

접 수 번 호 : 20-054180-01-1  
(Receipt No.)



# 안 전 인 증 서

## Safety Certificate

안 전 인 증 번 호 : SU03034-12001D  
(Certificate No.)

제 조 업 자/수 입 업 자 명 : Winday Electronic (Dong Guan) Co., Ltd.  
(Manufacturer/importer)

주 소 : Xin-Jiu-Wei Territory, Liaobu Town, Dongguan, Guangdong,  
(Address) P.R.CHINA

제 품 명 : X 커패시터  
(Product) (X Capacitor)

기 본 모 델 명 : MPX 310V X2 1.0uF  
(Basic Model)

파 생 모 델 명 : See the attachment 2  
(Series Model)

정격/안전기준상의 모델구분 : X2, 310VAC, 1.0μF, 40/110/56/B  
(Rating)

시 험 기 준 : KC60384-1(2015-09), KC60384-14(2015-09)  
(Standard)

본 인증서는 제 조 국 명 : 중국  
제 조 업 자 명 : Winday Electronic (Dong Guan) Co., Ltd.  
제조공장의 주소 : Xin-Jiu-Wei Territory, Liaobu Town, Dongguan, Guangdong,  
P.R.CHINA  
의 제품에만 해당함

「전기용품 및 생활용품 안전관리법 시행규칙」 제9조제2항, 제4항, 제10조제2항 또는 제15조제2항에 따라  
안전인증서를 발급합니다.

We Issue This Safety Certificate for the above appliances in accordance with the Article 9(2), 9(4), 10(2)  
or 15(2) of the Enforcement Rule of the Electrical Appliances and Consumer Products Safety Control  
Act.

2020 년 09 월 25 일  
Year month day

한국산업기술시험원장  
KOREA TESTING LABORATORY



※ 이 인증서는 「전기용품 및 생활용품 안전관리법 시행규칙」에 따른 제품의 안전성 확인에 한정된 것이며, 그 밖의 다른 법률이 적용되는  
제품의 경우에는 해당 법률에 따라 추가로 인증·허가 등을 받아야 합니다.

첨부서류

1. 전기용품의 안전관리부품 및 재질목록(List of Critical Components)
2. 기본모델·파생모델의 내용 (Descriptions of the basic and series model)
3. 안전인증의 변경 현황 (Revisions Status)

☐ 첨부 1 : 전기용품의 안전관리부품 및 재질목록  
List of Critical Components

| 부품명(회로기호)<br>Component(Part no.) | 제조사(상표명)<br>Manufacturer(Brand)              | 모델명(형식)<br>Model(Type)   | 정격 또는 특성<br>Rating or Characteristics                                 | 인증마크<br>Tested by |
|----------------------------------|--|--|---|-------------------|
| Metallized polypropylene Film    | SMEC   | 6~12 μm  | Density:0.91g/cm <sup>3</sup><br>Material of conducting layer: Zn, AL | -                 |
| Filler                           | Epilab Chemical industries Inc               | Eporite5700  | V-0,105℃,<br>1.0 mm thick   | -                 |
| Filler                           | Guangzhou Pochely Electronic Material Co Ltd | 5225A/B  | V-0,130℃,<br>1.0 mm thick   | -                 |
| alt) Filler                      | Shenzhen Hitchson Industry Co Ltd            | 682A/682B  | V-0, 130 ℃,<br>1.0 mm thick   | -                 |
| Case                             | Kingfa SCI&Tech CoLtd                        | PBT-RG151(r1),<br>PBT-RG151(ccc)(r1) or<br>PBT-RG151(ccc)(R64)(r1)     | V-0,125℃,<br>0.5 mm thick   | -                 |
| alt) Case                        | Kingfa SCI & Tech Co Ltd                     | PBT-RG(a)1(r1),<br>PBT-RG(a)1(ccc)(r1)<br>or PBT-RG(a)1(ccc) (R64)(r1) | V-0, 130 ℃,<br>0.5 mm thick   | -                 |

☐ 유의사항 (Attention) :

1. 안전관리부품은 전기적인 안전에 직접적인 영향을 주는 부품으로서 안전인증기관이 정기공장검사 시 확인 관리 하는 사항입니다. 따라서 상기목록에 기재된 사항을 변경하거나 또는 복수등재를 원하시는 경우는 안전인증기관에 인증변경신청을 하여야 합니다.

