



# Aluminum Electrolytic Capacitors

Snap-in capacitors

**Series/Type:**            **B43255**

**Date:**                    April 1, 2014

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## Long-life grade capacitors

### 长寿命电容器

#### Applications

##### 应用

- Frequency converters  
变频器
- Professional power supplies  
专业电源
- Solar and wind power generator  
太阳能和风力发电设备
- Uninterruptible power supplies  
不间断电源

#### Features

##### 特点

- RoHS-compatible  
符合RoHS要求
- High reliability  
高可靠性
- Useful life of 5000h at 105 °C  
105 °C 5000h使用寿命

#### Construction

##### 结构

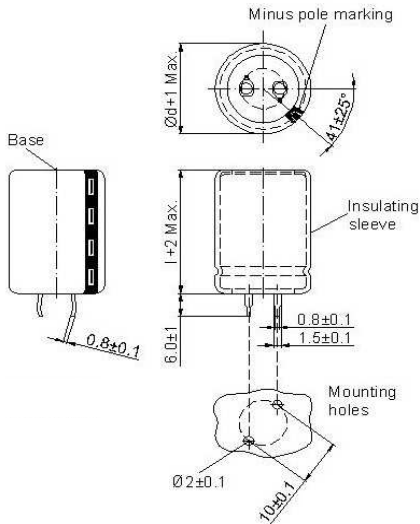
- Aluminum case, fully insulated  
铝质外壳，整体绝缘
- Minus pole marking on the insulating sleeve  
绝缘套管上标注负极
- Overload protection by safety vent on the base  
底部安全阀过载保护

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

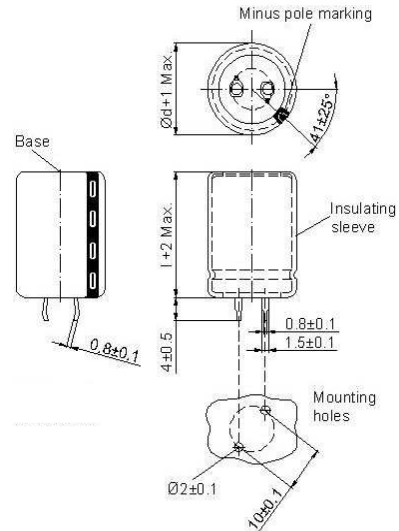
Rated voltage $V_R$ 额定电压 $V_R$	200...450 V DC					
Surge voltage $V_S$ 浪涌电压 $V_S$	1.15 · $V_R$ (for $V_R \leq 315V$ DC) 1.10 · $V_R$ (for $V_R > 315V$ DC)					
Operating temperature range 工作温度范围	$V_R \leq 400V$ DC: -40 °C...+105 °C $V_R \geq 450V$ DC: -25 °C...+105 °C					
Rated capacitance $C_R$ 额定电容量 $C_R$ (20 °C, 120 Hz)	47...1500 $\mu F$					
Capacitance tolerance 电容量公差	±20% M					
Dissipation factor(max.) 损耗正切角(最大值) 20°C, 120Hz.	$V_R$ (V DC)	200...400			450	
	$\tan\delta$	0.15			0.20	
Leakage current $I_{leak}$ (20 °C, after 5 minutes) 漏电流 $I_{leak}$ (20 °C, 5分钟后)	$I_{leak} \leq 0.02 \mu A \cdot \left( \frac{C_R}{\mu F} \cdot \frac{V_R}{V} \right)$					
Low temperature stability 低温稳定性 (max impedance ratio) (最大阻抗比率)	$V_R$ (V DC)	160...250	300...400	450	120Hz	
	$\frac{Z(-25\text{ °C})}{Z(+20\text{ °C})}$	4	4	8		
	$\frac{Z(-40\text{ °C})}{Z(+20\text{ °C})}$	6	8	-		
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				
Shelf life 储存寿命	After storage for 1000 h at 105 °C, the capacitors shall meet the requirement of useful life test after reforming process. After test: $V_R$ to be applied for 30 minutes, 24 to 48 hours before measurement. 105°C高温贮存1000小时, 并预处理后, 电容器必须符合使用寿命测试中对其电性能的要求。预处理方法: 先加额定电压充电30分钟, 恢复24至48小时后再测试。					
Frequency multiplier for rated ripple current 额定纹波电流频率系数	50 Hz	120 Hz	1 kHz	10 kHz	20 kHz	
	0.80	1.00	1.20	1.50	1.55	
Temperature multiplier for rated ripple current 额定纹波电流温度系数	+40 °C	+55 °C	+70 °C	+85 °C	+105 °C	
	2.70	2.50	2.10	1.70	1.00	
Sectional specification 分规范	IEC 60384-4					

