

PA series

■ 特性 Features

- 标准品 Standard Products
- 105°C 2000Hrs

■ 仕様 Specification

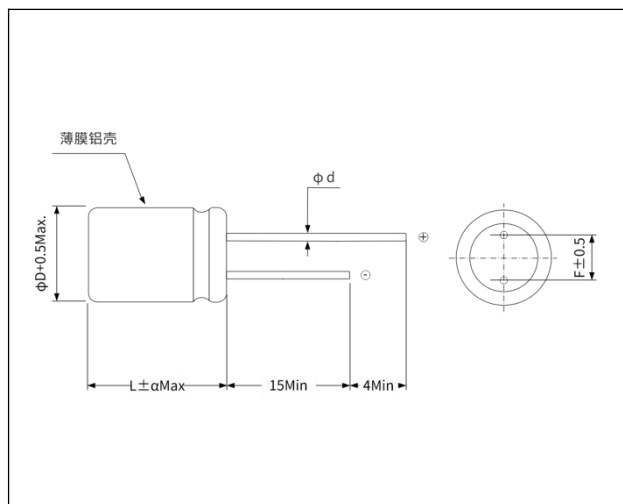


项目 Item	条件 Condition	性能 Performance
使用温度范围 Operating Temperature Range	-	-55°C~+105°C
额定电压范围 Rated Voltage Range	-	2.5~200V
额定静电容量范围 Rated Capacitance Range	-	4.7~4700μF
额定静电容量容许差 Capacitance Tolerance	120Hz, 20°C	±20%
漏电流 Leakage Current(LC)	施加额定电压 2 分钟后 After applying rated voltage for 2 minutes	$I \leq 0.2CV$ 或 $500\mu A$ (以较大值为准) $I \leq 0.2CV$ or $500\mu A$ (whichever is greater)
耐久性 Endurance	在 105°C 环境下, 施加额定工作电压并叠加纹波电流, 恢复到 20°C 后, 电容器应满足如下要求 Under 105°C, apply rated voltage and superimpose ripple current, then return to 20°C, The capacitors shall meet the following requirements.	
	静电容量变化率 Capacitance Change	初始值的 ±20% 以内 Within ±20% of initial value
	漏损电流 Leakage Current	初始规定值以内 Within initial specified value
	等效串联电阻 ESR	初始标准值的 150% 以下 $\leq 150\%$ of initial standard value
	损失角正切率(tan δ) Dissipation Factor(tan δ)	初始标准值的 150% 以下 $\leq 150\%$ of initial standard value
耐湿性 Moisture Resistance	存放在 60°C, 湿度 90~95%, 1000H Stored at 60°C, RH90~95%, 1000H	
	静电容量变化率 Capacitance Change	初始值的 ±20% 以内 Within ±20% of initial value
	漏损电流 Leakage Current	初始规定值以内 Within initial specified value
	等效串联电阻 ESR	初始标准值的 150% 以下 $\leq 150\%$ of initial standard value
	损失角正切值(tan δ) Dissipation Factor(tan δ)	初始标准值的 150% 以下 $\leq 150\%$ of initial standard value

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■ 尺寸图 Dimensions

(Unit:mm)

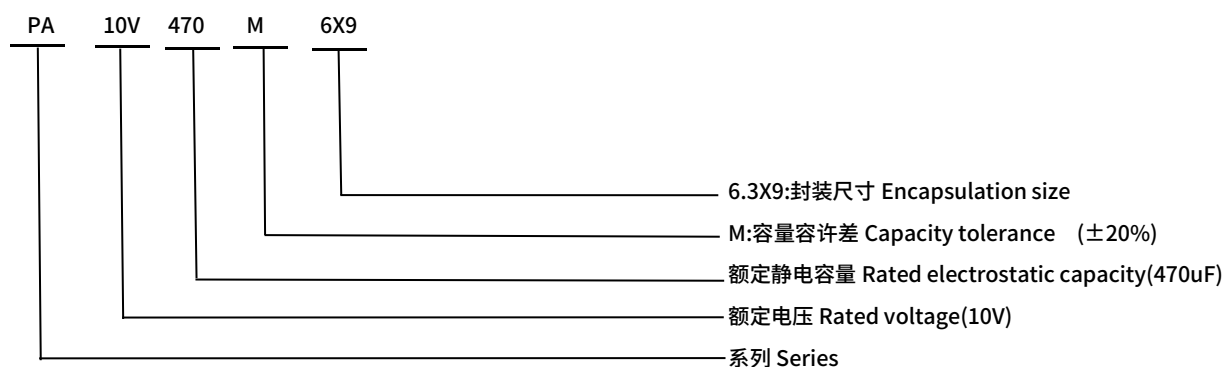


ØDXL	ØD+0.5 maX	α	F±0.5	Ød±0.05
5X5-18	5	1	2	0.5
5.5X5-18	5.5	1	2.5	0.5
6.3X5-9	6.3	1	2.5	0.5/0.6
6.3X11-20	6.3	1	2.5	0.6
8X7P-15P	8	1	2.5	0.6
8X7-20	8	1	3.5	0.6
10X10-20	10	1	5	0.6
12X12-20	12	1	5	0.6

