

EPCOS Product Brief 2014 爱普科斯产品简介 2014

EMC Filters for Industrial Applications 工业用EMC滤波器

With 60 years experiences in designing and manufacturing EMC filters, many series and thousands of different types of filters have been developed for applications like:

- Frequency converters and motor drives
- PV inverters
- Elevators and lifts
- Medical equipment
- Machinery
- Compressor, HVAC

The company has supported customers to fulfill related EMC standard (e.g. EN 55011, EN 55022, EN 61800, CGC/CQC).

Several series of EPCOS filters have obtained international approvals from UL, CSA, ENEC and TUV. At the same time, we are helping customer for precompliance measurement, and provide necessary consultant services to customers.

For product data sheets, please visit http://www.epcos.com/emc_filters.

公司积累了超过60年EMC滤波器研发和制造经验，开发了多个系列，超过千种以上的针对：

- 变频器和马达驱动
- 光伏逆变
- 电梯
- 医疗设备
- 加工设备，如机床，纺织机械等
- 空气压缩机，HVAC

等工业应用的EMC滤波器产品方案，帮助全球客户通过相关 EMC 标准认证(如: EN55011, EN55022, EN 61800, CGC/CQC等)。

多个爱普科斯EMC滤波器产品系列通过美国UL，加拿大CSA和欧洲ENEC，TUV认证。同时，完善的技术支持能力可帮助客户进行摸底实验，并提供认证测试技术支持。

如需详细的产品数据手册，欢迎访问 http://www.epcos-china.com/emc_filters。



B84143A*166 Series & B84143A*R106 Series

B84143A*166系列和B84143A*R106系列



Features and applications / 特点和应用

B84143A*166 series / B84143A*166系列

- Small size, low weight, current up to 35 A
小体积, 重量轻, 最大电流35 A
- Rated voltage 520 V AC
额定电压520 V AC
- Good performance cost ratio
高性价比
- For drives with short motor cable length (10 m)
针对变频器应用中短电机线缆应用(10米)



B84143A*R106 series / B84143A*R106系列

- Low weight and size
小体积, 重量轻
- Rated voltage 520 V AC
额定电压520 V AC
- Safe to touch terminal blocks
欧规穿墙端子
- For drives with short-mid motor cable (20 m)
针对变频器应用中短电机线缆应用(20米)



Technical data / 技术数据

I_R	Terminal cross section	$I_{leak}^{1)}$	R_{typ}	Approx. weight	Ordering code	Approvals		
额定电流 A	端子截面积 mm ²	漏电流 ¹⁾ mA	典型电阻 mΩ	重量 kg	订货号	认证 		
B84143A*166 series / B84143A*166系列								
10	5 (TAB/插片)	3	12.9	0.6	B84143A0010A166	×	×	×
20	5 (TAB/插片)	3	4.9	0.75	B84143A0020A166	×	×	×
35	6 (Terminal strip/ 接线端子)	5	2.7	1.1	B84143A0035R166	×	×	×
B84143A*R106 series / B84143A*R106系列								
10	4	14.3	5.5	0.4	B84143A0010R106	×	×	×
20	4	14.3	3.3	0.6	B84143A0020R106	×	×	×
35	10	15.8	1.7	0.9	B84143A0035R106	×	×	×
50	25	15.8	1.1	1.4	B84143A0050R106	×	×	×
65	25	15.8	0.94	1.9	B84143A0065R106	×	×	×
80	50	15.8	0.60	2.4	B84143A0080R106	×	×	×
100	50	15.8	0.48	2.9	B84143A0100R106	×	×	×

× = approval granted / 通过认证

¹⁾ B84143A*166 series / B84143A*166系列

Calculation according draft proposal IEC 60939-1 Ed.3 (2008-10-29), annex A, "Calculation of leakage current" at 50 Hz
根据IEC 60939-1 Ed.3 (2008-10-29), annex A, "Calculation of leakage current" at 50 Hz计算

¹⁾ B84143A*R106 series / B84143A*R106系列

3 phase operation in TN network; maximum voltage = U_R ; frequency = 50 Hz without harmonics;
tolerance of capacitors -20%/0%; worst case positioning of the components; unbalance 2% according EN 50160:2000
处于三相TN电网工作, 最大电压为额定电压, 频率50 Hz, 无谐波, 电容公差-20%/0%, 根据EN 50160:2000标准, 电网不平衡性为2%

