

Zertifikat *Certificate*

Zertifikatsnummer Certificate No.:

R 60186742 0002

Berichtsnummer Report No.:

HU268LYR 003

Genehmigungsinhaber License Holder:

Knowles (UK) Ltd
Hethel Engineering Centre,
Chapman Way, Hethel,
Norwich, Norfolk,
NR14 8FB
United Kingdom

Fertigungsstätte Manufacturing Site:

Knowles Electronics
(Suzhou) Co. Ltd.
No 20 Chunxing Road
Xiangcheng District
215131 Suzhou
P.R. China

Prüfzeichen Test Mark:


Type Approved
Safety
Regular Production
Surveillance

www.tuv.com
ID 1111314118

Geprüft nach Tested according to:

EN IEC 60384-14:2023

Geräteidentifikation
Product Identification
Produkt:
Product:

Capacitor
(Multi-Layer Ceramic Capacitor)

Modell:
Type:

Modelle sind auf nächste(r) Seite(n) gelistet
Type designation(s) are listed on the next page(s)

Technische Daten:
Technical Data:

Rated voltage.....: 250 V a.c. or 250 V a.c./250 V a.c.
Rated frequency.....: 50/60 Hz
Dielectric class...: Class I (C0G)
Type code.....: SP or PY2
Class.....: X1 or X2 or Y2/X1
Trademark.....: SYFER, knowles

This certificate is Modification No. 1 for R 60186742 0001, issued 2026-03-30, due to new dielectric/release code (C0G AECQ) added.

Gültig ab:
Valid from:
Zertifizierungsstelle:
Certification body:


Ausstellungsdatum: 2026-08-10

Date of issue:

Mózes Tibor

Mózes Tibor

Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde und es bestätigt die Konformität des Produktes mit den oben genannten Standards und Prüfgrundlagen. Zusätzliche Anforderungen in Ländern, in denen das Produkt in Verkehr gebracht werden soll, müssen zusätzlich betrachtet werden. Die Herstellung des zertifizierten Produktes wird überwacht.

This certificate is based on our Testing and Certification Regulation and states the conformity of the product with the standards and testing requirements as indicated above. Any additional requirements in countries where the product is going to be marketed have to be considered additionally. The manufacturing of the certified product is subject to surveillance.

TÜV Rheinland LGA Products GmbH, Tillystraße 2, 90431 Nürnberg

<http://www.tuv.com/safety> E-mail: markcheck@tuv.com

Fax: +49 221 806-3935

www.tuv.com

 **TÜVRheinland®**
Precisely Right.

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Produkt *Product:*

Capacitor
(Multi-Layer Ceramic Capacitor)

Modell *Type:*

Bezeichnung *Designation:*

PY2: 1808bA25ddddddefgPY2; 1812bA25ddddddefgPY2;

SP: 1808bA25ddddddefgSP; 2211bA25ddddddefgSP; 2215bA25ddddddefgSP

Type nomenclature

1808 b A25 dddd e f g SP ***, where

- "1808" is Type number / Size reference
- "b" means the Protection termination, can be:
 - Y: FlexiCap termination base with Ni Barrier. RoHS compliant. (100% matte tin plating)
 - J: Silver base with Nickel Barrier. RoHS compliant. (100% matte tin plating)
- "A25" means the Voltage rating: 250 V a.c.
- "dddd" means the Capacitance value, can be:
 - First digit: 0 (or, if capacitance <10 pF, first significant figure of capacitance value)
 - Second digit: First significant figure of capacitance value (or, if cap <10 pF, "P" to signify units of pF)
 - Third digit: Second significant figure of capacitance value
 - Fourth digit: Number of zeros following, e.g. 0102 = 1000 pF.
- "e" means the Capacitance tolerance code, can be:
 - For ultra stable class (C0G), if Cr <10 pF:
 - B = ±0,10 pF ◦ C = ±0,25 pF ◦ D = ±0,50 pF
 - For ultra stable class (C0G), if Cr ≥10 pF:
 - F = ±1% ◦ G = ±2% ◦ J = ±5% ◦ K = ±10% ◦ M = ±20%
- "f" means the Dielectric/release code, can be:
 - C: C0G • A: C0G AECQ
- "g" means the Packaging, can be:
 - T: 178mm (7") reel • R: 330mm (13") reel • B: Bulk pack - tubs
- "SP" means Safety tested surge protection capacitor.