**Dimensional drawing**

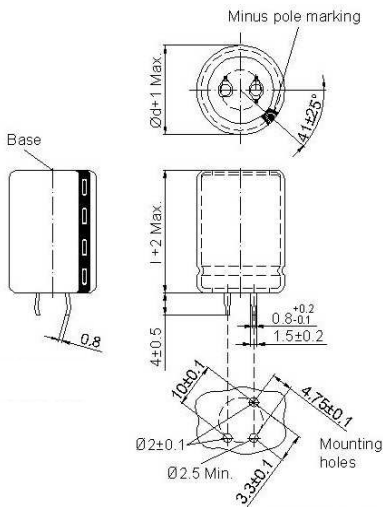
snap-in standard terminals ( $6.0 \pm 1$ ) mm  
 digit 15 of part number = 0



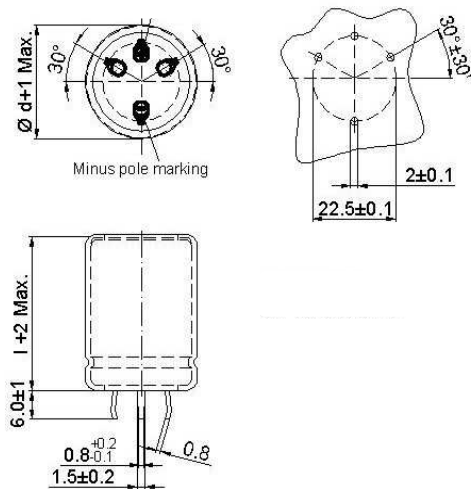
snap-in short terminals ( $4.0 \pm 0.5$ ) mm  
 digit 15 of part number = 7



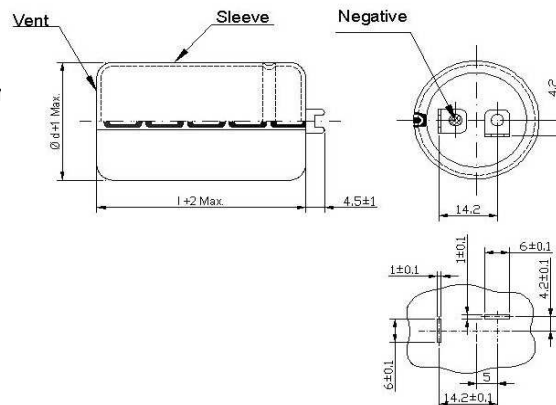
snap-in 3 terminals terminals ( $4.0 \pm 0.5$ ) mm  
 digit 15 of part number = 2



snap-in 4 terminal terminals ( $6.0 \pm 1$ ) mm  
 digit 15 of part number = 4



vibration-resistance terminals ( $4.5 \pm 1$ ) mm  
 digit 15 of part number = 8



Technical dates and ordering codes

V <sub>R</sub> V DC	C <sub>R</sub> 120Hz 20 °C μF	Case dimensions d × l mm	I <sub>AC,R</sub> 120 Hz 105 °C A	Ordering code
200	220	22.0 × 25	0.82	B43255A2227M0*#
	270	25.4 × 25	1.00	B43255A2277M0*#
	330	25.4 × 30	1.18	B43255A2337M0*#
	390	25.4 × 35	1.35	B43255A2397M0*#
	470	25.4 × 40	1.56	B43255A2477M0*#
	560	30.0 × 35	1.76	B43255A2567M0*#
	680	30.0 × 40	2.03	B43255A2687M0*#
	820	35.0 × 35	2.29	B43255A2827M0*#
	1000	35.0 × 35	2.53	B43255A2108M0*#
	1200	35.0 × 40	2.69	B43255A2128M0*#
1500	35.0 × 50	3.25	B43255A2158M0*#	
250	150	22.0 × 25	0.68	B43255E2157M0*#
	180	22.0 × 30	0.79	B43255E2187M0*#
	220	25.4 × 30	0.96	B43255E2227M0*#
	270	25.4 × 35	1.13	B43255E2277M0*#
	270	30.0 × 25	1.03	B43255F2277M0*#
	330	30.0 × 30	1.28	B43255E2337M0*#
	390	30.0 × 35	1.47	B43255E2397M0*#
	470	35.0 × 30	1.65	B43255E2477M0*#
	560	35.0 × 35	1.89	B43255E2567M0*#
	680	35.0 × 40	2.18	B43255E2687M0*#
	820	35.0 × 45	2.50	B43255E2827M0*#
	1000	35.0 × 50	2.87	B43255E2108M0*#
315	82	22.0 × 25	0.48	B43255A0826M0*#
	100	22.0 × 30	0.57	B43255A0107M0*#
	120	25.4 × 25	0.64	B43255A0127M0*#
	150	30.0 × 25	0.78	B43255A0157M0*#
	180	30.0 × 25	0.86	B43255A0187M0*#
	220	30.0 × 30	1.00	B43255A0227M0*#
	270	35.0 × 30	1.20	B43255A0277M0*#
	330	35.0 × 30	1.33	B43255A0337M0*#
	390	35.0 × 35	1.52	B43255A0397M0*#
	470	35.0 × 40	1.74	B43255A0477M0*#
	560	35.0 × 45	1.98	B43255A0567M0*#
	680	35.0 × 50	2.27	B43255A0687M0*#