■ 纹波电流速查表 Ripple Current Quick Reference Table:

频率 Frequency	120Hz≤Freq.<1KHz	1KHz≤Freq.<10KHz	10KHz≤Freq.<100KHz	100KHz≤Freq.<300KHz
纹波修正系数 Coefficient	0.05	0.3	0.7	1.0

■ 品号编码体系 Part Number Coding System (Example: 10V470μF)



注释: 型号中 R 表示小数点, 如 4R7 表示 4.7μF

Note: "R" in the model number denotes a decimal point (e.g., 4R7 = 4.7μF)

PA series

■ 电气特性 Electrical Characteristics

额定电压 Rated Voltage (V)	额定静电容容量 Rated Capacitance (μ F)	漏电流 Leakage Current (μ A,2min)	损失角正切值 Dissipation Factor (120Hz,20°C)	等效串联电阻 ESR (m Ω ,100KHz)	额定纹波电流 Rated Ripple Current (mA,105°C,100KHz)	尺寸 Dimensions Φ DXL(mm)	品号 Part Number
2.5	820	500	8	16	4100	6.3X8	PA2.5V820M6X8
	1500	750	8	13	4500	10X12.5	PA2.5V1500M10X12
6.3	220	500	8	21	2690	5X7	PA6.3V220M5X7
	270	500	8	21	2690	5X7	PA6.3V270M5X7
	330	500	8	16	4100	6.3X5	PA6.3V330M6X5
	330	500	8	16	2690	6.3X8	PA6.3V330M6X8
	390	500	8	21	2690	5X9	PA6.3V390M5X9
	470	592.2	8	14	4100	5.5X9	PA6.3V470M5X9
	470	592.2	8	14	4100	6.3X8	PA6.3V470M6X8
	680	856.8	8	14	4500	8X8	PA6.3V680M8X8
	820	1000	8	14	4500	5.5X11	PA6.3V820M5X11
	820	1000	8	14	4100	6.3X8	PA6.3V820M6X8
	820	1000	8	14	4100	6.3X9	PA6.3V820M6X9
	820	1000	8	14	4500	6.3X11	PA6.3V820M6X11
	820	1000	8	14	4500	8X8	PA6.3V820M8X8
	1000	1000	6	14	4100	6.3X9	PA6.3V1000M6X9
	1000	1000	8	14	4500	8X8	PA6.3V1000M8X8
	1000	1000	8	12	4700	8X11.5	PA6.3V1000M8X11
	1200	1000	8	12	4500	6X12	PA6.3V1200M6X12
	1200	1000	8	12	1600	8X11.5	PA6.3V1200M8X11
	1500	1000	8	12	4700	8X11.5	PA6.3V1500M8X11
	2000	2520	8	12	5000	8X12	PA6.3V2000M8X12
	2200	2520	8	12	5000	8X15	PA6.3V2200M8X15
	3300	1000	6	10	5100	10X12.5	PA6.3V3300M10X12
	4700	1000	12	16	5800	10X15	PA6.3V4700M10X15
	6800	1000	12	14	7600	12.5X17	PA6.3V6800M12X17
	8200	1000	14	14	8100	12.5X21	PA6.3V8200M12X21
	10000	1000	15	14	8100	12.5X21	PA6.3V10000M12X21

