



## Product / Process Change Notification (PCN)

- Major change  
 Minor change

**PCN #:** PCN\_WCAP-FTXX\_20221008

**Affected Series:** WCAP-FTXX; 890334xxxxxx

**PCN Date:** July 08, 2022

**Effective Date:** October 08, 2022

### Change Category:

- Equipment / Location  
 General Data  
 Material  
 Process  
 Product Design  
 Shipping / Packaging  
 Supplier  
 Software

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### Data Sheet Change:

- Yes  No

### Attachment:

- Yes  No

### DESCRIPTION AND PURPOSE OF CHANGE:

Because of a database mismatch and changing of ENEC certificate institute, Würth Elektronik will update following datasheets for the Match code WCAP-FTXX.

The component Marking will be changed to the current state of art.

### DETAIL OF CHANGE:

#### Datasheet Update

Würth Elektronik will update the datasheet layout in general for part numbers:


890334022001	890334023002	890334023002CS	890334023003	890334023003CS
890334023004	890334023004CS	890334028008	890334028008CS	890334028012CS

Furthermore with this layout update Würth Elektronik will correct the electrical and mechanical characteristics. All corrections in terms of electrical characteristics are shown below. They will also be clearly visible in the new datasheets which Würth Elektronik will provide on the website shortly.

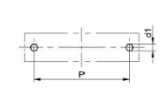
(This is a datasheet correction only. There will be no change in form, fit, function, quality or reliability of the product.)

All corrections in terms of mechanical characteristics are shown. In order to visualize the corrections of the dimensions, an example of the old and the new drawings is shown below. Würth Elektronik will update the dimensioning from an indirect dimensioning to a direct dimensioning:

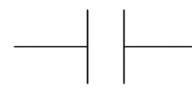
**A Dimensions: [mm]**



**B Recommended hole pattern: [mm]**



**C Schematic:**

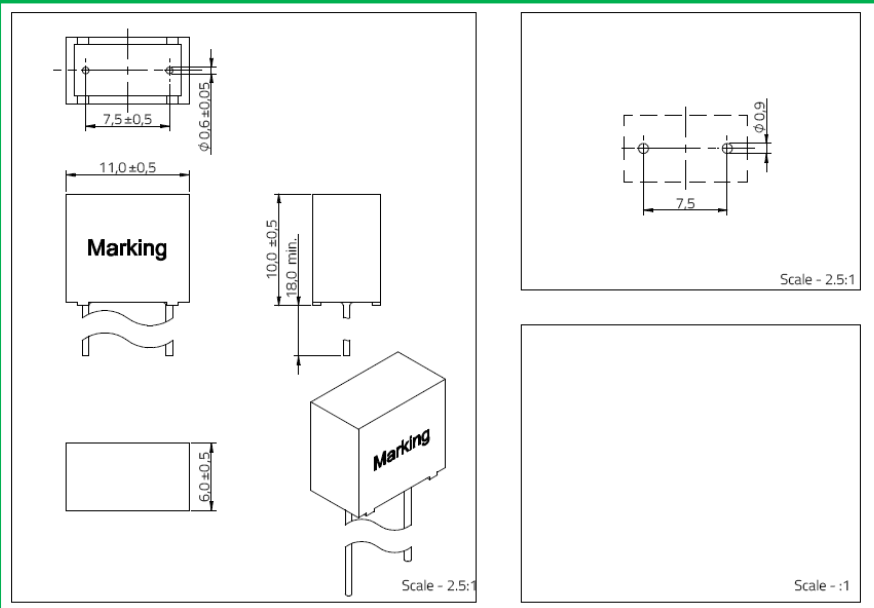


P ±0.5	7.5
L ±0.5	11.0
H ±0.5	10.0
W ±0.5	6.0
PL min.	20.0
Pin Ø ±0.05	0.6
df1	0.9

1.3	2015-04-16	Stz.	PSL
1.2	2014-08-14	Stz.	PSL
1.1	2014-05-20	Stz.	PSL
1.0	2014-04-22	Stz.	PSL
REV	DATE	BY	CHECKED

Projektion 
  
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*Example old drawings with indirect dimensioning*



*Example new drawings with direct dimensioning*

In the course of the update from indirect to direct dimensioning, the values for the dimensions and tolerances will be updated. The upcoming corrections can be seen more detailed in the pictures above.



- Würth Elektronik will correct the **Pin Length** to “**18 mm min.**” for the following part numbers:

890334022001	890334023002	890334023003	890334023004	890334028008
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- Würth Elektronik will update the format of how the General Information is displayed (including Temperature Coefficient, Storage Conditions, etc.) for all WCAP-FTXX parts from:

**E General information:**

X2-Safety Class Capacitor; MKP - Metallized Polypropylene  
 Storage Conditions: 35°C, <45% RH  
 Operating Temperature: -40°C to +105°C  
 Climate category: 40/ 105/ 56/ B  
 Maximum Selfheating (rated): 7°C  
 Test conditions of Electrical Properties: 20°C, 33% RH  
 if not specified differently  
 FIT according to separate documentation

*Old display of General Information*

to:

X2-Safety Class Capacitor; MKP - Metallized Polypropylene	
Operating Temperature	-40 up to +105 °C
Storage Conditions (in original packaging)	5 °C up to + 35 °C; 10 % up to 75 % RH
Maximum Selfheating (Rated)	7 °C
Moisture Sensitivity Level (MSL)	1
Climatic Category	40/105/56/B
Test conditions of Electrical Properties: +20 °C, 35 % RH if not specified differently	
FIT according to separate documentation	
Only designed to be used in parallel to the mains, not approved for series applications.	

