



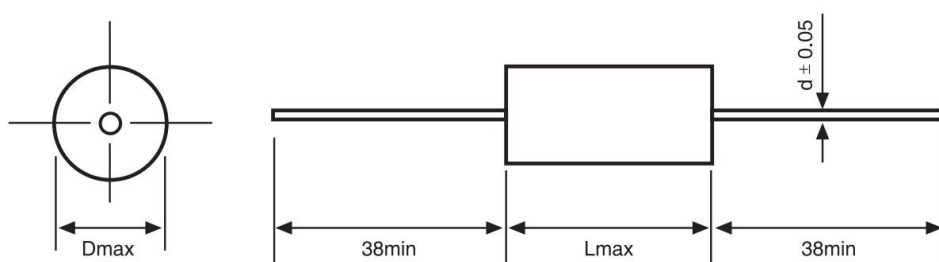
金属化聚丙烯膜轴向电容器 CBB20 (MPA, MPT)

Metallized Polypropylene Film Capacitor—Axial Type: CBB20

为无感结构，用金属化聚丙烯膜作为电介质/电极绕制而成，导线采用镀锡铜包钢线（或软线），外层用聚酯胶带包裹，两端用氧树脂密封。

Are non-inductively wound with metallized Polypropylene film as dielectric/electrode with copper-clad steel leas or flexible cord and outer wrapping of polyester end sealed with epoxy resin.

◆ 外形图: Outline Drawing:



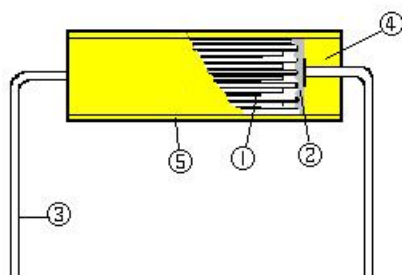
◆ 特性:

- 无感式结构和具有自愈性
- 良好的可焊性
- 损耗因素小，绝缘电阻高
- 电容器的稳定性和可靠性高

◆ 主要用途:

- 温度补偿电路
- 定时、振荡，吸收电路
- 功率因素校正、开关电源耦合用
- 远程通讯、数据处理、工业仪表、自动控制系统的设备中广泛运用

◆ 结构图: structure chart:



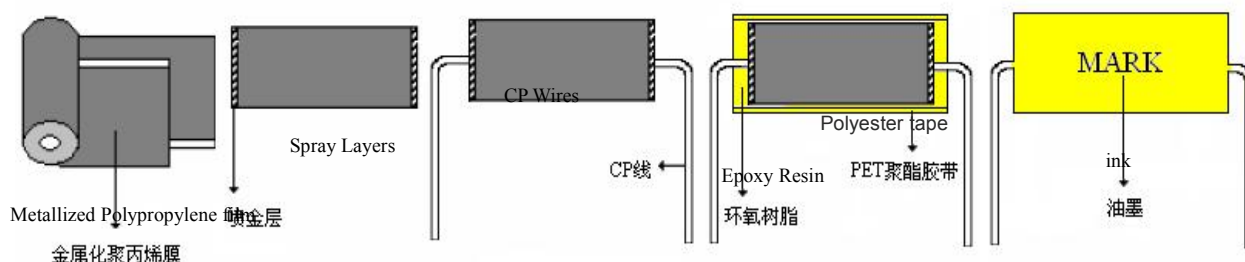
- | | |
|------------|-------------------------------|
| ① 金属化聚丙烯薄膜 | Metallized Polypropylene film |
| ② 喷金层 | Spray Layers |
| ③ CP 线 | CP Wires |
| ④ 灌封环氧树脂 | Potting epoxy resin |
| ⑤ PET 聚脂胶带 | PET - Polyester tape |

◆ Features:

- Non-inductive construction and self-healing property
- Good soldering ability
- Low dissipation factor and high insulation resistance.
- High stability of capacitance and reliability.

◆ Typical Applications:

- Temperature compensation circuits.
- Timing, oscillator, snubbing circuits
- Power factor correction and coupling capacitor in SMPS applications
- Remote communication, data processing, industrial instruments, automatic control system of the equipment, welding machine, IGBT snubbing, frequency divider.



