# 东莞市全鹏电子科技有限公司 DONGGUON CHAMPION ELECTRONIC TECHNOLOGY CO., LTD.

# 承認書(APPROVAL SHEET)

品名 PART NAME	METALLIZED POLYPROPYLENE FILM CAPACITOR (MPX-QP)
承认规格 APPROVE ITEM	X2-安规系列
全鹏料号 CHAMPION PART NO	
客户名称 CUSTOMER <b>-</b>	立创商城
客户料号 PART NO	
送样承认日期 DATE	2018.08.24

承 認 印 APPROVAL STAMP				
供應商 VENDER	客   戶 CUSTOMER			
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东莞市全鹏电子科技有限公司 CHAMPION		制作日期	2018-08-24	版本	07
文件名称	MPX Approval Sheet-QP (BOX-TYPE Metallized Polypropylene Film Interference Suppression Capacitor)	文件编号	QP-AP-28	页码	07/01

### 1. Scope:

This specification applied to capacitor for type MPX(BOX-TYPE Metallized Polypropylene Film Interference Suppression Capacitor)

### 2. Operation Temperature:

#### 3. Capacitance Range:

$$0.001$$
uF  $\sim$  4.7uF

### 4. Capacitance Tolerance:

$$\pm 5\%(J)$$
,  $\pm 10\%(K)$ ,  $\pm 20\%(M)$ 

### 5. Rated Voltage:

250VAC/275VAC/300VAC/310VAC/330VAC/350VAC(50~60 Hz)

### 6. Approvals File No

	Related Standard	Certificate No	Approved Monogram
UL	UL 60384-14	E477525	c <b>A7</b> °us
ENEC	EN60384-14: 2013	ENEC-01273	15
VDE	EN60384-14: 2006-04 IEC60384-14(ed.3)	40044148	

CHAMP!	东莞市全鹏电子科技有限公司 ON	制作日期	2018-08-24	版本	07
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Related Standard		Certificate No	Approved Monogram
CQC	IEC60384-14:2005	CQC16001141991	<b>COO</b>
KC	KC60384-14(2015-09) KC60384-1(2015-09)	SU03097-17001 SU03097-17002 SU03097-17003 SU03097-17004 SU03097-17005	

$\overline{}$	OTT A	I (D)	TAC	D .	N.T.	
/	CHA	MP		Part	NO.	•

1	2	3	4	5	6	7	8
(tape)	(capacitance)	(tolerance)	(Rated Voltage)	(Box Type)	(lead forming)	(lead pitch)	(lead length)

# 7-1 tape:

Code	SMQP
Tape	X2QP

# 7-2 Capacitance:

Code	472	103	104	205
Capacitance	0.0047uF	0.01 uF	0.1uF	2.0 uF

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#### 7-3 Tolerance:

Code	J	K	M
Tolerance	±5%	±10%	±20%

## 7-4 Rated Voltage:

250	275	300	310	330	350	
250VAC	275VAC	300VAC	310VAC	330VAC	350VAC	

#### 7-5BOX TYPE:

Code	XXB5	XXC2	XXC3	C5-1
Size(mm)	$10(W) \times 6(T) \times 12(H)$	$12 \text{ (W)} \times 5 \text{ (T)} \times 11 \text{ (H)}$	$13 \text{ (W)} \times 6 \text{ (T)} \times 12 \text{ (H)}$	$13 \text{ (W)} \times 8 \text{ (T)} \times 14 \text{ (H)}$
Code	XXD7	XXD2	XXD4	XXD5
Size(mm)	$18(W) \times 10.8(T) \times 19(H)$	$18 \text{ (W)} \times 6 \text{ (T)} \times 12 \text{ (H)}$	$18(W) \times 8.4(T) \times 14.5(H)$	$18(W) \times 9.5(T) \times 15.5(H)$
Code	XXE1	XXE2	XXE3	XXE4
Size(mm)	$26.5  (\text{W}) \times 6  (\text{T}) \times 15  (\text{H})$	$26.5  (\text{W}) \times 7  (\text{T}) \times 16.5  (\text{H})$	$26.5(W) \times 8.5(T) \times 17(H)$	26.5 (W) × 10 (T) × 19 (H)
Code	XXF1	XXF2	XXF3	XXF4
Size(mm)	$31.4 \text{ (W)} \times 11 \text{ (T)} \times 20 \text{ (H)}$	$31.5  (\text{W}) \times 13  (\text{T}) \times 22  (\text{H})$	$31 \text{ (W)} \times 14 \text{ (T)} \times 25 \text{ (H)}$	$32 \text{ (W)} \times 16 \text{ (T)} \times 25.5 \text{ (H)}$

### 7-6Lead forming:

Code	В	R	U	W	Т	S
Lead Forming					TAPING	Customer Special Require

## 7-7 Lead Pitch: Showing the capacitor lead pitch, For example:

Code	10	15	23	28	31
Pitch(mm)	10mm	15mm	22.5mm	27.5mm	31mm

# 7-8 Lead length: Showing the capacitor lead Length, For example:

	Code	04	08	10	15	25	30	40
Ι	Length(mm)	4mm	8mm	10mm	15mm	25mm	30mm	40mm

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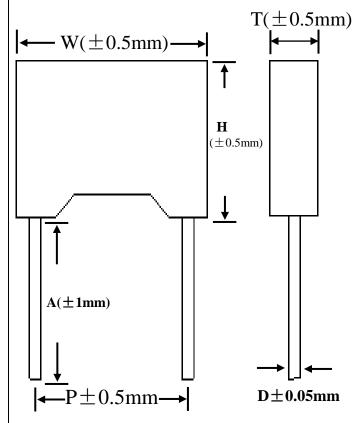
# 8. Specifications ( IEC60384-14)

