# **KBRF-350**

CLASS B RESIDENTIAL RADIO FREQUENCY INTERFERENCE (RFI) FILTER Part No. 9511

for Use with Adjustable Frequency Drives and Other Speed Controls\*

Meets CE Requirements EN55011 & EN55022 for RFI Suppression on Motor Speed Controls for Industrial & Residential Applications\*\*

## MECHANICAL SPECIFICATIONS (INCHES / [mm])



#### **SPECIFICATIONS**

10 Amps AC Maximum – 230 VAC – 50/60 Hz
Temperature Operating Range $\ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots 0-50\ ^{o}C$
Frequency Range 150 kHz – 30 MHz Per CE Specs EN55011 & EN55022
Earth Leakage





### DESCRIPTION

The KBRF-350 is an RFI filter used to suppress electronic interference caused by motor speed controls. These controls utilize SCR or transistors that switch on and off rapidly causing high frequency interference pulses. These pulses are easily transmitted through the AC power lines which can then enter other equipment wired to the same line. In addition, once the interference is allowed to conduct through the power lines, the wires become radio antennas, which actually radiate electromagnetic energy through the air. The energy, whether conducted or radiated, is called Radio Frequency Interference (RFI) and is most pronounced between the frequency range of 0.5 MHz - 1.5 MHz, which is the AM broadcast band. Although the interference is usually not noticeable, except for static on an AM radio, it could affect sensitive electronic equipment in some instances. The KBRF-350 is an RFI filter which has been designed to limit the interference to within acceptable levels as determined by CE Directive 89/336/EEC relating to the EMC Class B Residential Standard (also meets Class A Industrial Standard).

The KBRF-350 is primarily designed as an integral mounting base for speed controls with industry standard mounting requirements such as the KBVF Series Inverter, PWM DC Speed Controls, and SCR Speed Controls. An array of eight (8) threaded (10-32) mounting holes are provided to mount various speed controls. Installation is easily accomplished with quick-connect terminals. It is housed in a plated steel case which is to be grounded with the external ground screw or mounting tab.

## **CONNECTION DIAGRAM**



- <sup>r</sup> Designed as an integral mounting base for speed controls with industry standard mounting requirements such as the KBVF Series Inverter, PWM DC Speed Controls, and SCR Speed Controls.
- \*\* When installed in accordance with the procedures outlined, the motor speed control will comply with CE Directive 89/336/EEC relating to the EMC Class A Industrial Standard and Class B Residential Standard.

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