PA series

额定电压 Rated Voltage (V)	额定静电容量 Rated Capacitance (μ F)	漏电流 Leakage Current (μ A,2min)	损失角正切值 Dissipation Factor (120Hz,20°C)	等效串联电阻 ESR (m Ω ,100KHz)	额定纹波电流 Rated Ripple Current (mA,105°C,100KHz)	尺寸 Dimensions Φ DXL(mm)	品号 Part Number
7.5	470	705	8	12	4500	6.3X12	PA7.5V470M6X12
	560	840	8	12	4700	8X11.5	PA7.5V560M8X11
	820	1000	8	12	4700	8X11.5	PA7.5V820M8X11
	1200	1000	8	10	4900	10X12.5	PA7.5V1200M10X12
	2000	1000	10	10	4900	10X12.5	PA7.5V2000M10X12
10	100	500	8	18	2690	5X7	PA10V100M5X7
	220	440	6	28	2690	6.3X5.5	PA10V220M6X5
	330	660	8	16	4100	6.3X8	PA10V330M6X8
	470	940	8	14	4100	6.3X9	PA10V470M6X9
	560	1000	8	14	4100	6.3X9	PA10V560M6X9
	680	1000	8	14	4100	6.3X12	PA10V680M6X12
	820	1000	8	14	4500	8X11.5	PA10V820M8X11
	1000	1000	8	14	4500	8X11.5	PA10V1000M8X11
	1500	1000	6	12	4900	10X12.5	PA10V1500M10X12
	2200	1000	6	12	5100	10X12.5	PA10V2200M10X12
	3300	1000	10	12	5400	10X15	PA10V3300M10X15
	4700	1000	12	14	6800	12.5X17	PA10V4700M12X17
	5600	1000	12	12	7800	12.5X21	PA10V5600M12X21
16	100	320	8	30	2690	5X7	PA16V100M5X7
	100	500	8	30	2690	6.3X5	PA16V100M6X5
	100	500	8	30	2690	6.3X8	PA16V100M6X8
	180	576	8	30	2690	5X9	PA16V180M5X9
	220	704	8	20	2690	5.5X9	PA16V220M5X9
	220	704	8	30	2690	6.3X5	PA16V220M6X5
	220	704	8	20	3500	6.3X8	PA16V220M6X8
	220	704	8	20	4100	8X8	PA16V220M8X8
	270	864	8	20	2690	5.5X9	PA16V270M5X9
	270	864	8	20	3500	6.3X8	PA16V270M6X8
	270	864	8	20	4100	8X8	PA16V270M8X8
	330	1000	8	20	3500	5.5X9	PA16V330M5X9
	330	1000	8	18	3500	5.5X11	PA16V330M5X11

PA series

额定电压 Rated Voltage (V)	额定静电容量 Rated Capacitance (μ F)	漏电流 Leakage Current (μ A,2min)	损失角正切值 Dissipation Factor (120Hz,20°C)	等效串联电阻 ESR (m Ω ,100KHz)	额定纹波电流 Rated Ripple Current (mA,105°C,100KHz)	尺寸 Dimensions Φ DXL(mm)	品号 Part Number
16	330	1000	8	18	6100	6.3X9	PA16V330M6X9
	330	1000	8	18	4100	8X7	PA16V330M8X7
	330	1000	8	18	4100	8X8	PA16V330M8X8
	470	1000	8	16	4100	5.5X11	PA16V470M5X11
	470	1000	8	16	4100	6.3X9	PA16V470M6X9
	470	1000	8	16	4100	6.3X11.5	PA16V470M6X11
	470	1000	8	16	4500	8X11.5	PA16V470M8X11
	470	1000	8	14	4500	10X12.5	PA16V470M10X12
	560	1000	8	16	4500	6.3X12	PA16V560M6X12
	560	1000	8	16	4500	8X11.5	PA16V560M8X11
	560	1000	8	14	4100	5.5X14	PA16V560M5X14
	560	1000	8	16	4100	6.3X9	PA16V560M6X9
	680	1000	8	16	4100	5.5X12	PA16V680M5X12
	680	1000	8	14	4100	5.5X14	PA16V680M5X14
	680	1000	8	16	4100	6.3X12	PA16V680M6X12
	680	1000	8	16	4100	6.3X14	PA16V680M6X14
	680	1000	8	16	4500	8X11.5	PA16V680M8X11
	680	1000	8	14	4700	10X12.5	PA16V680M10X12
	820	1000	8	16	4100	6.3X14	PA16V820M6X14
	820	1000	8	16	4500	8X12.5	PA16V820M8X12
	820	1000	8	14	4700	10X12.5	PA16V820M10X12
	1000	1000	8	14	4500	6.3X14	PA16V1000M6X14
	1000	1000	8	14	4700	8X15	PA16V1000M8X15
	1000	1000	8	16	4500	8X12.5	PA16V1000M8X12
	1000	1000	10	14	4700	10X12.5	PA16V1000M10X12
	1200	1000	10	14	4700	10X12.5	PA16V1200M10X12
	1500	1000	10	14	4700	8X15	PA16V1500M8X15
	1500	4500	10	14	4700	8X17	PA16V1500M8X17
	1500	1000	10	14	4700	10X12.5	PA16V1500M10X12
	1500	1000	10	14	4900	10X15	PA16V1500M10X15
	2200	1000	8	14	5100	10X15	PA16V2200M10X15