◆ 性能说明:

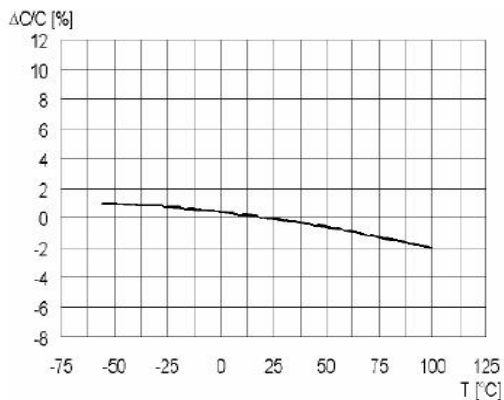
Specification:

参考标准 Reference Standards:	GB10190-88(IEC 60384-16)
额定电压 Rated Voltage(UR):	100VDC; 250VDC; 400VDC; 630VDC; 1000VDC
气候类别 Climate Category	40/085/21
额定温度 Rated Temperature	85℃
温度范围 Operation Temperature Range:	-40℃ - +85℃
电容量范围 Capacitance Range:	0.001μF – 68μF
电容量偏差范围 Capacitance Tolerance Range:	J(±5%); K(±10%); M (±20%)
电介质 Dielectric:	聚丙烯膜 Polypropylene Film
损耗角正切: (25℃±5℃) Dissipation Factor Tanδ:	≤0.1% (1KHZ) (25℃±5℃)
绝缘电阻, 在引出端之间 Insulation Resistance(Between Terminals)	100VDC, 1 Min 20℃ CR≤0.33μF ≥30000MΩ CR>0.33μF ≥10000 MΩ
耐电压 Withstand Voltage:	1.6UR(5S)
寿命试验: Life. Test Conditions:	85±2℃, 1.25UR, 1,000Hours 电容变化率: 初始值的≤±15% Capacitance Drift: ≤±15% Of the initial value 损耗角正切≤原测量值的 200% (1KHz) Dissipation Factor ≤200% (1KHz)

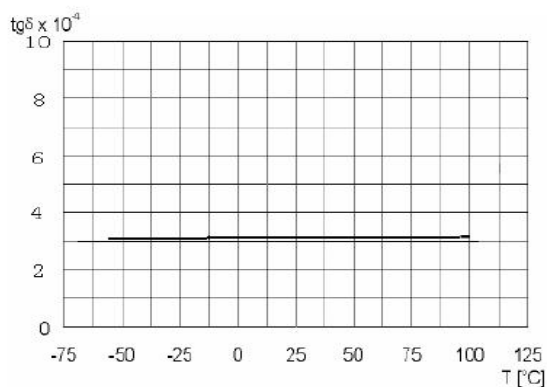


◆ 聚丙烯膜电容器特性曲线:

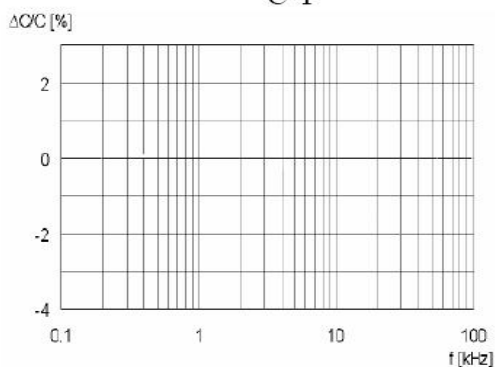
Polypropylene film capacitor characteristic curve:



