KEV SERIES

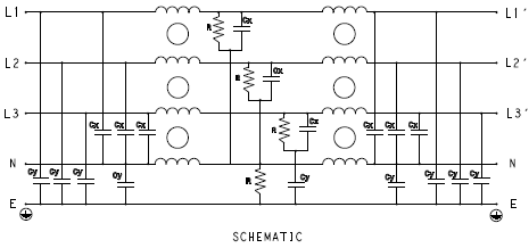
THREE PHASE VERY HIGH PERFORMANCE EMI FILTER

DUAL STAGE WYE CONFIGURATION

INTRODUCTION

Very High attenuation and superior performance when used in applications with low Impedance load controlling pulsed, continuous and intermittent interference noise and where high levels of mains borne interference are present.





SCHEMATIC

APPLICATION

- Computer Server
- Robotics and Automation
- Elevators
- SMPS

FEATURES

- Dual Stage Filter
- Very High Attenuation
- Chassis Mounting
- Low Leakage Current
- Very High Performance

APPROVALS AND COMPLIANCE

- UL Recognised
- CSA Certified

Specifications

Electrical Characteristics	
Maximum Continuous Operating Voltage	440/520VAC
Current Ratings	10A to 250A @40°C
Operating Frequency	50/60Hz
High Potential Test Voltage -440VAC	Line to Ground 2632VDC for 1 Minute
	Line to Line 1892VDC for 1 Minute
High Potential Test Voltage -520VAC	Line to Ground 2856VDC for 1 Minute
	Line to Line 2236VDC for 1 Minute
Overload Capability	135% of Rated current for 15 minutes

KEV Series

Three Phase Very High Performance EMI Filter

Functional Characteristics	
Operating Temperature Range	-25°C to +85ºC
Climatic Category	25/85/21
Termination (Depends on Current Rating)	Shock Proof (6-100A), Nut & Bolt (150-250A)
Flammability Corresponding to	UL 94 V-0

Reference Standards	
Design Corresponding to	UL 60939-3 and CSA 22.2 No.8-13

Selection Table

TE Ordering Number	Catalog Number	Rated Current @40°C	Rated Voltage @40°C	Leakage Current (mA)	Weight (Kgs)	Termination	
							
1-1609998-0	10KEVD10AFPW	10A	440 VAC	10	3	4	
1-1609998-1	16KEVD10AFPW	16A	440 VAC	10	3	4	
1-1609998-2	20KEVD10AFPW	20A	440 VAC	10	3.5	4	
1-1609998-3	40KEVD10AFPW	40A	440 VAC	10	4	10	
1-1609998-4	60KEVD10AFPW	60A	440 VAC	10	9	16	
1-1609998-5	80KEVD10AFPW	80A	440 VAC	10	9	25	
1-1609998-6	100KEVD10AFPW	100A	440 VAC	15	10	25	
1-1609998-7	150KEVD10AFPW	150A	440 VAC	15	10		M10
1-1609998-8	200KEVD10AFPW	200A	440 VAC	15	13		M10
1-1609998-9	250KEVD10AFPW	250A	440 VAC	15	13		M10
4-1609998-0	10KEVD10BFPW	10A	520 VAC	10	3	4	
4-1609998-1	16KEVD10BFPW	16A	520 VAC	10	3	4	
4-1609998-2	20KEVD10BFPW	20A	520 VAC	10	3.5	4	
4-1609998-3	40KEVD10BFPW	40A	520 VAC	10	4	10	
4-1609998-4	60KEVD10BFPW	60A	520 VAC	10	9	16	
4-1609998-5	80KEVD10BFPW	80A	520 VAC	10	9	25	
4-1609998-6	100KEVD10BFPW	100A	520 VAC	15	10	25	
4-1609998-7	150KEVD10BFPW	150A	520 VAC	15	10		M10
4-1609998-8	200KEVD10BFPW	200A	520 VAC	15	13		M10
4-1609998-9	250KEVD10BFPW	250A	520 VAC	15	13		M10

