency multipliers are available in our on-line AlCap Useful Life Calculation Tool, which please click the hyperlink as below: 个别料号纹波电流的温度和频率系数可从我们网络寿命工具获取, 链接如下: <a href="https://www.epcos-china.com/epcos-zh/524040/design-support/design-tools/aluminum-electrolytic-capacitors/alcap-useful-life-calculation-tool">https://www.epcos-china.com/epcos-zh/524040/design-support/design-tools/aluminum-electrolytic-capacitors/alcap-useful-life-calculation-tool</a>	
Sectional specification 分规范	IEC 60384-4	

\*In general, each specified part number has individual Frequency and temperature multipliers. Please refer to the AlCap Useful Life Calculation Tool, available from EPCOS web page (Design Support > Design Tools > Aluminum Electrolytic Capacitors > AlCap Useful Life Calculation Tool).

\*每个电容器都有各自的额定纹波电流的频率和温度系数, 具体计算请使用在EPCOS官网上的铝电解电容寿命计算工具。

**Dimensional drawings 尺寸图**
**Snap-in capacitors with standard insulation (PVC or PET)**
**标准PVC或PET绝缘焊片电容器**


Snap-in terminals, length (6.3 ±1) mm.  
 Also available in a shorter version with a length of (4.5-1) mm.  
 Safety vent on the base.  
 长焊针(6.3 ±1) mm, 短焊针(4.5-1) mm  
 防爆阀在底部



Snap-in capacitors are also available with 3 terminals length (4.5-1) mm.  
 Safety vent on the base.  
 3焊针电容器, 焊针长度(4.5-1) mm  
 防爆阀在底部

**Technical data and ordering codes 技术参数与订货编码**

$V_R$	$C_R$ 120 Hz 20 °C $\mu F$	Case dimensions d x l mm	$ESR_{typ}$ 120 Hz 20 °C m $\Omega$	$I_{AC,R}$ 120 Hz 105 °C A	Ordering code
200	330	22 x 25	280	1.16	B43644A2337M0*#
200	390	22 x 30	240	1.33	B43644A2397M0*#
200	470	22 x 30	200	1.50	B43644A2477M0*#
200	470	25.4 x 25	210	1.40	B43644B2477M0*#
200	560	22 x 35	170	1.73	B43644A2567M0*#
200	560	25.4 x 30	170	1.62	B43644B2567M0*#
200	680	22 x 40	140	2.02	B43644A2687M0*#
200	680	25.4 x 35	140	1.88	B43644B2687M0*#
200	680	30 x 25	160	1.61	B43644C2687M0*#
200	820	22 x 45	110	2.34	B43644A2827M0*#
200	820	25.4 x 40	120	2.17	B43644B2827M0*#
200	820	30 x 30	130	1.89	B43644C2827M0*#
200	1000	25.4 x 45	100	2.53	B43644A2108M0*#
200	1000	30 x 35	110	2.20	B43644B2108M0*#
200	1000	35 x 25	130	1.77	B43644C2108M0*#
200	1200	25.4 x 50	80	2.90	B43644A2128M0*#
200	1200	30 x 35	95	2.37	B43644B2128M0*#
200	1200	35 x 30	110	2.24	B43644C2128M0*#
200	1500	30 x 45	75	3.12	B43644A2158M0*#
200	1500	35 x 35	85	2.61	B43644B2158M0*#
200	1800	30 x 50	60	3.54	B43644A2188M0*#
200	1800	35 x 40	70	2.98	B43644B2188M0*#
200	2200	30 x 55	55	4.05	B43644A2228M0*#
200	2200	35 x 45	60	3.39	B43644B2228M0*#
200	2700	35 x 50	50	3.84	B43644A2278M0*#

