File E495089 Project 4790764746

March 26, 2024

REPORT

on

COMPONENT - ELECTROMAGNETIC INTERFERENCE APPLIANCE FILTERS

SCHURTER AG Lucerne, CH

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DESCRIPTION

PRODUCT COVERED:

USR, CNR - Component - Passive Filter Units for Electromagnetic Interference Suppression, Appliance Chokes, Model Series DKCV-1 Series, Models DKCV-3218-0U(kk)-ww, DKCV-3218-0L(kk)-ww, DKCV-3218-0M(kk)-ww, DKCV-3218-0K(kk)-ww, DKCV-3218-D5(kk)-ww, DKCV-3218-10(kk)-ww, DKCV-3218-0J(kk)-ww, DKCV-3218-0Q(kk)-ww, where D5=0.5, 0J=1, 0K=2, 0L=3, 0M=4, 0U=6, 0Q=8, 10=10; kk = Inductance value; ww = Two optional alphanumeric digits.

GENERAL:

The devices covered by this Procedure are Electromagnetic Interference (EMI) Filter high current Chokes intended for incorporation in appliances or similar equipment and used to attenuate unwanted radio-frequency signals (such as noise or interference) generated from electromagnetic sources. They are provided with plastic base and terminals 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. The current detailed below is the maximum rated at a maximum ambient temperature rating. File E495089 Vol. 1

ELECTRICAL RATINGS:

| Model No. | Voltage, V CNR USR | | Frequency Hz | Phases | Current A | Inductance (-30/+50%) mH | Rated Maximum Ambient Temperature °C | Climatic Category |
|-------------------|-----------------------|---------------|-----------------|--------|--------------|--------------------------------|---|----------------------|
| DKCV-3218-D5J8-NK | 250Vac/350Vdc | 300Vac/450Vdc | 50/60, DC | 1 | 0.5 | 180 | 50 | 40/100/21 |
| DKCV-3218-0J55-NK | 250Vac/350Vdc | 300Vac/450Vdc | 50/60, DC | 1 | 1 | 55 | 50 | 40/100/21 |
| DKCV-3218-0K45-NK | 250Vac/350Vdc | 300Vac/450Vdc | 50/60, DC | 1 | 2 | 45 | 50 | 40/100/21 |
| DKCV-3218-0L12-NK | 250Vac/350Vdc | 300Vac/450Vdc | 50/60, DC | 1 | 3 | 12 | 50 | 40/100/21 |
| DKCV-3218-0M8P-NK | 250Vac/350Vdc | 300Vac/450Vdc | 50/60, DC | 1 | 4 | 7.8 | 50 | 40/100/21 |
| DKCV-3218-0U7K-NK | 250Vac/350Vdc | 300Vac/450Vdc | 50/60, DC | 1 | 6 | 2.7 | 50 | 40/100/21 |
| DKCV-3218-0Q9J-NK | 250Vac/350Vdc | 300Vac/450Vdc | 50/60, DC | 1 | 8 | 1.9 | 50 | 40/100/21 |
| DKCV-3218-10D9-NK | 250Vac/350Vdc | 300Vac/450Vdc | 50/60, DC | 1 | 10 | 0.9 | 50 | 40/100/21 |

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

Additional Details Regarding Electrical Ratings:

Coverage:

USR indicates the Appliance Filter Chokes have been evaluated to the Standards listed in the Test Record.

CNR indicates investigation to the requirements of the Canadian Standards listed in the Test Record.

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.

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NOMENCLATURE BREAKDOWN:

Type Code and Description for DKCV-1 Series Filters

Example:

| P/N | DKCV | -32 | ΖZ | -уу | kk | -ww | |
|-----|------|-----|----|-----|----|-----|--|
| No. | 1 | 2 | 3 | 4 | 5 | 6 | |

| No. | P/N | Description | | | | | |
|-----|------|--|--|--|--|--|--|
| 1 | DKCV | Series Designation | | | | | |
| 2 | -32 | Model Number Designation | | | | | |
| 3 | ZZ | Two digits, diameter of coil support: 18 = 18 mm, zz = custom version | | | | | |
| | | Two digits, Current rating: | | | | | |
| 4 | -УУ | D5 = 0.5 A, $0J = 1$ A, $0K = 2$ A, $0L = 3$ A, $0M = 4$ A, $0U = 6$ A, $0Q = 8$ A, $10 = 10$ A, $yy =$ alphanumeric digits for custom version between 0.5 and 10 Amps. | | | | | |
| | | Two digit alphanumeric, Inductance value: | | | | | |
| | | -0 to 0.9 mH (example: 0.003 mH> M3; 0.06 mH> C6; 0.8 mH> D8) | | | | | |
| | | $Dx \rightarrow 0.X$ $Cx \rightarrow 0.0X$ $Mx \rightarrow 0.00X$ Where X = 0, 1, 2, 3, 4, 5, 6, 7, 8, 9 | | | | | |
| 5 | kk | -1 to 9.9 mH (example: 1.5mH> 5J; 2.8mH> 8K; 4.0mH> 0M; 5.6mH> 6N; 8.3mH> 3Q; 9,2mH> 2R) | | | | | |
| | | $xJ \rightarrow 1.x, xL \rightarrow 3.x, xN \rightarrow 5.x, xP \rightarrow 7.x, xK \rightarrow 2.x, xM \rightarrow 4.x, xU \rightarrow 6.x, xQ \rightarrow 8.x, xR \rightarrow 9.x$ Where X = 0, 1, 2, 3, 4, 5, 6, 7, 8, 9 | | | | | |
| | | -10 to 99 mH (example 12mH>12; 35mH>35) | | | | | |
| | | >99mH(example: 150mH> J5) | | | | | |
| | | $Jx \rightarrow 1x0$, Where X = 0, 1, 2, 3, 4, 5, 6, 7, 8, 9 | | | | | |
| 6 | -ww | Two optional alphanumeric digits that indicate mechanical differences, reduced inductivity, customer versions, number of ferrites, Type of ferrite (nanocristalline or ferrite), etc. | | | | | |

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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 devices covered in this Report 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 devices shall be installed in compliance with the terminal spacing and segregation requirements of the end use application.
- 3. The terminals provided with these components are pin Type solder connections. Connections should be mechanically secured before soldering in the end use product. The terminals have not been evaluated for field wiring.
- 4. Appliance filters inherently have high leakage currents. 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 Limited Short Circuit Test (CSA C22.2 No. 8, Cl. 6.14) was not conducted. The consideration of these devices to comply with this test shall be determined in the end-use application.