*As the "Critical components" are parts in directly related with safety, these components shall be checked during a factory inspection by the certification body. In case of applying multiple listing or changing the items above, the certification revision shall be applied.*

2. 인증변경신청 없이 임의로 변경하는 경우는, 전기용품 및 생활용품 안전관리법 시행규칙 제 21 조제 1 항 또는 제 38 조제 1 항 규정에 의한 안전인증 취소 혹은 안전확인신고 효력상실 사유가 됨을 유의하시기 바랍니다.

*The Safety Certification will be cancelled under the Article 21(1), 38(1) of the Enforcement Rule of the Electrical appliances and Consumer Products Safety Control Act if the contents of the Certification is altered without our authorization.*

FP511-04

☐ 첨부 2 : 기본모델 · 파생모델의 내용  
General description of Certified Products

| 파생모델명<br>Derivative model     | 기본모델과의 차이점<br>Differences between the basic and derivative model(s) |
|-------------------------------|---|
| MPX 310V X2 0.39uF            | Difference in capacitance   |
| MPX 310V X2 0.47uF            | Difference in capacitance   |
| MPX 310V X2 0.56uF            | Difference in capacitance   |
| MPX 310V X2 0.68uF            | Difference in capacitance   |
| MPX 310V X2 0.82uF            | Difference in capacitance   |
| MPX 300V X2 0.39uF            | Difference in capacitance and voltage                               |
| MPX 300V X2 0.47uF            | Difference in capacitance and voltage                               |
| MPX 300V X2 0.56uF            | Difference in capacitance and voltage                               |
| MPX 300V X2 0.68uF            | Difference in capacitance and voltage                               |
| MPX 300V X2 0.82uF            | Difference in capacitance and voltage                               |
| MPX 300V X2 1.0uF             | Difference in capacitance and voltage                               |
| MPX 280V X2 0.39uF            | Difference in capacitance and voltage                               |
| MPX 280V X2 0.47uF            | Difference in capacitance and voltage                               |
| MPX 280V X2 0.56uF            | Difference in capacitance and voltage                               |
| MPX 280V X2 0.68uF            | Difference in capacitance and voltage                               |
| MPX 280V X2 0.82uF            | Difference in capacitance and voltage                               |
| MPX 280V X2 1.0uF             | Difference in capacitance and voltage                               |
| MPX 275V X2 0.39uF            | Difference in capacitance and voltage                               |
| MPX 275V X2 0.47uF            | Difference in capacitance and voltage                               |
| MPX 275V X2 0.56uF            | Difference in capacitance and voltage                               |
| MPX 275V X2 0.68uF            | Difference in capacitance and voltage                               |
| MPX 275V X2 0.82uF            | Difference in capacitance and voltage                               |
| MPX 275V X2 1.0uF             | Difference in capacitance and voltage                               |
| MPX 310V X2 0.39uF 40/110/21C | Difference in capacitance and climatic category                     |
| MPX 310V X2 0.47uF 40/110/21C | Difference in capacitance and climatic category                     |
| MPX 310V X2 0.56uF 40/110/21C | Difference in capacitance and climatic category                     |
| MPX 310V X2 0.68uF 40/110/21C | Difference in capacitance and climatic category                     |
| MPX 310V X2 0.82uF 40/110/21C | Difference in capacitance and climatic category                     |
| MPX 310V X2 1.0uF 40/110/21C  | Difference in climatic category                                     |
| MPX 300V X2 0.39uF 40/110/21C | Difference in capacitance and voltage and climatic category         |