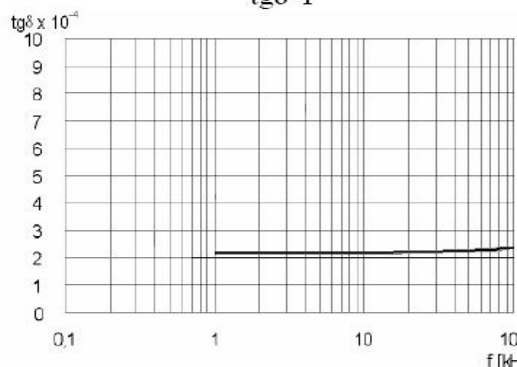
C-T



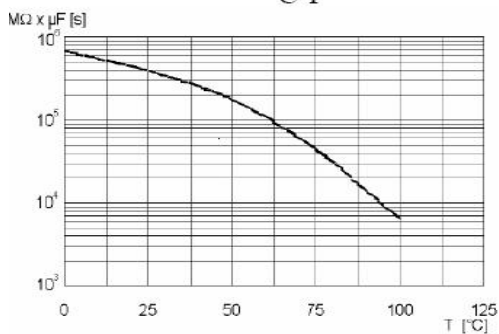
tgδ-T



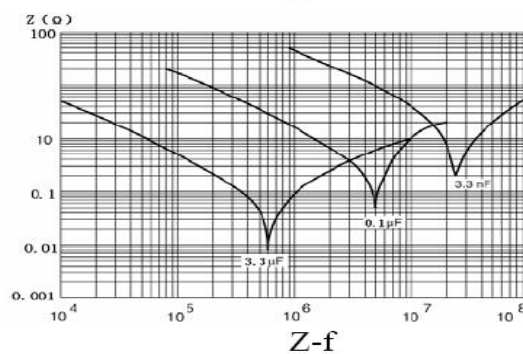
C-f



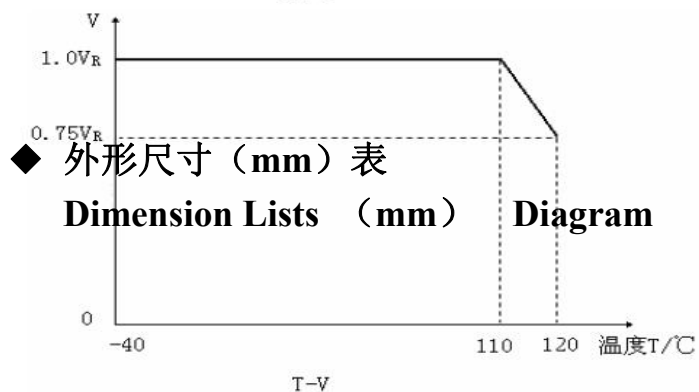
tgδ-f



R-T



Z-f



◆ 外形尺寸 (mm) 表

Dimension Lists (mm) Diagram

T-V



金属化聚丙烯膜轴向电容器 CBB20
Metallized Polypropylene Film Capacitor-Axial
Type: CBB20



产品种类 The Shape		CBB20 扁型电容器 Ellipse (MPA)				CBB20 圆型电容器 Cylinder (MPT)		
Cap Code	Cap Value uF	产品编码 Part No.	外形尺寸 Dimensions (mm)			产品编码 Part No.	外形尺寸 Dimensions (mm)	
			W±1.0	T±1.0	H±1.0		L±1.0	D±1.0
100VDC(60VAC)								
683	0.068					MPT683K(J)100V	13	6
104	0.1	MPA104K(J)100V	15	5	8	MPT104K(J)100V	13	6
154	0.15	MPA154K(J)100V	15	5	8	MPT154K(J)100V	16.5	7
224	0.22	MPA224K(J)100V	15	5	10	MPT224K(J)100V	16.5	7.5
334	0.33	MPA334K(J)100V	15	7	10	MPT334K(J)100V	16.5	8.5
474	0.47	MPA474K(J)100V	15	8	12	MPT474K(J)100V	16.5	9.5
684	0.68	MPA684K(J)100V	15	8	16	MPT684K(J)100V	20.5	9.5
105	1.0	MPA105K(J)100V	20	8	14	MPT105K(J)100V	20.5	11
155	1.5	MPA155K(J)100V	20	10	16	MPT155K(J)100V	28.0	11
225	2.2	MPA225K(J)100V	25	9	16	MPT225K(J)100V	28.0	12.5
335	3.3	MPA335K(J)100V	25	12	9	MPT335K(J)100V	28.0	14.5
475	4.7	MPA475K(J)100V	32	11	19	MPT475K(J)100V	33.0	16
685	6.8	MPA685K(J)100V	32	14	22	MPT685K(J)100V	33.0	18.5
106	10.0	MPA106K(J)100V	32	10	20	MPT106K(J)100V	33	21.5
156	15.0	MPA156K(J)100V	36	13	22			
186	18.0	MPA186K(J)100V	36	14	24			
206	20.0	MPA206K(J)100V	46	13	22			
226	22.0	MPA226K(J)100V	46	13	23			
256	25.0	MPA256K(J)100V	46	14	24			
306	30.0	MPA306K(J)100V	56	14	23			
336	33.0	MPA336K(J)100V	56	15	24			
356	35.0	MPA356K(J)100V	56	15	25			
406	40.0	MPA406K(J)100V	56	17	26			
456	45.0	MPA456K(J)100V	56	18	27			
506	50.0	MPA650K(J)100V	66	17	26			
566	56.0	MPA566K(J)100V	66	18	28			
606	60.0	MPA606K(J)100V	66	19	28			
686	68.0	MPA686K(J)100V	66	20	30			