PA series

额定电压 Rated Voltage (V)	额定静电容量 Rated Capacitance (μ F)	漏电流 Leakage Current (μ A,2min)	损失角正切值 Dissipation Factor (120Hz,20°C)	等效串联电阻 ESR (m Ω ,100KHz)	额定纹波电流 Rated Ripple Current (mA,105°C,100KHz)	尺寸 Dimensions Φ DXL(mm)	品号 Part Number
16	3300	1000	12	14	5600	10X17	PA16V3300M10X17
	3300	1000	12	14	5600	10X20	PA16V3300M10X20
	4700	1000	10	14	6800	12.5X21	PA16V4700M12X21
25	47	500	12	40	2690	5X7	PA25V47M5X7
	100	500	10	30	2690	6.3X5	PA25V100M6X5
	100	500	12	30	2690	6.3X7	PA25V100M6X7
	150	750	12	30	2690	5X9	PA25V150M5X9
	150	900	10	37.5	2000	6.3X7	PA25V150M6X7
	180	900	10	30	2690	6.3X7	PA25V180M6X7
	220	1000	10	25	2690	5.5X9	PA25V220M5X9
	220	1000	12	25	2900	5.5X11	PA25V220M5X11
	220	1000	10	25	2900	6.3X8	PA25V220M6X8
	270	1000	10	25	2900	5.5X11	PA25V270M5X11
	270	1000	10	25	2900	6.3X8	PA25V270M6X8
	270	1000	12	25	2900	6.3X9	PA25V270M6X9
	330	1000	12	25	3100	5.5X11	PA25V330M5X11
	330	1000	12	25	3100	6.3X9	PA25V330M6X9
	330	1000	12	25	3100	6.3X12	PA25V330M6X12
	330	1000	12	25	3500	8X8	PA25V330M8X8
	330	1000	12	25	3500	8X11.5	PA25V330M8X11
	390	1000	12	25	3500	6.3X12	PA25V390M6X12
	470	1000	10	25	3800	5.5X14	PA25V470M5X14
	470	1000	10	25	3800	6.3X12	PA25V470M6X12
	470	1000	12	25	3800	6.3X14	PA25V470M6X14
	470	1000	12	25	3800	8X11.5	PA25V470M8X11
	470	1000	12	20	4100	10X12.5	PA25V470M10X12
	560	1000	10	20	3100	5.5X16	PA25V560M5X16
	560	1000	12	20	3900	6.3X14	PA25V560M6X14
	560	1000	12	20	4100	10X12.5	PA25V560M10X12
	680	1000	10	20	3900	5.5X18	PA25V680M5X18
	680	1000	12	20	3900	6.3X14	PA25V680M6X14

PA series

额定电压 Rated Voltage (V)	额定静电容量 Rated Capacitance (μ F)	漏电流 Leakage Current (μ A,2min)	损失角正切值 Dissipation Factor (120Hz,20°C)	等效串联电阻 ESR (m Ω ,100KHz)	额定纹波电流 Rated Ripple Current (mA,105°C,100KHz)	尺寸 Dimensions Φ DXL(mm)	品号 Part Number
25	680	1000	10	20	4100	8X12.5	PA25V680M8X12
	680	1000	12	16	4100	10X12.5	PA25V680M10X12
	820	1000	10	20	3900	6.3X14	PA25V820M6X14
	820	1000	12	16	4100	8X15	PA25V820M8X15
	820	1000	12	16	4100	10X12.5	PA25V820M10X12
	1000	1000	12	16	4100	8X15	PA25V1000M8X15
	1000	1000	10	16	4100	10X12.5	PA25V1000M10X12
	1500	1000	12	16	4100	10X15	PA25V1500M10X15
	2200	1000	10	16	4700	10X17	PA25V2200M10X17
28	400	1000	10	18	3800	10X12.5	PA28V400M10X12
30	470	1000	10	18	3800	8X15	PA30V470M8X15
35	10	500	10	40	2000	5X7	PA35V10M5X7
	10	500	10	40	2000	5X8	PA35V10M5X8
	22	500	10	40	2600	6.3X8	PA35V22M6X8
	47	500	10	40	2600	5X7	PA35V47M5X7
	47	500	10	40	2600	6.3X7	PA35V47M6X7
	100	700	10	30	2600	5.5X9	PA35V100M5X9
	100	700	10	28	2600	6.3X8	PA35V100M6X8
	100	700	10	20	2600	6.3X9	PA35V100M6X9
	150	1000	10	25	2900	6.3X8	PA35V150M6X8
	220	1000	10	16	2980	6.3X9	PA35V220M6X9
	220	1000	10	16	2980	6.3X12	PA35V220M6X12
	220	1000	10	28	2900	8X8	PA35V220M8X8
	330	1000	10	28	3000	6.3X14	PA35V330M6X14
	330	1000	10	18	3800	10X12.5	PA35V330M10X12
	470	1000	10	16	3800	8X15	PA35V470M8X15
	470	1000	10	16	3800	10X12.5	PA35V470M10X12
	680	1000	10	16	4100	10X15	PA35V680M10X15
	820	1000	10	16	4100	10X15	PA35V820M10X15
	1000	1000	10	16	4100	10X15	PA35V1000M10X15
	1000	1000	10	16	4500	10X20	PA35V1000M10X20
	1500	1000	10	16	4500	10X17	PA35V1500M10X17