B84143A*R105 Series & B84143D*R127 Series

B84143A*R105系列和B84143D*R127系列



Features and applications / 特点和应用

B84143A*R105 series / B84143A*R105系列

- Book size, small installation area
书本型外观设计, 安装面积小
- Rated voltage 520 V AC, current up to 150 A
额定电压520 V AC, 最大电流150 A
- Widely used in industrial applications, e.g. solar inverter, elevator
广泛应用于光伏, 电梯等工业应用



B84143D*R127 series / B84143D*R127系列

- High performance
超高性能
- Rated voltage 520 V AC, current up to 200 A
额定电压520 V AC, 最大电流200 A
- For drives with long motor cable (200-300 m) or multi axis systems
针对变频器应用中超长电机线缆应用(200-300米)



Technical data / 技术数据

I_R	Terminal cross section	$I_{leak}^{1)}$	R_{typ}	Approx. weight	Ordering code	Approvals		
额定电流 A	端子截面积 mm ²	漏电流 ¹⁾ mA	典型电阻 mΩ	重量 kg	订货号	认证 		
B84143A*R105 series / B84143A*R105系列								
8	4	4.1	16	0.58	B84143A0008R105	×	×	×
16	4	4.1	9	0.90	B84143A0016R105	×	×	×
25	4	4.7	5	1.10	B84143A0025R105	×	×	×
36	10	4.7	4	1.75	B84143A0036R105	×	×	×
50	10	4.7	2	1.75	B84143A0050R105	×	×	×
66	16	4.7	1.5	2.7	B84143A0066R105	×	×	×
90	35	5.0	1.1	4.2	B84143A0090R105	×	×	×
120	35	5.0	0.90	4.9	B84143A0120R105	×	×	×
150	50	5.0	0.55	5.3	B84143A0150R105	×	×	×
B84143D*R127 series / B84143D*R127系列								
16	4	7.9	14.5	2.5	B84143D0016R127	-	×	×
25	6	9.2	7.0	2.5	B84143D0025R127	-	×	×
36	10	8.7	4.5	3.5	B84143D0036R127	-	×	×
50	25	12.0	2.5	5.5	B84143D0050R127	-	×	×
75	50	16.0	1.0	8.0	B84143D0075R127	-	×	×
90	50	14.0	1.0	8.0	B84143D0090R127	-	×	×
120	95	27.0	1.0	14.5	B84143D0120R127	-	×	×
150	95	24.0	0.5	17.0	B84143D0150R127	-	×	×
200	95	24.0	0.5	18.5	B84143D0200R127	-	×	×

× = approval granted / 通过认证

- = in preparation / 认证准备中

¹⁾ B84143D*R127 series / B84143D*R127系列

3 phase operation in TN network; maximum voltage = U_R ; frequency = 50 Hz without harmonics ;

tolerance of capacitors -20%/0% ; worst case positioning of the components ; unbalance 2% according EN 50160:2000

处于三相TN电网工作, 最大电压为额定电压, 频率50 Hz, 无谐波, 电容公差-20%/0%, 根据EN 50160:2000标准, 电网不平衡性为2%

B84143*S* High Current AC Series

B84143*S* 大电流交流系列





Features and applications / 特点和应用

- Bus bar connection
铜排连接
- Rated voltage 520-760 V AC, current up to 1600 A
额定电压520-760 V AC, 最大电流1600 A
- For solar central inverter (50 kW – 1 MW), high power converter/inverters
针对光伏(50 kW-1 MW), 大功率变频/逆变系统