| 파생모델명<br>Derivative model     | 기본모델과의 차이점<br>Differences between the basic and derivative model(s) |
|-------------------------------|---|
| MPX 300V X2 0.47uF 40/110/21C | Difference in capacitance and voltage and climatic category         |
| MPX 300V X2 0.56uF 40/110/21C | Difference in capacitance and voltage and climatic category         |
| MPX 300V X2 0.68uF 40/110/21C | Difference in capacitance and voltage and climatic category         |
| MPX 300V X2 0.82uF 40/110/21C | Difference in capacitance and voltage and climatic category         |
| MPX 300V X2 1.0 uF 40/110/21C | Difference in voltage and climatic category                         |
| MPX 280V X2 0.39uF 40/110/21C | Difference in capacitance and voltage and climatic category         |
| MPX 280V X2 0.47uF 40/110/21C | Difference in capacitance and voltage and climatic category         |
| MPX 280V X2 0.56uF 40/110/21C | Difference in capacitance and voltage and climatic category         |
| MPX 280V X2 0.68uF 40/110/21C | Difference in capacitance and voltage and climatic category         |
| MPX 280V X2 0.82uF 40/110/21C | Difference in capacitance and voltage and climatic category         |
| MPX 280V X2 1.0 uF 40/110/21C | Difference in voltage and climatic category                         |
| MPX 275V X2 0.39uF 40/110/21C | Difference in capacitance and voltage and climatic category         |
| MPX 275V X2 0.47uF 40/110/21C | Difference in capacitance and voltage and climatic category         |
| MPX 275V X2 0.56uF 40/110/21C | Difference in capacitance and voltage and climatic category         |
| MPX 275V X2 0.68uF 40/110/21C | Difference in capacitance and voltage and climatic category         |
| MPX 275V X2 0.82uF 40/110/21C | Difference in capacitance and voltage and climatic category         |
| MPX 275V X2 1.0 uF 40/110/21C | Difference in voltage and climatic category                         |
| MPX 310V X2 0.39uF 40/100/21C | Difference in capacitance and climatic category                     |
| MPX 310V X2 0.47uF 40/100/21C | Difference in capacitance and climatic category                     |
| MPX 310V X2 0.56uF 40/100/21C | Difference in capacitance and climatic category                     |
| MPX 310V X2 0.68uF 40/100/21C | Difference in capacitance and climatic category                     |
| MPX 310V X2 0.82uF 40/100/21C | Difference in capacitance and climatic category                     |
| MPX 310V X2 1.0uF 40/100/21C  | Difference in climatic category                                     |
| MPX 300V X2 0.39uF 40/100/21C | Difference in capacitance and voltage and climatic category         |
| MPX 300V X2 0.47uF 40/100/21C | Difference in capacitance and voltage and climatic category         |
| MPX 300V X2 0.56uF 40/100/21C | Difference in capacitance and voltage and climatic category         |
| MPX 300V X2 0.68uF 40/100/21C | Difference in capacitance and voltage and climatic category         |
| MPX 300V X2 0.82uF 40/100/21C | Difference in capacitance and voltage and climatic category         |
| MPX 300V X2 1.0 uF 40/100/21C | Difference in voltage and climatic category                         |
| MPX 280V X2 0.39uF 40/100/21C | Difference in capacitance and voltage and climatic category         |
| MPX 280V X2 0.47uF 40/100/21C | Difference in capacitance and voltage and climatic category         |