Connectors Cross Section

	4	10	16	25	50
Wire Section (mm^2)	$4mm^2$	10 mm^2	16 mm^2	25 mm^2	50 mm^2
Wire Section (AWG)	12AWG	8 AWG	6 AWG	4 AWG	1/0 AWG
Wire Stripping	max 10mm	Max 13.5 mm	Max 17 mm	Max 17 mm	Max 20 mm
Max Recommended Torque	0.5 Nm/4.5 in.lbs	1.2 Nm/10.8 in.lbs	2-2.2 Nm/ 18-19.8 in.lbs	2 Nm/18 in.lbs	6 Nm/54 in.lbs

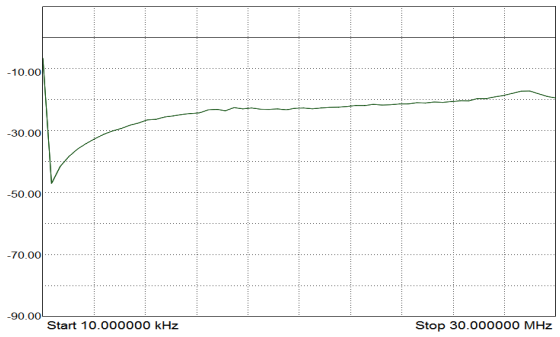
Insertion Loss (Typical) – Measured in Closed 50Ω System

		Common Mode 50Ω/50Ω								
		Frequency in MHz								
		0.01	0.05	0.15	0.5	1	3	5	10	30
Current Rating	10A	55	55	58	54	49	41	36	31	20
	16A	56	56	55	52	49	40	36	30	20
	20A	55	56	58	50	45	40	37	31	21
	40A	56	57	58	50	46	40	37	30	20
	60A	56	56	57	56	51	45	39	33	30
	80A	57	56	54	56	50	40	35	30	27
	100A	23	26	27	34	29	42	56	20	14
	150A	41	40	44	53	48	68	52	31	19
	200A	35	38	42	57	50	43	38	32	26
	250A	32	34	43	55	50	41	37	32	30

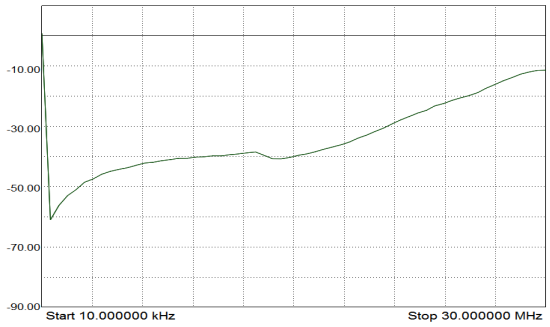
		Differential Mode 50Ω/50Ω								
		Frequency in MHz								
		0.01	0.05	0.15	0.5	1	3	5	10	30
Current Rating	10A	37	38	44	52	48	41	33	29	22
	16A	38	40	44	57	48	41	33	29	22
	20A	40	40	42	54	46	39	32	30	23
	40A	40	39	41	52	44	39	32	29	24
	60A	41	42	47	52	48	39	33	28	26
	80A	41	42	46	57	48	35	32	30	26
	100A	30	32	40	48	52	46	38	40	16
	150A	38	40	46	58	60	48	32	21	18
	200A	46	42	47	50	45	32	30	20	16
	250A	44	45	47	45	39	30	27	21	18

Common Mode Insertion Loss (Typical in dB – Refer to table above)

