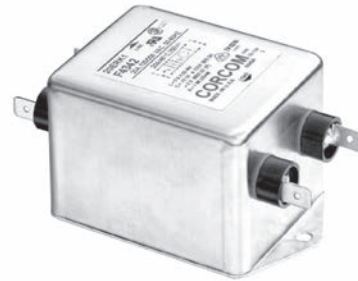


High Performance Compact Power Line Filter

# RK Series



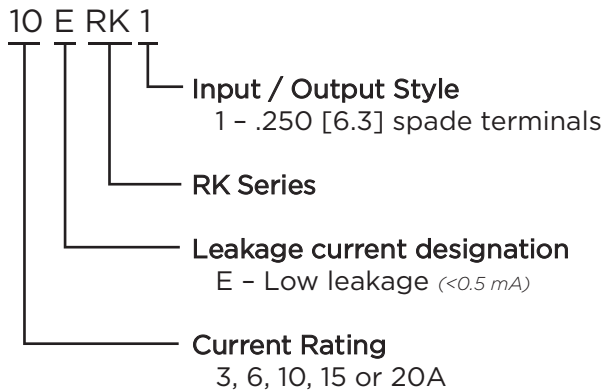
UL Recognized  
CSA Certified  
VDE Approved



## RK Series

- Compact
- Single stage
- Chassis mount
- Significant differential mode performance
- Suitable for industrial machinery
- Low input leakage current makes it suitable for portable equipment

## Ordering Information



## Available Part Numbers

3ERK1	6ERK1
10ERK1	15ERK1
20ERK1	

## Specifications

### Maximum leakage current each Line to Ground:

@ 120 VAC 60 Hz:	0.16 mA
@250 VAC 50 Hz:	0.26 mA

### Hipot rating (one minute):

Line to Ground:	2250 VDC
Line to Line:	1450 VDC

### Rated Voltage (max):

250 VAC

### Operating Frequency:

50/60 Hz

### Rated Current:

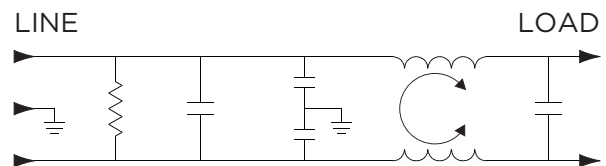
3 to 20A

### Operating Ambient Temperature Range

(at rated current  $I_r$ ): -10°C to +40°C

In an ambient temperature ( $T_a$ ) higher than +40°C the maximum operating current ( $I_o$ ) is calculated as follows:  $I_o = I_r \sqrt{(85-T_a)/45}$

## Electrical Schematic



1

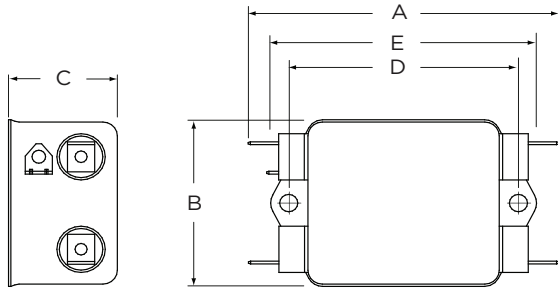
RFI Power Line Filters

**High Performance Compact Power Line Filter** *(continued)*

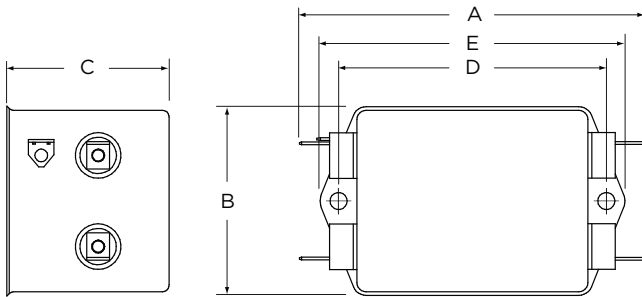
# RK Series

## Case Styles

### RK1 (3 & 6A)



### RK1 (10, 15 & 20A)



Typical Dimensions:

- Line/Load Terminals (4): .250 [6.3] with .07 [1.8] Dia. hole
- Ground Terminal (1): .250 [6.3] with .07 x .16 [1.8 x 3.8] slot
- Mounting Holes (2): .188 [4.78] Dia.

