Notice Regarding the Quality Issue and Countermeasure for ECWFE 450 VDC Metallized Polypropylene Film Capacitors

Dear Valued Customer,

We would like to express our sincere appreciation for your continued support of our products.

During our internal periodic quality testing, we identified a capacitance change exceeding the acceptance criterion in the High-Temperature and High-Humidity Load Test II for the products listed below. We sincerely apologize for any concern and inconvenience this may cause.

Our investigation indicates that, under severe high-temperature and high-humidity conditions, moisture ingress into the product may reduce the dielectric strength of the film and lead to a decrease in capacitance. As a countermeasure, we will change the potting material to a high-moisture-resistance epoxy resin with a proven record of use in our products. The countermeasure product has passed the required reliability tests.

We will apply this countermeasure to future shipments. Please review the summary on the following page. If you have any questions or concerns regarding your actual operating conditions, please contact your Panasonic sales representative.

Best regards,

Panasonic Industry Europe

Summary

Products concerned	ECWFE2W105 / 155 / 225 series
Issue identified	Capacitance change outside the acceptance criterion in High-Temperature and High-Humidity Load Test II (450 VDC, 60°C / 95% RH, 500 hours)
Countermeasure	Change the potting material to a high-moisture-resistance epoxy resin
Implementation	Countermeasure products will be introduced beginning with the next shipment

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Summary of the Quality Issue and Countermeasure

1. Overview of the Issue

Date identified	April 2026, during the FY2025 internal periodic quality test
Test result	In High-Temperature and High-Humidity Load Test II, some products showed a capacitance decrease exceeding the acceptance criterion of -10%.
Other tests	The Endurance Test (500 VDC, 85°C, 1,000 hours) and High-Temperature and High-Humidity Load Test I (450 VDC, 40°C / 95% RH, 500 hours) were passed.
Potential field impact	The impact depends on the actual applied voltage, temperature, humidity, and other operating conditions. Based on the information available at this time, the estimated worst-case capacitance decrease is approximately -14%.

2. Probable Cause

Under high-temperature and high-humidity conditions, moisture may enter the product and reduce the dielectric strength of the film. This can increase self-healing events and fuse disconnections, resulting in a decrease in capacitance. We are continuing our investigation, including identification of the detailed moisture ingress path.

3. Countermeasure and Evaluation Results

Change	Replace the current epoxy potting resin with a high-moisture-resistance epoxy resin already used in Panasonic products requiring enhanced moisture resistance.
Product specifications	No change to initial electrical characteristics, product dimensions, or manufacturing process.
Reliability results	The countermeasure product passed High-Temperature and High-Humidity Load Tests I and II, the Endurance Test, and the Temperature Cycling Test.
Environmental compliance	High-precision analysis and non-use declarations for regulated environmental substances have been confirmed for the new resin.

4. Request to Customers

Customers currently using or considering the affected products are requested to review the actual applied voltage, ambient temperature, humidity, and other operating conditions. If you have any concerns, we will assess the potential impact based on your specific conditions and discuss the appropriate response with you. Please contact your Panasonic sales representative.

Notice: Countermeasure products will be introduced sequentially beginning with the next shipment. Details regarding applicable lots and quantities will be provided individually as necessary.

Affected PN
ECWFE2W105J
ECWFE2W105JA
ECWFE2W105K
ECWFE2W105KA
ECWFE2W155J
ECWFE2W155JA
ECWFE2W155K
ECWFE2W155KA
ECWFE2W155P8
ECWFE2W155Q8
ECWFE2W155PL
ECWFE2W155QL
ECWFE2W225J
ECWFE2W225JA
ECWFE2W225K
ECWFE2W225KA
ECWFE2W225P8
ECWFE2W225Q8
ECWFE2W225PL
ECWFE2W225QL