

WQC

製作日期

2015-10-28

版本

02

MPX Approval Sheet-WEIQING(WQC)
(BOX-TYPE Metallized Polypropylene
Film Interference Suppression Capacitor)

文件編號

WQ-AP-066

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1. Scope:

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

2. Operation Temperature:

-40°C ~ +110°C

3. Capacitance Range:

0.001uF ~ 3.3uF






4. Capacitance Tolerance:

±5%(J)、±10%(K)、±20%(M)

5. Rated Voltage:

275VAC/300VAC/310VAC (50~60 Hz)

6. Approvals File No

Related Standard		Certificate No	Approved Monogram
UL	UL 60384-14	E466405	 (USA)
ENEC	EN60384-14: 2006-04 IEC60384-14(ed.3)	40040406	 (EU)
VDE	EN60384-14: 2006-04 IEC60384-14(ed.3)	40040406	 (Germany)
CQC	GB/T14472-1998	CQC18001189336	 (China)
KTL	K60384-14	0307314001 0307314002 0307314003	 (South Korea)

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7. 產品編碼說明 Film Capacitor Part number system

18 位元產品代碼如下:

The 18 digits part number is formed as follow:

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

C	5	0	Q	3	1	0	4	K	C	3	L	2	3	0	2	1	0
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Digit 1~3 Type Code

第 1~3 位 型號代碼

代碼 Code	型號 Type	代碼 Code	型號 Type	代碼 Code	型號 Type	代碼 Code	型號 Type
C11		C30		C42	MKP62	C50	MKP62
C12		C31		C43	MKP62(THB)	C51	MKP62+R
C20		C32		C49	CBB62	C52	MKP64
C21		C33		C44		C53	
C22		C34		C45		C54	
C23		C35		C46			
C24		C36		C47			

型號代碼說明

代碼 Code	型號 TYPE	備註 NOTS
電容降壓專用電容器 A.C.Capacitors For Capacitive Divider		
C42	MKP62	電容降壓專用金屬化聚丙烯膜交流 (X2 盒裝) 電容器
C43	MKP62(THB)	金屬化聚丙烯膜抗干擾電容器 (X2 盒裝 THB 防潮系列)
C49	CBB62	電容降壓專用金屬化聚丙烯膜交流電容器(浸漬型)
抑制電源電磁干擾電容器 Inerferenc Suppression Capacitors		
C50	MKP62	金屬化聚丙烯膜抗干擾電容器(Class-X2)
C51	MKP62+R	金屬化聚丙烯膜抗干擾電容器(帶放電電阻 Class-X2)
C52	MKP64	金屬化聚丙烯膜抗干擾電容器(帶放電電阻 Class-X1, 330Vac)

Digit 4~5 Rated Voltage Code

第 4~5 額定電壓代碼

	A	B	C	D	E	F	G	H	J	K	L	M	N
1			16	20				50	63			1100	
2	100	125	160	200	250	315	400	500	630	800	120		
3	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	1200	1400	
	P	Q	R	S	T	U	V	W	X	Y			
1	240	300	330	440	540	600	700	850	900				
2	275	305	350	450	520		760						
3	280	310		480									

說明: 參考日本 JIS 標準, 字母加數位元表示交流, 數位元加字母表示直流, 例如 A2 表示 100VAC, 2A 表示 100VDC
Explanation: Refer to JIS standard, Letter and then number indicate AC, but number and then Letter indicate DC, for example, 2A indicate 100VDC, A2 indicate 100VAC.

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Digit 6~8 Capacitance Expressed in 3-digit code 3 Code

第 6~8 容值代碼

The first 2 digits indicate significant figures, and the third digit specifies the number of zero to follow.

前兩位表示基數，第三個數位表示其後零的個數

This gives the capacitance in picofarads. 容量值單位元為皮法

For examples 舉例：

102=10*10²PF=1,000PF=1.0nF=0.001uF 105=10*10⁵PF=1,000,000PF=1000nF=1uF

Digit 9 Capacitance Tolerance Code

第 9 容量偏差代碼

公差 Tolerance	±1%	±2%	±3%	±5%	±10%	±20%	+80%/-20%
代碼 Code	F	G	H	J	K	M	Z

Digit 10~11 Box Case No. Or Pitch expressed by Case two digits Code

第 10~11 盒體或兩個數位的腳距代碼

Box Type 盒裝型

Pitch 腳距	7.5	10	12.5	15	20	22.5	27.5	37.5	42.5	55
Case No. 殼體代碼	B*	C*	G*	D*	S*	E*	F*	J*	K*	P*