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250VDC(160VAC)								
103	0.010	MPA103J(K)250V	15	5.5	9.5	MPT103J(K)250V	15	8.0
123	0.012	MPA123J(K)250V	15	6.0	10.0	MPT123J(K)250V	15	9.0
153	0.015	MPA153J(K)250V	15	6.0	10.0	MPT153J(K)250V	15	9.0
183	0.018	MPA183J(K)250V	15	6.5	10.5	MPT183J(K)250V	15	9.0
223	0.022	MPA223J(K)250V	15	5.5	9.5	MPT223J(K)250V	15	8.0
273	0.027	MPA273J(K)250V	15	6.0	10.0	MPT273J(K)250V	15	9.0
333	0.033	MPA333J(K)250V	15	5.5	9.5	MPT333J(K)250V	15	8.0
393	0.039	MPA393J(K)250V	15	6.0	10.0	MPT393J(K)250V	15	9.0
473	0.047	MPA473J(K)250V	15	5.0	9.0	MPT473J(K)250V	15	7.8
563	0.056	MPA563J(K)250V	15	6.0	10.0	MPT563J(K)250V	15	8.3
683	0.068	MPA683J(K)250V	15	4.5	8.5	MPT683J(K)250V	15	7.0
823	0.082	MPA823J(K)250V	15	5.0	10.0	MPT823J(K)250V	15	8.0
104	0.10	MPA104J(K)250VA	15	5.0	10.0	MPT104J(K)250VA	15	8.0
104	0.10	MPA104J(K)250VB	20	5.0	10.0	MPT104J(K)250VB	20	8.0
124	0.12	MPA124J(K)250VA	15	6.5	10.5	MPT124J(K)250VA	15	9.0
124	0.12	MPA124J(K)250VB	20	5.5	10.5	MPT124J(K)250VB	20	9.0
154	0.15	MPA154J(K)250V	15	6.5	11.5	MPT154J(K)250V	15	9.5
154	0.15	MPA154J(K)250VA	20	4.5	9.0	MPT154J(K)250VA	20	8.0
184	0.18	MPA184J(K)250VB	15	6.0	11.0	MPT184J(K)250VB	15	8.0
184	0.18	MPA184J(K)250V	20	5.0	10.0	MPT184J(K)250V	20	8.0
224	0.22	MPA224J(K)250VA	15	7.0	11.5	MPT224J(K)250VA	15	10.0
224	0.22	MPA224J(K)250VB	20	4.5	9.0	MPT224J(K)250VB	20	8.0
274	0.27	MPA274J(K)250VA	15	7.5	12.5	MPT274J(K)250VA	15	10.0
274	0.27	MPA274J(K)250VB	20	5.0	10.0	MPT274J(K)250VB	20	8.0
334	0.33	MPA334J(K)250VA	15	6.5	11.5	MPT334J(K)250VA	15	10.0
334	0.33	MPA334J(K)250VB	20	6.0	10.5	MPT334J(K)250VB	20	8.5
394	0.39	MPA394J(K)250VA	15	7.5	12.0	MPT394J(K)250VA	15	10.0
394	0.39	MPA394J(K)250VB	20	6.5	11.0	MPT394J(K)250VB	20	9.0
474	0.47	MPA474J(K)250VA	15	8.0	13.0	MPT474J(K)250VA	15	10.0
474	0.47	MPA474J(K)250VB	20	7.0	12.0	MPT474J(K)250VB	20	10.0
564	0.56	MPA564J(K)250VA	20	6.0	11.0	MPT564J(K)250VA	20	8.8
564	0.56	MPA564J(K)250VB	20	8.0	13.0	MPT564J(K)250VB	20	11.0
684	0.68	MPA684J(K)250VA	20	7.0	11.5	MPT684J(K)250VA	20	10.0
684	0.68	MPA684J(K)250VB	25	7.0	12.0	MPT684J(K)250VB	25	10.0
824	0.82	MPA824J(K)250VA	20	7.0	11.5	MPT824J(K)250VA	20	10.4
824	0.82	MPA824J(K)250VB	25	8.0	13.0	MPT824J(K)250VB	25	9.0
105	1.0	MPA105J(K)250VA	20	8.0	14.0	MPT105J(K)250VA	20	11.5
105	1.0	MPA105J(K)250VB	25	8.0	14.5	MPT105J(K)250VB	25	12.0
125	1.2	MPA125J(K)250VA	20	9.0	15.0	MPT125J(K)250VA	20	12.5
125	1.2	MPA125J(K)250VB	25	9.0	15.5	MPT125J(K)250VB	25	13.0
155	1.5	MPA155J(K)250VA	25	8.0	14.0	MPT155J(K)250VA	25	11.6