| 파생모델명<br>Derivative model     | 기본모델과의 차이점<br>Differences between the basic and derivative model(s) |
|-------------------------------|---|
| MPX 280V X2 0.56uF 40/100/21C | Difference in capacitance and voltage and climatic category         |
| MPX 280V X2 0.68uF 40/100/21C | Difference in capacitance and voltage and climatic category         |
| MPX 280V X2 0.82uF 40/100/21C | Difference in capacitance and voltage and climatic category         |
| MPX 280V X2 1.0 uF 40/100/21C | Difference in voltage and climatic category                         |
| MPX 275V X2 0.39uF 40/100/21C | Difference in capacitance and voltage and climatic category         |
| MPX 275V X2 0.47uF 40/100/21C | Difference in capacitance and voltage and climatic category         |
| MPX 275V X2 0.56uF 40/100/21C | Difference in capacitance and voltage and climatic category         |
| MPX 275V X2 0.68uF 40/100/21C | Difference in capacitance and voltage and climatic category         |
| MPX 275V X2 0.82uF 40/100/21C | Difference in capacitance and voltage and climatic category         |
| MPX 275V X2 1.0 uF 40/100/21C | Difference in voltage and climatic category                         |
| MPX / DAIN_ 310V X2 0.39uF    | Difference in capacitance and model name                            |
| MPX / DAIN_ 310V X2 0.47uF    | Difference in capacitance and model name                            |
| MPX / DAIN_ 310V X2 0.56uF    | Difference in capacitance and model name                            |
| MPX / DAIN_ 310V X2 0.68uF    | Difference in capacitance and model name                            |
| MPX / DAIN_ 310V X2 0.82uF    | Difference in capacitance and model name                            |
| MPX / DAIN_ 300V X2 0.39uF    | Difference in capacitance, voltage and model name                   |
| MPX / DAIN_ 300V X2 0.47uF    | Difference in capacitance, voltage and model name                   |
| MPX / DAIN_ 300V X2 0.56uF    | Difference in capacitance, voltage and model name                   |
| MPX / DAIN_ 300V X2 0.68uF    | Difference in capacitance, voltage and model name                   |
| MPX / DAIN_ 300V X2 0.82uF    | Difference in capacitance, voltage and model name                   |
| MPX / DAIN_ 300V X2 1.0uF     | Difference in voltage and model name                                |
| MPX / DAIN_ 280V X2 0.39uF    | Difference in capacitance, voltage and model name                   |
| MPX / DAIN_ 280V X2 0.47uF    | Difference in capacitance, voltage and model name                   |
| MPX / DAIN_ 280V X2 0.56uF    | Difference in capacitance, voltage and model name                   |
| MPX / DAIN_ 280V X2 0.68uF    | Difference in capacitance, voltage and model name                   |
| MPX / DAIN_ 280V X2 0.82uF    | Difference in capacitance, voltage and model name                   |
| MPX / DAIN_ 280V X2 1.0uF     | Difference in voltage and model name                                |
| MPX / DAIN_ 275V X2 0.39uF    | Difference in capacitance, voltage and model name                   |
| MPX / DAIN_ 275V X2 0.47uF    | Difference in capacitance, voltage and model name                   |

| 파생모델명<br>Derivative model                | 기본모델과의 차이점<br>Differences between the basic and derivative model(s)  |
|--|--|
| MPX / DAIN_ 275V X2 0.56uF               | Difference in capacitance, voltage and model name                    |
| MPX / DAIN_ 275V X2 0.68uF               | Difference in capacitance, voltage and model name                    |
| MPX / DAIN_ 275V X2 0.82uF               | Difference in capacitance, voltage and model name                    |
| MPX / DAIN_ 275V X2 1.0uF                | Difference in voltage and model name                                 |
| MPX / DAIN_ 310V X2 0.39uF<br>40/110/21C | Difference in capacitance, climatic category and model name          |
| MPX / DAIN_ 310V X2 0.47uF<br>40/110/21C | Difference in capacitance, climatic category and model name          |
| MPX / DAIN_ 310V X2 0.56uF<br>40/110/21C | Difference in capacitance, climatic category and model name          |
| MPX / DAIN_ 310V X2 0.68uF<br>40/110/21C | Difference in capacitance, climatic category and model name          |
| MPX / DAIN_ 310V X2 0.82uF<br>40/110/21C | Difference in capacitance, climatic category and model name          |
| MPX / DAIN_ 310V X2 1.0uF<br>40/110/21C  | Difference in climatic category and model name                       |
| MPX / DAIN_ 300V X2 0.39uF<br>40/110/21C | Difference in capacitance, voltage, climatic category and model name |
| MPX / DAIN_ 300V X2 0.47uF<br>40/110/21C | Difference in capacitance, voltage, climatic category and model name |
| MPX / DAIN_ 300V X2 0.56uF<br>40/110/21C | Difference in capacitance, voltage, climatic category and model name |
| MPX / DAIN_ 300V X2 0.68uF<br>40/110/21C | Difference in capacitance, voltage, climatic category and model name |
| MPX / DAIN_ 300V X2 0.82uF<br>40/110/21C | Difference in capacitance, voltage, climatic category and model name |
| MPX / DAIN_ 300V X2 1.0uF<br>40/110/21C  | Difference in voltage, climatic category and model name              |
| MPX / DAIN_ 280V X2 0.39uF<br>40/110/21C | Difference in capacitance, voltage, climatic category and model name |
| MPX / DAIN_ 280V X2 0.47uF<br>40/110/21C | Difference in capacitance, voltage, climatic category and model name |
| MPX / DAIN_ 280V X2 0.56uF<br>40/110/21C | Difference in capacitance, voltage, climatic category and model name |
| MPX / DAIN_ 280V X2 0.68uF<br>40/110/21C | Difference in capacitance, voltage, climatic category and model name |
| MPX / DAIN_ 280V X2 0.82uF<br>40/110/21C | Difference in capacitance, voltage, climatic category and model name |
| MPX / DAIN_ 280V X2 1.0uF<br>40/110/21C  | Difference in voltage, climatic category and model name              |
| MPX / DAIN_ 275V X2 0.39uF<br>40/110/21C | Difference in capacitance, voltage, climatic category and model name |
| MPX / DAIN_ 275V X2 0.47uF<br>40/110/21C | Difference in capacitance, voltage, climatic category and model name |