\* = Insulation feature  
0 = PVC sleeve  
6 = PET sleeve

# = Terminal style  
0 = snap-in standard terminals (6.0±1) mm  
2 = snap-in 3 terminals (4.0±0.5) mm  
4 = snap-in 4 terminals (6.0±1) mm  
7 = snap-in short terminals (4.0±0.5) mm  
8 = vibration-resistance terminals (4.5±1) mm

Technical dates and ordering codes

V <sub>R</sub> V DC	C <sub>R</sub> 120Hz 20 °C μF	Case dimensions d × l mm	I <sub>AC,R</sub> 120 Hz 105 °C A	Ordering code
350	82	22.0 × 25	0.48	B43255A4826M0*#
	100	25.4 × 25	0.59	B43255A4107M0*#
	120	25.4 × 30	0.68	B43255A4127M0*#
	150	25.4 × 30	0.76	B43255A4157M0*#
	180	25.4 × 35	0.88	B43255A4187M0*#
	220	30.0 × 35	1.06	B43255A4227M0*#
	270	30.0 × 40	1.23	B43255A4277M0*#
	330	35.0 × 35	1.40	B43255A4337M0*#
	390	35.0 × 40	1.59	B43255A4397M0*#
	470	35.0 × 45	1.82	B43255A4477M0*#
	560	35.0 × 50	2.06	B43255A4567M0*#
400	56	22.0 × 25	0.40	B43255A9566M0*#
	68	25.4 × 25	0.48	B43255A9686M0*#
	82	25.4 × 25	0.53	B43255A9826M0*#
	100	25.4 × 30	0.62	B43255A9107M0*#
	120	30.0 × 25	0.70	B43255A9127M0*#
	150	30.0 × 30	0.83	B43255A9157M0*#
	180	35.0 × 30	0.98	B43255A9187M0*#
	220	35.0 × 30	1.08	B43255A9227M0*#
	270	35.0 × 35	1.26	B43255A9277M0*#
	330	35.0 × 40	1.46	B43255A9337M0*#
	390	35.0 × 45	1.66	B43255A9397M0*#
	470	35.0 × 50	1.89	B43255A9477M0*#
	560	35.0 × 60	2.23	B43255A9567M0*#

\* = Insulation feature

- 0 = PVC sleeve
- 6 = PET sleeve

# = Terminal style

- 0 = snap-in standard terminals (6.0±1) mm
- 2 = snap-in 3 terminals (4.0±0.5) mm
- 4 = snap-in 4 terminals (6.0±1) mm
- 7 = snap-in short terminals (4.0±0.5) mm
- 8 = vibration-resistance terminals (4.5±1) mm