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155	1.5	MPA155J(K)250VB	25	10.5	17.0	MPT155J(K)250VB	25	14.0
185	1.8	MPA185J(K)250V	25	11.5	19.0	MPT185J(K)250V	25	16.0
225	2.2	MPA225J(K)250VA	25	12.5	20.5	MPT225J(K)250VA	25	17.0
225	2.2	MPA225J(K)250VB	32	10.0	18.0	MPT225J(K)250VB	32	15.0
275	2.7	MPA275J(K)250VA	25	14.0	22.0	MPT275J(K)250VA	25	19.0
275	2.7	MPA275J(K)250VB	32	11.0	19.0	MPT275J(K)250VB	32	15.8
305	3.0	MPA305J(K)250VA	32	12.0	20.0	MPT305J(K)250VA	32	17.0
305	3.0	MPA305J(K)250VB	35	11.0	19.0	MPT305J(K)250VB	35	16.0
335	3.5	MPA335J(K)250VA	31	8.0	14.3			
335	3.3	MPA335J(K)250VB	32	12.5	20.5	MPT335J(K)250VA	32	17.3
335	3.3	MPA335J(K)250VC	35	14.5	19.6	MPT335J(K)250VB	35	16.0
395	3.9	MPA395J(K)250VA	32	14.0	22.0	MPT395J(K)250VA	32	19.0
395	3.9	MPA395J(K)250VB	35	12.5	20.5	MPT395J(K)250VB	35	18.0
475	4.7	MPA475J(K)250VA	31	10.0	16.1			
475	4.7	MPA475J(K)250VB	32	15.5	24.0	MPT475J(K)250VA	32	21.0
475	4.7	MPA475J(K)250VC	35	14.0	22.0	MPT475J(K)250VB	35	19.0
565	5.6	MPA565J(K)250VA	32	17.5	25.0	MPT565J(K)250VA	32	22.2
565	5.6	MPA565J(K)250VB	35	16.0	24.0	MPT565J(K)250VB	35	21.0
685	6.8	MPA685J(K)250V	35	18.0	25.5	MPT685J(K)250V	35	23.0
825	8.2	MPA825J(K)250VA	35	20.0	28.0	MPT825J(K)250VA	35	25.0
825	8.2	MPA825J(K)250VB	45	16.0	24.0	MPT825J(K)250VB	45	21.0
106	10	MPA106J(K)250VA	35	22.0	30.0	MPT106J(K)250VA	35	27.0
106	10	MPA106J(K)250VB	45	19.0	26.0	MPT106J(K)250VB	45	23.0
126	12	MPA126J(K)250V	45	20.5	28.5	MPT126J(K)250V	45	25.0
156	15	MPA156J(K)250V	45	23.0	31.0	MPT156J(K)250V	45	28.0
186	18					MPT186J(K)250VA	46	23.0
186	18	MPA186J(K)250VB	45	25.0	34.5	MPT186J(K)250VB	45	31.0
206	20					MPT206J(K)250VA	47	20.5
206	20	MPA206J(K)250VA	45	26.5	36.0	MPT206J(K)250VB	45	32.0
226	22	MPA226J(K)250VA	45	19.0	28.0	MPT226J(K)250VA	46	25.0
226	22	MPA226J(K)250VB	47	16.8	24.5	MPT226J(K)250VB	45	34.0
276	27					MPT276J(K)250VA	46	27.5
276	27	MPA276J(K)250VB	45	31.0	41.0	MPT276J(K)250VB	45	38.0
306	30	MPA306J(K)250VA	45	34.0	43.0	MPT306J(K)250VA	45	40.0
306	30	MPA306J(K)250VB	58	39.0	48.0	MPT306J(K)250VB	45	42.0
336	33					MPT336J(K)250VA	46	30
336	33	MPA336J(K)250VB	45	36.0	45.0	MPT336J(K)250VB	45	42.0
400VDC(200VAC)								
103	0.01	MPA103J(K)400V	15	5.5	9.5	MPT103J(K)400V	15	8.0
123	0.012	MPA123J(K)400V	15	6.0	10.0	MPT123J(K)400V	15	9.0
153	0.015	MPA153J(K)400V	15	6.0	10.0	MPT153J(K)400V	15	9.0
183	0.018	MPA183J(K)400V	15	6.5	10.5	MPT183J(K)400V	15	9.0