**Composition of ordering code**
**订货编码规则**

\* = Insulation feature 绝缘特征

0 = PVC insulation PVC绝缘

6 = PET insulation PET绝缘

# = Terminal style 焊针类型

0 = Standard terminals (6.3 mm) 标准焊针 6.3 mm

2 = 3 terminals (4.5 mm) 3焊针 4.5 mm

7 = Short terminals (4.5 mm) 短焊针 4.5 mm

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$V_R$	$C_R$ 120 Hz 20 °C $\mu F$	Case dimensions d x l mm	$ESR_{typ}$ 120 Hz 20 °C m $\Omega$	$I_{AC,R}$ 120 Hz 105 °C A	Ordering code
250	220	22 x 25	330	0.98	B43644E2227M0*#
250	270	22 x 30	270	1.14	B43644E2277M0*#
250	330	22 x 30	220	1.31	B43644E2337M0*#
250	330	25.4 x 25	230	1.24	B43644F2337M0*#
250	390	22 x 35	190	1.50	B43644E2397M0*#
250	390	25.4 x 30	190	1.42	B43644F2397M0*#
250	470	22 x 40	160	1.74	B43644E2477M0*#
250	470	25.4 x 30	170	1.60	B43644F2477M0*#
250	470	30 x 25	180	1.46	B43644G2477M0*#
250	560	22 x 45	130	2.01	B43644E2567M0*#
250	560	25.4 x 35	140	1.84	B43644F2567M0*#
250	560	30 x 30	150	1.70	B43644G2567M0*#
250	680	22 x 50	110	2.34	B43644E2687M0*#
250	680	25.4 x 40	120	2.14	B43644F2687M0*#
250	680	30 x 30	130	1.86	B43644G2687M0*#
250	680	35 x 25	150	1.66	B43644H2687M0*#
250	820	25.4 x 45	100	2.47	B43644E2827M0*#
250	820	30 x 35	110	2.15	B43644F2827M0*#
250	820	35 x 30	120	2.08	B43644G2827M0*#
250	1000	25.4 x 55	80	2.94	B43644E2108M0*#
250	1000	30 x 40	90	2.65	B43644F2108M0*#
250	1000	35 x 30	110	2.20	B43644G2108M0*#
250	1200	30 x 45	75	3.04	B43644E2128M0*#
250	1200	35 x 35	90	2.55	B43644F2128M0*#
250	1500	30 x 55	60	3.66	B43644E2158M0*#
250	1500	35 x 40	75	2.96	B43644F2158M0*#
250	1800	35 x 50	55	3.55	B43644E2188M0*#
250	2200	35 x 55	50	4.02	B43644E2228M0*#

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 7 = Short terminals (4.5 mm) 短焊针 4.5 mm

**Technical data and ordering codes 技术参数与订货编码**

$V_R$	$C_R$ 120 Hz 20 °C $\mu\text{F}$	Case dimensions $d \times l$ mm	$\text{ESR}_{\text{typ}}$ 120 Hz 20 °C m $\Omega$	$I_{\text{AC,R}}$ 120 Hz 105 °C A	Ordering code
400	100	22 x 25	830	0.70	B43644A9107M0*#
400	120	22 x 30	690	0.80	B43644A9127M0*#
400	120	25.4 x 25	700	0.78	B43644B9127M0*#
400	150	22 x 30	590	0.93	B43644E9157M0*#
400	150	25.4 x 25	600	0.90	B43644F9157M0*#
400	180	22 x 35	490	1.07	B43644E9187M0*#
400	180	25.4 x 30	470	1.06	B43644B9187M0*#
400	180	30 x 25	480	1.02	B43644C9187M0*#
400	220	22 x 40	400	1.26	B43644E9227M0*#
400	220	25.4 x 35	380	1.24	B43644B9227M0*#
400	220	30 x 25	420	1.14	B43644F9227M0*#
400	270	22 x 50	310	1.55	B43644A9277M0*#
400	270	25.4 x 40	310	1.46	B43644B9277M0*#
400	270	30 x 30	320	1.36	B43644C9277M0*#
400	270	35 x 25	340	1.29	B43644D9277M0*#
400	330	25.4 x 45	270	1.66	B43644E9337M0*#
400	330	30 x 35	260	1.58	B43644B9337M0*#
400	330	35 x 25	300	1.41	B43644F9337M0*#
400	390	25.4 x 50	230	1.90	B43644E9397M0*#
400	390	30 x 35	240	1.72	B43644F9397M0*#
400	390	35 x 30	240	1.75	B43644C9397M0*#
400	470	30 x 45	190	2.21	B43644A9477M0*#
400	470	35 x 35	200	2.02	B43644B9477M0*#
400	560	30 x 50	160	2.54	B43644A9567M0*#
400	560	35 x 40	170	2.30	B43644B9567M0*#
400	680	30 x 55	140	2.88	B43644E9687M0*#
400	680	35 x 45	140	2.65	B43644A9687M0*#
400	820	35 x 50	120	2.97	B43644E9827M0*#

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$V_R$	$C_R$ 120 Hz 20 °C $\mu F$	Case dimensions d x l mm	$ESR_{typ}$ 120 Hz 20 °C m $\Omega$	$I_{AC,R}$ 120 Hz 105 °C A	Ordering code
450	68	22 x 25	1360	0.55	B43644A5686M0*#
450	82	22 x 25	1180	0.62	B43644E5826M0*#
450	100	22 x 30	930	0.74	B43644A5107M0*#
450	100	25.4 x 25	930	0.72	B43644B5107M0*#
450	120	22 x 35	770	0.85	B43644A5127M0*#
450	120	25.4 x 25	820	0.81	B43644E5127M0*#
450	150	22 x 40	620	1.02	B43644A5157M0*#
450	150	25.4 x 30	650	0.96	B43644E5157M0*#
450	150	30 x 25	640	0.94	B43644C5157M0*#
450	180	22 x 45	520	1.18	B43644A5187M0*#
450	180	25.4 x 35	520	1.12	B43644B5187M0*#
450	180	30 x 25	560	1.05	B43644E5187M0*#
450	220	22 x 50	440	1.37	B43644E5227M0*#
450	220	25.4 x 40	450	1.29	B43644F5227M0*#
450	220	30 x 30	440	1.24	B43644B5227M0*#
450	220	35 x 25	450	1.19	B43644C5227M0*#
450	270	25.4 x 45	360	1.52	B43644E5277M0*#
450	270	30 x 35	360	1.44	B43644B5277M0*#
450	270	35 x 30	370	1.47	B43644C5277M0*#
450	330	25.4 x 55	300	1.81	B43644E5337M0*#
450	330	30 x 40	290	1.80	B43644A5337M0*#
450	330	35 x 30	320	1.64	B43644F5337M0*#
450	390	30 x 45	260	2.02	B43644E5397M0*#
450	390	35 x 35	260	1.88	B43644B5397M0*#
450	470	30 x 50	220	2.33	B43644E5477M0*#
450	470	35 x 40	220	2.16	B43644B5477M0*#
450	560	35 x 45	190	2.44	B43644E5567M0*#
450	680	35 x 55	150	2.91	B43644A5687M0*#