*New display of General Information*

- Würth Elektronik will update the **display** of the **capacitance value**:

Part number	Old display	New display
890334022001	0,0047 µF	4,7 nF
890334023002	0,0056 µF	5,6 nF
890334023003	0,0068 µF	6,8 nF
890334023004	0,0082 µF	8,2 nF



- Würth Elektronik will update the display of the **Insulation Resistance** for the following part numbers:

Part number	Old display	New display
890334022001	30000 MΩ	30 GΩ
890334023002	30000 MΩ	30 GΩ
890334023003	30000 MΩ	30 GΩ
890334023004	30000 MΩ	30 GΩ
890334028008	10000 MΩ x μF	1.47 GΩ
890334023002CS	30000 MΩ	30 GΩ
890334023003CS	30000 MΩ	30 GΩ
890334023004CS	30000 MΩ	30 GΩ
890334028008CS	10000 MΩ x μF	1.47 GΩ
890334028012CS	10000 MΩ	1 GΩ

- Würth Elektronik will update the **Dissipation Factor@100 kHz** to **“3 %”** all WCAP-FTXX parts in this PCN.
- Würth Elektronik will update the **Dielectric Strength** (pin to pin) test conditions to **“1 min./ +20° C”** for all WCAP-FTXX parts in this PCN.
- Würth Elektronik will update the **Storage Conditions** to **“5 °C - 35 °C; 10 % up to 75 % RH”** for all WCAP-FTXX parts in this PCN.
- Würth Elektronik will specify the **Moisture Sensitive Level** to **“1”** for all WCAP-FTXX parts in this PCN.
- Würth Elektronik will add the test conditions for the **Rated Voltage (DC)** for all WCAP-FTXX parts in this PCN.
- Würth Elektronik will update the general Cautions and Warnings. Please refer to datasheet for details.
- Würth Elektronik changed the ENEC certificate institute from VDE to UL. ENEC10 will update to ENEC15 for all WCAP-FTXX parts in this PCN.

## Product Marking

Due to process optimization the printing of the match code WCAP-FTXX will be changed. Products after applied change with datecode of July 01, 2022 or later, can be shipped with new laser printing.

The product marking will change in the following points:

- The “2nd Line right” of the product marking will now write the classification of “X2” capacitor in front of the rated voltage value.
- The top marking for the date code will now be moved to the side marking. (see example Code”J01”)
- ENEC10 changes to ENEC15.
- The side marking will be a laser printing to ensure best readability over long time periods of operation, even under temperature influences and humidity.



Example of old side Marking



Example of old top Marking



Example of new Marking

- Würth Elektronik will update the **certification information** for all parts in this PCN from

Properties	Standard	File
ENEC10 by VDE	IEC 60384 - 14	40038405
cULus	UL 60384 - 14 / CAN/CSA - E60384 - 14	E345659
CQC	IEC 60384 - 14	13001104050

Example of old approvals

to:

<b>RoHs Approval</b>	Compliant [2011/65/EU&2015/863]
<b>REACH Approval</b>	Conform or declared [(EC)1907/2006]
<b>ENEC15 Approval</b>	ENEC-02986 [EN 60384-14]
<b>cULus Approval</b>	E345659 [UL 60384-14&CSA E60384-1&CSA E60384-14]
<b>CQC Approval</b>	13001104050[GB/T6346.14]

*Example of new approvals*

- Würth Elektronik will replace the topic “**Environmental test**” with “**Test items and standards**” for all parts in this PCN.
- Würth Elektronik will update the **Test items and standards** information for all parts in this PCN from:

Properties	Standard	
Active Flammability	IEC 60384-14	max. 24 surge pulses @ 2.5 kV (one pulse every 5 seconds)
Passive Flammability	IEC 60384-14	in combination with IEC 60381 - 1 & IEC 60695 - 11 - 5
Vibration	IEC 60068 - 2 - 6	all 3 directions, 2 hours each @ 10 - 55 - 10 Hz, amplitude 0.75 mm or 10 g
Damp Heat	IEC 60068 - 2 - 78	40°C, 95% RH, 56 days
Temperature Cycles	IEC 60068 - 2 - 14	5 cycles, upper and lower temperature 30 min. each, 30 sec. transfer time
Charge/ Discharge Test	IEC 60384 - 14	$\sqrt{2} \times U_R$ @ 100 V/ $\mu$ s
Surge Test	IEC 60384 - 14	2.5 kV Surge impulses

*Example of old environmental test table*

to:

Properties	Standard	
Active Flammability	IEC 60384-14	20 surge pulses @ 2.5 kV (one pulse every 5 seconds)
Passive Flammability	IEC 60384-14	in combination with IEC 60384 - 1 & IEC 60695 - 11 - 5
Vibration	IEC 60068 - 2 - 6	all 3 directions, 2 hours each @ 10 - 55 - 10 Hz, amplitude 0.75 mm or 10 g
Damp Heat	IEC 60068 - 2 - 78	40°C, 95% RH, 56 days
Temperature Cycles	IEC 60068 - 2 - 14	5 cycles, upper and lower temperature 30 minutes each, 3 minutes max. transfer time
Charge/ Discharge Test	IEC 60384 - 14	$\sqrt{2} \times U_R$ @ 100 V/ $\mu$ s
Surge Test	IEC 60384 - 14	2.5 kV Surge impulses
Endurance Test	IEC 60384 - 14	1.25 x 310 V(AC) through a 47 $\Omega$ $\pm$ 5% Resistor, once every hour increase to 1000 V(AC) for 0.1 seconds, 1000 hours @ 105°C $\pm$ 3°C

*Example of new Test items and standards table*

**RELIABILITY / QUALIFICATION SUMMARY:**

There will be no change of any technical impact of the product, therefore no additional reliability or qualification testing will be performed. The endurance test has always been part of the environmental test (old) / test items and standards (new) and is newly listed here.