## Case Dimensions

Part No.	A (max)	B (max)	C (max)	D $\pm .015$ $\pm .38$	E (max)
3ERK1	<b>3.35</b> <i>85.09</i>	<b>1.82</b> <i>46.23</i>	<b>1.16</b> <i>29.46</i>	<b>2.38</b> <i>74.68</i>	<b>2.78</b> <i>70.61</i>
6ERK1	<b>3.35</b> <i>85.09</i>	<b>1.82</b> <i>46.23</i>	<b>1.28</b> <i>32.51</i>	<b>2.38</b> <i>74.68</i>	<b>2.78</b> <i>70.61</i>
10ERK1, 15ERK1, 20ERK1	<b>3.85</b> <i>97.79</i>	<b>2.07</b> <i>52.58</i>	<b>1.78</b> <i>45.21</i>	<b>2.94</b> <i>74.67</i>	<b>3.35</b> <i>85.09</i>

High Performance Compact Power Line Filter *(continued)*

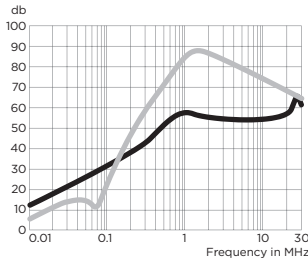
# RK Series

## Performance Data

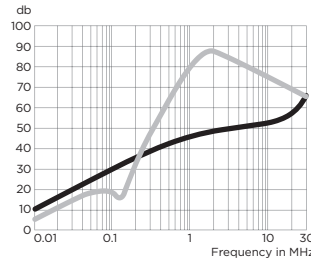
### Typical Insertion Loss

Measured in closed 50 Ohm system

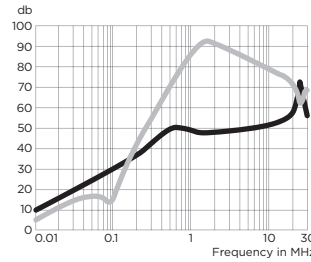
3RK



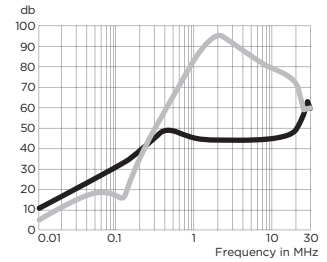
6RK



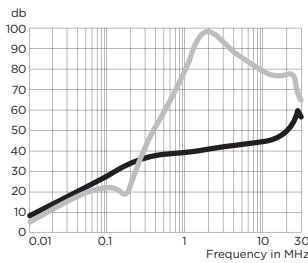
10RK



15RK



20RK



— Common Mode / Asymmetrical (L-G)  
— Differential Mode / Symmetrical (L-L)

### Minimum Insertion Loss

Common Mode / Asymmetrical (Line to Ground)

Current Rating	Frequency – MHz									
	.05	.10	.15	.5	1	2	5	10	20	30
3A	21	27	30	43	49	50	50	48	50	49
6A	19	29	29	37	43	44	48	46	50	48
10A	20	27	31	45	45	44	46	47	53	44
15A	21	28	31	45	43	41	42	42	47	57
20A	19	25	29	34	36	38	40	41	43	52

Differential Mode / Symmetrical (Line to Line)

Current Rating	Frequency – MHz									
	.05	.10	.15	.5	1	2	5	10	20	30
3A	9	20	35	67	78	78	72	66	61	60
6A	14	14	13	59	74	80	72	68	61	60
10A	14	12	30	65	80	84	78	70	60	50
15A	15	13	20	61	76	88	70	72	64	50
20A	16	19	16	54	74	90	74	67	61	54