No	Test items	Performance	Test Method
8-1	Withstand voltage (Between Terminals)	Shall be no abnormality	4.3×UR(DC)Test Of60sec.
8-1	Between terminal and Enclosure	Shall be no abnormality	Ur×200%+1500VAC, 60sec.
8-2	Insulation resistance (Between Terminals)	$C_R \le 0.33 uF$ $IR \ge 15,000 M \Omega$ $C_R > 0.33 uF$ $IR \ge 5,000 M \Omega \div C(uF)$	Measured at $100 \pm 15$ VDC, For 60sec / 25 °C
8-3	Capacitance	Within the tolerance specified	1KHz, 1Vrms Max. at 25℃
8-4	Dissipation Factor	0.001 (0.1%) Max.	1KHz, 1Vrms Max. at 25℃

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8-5	Tense Strength of Terminal	No wire breakage and No Capacitor	Damage of	1. Load Force 2. Holding To	_	
8-6	Bending Strength of Terminal	No wire breakage and No Capacitor	No wire breakage and No Damage of Capacitor  1. Load Force: 0.5 Kg 2. Bending Time: 4 x 90° in 5			
8-7	Solder-ability	95% Of The Surface Tinning  a. Solder temperature: 270±5 b. Solder time: 2±0.5sec				
8-8	Heat Shock test	<ul><li>(1) Appearance: No Visi</li><li>(2) Withstand Voltage: No Visi</li><li>(3) Capacitance Change: The Initial Value</li></ul>	Normal	The terminal immersed in a. Solder tem b. Solder time c. Test Voltage Fo	the melting perature:  e: 3±0.5  ge: 150%	ng solder. 270±5℃ sec
8-9	Cold Resistance	<ul> <li>(1) Appearance: No Visible Damage</li> <li>(2) Capacitance Change: ≤ 0~ -10%</li> <li>of The Initial Value</li> <li>a. Test Temperature: -40°C</li> <li>b. Test Times: 2Hrs</li> </ul>				40°C
8-10	Dry Heat Resistance	<ul> <li>(1) Appearance : No Visible Damage</li> <li>(2) Withstand Voltage : Normal</li> <li>(3) Capacitance Change : ≤ +5~ -2%</li> <li>Of The Initial Value</li> <li>(4) Insulation Resistance:</li> <li>≥50% of the rated value</li> </ul> <ul> <li>a. TEST TEMPERATURE:</li> <li>110°C ± 2°C</li> <li>b. Test Times: 2Hrs</li> </ul>				URE:

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# 9. Dimensions:



10. Specification size reference:

容量单位: nF, 尺寸单位: mm

容量代码	标称容量	宽(₩)	高(H)	厚(T)	线径	容量代码	标称容量	宽(₩)	高(H)	厚(T)	线径
102	1	12	11	5	0.6	334	330	26.5	16.5	7	0.8
222	2. 2	12	11	5	0.6	394	390	18	14.5	8.4	0.8
332	3.3	12	11	5	0.6	474	470	18	13.5	7.5	0.8
472	4.7	12	11	5	0.6	474	470	18	14.5	8.4	0.8
562	5.6	12	11	5	0.6	474	470	18	15.5	9.5	0.8
682	6.8	12	11	5	0.6	474	470	26.5	19	10	0.8
822	8.2	12	11	5	0.6	684	680	31.4	19.5	10.8	0.8
103	10	13	11	5	0.6	564	560	18	15.5	9.5	0.8
153	15	13	11	5	0.6	684	680	18	15.5	9.5	0.8
223	22	13	11	5	0.6	684	680	18	19	10.8	0.8
333	33	13	11	5	0.6	824	820	18	19	10.8	0.8
473	47	13	12	6	0.6	105	1000	26.5	19	10	0.8
683	68	13	12	6	0.6	105	1000	31.4	19.5	10.8	0.8
823	82	13	12	6	0.6	125	1200	31.4	19.5	10.8	0.8
104	100	13	12	6	0.6	155	1500	31.4	19.5	10.8	0.8
104	100	18	12	6	0.8	185	1800	31.5	21.6	13	0.8
154	150	18	12	6	0.8	205	2000	31.5	21.6	13	0.8
224	220	18	12	6	0.8	225	2200	31.5	21.6	13	0.8
224	220	18	14.5	8.4	0.8	305	3000	31	25	14	0.8
224	220	26.5	16.5	7	0.8	335	3300	31	25	14	0.8
334	330	18	13.5	7.5	0.8	355	3500	31	25	14	0.8
334	330	18	14.5	8.4	0.8	475	4700	32	28	18	0.8

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### 11.Marking:



12. Storage conditions and duration

Packaged capacitors should be kept in clean, ventilated, dry coffers, not near the heat source, not subject to direct sunlight, is strictly prohibited and chemical reagents, acid and harmful gas storage together.

Capacitor at a temperature within the

<b>*</b>	CHAMPION CO.LOGO
0.33	CAPACITANCE
K	CAPAC.ITANCE TOLERANCE
275	RATED VOLTAGE
V	AC VOLTAGE
X2	BOX-TYPE METALLIZED POLYPROPYLENE FILM
40/110/56	G-Working Lowest Temperature (- 40°C) M-Working highestTemperature(+110°C) F- Working Times (56days)

range 20 ~ 25  $\,^{\circ}$ C, humidity less than 50% of the state of storage for one year.