| 파생모델명<br>Derivative model                | 기본모델과의 차이점<br>Differences between the basic and derivative model(s)  |
|--|--|
| MPX / DAIN_ 275V X2 0.56uF<br>40/110/21C | Difference in capacitance, voltage, climatic category and model name |
| MPX / DAIN_ 275V X2 0.68uF<br>40/110/21C | Difference in capacitance, voltage, climatic category and model name |
| MPX / DAIN_ 275V X2 0.82uF<br>40/110/21C | Difference in capacitance, voltage, climatic category and model name |
| MPX / DAIN_ 275V X2 1.0uF<br>40/110/21C  | Difference in voltage, climatic category and model name              |
| MPX / DAIN_ 310V X2 0.39uF<br>40/100/21C | Difference in capacitance, climatic category and model name          |
| MPX / DAIN_ 310V X2 0.47uF<br>40/100/21C | Difference in capacitance, climatic category and model name          |
| MPX / DAIN_ 310V X2 0.56uF<br>40/100/21C | Difference in capacitance, climatic category and model name          |
| MPX / DAIN_ 310V X2 0.68uF<br>40/100/21C | Difference in capacitance, climatic category and model name          |
| MPX / DAIN_ 310V X2 0.82uF<br>40/100/21C | Difference in capacitance, climatic category and model name          |
| MPX / DAIN_ 310V X2 1.0uF<br>40/100/21C  | Difference in climatic category and model name                       |
| MPX / DAIN_ 300V X2 0.39uF<br>40/100/21C | Difference in capacitance, voltage, climatic category and model name |
| MPX / DAIN_ 300V X2 0.47uF<br>40/100/21C | Difference in capacitance, voltage, climatic category and model name |
| MPX / DAIN_ 300V X2 0.56uF<br>40/100/21C | Difference in capacitance, voltage, climatic category and model name |
| MPX / DAIN_ 300V X2 0.68uF<br>40/100/21C | Difference in capacitance, voltage, climatic category and model name |
| MPX / DAIN_ 300V X2 0.82uF<br>40/100/21C | Difference in capacitance, voltage, climatic category and model name |
| MPX / DAIN_ 300V X2 1.0uF<br>40/100/21C  | Difference in voltage, climatic category and model name              |
| MPX / DAIN_ 280V X2 0.39uF<br>40/100/21C | Difference in capacitance, voltage, climatic category and model name |
| MPX / DAIN_ 280V X2 0.47uF<br>40/100/21C | Difference in capacitance, voltage, climatic category and model name |
| MPX / DAIN_ 280V X2 0.56uF<br>40/100/21C | Difference in capacitance, voltage, climatic category and model name |
| MPX / DAIN_ 280V X2 0.68uF<br>40/100/21C | Difference in capacitance, voltage, climatic category and model name |
| MPX / DAIN_ 280V X2 0.82uF<br>40/100/21C | Difference in capacitance, voltage, climatic category and model name |
| MPX / DAIN_ 280V X2 1.0uF<br>40/100/21C  | Difference in voltage, climatic category and model name              |
| MPX / DAIN_ 275V X2 0.39uF<br>40/100/21C | Difference in capacitance, voltage, climatic category and model name |
| MPX / DAIN_ 275V X2 0.47uF<br>40/100/21C | Difference in capacitance, voltage, climatic category and model name |