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Produkt *Product:*

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(Multi-Layer Ceramic Capacitor)

Modell *Type:*

Bezeichnung *Designation:*

Type nomenclature

aaaa b A25 dddd e f g SP ***, where

- "aaaa" is Type number / Size reference, can be:
 - 2211 • 2215
- "b" means the Protection termination, can be:
 - Y: FlexiCap termination base with Ni Barrier. RoHS compliant.
(100% matte tin plating)
 - H: FlexiCap termination base with Ni Barrier.
(Tin/lead plating with a minimum of 10% lead)
 - J: Silver base with Nickel Barrier. RoHS compliant.
(100% matte tin plating)
 - A: Silver base with Nickel Barrier.
(Tin/lead plating with a minimum of 10% lead)
- "A25" means the Voltage rating: 250 V a.c.
- "dddd" means the Capacitance value, can be:
 - First digit: 0 (or, if capacitance <10 pF, first significant figure of capacitance value)
 - Second digit: First significant figure of capacitance value
(or, if cap <10 pF, "P" to signify units of pF)
 - Third digit: Second significant figure of capacitance value
 - Fourth digit: Number of zeros following, e.g. 0102 = 1000 pF.
- "e" means the Capacitance tolerance code, can be:
 - For ultra stable class (C0G), if Cr <10 pF:
 - B = $\pm 0,10$ pF ◦ C = $\pm 0,25$ pF ◦ D = $\pm 0,50$ pF
 - For ultra stable class (C0G), if Cr ≥ 10 pF:
 - F = $\pm 1\%$ ◦ G = $\pm 2\%$ ◦ J = $\pm 5\%$ ◦ K = $\pm 10\%$ ◦ M = $\pm 20\%$
- "f" means the Dielectric/release code, can be:
 - C: C0G • A: C0G AECQ
- "g" means the Packaging, can be:
 - T: 178mm (7") reel • R: 330mm (13") reel • B: Bulk pack - tubs
- "SP" means Safety tested surge protection capacitor.

*** Represents a three character suffix code, which will be allocated by Knowles when needed for specific customer requirements. This does not change the specifications defined hereon, complies with Knowles safety capacitor req. and also is in accordance with IEC 60384-14.



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Produkt *Product:* Capacitor
(Multi-Layer Ceramic Capacitor)

Modell *Type:* **Bezeichnung** *Designation:*

Type nomenclature

aaaa b A25 dddd e f g PY2 ***, where

- "aaaa" is Type number / Size reference, can be:
 - 1808 • 1812
- "b" means the Protection termination, can be:
 - Y: FlexiCap termination base with Ni Barrier. RoHS compliant.
(100% matte tin plating)
 - J: Silver base with Nickel Barrier. RoHS compliant.
(100% matte tin plating)
 - P: ProtectiCap. FlexiCap termination base with Nickel Barrier.
(100% matte tin plating)
- "A25" means the Voltage rating: 250 V a.c.
- "dddd" means the Capacitance value, can be:
 - First digit: 0 (or, if capacitance <10 pF, first significant figure of capacitance value)
 - Second digit: First significant figure of capacitance value
(or, if cap <10 pF, "P" to signify units of pF)
 - Third digit: Second significant figure of capacitance value
 - Fourth digit: Number of zeros following, e.g. 0102 = 1000 pF.
- "e" means the Capacitance tolerance code, can be:
 - For ultra stable class (C0G), if Cr <10 pF:
 - B = $\pm 0,10$ pF ◦ C = $\pm 0,25$ pF ◦ D = $\pm 0,50$ pF
 - For ultra stable class (C0G), if Cr ≥ 10 pF:
 - F = $\pm 1\%$ ◦ G = $\pm 2\%$ ◦ J = $\pm 5\%$ ◦ K = $\pm 10\%$
- "f" means the Dielectric/release code, can be:
 - C: C0G • A: C0G AECQ
- "g" means the Packaging, can be:
 - T: 178mm (7") reel • R: 330mm (13") reel • B: Bulk pack - tubs
- "PY2" means Safety tested surge protection capacitor.

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Modell *Type:*
Bezeichnung *Designation:*

Detailed ratings

Type designation	Rated voltage (UR)	Type code	Class	Capacitance range
1808bA25ddddefgPY2	250 V a.c.	PY2	X1	4,7 pF – 390 pF
1812bA25ddddefgPY2	250 V a.c.	PY2	X1	4,7 pF – 390 pF
1808bA25ddddefgSP	250 V a.c.	SP	X2	4,7 pF – 1,5 nF
2211bA25ddddefgSP	250 V a.c. / 250 V a.c.	SP	Y2/X1	4,7 pF – 1 nF
2215bA25ddddefgSP	250 V a.c. / 250 V a.c.	SP	Y2/X1	820 pF – 1 nF