Technical dates and ordering codes

V <sub>R</sub> V DC	C <sub>R</sub> 120Hz 20 °C μF	Case dimensions d × l mm	I <sub>AC,R</sub> 120 Hz 105 °C A	Ordering code
450	47	22.0 × 30	0.39	B43255A5476M0*#
	56	25.4 × 25	0.44	B43255A5566M0*#
	68	25.4 × 30	0.51	B43255A5686M0*#
	82	30.0 × 30	0.61	B43255A5826M0*#
	100	30.0 × 30	0.68	B43255A5107M0*#
	100	35.0 × 25	0.67	B43255B5107M0*#
	120	30.0 × 30	0.74	B43255A5127M0*#
	120	30.0 × 25	0.67	B43255B5127M0*#
	150	35.0 × 30	0.90	B43255A5157M0*#
	150	25.4 × 45	0.92	B43255B5157M0*#
	150	35.0 × 25	0.82	B43255C5157M0*#
	180	35.0 × 35	1.03	B43255A5187M0*#
	180	35.0 × 30	0.95	B43255B5187M0*#
	220	35.0 × 40	1.19	B43255A5227M0*#
	220	30.0 × 45	1.22	B43255B5227M0*#
	220	35.0 × 35	1.11	B43255C5227M0*#
	270	35.0 × 45	1.38	B43255A5277M0*#
	270	35.0 × 35	1.22	B43255B5277M0*#
	330	35.0 × 50	1.58	B43255A5337M0*#
	330	35.0 × 40	1.41	B43255B5337M0*#
	390	35.0 × 50	1.71	B43255A5397M0*#
	470	35.0 × 50	1.88	B43255A5477M0*#
	680	35.0 × 70	2.68	B43255A5687M0*#

\* = Insulation feature

0 = PVC sleeve

6 = PET sleeve

# = Terminal style

0 = snap-in standard terminals (6.0±1) mm

2 = snap-in 3 terminals (4.0±0.5) mm

4 = snap-in 4 terminals (6.0±1) mm

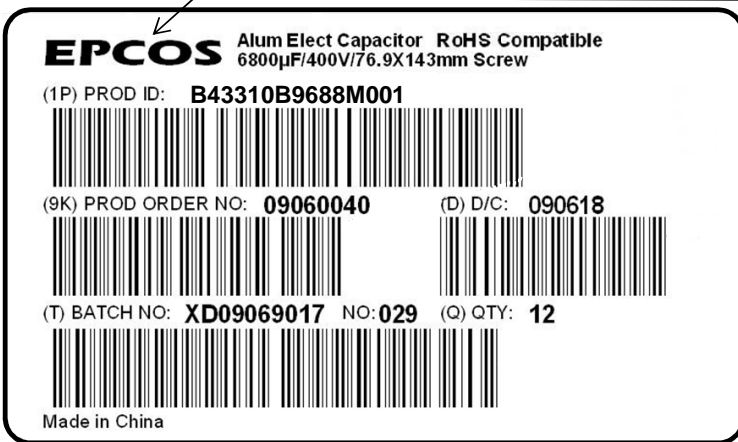
7 = snap-in short terminals (4.0±0.5) mm

8 = vibration-resistance terminals (4.5±1) mm

**Bar code label and marking of the capacitor 条形码标签和电容器标签**

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

以下两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

20mm		<p>Brand</p> <p>Part number (ordering code)</p> <p>Rated capacitance, tolerance, rated voltage,</p> <p>Climatic category, month and year of production</p>	<p>品牌</p> <p>料号 (订购代码)</p> <p>额定电容、容差、额定电压</p> <p>气候分类、月.年 (生产日期)</p>
25mm		<p>Brand</p> <p>Part number (ordering code)</p> <p>Rated capacitance, tolerance, rated voltage,</p> <p>Climatic category</p> <p>Month and year of production</p>	<p>品牌</p> <p>料号 (订购代码)</p> <p>额定电容、容差、额定电压</p> <p>气候分类</p> <p>月.年 (生产日期)</p>
>25mm		<p>Brand</p> <p>Part number (ordering code)</p> <p>Rated capacitance, tolerance, rated voltage,</p> <p>Climatic category</p> <p>Month and year of production</p>	<p>品牌</p> <p>料号 (订购代码)</p> <p>额定电容、容差、额定电压</p> <p>气候分类</p> <p>月.年 (生产日期)</p>

The climatic category is specified according to IEC 60068-1. If there is not enough space on the case, the following codes may be used:

气候类别符合 IEC 60068 - 1。如果壳体上没有足够空间，可使用以下代码:

E.g.: 40/085/56, in coded form, would read GPF 例如: 40/085/56的代码形式为GPF

1st letter (lower category temperature) 首字母 (下限类别温度)

Code letter 字母代码	F	G	H
Temperature 温度 (° C)	-55	-40	-25

2nd letter (upper category temperature) 第二字母 (上限类别温度)

Code letter 代码字母	K	M	P	S	U
Temperature 温度 (° C)	+125	+105(+100)	+85	+70	+60

3rd letter (humidity) 第三字母 (湿度)

Letter F: withstands IEC60068-2-78 Cab (damp heat, steady state), test duration 56 days.

字母F: 经受IEC 60068-2-78试验箱 (湿热、恒稳态), 试验周期56天。



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