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223	0.022	MPA223J(K)400V	15	5.5	9.5	MPT223J(K)400V	15	8.0
273	0.027	MPA273J(K)400V	15	6.0	10.0	MPT273J(K)400V	15	9.0
333	0.033	MPA333J(K)400V	15	5.5	9.5	MPT333J(K)400V	15	8.0
393	0.039	MPA393J(K)400V	15	6.0	10.0	MPT393J(K)400V	15	9.0
473	0.047	MPA473J(K)400V	15	5.0	9.0	MPT473J(K)400V	15	7.8
563	0.056	MPA563J(K)400V	15	5.5	10.0	MPT563J(K)400V	15	8.3
683	0.068	MPA683J(K)400V	15	4.0	8.5	MPT683J(K)400V	15	7.0
823	0.082	MPA823J(K)400V	15	5.0	9.0	MPT823J(K)400V	15	8.0
104	0.1	MPA104J(K)400VA	15	5.0	10.0	MPT104J(K)400VA	15	8.0
104	0.1	MPA104J(K)400VB	20	5.5	10.0	MPT104J(K)400VB	20	8.0
124	0.12	MPA124J(K)400VA	15	6.0	10.5	MPT124J(K)400VA	15	9.0
124	0.12	MPA124J(K)400VB	20	6.0	11.0	MPT124J(K)400VB	20	9.0
154	0.15	MPA154J(K)400VA	15	6.5	11.5	MPT154J(K)400VA	15	9.5
154	0.15	MPA154J(K)400VB	20	4.5	9.0	MPT154J(K)400VB	20	8.0
184	0.18	MPA184J(K)400VA	15	6.0	11.0	MPT184J(K)400VA	15	8.0
184	0.18	MPA184J(K)400VB	20	5.0	10.0	MPT184J(K)400VB	20	8.0
224	0.22	MPA224J(K)400VA	15	6.5	11.5	MPT224J(K)400VA	15	10.0
224	0.22	MPA224J(K)400VB	20	4.5	9.0	MPT224J(K)400VB	20	8.0
274	0.27	MPA274J(K)400VA	15	7.5	12.5	MPT274J(K)400VA	15	10.0
274	0.27	MPA274J(K)400VB	20	5.0	10.0	MPT274J(K)400VB	20	8.0
334	0.33	MPA334J(K)400VA	15	6.5	11.5	MPT334J(K)400VA	15	10.0
334	0.33	MPA334J(K)400VB	20	6.0	10.5	MPT334J(K)400VB	20	8.5
394	0.39	MPA394J(K)400V	20	6.0	11.0	MPT394J(K)400V	20	9.0
474	0.47	MPA474J(K)400V	20	7.0	12.0	MPT474J(K)400V	20	10.0
564	0.56	MPA564J(K)400V	20	7.0	13.5	MPT564J(K)400V	20	11.0
684	0.68	MPA684J(K)400VA	20	8.0	14.5	MPT684J(K)400VA	20	12.0
684	0.68	MPA684J(K)400VB	25	7.0	12.0	MPT684J(K)400VB	25	10.0
824	0.82	MPA824J(K)400V	25	7.0	13.5	MPT824J(K)400V	25	9.0
105	1.0	MPA105J(K)400V	25	8.0	14.5	MPT105J(K)400VA	25	12.0
105	1.0					MPT105J(K)400VB	32	17
125	1.2	MPA125J(K)400V	25	9.0	15.5	MPT125J(K)400V	25	13.0
155	1.5	MPA155J(K)400V	25	10.5	17.0	MPT155J(K)400V	25	14.0
185	1.8	MPA185J(K)400V	25	11.0	19.0	MPT185J(K)400V	25	16.0
225	2.2	MPA225J(K)400VA	25	12.5	20.5	MPT225J(K)400VA	25	17.0
225	2.2	MPA225J(K)400VB	32	10.0	18.0	MPT225J(K)400VB	32	15.0
275	2.7	MPA275J(K)400VA	25	14.0	22.0	MPT275J(K)400VA	25	19.0
275	2.7	MPA275J(K)400VB	32	11.0	19.0	MPT275J(K)400VB	32	15.8
305	3.0	MPA305J(K)400VA	32	12.0	20.0	MPT305J(K)400VA	32	17.0
305	3.0	MPA305J(K)400VB	35	11.0	19.0	MPT305J(K)400VB	35	16.0
335	3.3	MPA335J(K)400VA	32	12.5	20.5	MPT335J(K)400VA	32	17.3
335	3.3	MPA335J(K)400VB	35	13.5	20.0	MPT335J(K)400VB	35	16.0
395	3.9	MPA395J(K)400VA	32	14.0	22.0	MPT395J(K)400VA	32	19.0