Powder Coating Type 粉塗型

Pitch 腳距	2.5	5.0	7.5	10	15	20	22.5	27.5
Case No. 腳距代碼	02	05	07	10	15	20	22	27

Axial Type 軸向型

Code 代碼	Axial Type 軸向型
A1	軸向橢圓形
A2	軸向圓形

Digit 12 Lead Form Code

第 12 引線加工型代碼

Lead Type

Code 代碼	L	H	K	N	M	T	S
Lead Type 引線型式	長腳	短腳	內彎青蛙腳	內彎直腳	外彎直腳	Tapin g	Customer Special Require

Digit 13~15 Lead Length(Straight) and Tolerance of Lead Length(straight): Expressed in 3-Letter Code

第 13~15 引線長度和偏差以 3 個數位代碼表示

Example 舉例: Code 代碼 035:35/10=3.5mm 230:230/10=23mm

Digit 16~18 Internal use packing\material group\place of production\ product grade\Environmental Protection(EP) Class (Halogen-Free Compliant ROHS Compliant) Code

第 16~18 內部特徵碼

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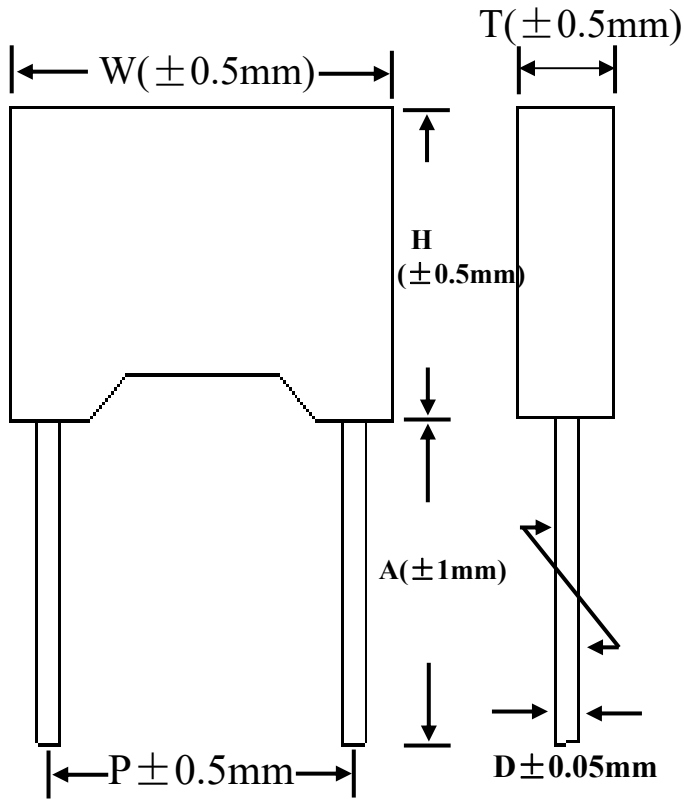
8. Specifications (IEC60384-14)

No	Test items	Performance	Test Method
8-1	Withstand voltage (Between Terminals)	Shall be no abnormality	$310 * \sqrt{2} * 150\% \text{VDC}$ Test Of 1~5sec.
	Between terminal and Enclosure	Shall be no abnormality	$\text{UR} \times 200\% + 1500\text{VAC}$, 60sec.
8-2	Insulation resistance (Between Terminals)	$C_R \leq 0.33\mu\text{F}$ $\text{IR} \geq 15,000\text{M}\Omega$ $C_R > 0.33\mu\text{F}$ $\text{IR} \geq 5,000\text{M}\Omega \div C(\mu\text{F})$	Measured at $100 \pm 15\text{VDC}$, For 60sec / 25°C
8-3	Capacitance	Within the tolerance specified	1KHz, 1Vrms Max. at 25°C
8-4	Dissipation Factor	0.001 (0.1%) Max.	1KHz, 1Vrms Max. at 25°C
8-5	Tense Strength of Terminal	No wire breakage and No Damage of Capacitor	1. Load Force : 1.0 Kg 2. Holding Time : $10 \pm 1\text{sec}$
8-6	Bending Strength of Terminal	No wire breakage and No Damage of Capacitor	1. Load Force : 0.5 Kg 2. Bending Time : $4 \times 90^\circ$ in 5sec
8-7	Vibration	(1) Appearance : No Visible Damage (2) Contact : Normal	a. Frequency change : 1min. per cycle 10~55~10Hz b. Vibration distance : 1.5mm c. course: X、 Y、 Z (axis) d. Time : 2h / axis (6h in total)
8-8	Solder-ability	95% Of The Surface Tinning	a. Solder temperature: $270 \pm 5^\circ\text{C}$ b. Solder time: $2 \pm 0.5\text{sec}$