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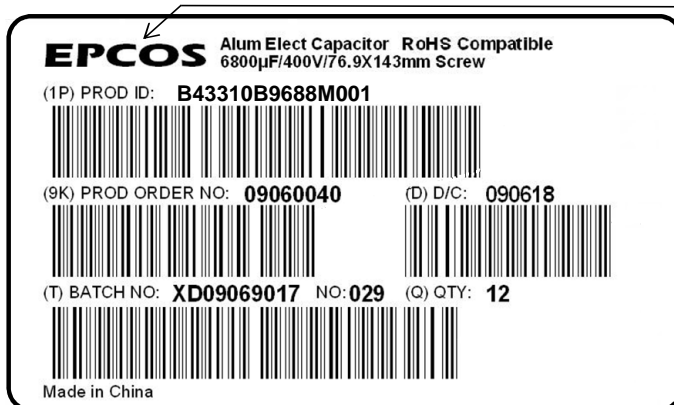
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Ultra compact, long useful life - 105 °C 超紧凑, 长寿命型 - 105 °C

Below is an example of bar code label on package:

以下为包装箱上条形码标签示例:



Brand 品牌

- |                           |            |
|---------------------------|------------|
| (1P) Ordering code        | 订购代码       |
| (9K) Product order number | 订单号        |
| (D) Date code (yywwdd)    | 日期代码 (年月日) |
| (T) Batch number          | 批号         |
| (Q) Quantity              | 数量         |

The three examples below shows how the capacitor sleeve are marked according to case height:

以下三个示例说明不同壳体高度电容器套管上的标签内容:

Case height

壳体高度

	<b>EPCOS</b>	Brand	品牌
25mm	B43541-A9127-M 120µF (M) 400V- 40/085/56 LL MM.JJ X	Part number (ordering code) Rated capacitance, tolerance, rated voltage, Climatic category, long life Month. Year and place of production	料号 (订购代码) 额定电容、容差、额定电压 气候分类, 长寿命 月. 年 (生产日期) 厦门 (产地)
30~40mm	<b>EPCOS</b> LL B43541-A9337-M 330µF (M) 400V- 40/085/56 MM.JJ X	Brand, long life Part number (ordering code) Rated capacitance, tolerance, rated voltage, Climatic category Month. Year and place of production	品牌, 长寿命 料号 (订购代码) 额定电容、容差、额定电压 气候分类 月. 年 (生产日期) 厦门 (产地)
>40mm	<b>EPCOS</b> LL B43541-A9567-M 560µF (M) 400V- 40/85/56 MM.JJ X	Brand, long life Part number (ordering code) Rated capacitance, tolerance Rated voltage, Climatic category Month. Year and place of production	品牌, 长寿命 料号 (订购代码) 额定电容、容差 额定电压、气候分类 月. 年 (生产日期) 厦门 (产地)

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The following applies to all products named in this publication:

1. Some parts of this publication contain **statements about the suitability of our products for certain areas of application**. These statements are based on our knowledge of typical requirements that are often placed on our products in the areas of application concerned. We nevertheless expressly point out **that such statements cannot be regarded as binding statements about the suitability of our products for a particular customer application**. As a rule, EPCOS is either unfamiliar with individual customer applications or less familiar with them than the customers themselves. For these reasons, it is always ultimately incumbent on the customer to check and decide whether an EPCOS product with the properties described in the product specification is suitable for use in a particular customer application.
2. We also point out that **in individual cases, a malfunction of electronic components or failure before the end of their usual service life cannot be completely ruled out in the current state of the art, even if they are operated as specified**. In customer applications requiring a very high level of operational safety and especially in customer applications in which the malfunction or failure of an electronic component could endanger human life or health (e.g. in accident prevention or life-saving systems), it must therefore be ensured by means of suitable design of the customer application or other action taken by the customer (e.g. installation of protective circuitry or redundancy) that no injury or damage is sustained by third parties in the event of malfunction or failure of an electronic component.
3. **The warnings, cautions and product-specific notes must be observed.**
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