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395	3.9	MPA395J(K)400VB	35	12.5	20.5	MPT395J(K)400VB	35	18.0
475	4.7	MPA475J(K)400VA	32	16.0	24.0	MPT475J(K)400VA	32	21.0
475	4.7	MPA475J(K)400VB	35	14.0	22.0	MPT475J(K)400VB	35	19.0
565	5.6	MPA565J(K)400VA	32	17.5	25.0	MPT565J(K)400VA	32	22.2
565	5.6	MPA565J(K)400VB	35	15.5	23.5	MPT565J(K)400VB	35	21.0
685	6.8	MPA685J(K)400V	35	17.5	25.5	MPT685J(K)400V	35	23.0
825	8.2	MPA825J(K)400VA	35	20.0	28.0	MPT825J(K)400VA	35	25.0
825	8.2	MPA825J(K)400VB	45	16.0	24.0	MPT825J(K)400VB	45	21.0
106	10	MPA106J(K)400VA	35	22.0	30.0	MPT106J(K)400VA	35	27.0
106	10	MPA106J(K)400VB	45	19.0	26.0	MPT106J(K)400VB	45	23.0
126	12	MPA126J(K)400V	45	20.5	29.0	MPT126J(K)400V	45	25.0
156	15	MPA156J(K)400V	45	23.0	31.0	MPT156J(K)400V	45	28.0
186	18	MPA186J(K)400V	45	25.0	34.5	MPT186J(K)400V	45	31.0
206	20	MPA206J(K)400V	45	27.0	36.0	MPT206J(K)400V	45	32.0
226	22	MPA226J(K)400V	45	28.0	38.0	MPT226J(K)400V	45	34.0
276	27	MPA276J(K)400V	45	32.0	41.0	MPT276J(K)400V	45	38.0
306	30	MPA306J(K)400VA	45	34.0	43.0	MPT306J(K)400VA	45	40.0
306	30	MPA306J(K)400VB	58	39.0	48.0	MPT306J(K)400VB	58	45
630VDC(220VAC)								
102	0.001					MPT102J(K)630V	15	8.0
103	0.01	MPA103J(K)630V	15	5.5	9.5	MPT103J(K)630V	15	8.0
123	0.012	MPA123J(K)630V	15	6.0	10.0	MPT123J(K)630V	15	8.0
153	0.015	MPA153J(K)630V	15	6.0	10.0	MPT153J(K)630V	15	8.0
183	0.018	MPA183J(K)630V	15	6.5	10.5	MPT183J(K)630V	15	8.0
203	0.02					MPT203J(K)630V	15	8.0
223	0.022	MPA223J(K)630V	15	5.0	9.5	MPT223J(K)630V	15	8.0
273	0.027	MPA273J(K)630V	15	6.0	10.0	MPT273J(K)630V	15	8.0
303	0.03					MPT303J(K)630V	15	8.0
333	0.033	MPA333J(K)630V	15	5.5	9.5	MPT333J(K)630V	15	8.0
393	0.039	MPA393J(K)630V	15	6.0	10.0	MPT393J(K)630V	15	8.0
473	0.047	MPA473J(K)630V	15	5.0	9.0	MPT473J(K)630V	15	8.3
503	0.05					MPT503J(K)630V	15	8.3
563	0.056	MPA563J(K)630V	15	6.0	10.0	MPT563J(K)630V	15	8.3
683	0.068	MPA683J(K)630VA	15	6.0	10.0	MPT683J(K)630VA	15	9.0
683	0.068	MPA683J(K)630VB	20	5.0	9.0	MPT683J(K)630VB	20	9.0
823	0.082	MPA823J(K)630VA	15	7.0	11.0	MPT823J(K)630VA	15	10.0
823	0.082	MPA823J(K)630VB	20	5.0	9.0	MPT823J(K)630VB	20	10.0
104	0.1	MPA104J(K)630VA	15	6.5	11.0	MPT104J(K)630VA	15	10.0
104	0.1	MPA104J(K)630VB	20	5.0	10.0	MPT104J(K)630VB	20	10.0
124	0.12	MPA124J(K)630VA	15	7.0	12.0	MPT124J(K)630VA	15	10.0
124	0.12	MPA124J(K)630VB	20	6.0	11.0	MPT124J(K)630VB	20	8.8
154	0.15	MPA154J(K)630VA	15	8.0	13.0	MPT154J(K)630VA	15	11.0