| 파생모델명<br>Derivative model  | 기본모델과의 차이점<br>Differences between the basic and derivative model(s)  |
|--|--|
| MPX / DAIN_ 275V X2 0.56uF<br>40/100/21C   | Difference in capacitance, voltage, climatic category and model name |
| MPX / DAIN_ 275V X2 0.68uF<br>40/100/21C   | Difference in capacitance, voltage, climatic category and model name |
| MPX / DAIN_ 275V X2 0.82uF<br>40/100/21C   | Difference in capacitance, voltage, climatic category and model name |
| MPX / DAIN_ 275V X2 1.0uF<br>40/100/21C  | Difference in voltage, climatic category and model name              |
| 제품특기사항 및 시험조건<br>Remarks & Test conditions   |  |
| <p>1. Test Report Ref. No. : 12-066939-01 (2013.01.23.)</p> <p>2. Product Description</p> <ul style="list-style-type: none"> <li>- X2 Capacitor</li> <li>- MPX-X2, 1.0 <math>\mu</math> F</li> <li>- X2, 250/275/280/300/310 VAC, 0.39~1.0 <math>\mu</math> F, 40/110/56/B, <math>\pm 10</math> %(K)</li> </ul>  |  |
| <p><input type="checkbox"/> 본 제품의 시험내용에 관하여 문의하실 사항이 있으시면 아래 연락처로 문의하시기 바랍니다.<br/>시험 담당자 / 연락처 : BK 전략본부 전기부품평가센터 이 진 웅 / 055-7913-422</p> <p><input type="checkbox"/> If you have any question on product testing, please contact the person below :<br/>Job holder: Certification BK Strategy Division, Electrical Components Testing Center, Jin-ung Lee /+82 55 7913 422</p> |  |

FP511-05



□ 첨부 3 : 안전인증의 변경 현황  
Revisions Status

| 변경발급 내용<br>Contents of Certificate Revisions  |
|---|
| <p>1<sup>st</sup> Rev.) Addition of Derivative models (16-060616-01 : 2016.11.08.)</p> <ul style="list-style-type: none"> <li>- Derivative models : MPX 275 V / 280 V / 300 V / 310 V, 0.39 <math>\mu</math>F~1.0 <math>\mu</math>F,<br/>40/110/21C or 40/100/21C</li> </ul> <p>2<sup>nd</sup> Rev.) Addition of critical components (17-045009-02-2 : 2017.07.24.)</p> <ul style="list-style-type: none"> <li>- Component : Case, Filler</li> </ul> <p>3<sup>rd</sup> Rev.) Delete derivative models and Change of company name and address<br/>(17-054270-01-2 : 2017.09.04.)</p> <ul style="list-style-type: none"> <li>- MPX 250V X2 0.39uF, MPX 250V X2 0.47uF, MPX 250V X2 0.56uF, MPX 250V X2 0.68uF,<br/>MPX 250V X2 0.82uF, MPX 250V X2 1.0uF</li> <li>- Before : Winday Electronic Industrial Co., Ltd. /<br/>Xin-Jiu-Wei Territory, Liaobu Village, Dongguan City, Guangdong, P. R. CHINA</li> <li>After : Winday Electronic (Dong Guan) Co., Ltd. /<br/>Xin-Jiu-Wei Territory, Liaobu Town, Dongguan, Guangdong, P.R.CHINA</li> </ul> <p>4<sup>th</sup> Rev.) Addition of Derivative models (20-054180-01-1 : 2020.09.25.)</p> <ul style="list-style-type: none"> <li>- Derivative models : MPX / DAIN_ 310V X2 0.39uF and 70 other models</li> </ul> |

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