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8-9	Heat Shock test	(1) Appearance : No Visible Damage (2) Withstand Voltage : Normal (3) Capacitance Change : $\leq \pm 3\%$ of The Initial Value	The terminal of capacitor shall be immersed in the melting solder. a. Solder temperature: $270 \pm 5^\circ\text{C}$ b. Solder time: $3 \pm 0.5\text{sec}$
8-10	Cold Resistance	(1) Appearance : No Visible Damage (2) Capacitance Change : $\leq 0 \sim -10\%$ of The Initial Value	a. Test Temperature: -40°C b. Test Times: 2Hrs
8-11	Dry Heat Resistance	(1) Appearance : No Visible Damage (2) Withstand Voltage : Normal (3) Capacitance Change : $\leq +5 \sim -2\%$ Of The Initial Value (4) Insulation Resistance: $\geq 50\%$ of the rated value	a. TEST TEMPERATURE: $110^\circ\text{C} \pm 2^\circ\text{C}$ b. Test Times: 2Hrs
8-12	Humidity Resistance	(1) Appearance : No Visible Damage (2) Withstand Voltage : Normal (3) Capacitance Change : $\leq \pm 1\%$ of The Initial Value (4) Insulation Resistance: $\geq 50\%$ of the rated value (5) DF ($\tan \delta$) ≤ 0.001	a. TEST TEMPERATURE: $40^\circ\text{C} \pm 2^\circ\text{C}$ b. RELATIVE HUMIDITY: $90 \sim 95\%$ c. Test Times: $500 \pm 24 \text{ HRS}$
8-13	Heat Resistance (Charge & Discharge)	(1) Appearance : No Visible Damage (2) DF ($\tan \delta$) ≤ 0.001 (3) Capacitance Change : $\pm 10\%$ of The Initial Value (4) Insulation Resistance: $\geq 50\%$ of the rated value	a. Test Voltage : Rated Voltage Charge for 2 sec. Discharge for 2 sec. Repeated For 1000 ± 100 cycles b. Test Temperature: $110^\circ\text{C} \pm 2^\circ\text{C}$
8-14	Heat Resistance (Continuous)	(1) Appearance : No Visible Damage (2) DF ($\tan \delta$) ≤ 0.002 (3) Capacitance Change : $\pm 10\%$ of The Initial Value (4) Insulation Resistance: $\geq 50\%$ of the rated value	a. Test Voltage : 125% of The Rated Voltage for 1000Vrms for 0.1s every one hour during tset. b. Test Temperature: $110^\circ\text{C} \pm 2^\circ\text{C}$ c. Test Times: $1008 \pm 24\text{Hrs}$

9. Dimensions:



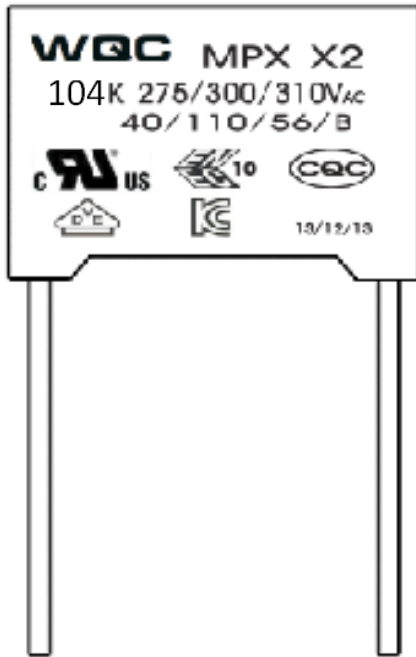
CAPACITOR BODY SIZE (Unit:mm)						
CAP	RV	BOT TYPE	W ± 0.5	H ± 0.5	T ± 0.5	D ± 0.05
473K	310VAC	C2	13	11	5	0.6
104K	310VAC	C3	13	12	6	0.6
154K	310VAC	D2	18	12	6	0.8
104K	310VAC	D2	18	12	6	0.8
224K	310VAC	D4	18	14.5	8.5	0.8
334K	310VAC	D5	18	16	10	0.8
474K	310VAC	D5	18	16	10	0.8
474K	310VAC	E4	26.5	19	10	0.8
684K	310VAC	E4	26.5	19	10	0.8

Lead Style

L	H	K	N	M	T	S
					TAPING (refer to next page)	Customer Require
CAP	RV	Lead Style	Bmodel-A section 1mm L.H.K.N.M model-A section $\pm 0.5\text{mm}$	K.N.M model-Bsectio n $\pm 0.5\text{mm}$		
473K-684K	275-310 VAC	L	23MM		10-22.5MM	

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10. Marking:



WQC	WEIQING CO. LOGO
104	CAPACITANCE
K	CAPACITANCE TOLERANCE
275/300/310	RATED VOLTAGE
VAC	AC VOLTAGE
MPX X2	BOX-TYPE METALLIZED POLYPROPYLENE FILM
40/110/56	Working Lowest Temperature (- 40℃) Working highest Temperature(+110℃) Working Times (56days)
B	Class of operation

11.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 range 20 ~ 25 °C, humidity less than 50% of the state of storage for one year.