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154	0.15	MPA154J(K)630VB	20	7.0	11.5	MPT154J(K)630VB	20	9.7
184	0.18	MPA184J(K)630V	20	6.5	11.0	MPT184J(K)630V	20	10.0
224	0.22	MPA224J(K)630V	20	7.0	12.0	MPT224J(K)630V	20	10.0
274	0.27	MPA274J(K)630V	20	8.0	13.0	MPT274J(K)630V	20	11.0
334	0.33	MPA334J(K)630V	20	9.0	15.0	MPT334J(K)630V	20	12.0
394	0.39	MPA394J(K)630VA	20	9.5	16.0	MPT394J(K)630VA	20	13.0
394	0.39	MPA394J(K)630VB	25	8.0	18.0	MPT394J(K)630VB	25	12.0
474	0.47	MPA474J(K)630VA	20	11.0	17.0	MPT474J(K)630VA	20	15.0
474	0.47	MPA474J(K)630VB	25	9.0	16.0	MPT474J(K)630VB	25	13.0
564	0.56	MPA564J(K)630VA	20	11.0	19.0	MPT564J(K)630VA	20	16.0
564	0.56	MPA564J(K)630VB	25	10.0	17.0	MPT564J(K)630VB	25	14.0
684	0.68	MPA684J(K)630VA	25	11.0	19.0	MPT684J(K)630VA	25	15.3
684	0.68	MPA684J(K)630VB	32	9.5	16.0	MPT684J(K)630VB	32	13.2
824	0.82	MPA824J(K)630VA	25	12.0	20.0	MPT824J(K)630VA	25	16.9
824	0.82	MPA824J(K)630VB	32	11.0	17.0	MPT824J(K)630VB	32	14.3
105	1.0	MPA105J(K)630VA	25	15.4	21.0	MPT105J(K)630VA	25	18.0
105	1.0	MPA105J(K)630VB	32	11.0	19.0	MPT105J(K)630VB	32	15.9
125	1.2	MPA125J(K)630V	32	12.5	32.0	MPT125J(K)630V	32	17.3
155	1.5	MPA155J(K)630V	32	14.5	22.0	MPT155J(K)630V	32	19.1
185	1.8	MPA185J(K)630V	32	15.5	24.0	MPT185J(K)630V	32	20.8
225	2.2	MPA225J(K)630VA	32	17.5	26.0	MPT225J(K)630VA	32	22.9
225	2.2	MPA225J(K)630VB	35	16.0	24.0	MPT225J(K)630VB	35	21.0
275	2.7	MPA275J(K)630V	35	18.5	26.5	MPT275J(K)630V	35	23.0
335	3.3	MPA335J(K)630V	35	21.0	29.0	MPT335J(K)630V	35	26.0
395	3.9	MPA395J(K)630V	35	23.0	31.0	MPT395J(K)630V	35	28.0
475	4.7	MPA475J(K)630V	45	21.0	29.0	MPT475J(K)630V	50	26.0
565	5.6	MPA565J(K)630V	45	23.0	31.0	MPT565J(K)630V	50	28.0
685	6.8	MPA685J(K)630V	45	25.0	35.0	MPT685J(K)630V	50	31.0
825	8.2	MPA825J(K)630V	45	28.0	38.0	MPT825J(K)630V	50	34.0
106	10	MPA106J(K)630V	57	27.0	36.5	MPT106J(K)630V	57	33.0
126	12	MPA126J(K)630V	57	30.0	40.0	MPT126J(K)630V	57	36.0
156	15	MPA156J(K)630V	57	34.0	44.0	MPT156J(K)630V	57	40.0