PA series

额定电压 Rated Voltage (V)	额定静电容容量 Rated Capacitance (μ F)	漏电流 Leakage Current (μ A,2min)	损失角正切值 Dissipation Factor (120Hz,20°C)	等效串联电阻 ESR (m Ω ,100KHz)	额定纹波电流 Rated Ripple Current (mA,105°C,100KHz)	尺寸 Dimensions Φ DXL(mm)	品号 Part Number
50	4.7	500	10	40	2600	5X7	PA50V4R7M5X7
	10	500	10	40	2600	5X8	PA50V10M5X8
	22	300	10	40	2600	6.3X7	PA50V22M6X7
	22	500	10	35	2600	6.3X8	PA50V22M6X8
	39	500	10	35	2600	6.3X8	PA50V39M6X8
	47	470	10	30	2600	6.3X8	PA50V47M6X8
	68	680	10	30	2600	6.3X9	PA50V68M6X9
	100	1000	10	25	2980	6.3X12	PA50V100M6X12
	100	1000	10	30	2900	8X8	PA50V100M8X8
	220	1000	10	20	3500	10X12.5	PA50V220M10X12
	330	1000	10	18	3800	10X15	PA50V330M10X15
	470	1000	10	18	4100	10X17	PA50V470M10X17
	680	1000	10	18	4100	10X20	PA50V680M10X20
	820	1000	10	18	4500	12.5X21	PA50V820M12X21
	1000	1000	10	18	4500	12.5X21	PA50V1000M12X21
63	10	300	10	40	2100	6.3X5	PA63V10M6X5
	22	500	12	35	2600	6.3X8	PA63V22M6X8
	33	20.79	8	30	1000	6.3X8	PA63V33M6X8
	33	500	12	30	2600	6.3X9	PA63V33M6X9
	47	592	12	30	2600	6.3X11	PA63V47M6X11
	47	592.2	10	30	2600	8X8	PA63V47M8X8
	82	1000	12	28	2900	8X11.5	PA63V82M8X11
	100	1000	10	26	3100	8X12.5	PA63V100M8X12
	100	1000	12	20	3100	10X12.5	PA63V100M10X12
	220	1000	10	18	3100	10X15	PA63V220M10X15
	330	1000	10	18	3500	10X17	PA63V330M10X17
	470	1000	10	20	3500	10X17	PA63V470M10X17
80	22	500	12	30	2900	8X8	PA80V22M8X8
	100	1000	10	20	2900	10X12.5	PA80V100M10X12
	220	1000	10	20	4100	12.5X17	PA80V220M12X17

PA series

额定电压 Rated Voltage (V)	额定静容量 Rated Capacitance (μ F)	漏电流 Leakage Current (μ A,2min)	损失角正切值 Dissipation Factor (120Hz,20°C)	等效串联电阻 ESR (m Ω ,100KHz)	额定纹波电流 Rated Ripple Current (mA,105°C,100KHz)	尺寸 Dimensions Φ DXL(mm)	品号 Part Number
100	4.7	5300	10	50	2600	5X8	PA100V4R7M5X8
	22	500	12	30	2600	6.3X9	PA100V22M6X9
	47	940	12	30	2900	8X11.5	PA100V47M8X11
	100	1000	10	40	2600	10X12.5	PA100V100M10X12
	150	1000	10	40	3100	10X17	PA100V150M10X17
	220	1000	10	30	3500	12.5X17	PA100V220M12X17
160	10	320	12	120	1000	8X13	PA160V10M8X13
	15	480	12	120	1000	8X13	PA160V15M8X13
	18	576	12	120	1000	8X13	PA160V18M8X13
	22	704	12	130	1000	10X13.5	PA160V22M10X13
	27	864	12	120	1000	10X13	PA160V27M10X13
	33	1000	12	130	1000	10X13	PA160V33M10X13
200	22	880	15	150	800	10X13	PA200V22M10X13