Technical data / 技术数据

I_R 额定电流 A	Terminal cross section 端子截面积 mm ²	$I_{leak}^{1)}$ 漏电流 ¹⁾ mA	R_{typ} 典型电阻 mΩ	Approx. weight 重量 kg	Ordering code 订货号	Approvals 认证 	
$V_R = 520/300 \text{ V AC}$							
180	25	14	0.110	5.0	B84143B0180S080	×	×
250	25	14	0.110	5.0	B84143B0250S080	×	×
320	50	14	0.051	7.2	B84143B0320S080	×	×
400	50	14	0.048	7.5	B84143B0400S080	×	×
600	50	14	0.043	7.8	B84143B0600S080	×	×
1000	75	14	0.029	18.5	B84143B1000S080	×	×
1250	75	14	0.022	24.5	B84143B1250S080	×	×
1600	75	14	0.022	24.5	B84143B1600S080	×	×
1600	75	10	0.022	24.5	B84743K1600S* ²⁾	–	–
$V_R = 760/440 \text{ V AC}$							
180	25	20	0.110	5.0	B84143B0180S081	×	×
180	25		0.110	5.0	B84143K0180S081	×	×
250	25	20	0.110	5.0	B84143B0250S081	×	×
250	25		0.110	5.0	B84143K0250S081	×	×
320	50	20	0.051	7.2	B84143B0320S081	×	×
320	50		0.051	7.2	B84143K0320S081	×	×
400	50	20	0.048	7.5	B84143B0400S081	×	×
400	50		0.048	7.5	B84143K0400S081	×	×
600	50	20	0.043	7.8	B84143B0600S081	×	×
600	50		0.043	7.8	B84143K0600S081	×	×
1000	75	20	0.029	18.5	B84143B1000S081	×	×
1000	75		0.029	18.5	B84143K1000S081	×	×
1250	75	20	0.022	24.5	B84143B1250S081	×	×
1250	75		0.022	24.5	B84143K1250S081	×	×
1600	75	20	0.022	24.5	B84143B1600S081	×	×
1600	75		0.022	24.5	B84143K1600S081	×	×

× = approval granted / 通过认证

– = in preparation / 认证准备中

¹⁾ Calculation according IEC 60939-1 (04.2011), annex A, "Calculation of leakage current" at V_R , 50 Hz
根据IEC 60939-1 Ed.3 (2008-10-29), annex A,, "Calculation of leakage current " at 50 Hz计算

²⁾ For ordering code, please contact EPCOS sales / 请咨询爱普科斯销售关于产品编码

B84144A*R120/R140 Four-Line Series

B84144A*R120/R140 三相四线系列



Features and applications / 特点和应用

- Rated voltage 520 V AC, current up to 200 A
额定电压520 V AC, 最大电流200 A
- Low leakage current types are available (R140)
提供低漏电流版本(R140)
- High insertion loss
高插入损耗



Technical data / 技术数据

I_R	Terminal cross section	$I_{leak}^{1)}$	R_{typ}	Approx. weight	Ordering code	Approvals		
额定电流 A	端子截面积 mm ²	漏电流 ¹⁾ mA	典型电阻 mΩ	重量 kg	订货号	认证 		
B84144A*R120 High performance series / 高性能系列								
8	4	< 3.5	13.6	1.55	B84144A0008R120	x	x	x
16	4	< 3.5	7.5	1.6	B84144A0016R120	x	x	x
25	4	< 3.5	3.9	1.7	B84144A0025R120	x	x	x
36	10	< 3.5	2.7	2.15	B84144A0036R120	x	x	x
50	10	< 3.5	1.3	2.2	B84144A0050R120	x	x	x
66	16	< 3.5	1.1	3.6	B84144A0066R120	x	x	x
90	25	< 3.5	0.76	5.1	B84144A0090R120	x	x	x
120	50	< 3.5	0.47	9.5	B84144A0120R120	x	x	x
150	95	< 3.5	0.32	11.7	B84144A0150R120	x	x	x
200	95	< 3.5	0.23	12.5	B84144A0200R120	x	x	x
B84144A*R140 Low leakage current series / 低漏电流系列								
8	4	0.314	14.1	1.55	B84144A0008R140	x	x	x
16	4	0.314	7	1.6	B84144A0016R140	x	x	x
25	4	0.314	3.8	1.7	B84144A0025R140	x	x	x
36	10	0.314	3.1	2.15	B84144A0036R140	x	x	x
50	10	0.314	1.3	2.2	B84144A0050R140	x	x	x
66	16	0.314	1.1	3.6	B84144A0066R140	x	x	x
90	25	0.314	0.75	5.1	B84144A0090R140	x	x	x
120	50	0.314	0.58	9.5	B84144A0120R140	x	x	x
150	95	0.314	0.4	11.7	B84144A0150R140	x	x	x
200	95	0.314	0.27	12.5	B84144A0200R140	x	x	x

x = approval granted / 通过认证

¹⁾ Calculation according IEC 60939-1 (04.2011), annex A, "Calculation of leakage current" at V_R , 50 Hz
根据IEC 60939-1 Ed.3 (2008-10-29), annex A, "Calculation of leakage current" at 50 Hz计算

B84742A*R190 DC Filter Series

B84742A*R190 高压直流系列



Features and applications / 特点和应用

- Rated DC voltage 1000 V DC, current up to 130 A
额定直流电压1000 V DC, 最大电流130 A
- Compact design
紧凑设计
- High insertion loss
高插入损耗



