

File E62388
Project 12SC02193

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REPORT

on

COMPONENT - ELECTROMAGNETIC INTERFERENCE FILTERS

TDK-EPC Corp
Nikaho-Shi, Akita-Ken, Japan

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DESCRIPTION

PRODUCT COVERED:

USR, CNR - Component - Electromagnetic Interference Appliance Filters, Models RPE-2003, RPA-2003, RPE-2006, RPA-2006, RPE-2010, RPE-2003R, RPA-2003R, RPE-2006R, RPA-2006R, RPE-2010R, RPE-2003L, RPA-2003L, RPE-2006L, RPA-2006L, RPE-2010L, RPE-2003RL, RPA-2003RL, RPE-2006RL, RPA-2006RL, RPE-2010RL, RPE-2003F01, RPE-2006F01, RPE-2003F02, RPE-2006F02, RPE-2003F01L, RPE-2006F01L, RPE-2003F02L, RPE-2006F02L, RPV-2010, RPV-2010R and **RPV-2010-102**.

GENERAL:

These devices are electromagnetic interference (EMI) filters intended for incorporation in appliances or similar equipment. They incorporate terminals intended for factory wiring only.

ELECTRICAL RATINGS:

Model No.	Volts (Vac)	Current (A)	Frequency. (Hz)	Phase	Ambient Temperature (°C)
RPE-2003, RPA-2003	250	3	50/60	1	-25 to 55
RPE-2006, RPA-2006	250	6	50/60	1	-25 to 55
RPE-2010	250	10	50/60	1	-25 to 55
RPE-2003R, RPA-2003R	250	3	50/60	1	-25 to 55
RPE-2006R, RPA-2006R	250	6	50/60	1	-25 to 55
RPE-2010R	250	10	50/60	1	-25 to 55
RPE-2003L, RPA-2003L	250	3	50/60	1	-25 to 55
RPE-2006L, RPA-2006L	250	6	50/60	1	-25 to 55
RPE-2010L	250	10	50/60	1	-25 to 55
RPE-2003RL, RPA-2003RL	250	3	50/60	1	-25 to 55
RPE-2006RL, RPA-2006RL	250	6	50/60	1	-25 to 55
RPE-2010RL	250	10	50/60	1	-25 to 55

ELECTRICAL RATINGS (Cont'd):

Model No.	Volts (Vac)	Current (A)	Frequency. (Hz)	Phase	Ambient Temperature (°C)
RPE-2003F01	250	3	50/60	1	-25 to 55
RPE-2006F01	250	6	50/60	1	-25 to 55
RPE-2003F02	250	3	50/60	1	-25 to 55
RPE-2006F02	250	6	50/60	1	-25 to 55
RPE-2003F01L	250	3	50/60	1	-25 to 55
RPE-2006F01L	250	6	50/60	1	-25 to 55
RPE-2003F02L	250	3	50/60	1	-25 to 55
RPE-2006F02L	250	6	50/60	1	-25 to 55
RPV-2010	250	10	50/60	1	-25 to 55
RPV-2010R	250	10	50/60	1	-25 to 55
RPV-2010-102	250	10	50/60	1	-25 to 55

MODEL NOMENCLATURE:

Example:

RPE	-	2	003	RL
I		II	III	IV

- I - <Model Name>
RPE - Ferrite
RPA - Amorphous
RPV - Nanocrystalline
- II - <Rated Voltage>
2 - 250 Vac
- III - <Rated current>
003 - 3A
006 - 6A
010 - 10A (RPE **and** RPV series only)
- IV - <Suffix>
None - Without Resistor and with X-Capacitor and Y-Capacitors
R - With Resistor and with X-Capacitor and Y-Capacitors
L - With X-Capacitor and without Resistor and Y-Capacitors
RL - With Resistor and X-Capacitor and without Y-Capacitors
F01 - Single Fuse with X-Capacitor and Y-Capacitors
F02 - Double Fuse with X-Capacitor and Y-Capacitors
F01L - Single Fuse with X-Capacitor and without Y-Capacitors
F02L - Double Fuse with X-Capacitor and without Y-Capacitors
-102 - Without Resistor and with X-Capacitor and Y-Capacitors

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

For use only in products where the acceptability of the combination is determined by UL LLC. The following are among the features which should be judged during the investigation of the equipment in which this filter is used:

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USR - Indicates investigation to the Standard for Electromagnetic Interference Filters, UL 1283.

CNR - Indicates investigation to the Canadian Standard for Electromagnetic Interference (EMI) Filters, CSA C22.2 No.8-13.

Conditions of Acceptability -

1. Appliance filters inherently have high leakage currents. Leakage current shall be measured in the end-product to determine compliance with the applicable end-product requirements.
2. The filters shall be provided with an overall enclosure suitable for the applicable end product requirements.
3. Electrical spacings from uninsulated parts and the enclosure shall comply with the requirements of the end-use application.
4. Electrical terminals have not been investigated as field wiring terminals and shall be used for factory wiring only.
5. Suitability of the grounding means in conjunction with the filter shall be evaluated in the applicable end-use application.
6. The components were submitted and tested with a maximum manufacturer's recommended ambient as indicated by the Ambient Temperature Rating of the devices documented 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.
7. These filters have not been evaluated for use in radio, television, video, telephone, or telephone power supply type appliances.
8. The filter shall be installed in compliance with the mounting, terminal, spacing and segregation requirements of the end use application.

Conditions of Acceptability (cont'd) -

9. The Abnormal Operation/Limited Short Circuit Test (UL 1283, Cl. 32; CSA C22.2 No. 8, Cl. 6.14) was performed on the following models using a short circuit current and fuse rating as indicated below:

Model	Short Circuit Current [A]	Fuse rating [A]
RPE-2010R	2000	12.5
RPE-2006F02	1000	7.5

10. Models with the suffices -F02 and -F02L are provided with a fuse on each set of line terminals, therefore these models shall only be connected in applications with Line 1 & Line 2 and shall not be used in Line & Neutral applications.