

CERTIFICATE OF COMPLIANCE

Certificate Number E503075
Report Reference E503075-20200325
Issue Date 2020-MARCH-30

Issued to: TYCO Electronics Corp
2901 Fulling Mill Rd
Middletown PA 17057

**This certificate confirms that
representative samples of**

**COMPONENT - ELECTROMAGNETIC INTERFERENCE
APPLIANCE FILTERS**

Passive Filter Units for Electromagnetic Interference
Suppression, Appliance Filter FBH Series, Models 1FBH3,
2FBH3, 3FBH3 and 5FBH3.

Have been investigated by UL in accordance with the
component requirements in the Standard(s) indicated on
this Certificate. UL Recognized components are incomplete
in certain constructional features or restricted in
performance capabilities and are intended for installation in
complete equipment submitted for investigation to UL LLC.

Standard(s) for Safety:

ANSI/UL 60939-3, Passive Filter Units for Electromagnetic
Interference Suppression - Part 3: Passive Filter Units for
Which Safety Tests are Appropriate
CAN/CSA C22.2 No. 8-13, Electromagnetic Interference
Filters


Additional Information:

See the UL Online Certifications Directory at
<https://iq.ulprospector.com> for additional information.

This *Certificate of Compliance* does not provide authorization to apply the UL Recognized Component Mark. Only the UL Follow-Up Services Procedure provides authorization to apply the UL Mark.

Only those products bearing the UL Recognized Component Mark should be considered as being UL Certified and covered under UL's Follow-Up Services.

Look for the UL Recognized Component Mark on the product.



Bruce Mahrenholz, Director North American Certification Program
UL LLC

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DESCRIPTION

PRODUCT COVERED:

USR, CNR - Passive Filter Units for Electromagnetic Interference Suppression, Appliance Filter FBH Series, Models 1FBH3, 2FBH3, 3FBH3 and 5FBH3.

GENERAL:

The devices covered by this Procedure are passive filters used to attenuate unwanted radio-frequency signals (such as noise or interference) generated from electromagnetic sources. They are intended to be factory-installed as a component part of end-use appliances or equipment connected to (supplied by) the branch circuits of a building wiring system.

ELECTRICAL RATINGS:

Model Nos.	Coverage	Rated Voltage, V	Phases	Rated Frequency, Hz	Rated Current, A	Rated Maximum Ambient Temperature, °C	Climatic Category
1FBH3	USR, CNR	480	1	50/60, DC	1	90	40/100/21
2FBH3	USR, CNR	480	1	50/60, DC	2	90	40/100/21
3FBH3	USR, CNR	480	1	50/60, DC	3	90	40/100/21
5FBH3	USR, CNR	480	1	50/60, DC	5	90	40/100/21

ENGINEERING CONSIDERATIONS (NOT FOR FIELD REPRESENTATIVE'S USE):

Additional Details Regarding Electrical Ratings:

Coverage:

USR indicates the filters have been evaluated to the Standard for Passive Filter Units for Electromagnetic Interference Suppression - Part 3, UL 60939-3, First Edition.

CNR indicates investigation to the requirements of the Canadian Standard for Electromagnetic Interference (EMI) Filters, CSA C22.2 No. 8-13, Fifth Edition.

Phases: 1 = Single Phase Alternating Current; 1S = Split Single Phase Alternating Current; 3Y = Three Phase Wye Alternating Current; 3H = Three Phase Hi-Leg Delta Alternating Current; 3D = Three Phase Delta Alternating Current; DC = Direct Current.

Maximum Ambient Temperature: Maximum Operating Ambient Temperature.

Climatic Category: Lower Limit Temperature/Upper Limit Temperature/Number of days of exposure to damp heat (steady state). The Lower Limit Temperature represents the rated Cold Operating Ambient Temperature for CSA C22.2 No. 8-13.

CONDITIONS OF ACCEPTABILITY:

Use - The components covered by this Report are Component Appliance Electromagnetic Interference Filters intended to be used in the end-use product where the acceptability of the combination with the end-use product has been determined by UL LLC.

Conditions of Acceptability - The following items should be considered to determine acceptability when evaluating the end-use product.

1. The filters shall be provided with an overall enclosure suitable for the applicable end product requirements. Mounting means should be considered in the end-use application.
2. The filter shall be installed in compliance with the terminal spacing and segregation requirements of the end use application.
3. The terminals have not been evaluated for field wiring.
4. Appliance filters inherently have high leakage currents exceeding 3.5 mA. Leakage current measurements in the end use application should be considered for compliance with the end use application requirements.
5. The components were submitted and evaluated at a maximum manufacturer's recommended ambient as indicated in the Electrical Ratings Table. The need for additional testing if these devices are used above this rating shall be considered in the end-use application.
6. The suitability of the grounding means in conjunction with the filter shall be evaluated in the end-use application.
7. The Limited Short Circuit Test has been performed on these filters and they are capable of withstanding limited short-circuit conditions up to those stated in the table below, with the correlating Fuses that were used. Evaluation for test currents higher than those stated in the table, or with a Fuse different than what is stated, shall be determined in the end-use product in which these filters are installed.

Tested Model	Represented Models	Available Short circuit Current Rating (Amps, rms)	Fuse Rating, A
5FBH3	1FBH3, 2FBH3, 3FBH3	5000	Type K5, 600 V, 20 A, 50 kA AIC