Technical data / 技术数据

I _R 额定电流 A	R _{typ} 典型电阻 mΩ	Approx. weight 重量 kg	Ordering code 订货号	Approvals 认证		
25	4.2	1	B84742A0025R190	D	D	D
36	2.9	1.6	B84742A0036R190	D	D	D
55	1.9	1.6	B84742A0055R190	D	D	D
75	1.3	2.5	B84742A0075R190	D	D	D
100	0.9	4	B84742A0100R190	D	D	D
130	0.7	8	B84742A0130R190	D	D	D

D = design complies with / 按认证标准设计

B84142*S081 High Current DC Series

B84142*S081大电流直流系列



Features and applications / 特点和应用

- Rated voltage up to 1500 V DC, current up to 1600 A
额定直流电压可达1500 V DC, 最大电流1600 A
- Widely used for central solar inverters
广泛应用于光伏电站
- High insertion loss
高插入损耗



Technical data / 技术数据

I_R 额定电流 A	I_{pk} 峰值电流 kA	Terminal cross section 铜排截面积 mm ²	R_{typ} 典型电阻 mΩ	Approx. weight 重量 kg	Ordering code 订货号	Approvals 认证 	
$V_R = 1000 \text{ V DC}$							
180	25	20 × 3	0.110	4.9	B84142A0180S081	×	×
180	25	20 × 3	0.110	4.9	B84142J0180S081	×	×
250	25	20 × 3	0.110	5.0	B84142A0250S081	×	×
250	25	20 × 3	0.110	5.0	B84142J0250S081	×	×
320	50	25 × 5	0.051	7.8	B84142A0320S081	×	×
320	50	25 × 5	0.051	7.8	B84142J0320S081	×	×
400	50	25 × 5	0.048	7.8	B84142A0400S081	×	×
400	50	25 × 5	0.048	7.8	B84142J0400S081	×	×
600	50	30 × 5	0.043	7.9	B84142A0600S081	×	×
600	50	30 × 5	0.043	7.9	B84142J0600S081	×	×
1000	75	40 × 8	0.029	19.9	B84142A1000S081	×	×
1000	75	40 × 8	0.029	19.9	B84142J1000S081	×	×
1250	75	50 × 10	0.022	24.5	B84142A1250S081	×	×
1250	75	50 × 10	0.022	24.5	B84142J1250S081	×	×
1600	75	50 × 10	0.022	24.5	B84142A1600S081	×	×
1600	75	50 × 10	0.022	24.5	B84142J1600S081	×	×
$V_R = 1500 \text{ V DC}$							
180	25	20 × 3	0.110	4.9	B84142C0180S081	×	×
250	25	20 × 3	0.110	5.0	B84142C0250S081	×	×
320	50	25 × 5	0.051	7.8	B84142C0320S081	×	×
400	50	25 × 5	0.048	7.8	B84142C0400S081	×	×
600	50	30 × 5	0.043	7.9	B84142C0600S081	×	×
1000	75	40 × 8	0.029	19.9	B84142C1000S081	×	×
1250	75	50 × 10	0.022	24.5	B84142C1250S081	×	×
1600	75	50 × 10	0.022	24.5	B84142C1600S081	×	×

× = approval granted / 通过认证

EMC Filters for Industrial Applications

工业用EMC滤波器



General / 概要



- Three phase three lines, four lines, single phase AC and DC
- Metal housing
- For converter, inverter, PV, medical and other industrial applications

- 三相三线, 三相四线, 单相交流或直流
- 金属外壳
- 针对变频, 逆变, 光伏, 医疗等工业应用

Connection type:

- Safe to touch terminal blocks
- Bus bar (high current type)

端接形式:

- 欧规端子
- 铜排(大电流系列)

Rated voltage: AC 250-760 V AC, 50/60 Hz
DC 1000 V DC-1500 V DC

额定电压: 交流 250-760 V AC, 50/60 Hz
直流 1000 V DC-1500 V DC

Climatic category: 25/100/21

气候等级: 25/100/21

Important information: 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. We expressly point out that these statements cannot be regarded as binding statements about the suitability of our products for a particular customer application. It is incumbent on the customer to check and decide whether a product is suitable for use in a particular application. This publication is only a brief product survey which may be changed from time to time. Our products are described in detail in our data sheets. The *Important notes* (www.epcos.com/ImportantNotes) and the product-specific *Cautions and warnings* must be observed. All relevant information is available through our sales offices.

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