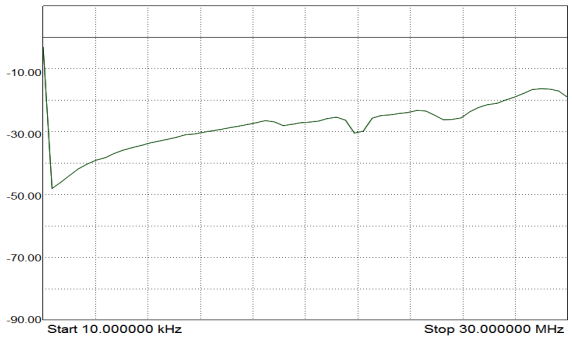
10A



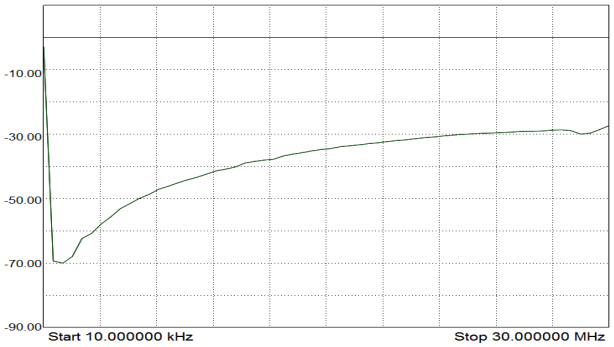
16A



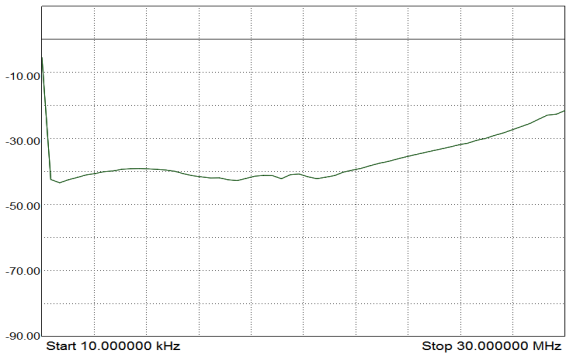
20A



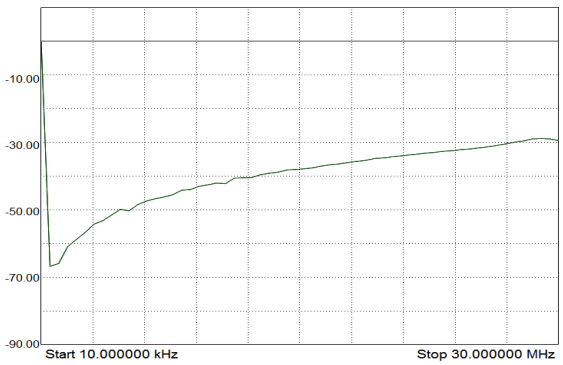
40A



60A

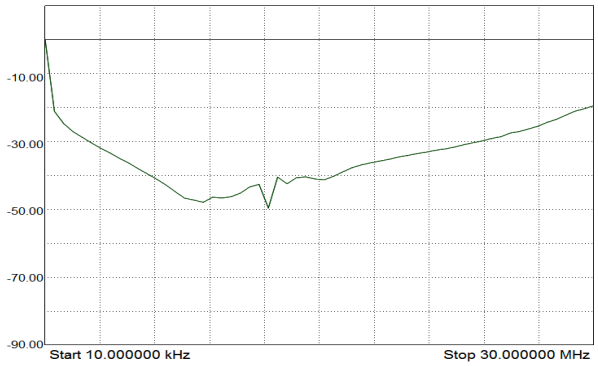


80A

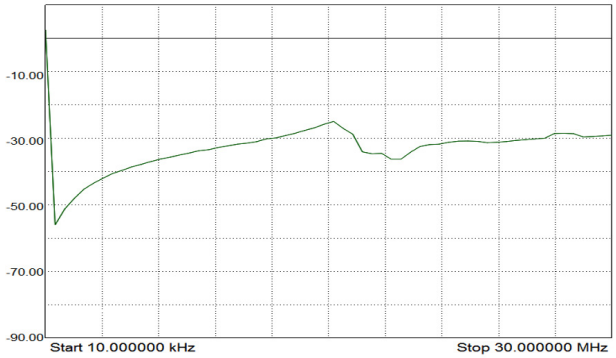


Common Mode Insertion Loss (Typical in dB – Refer to table above)

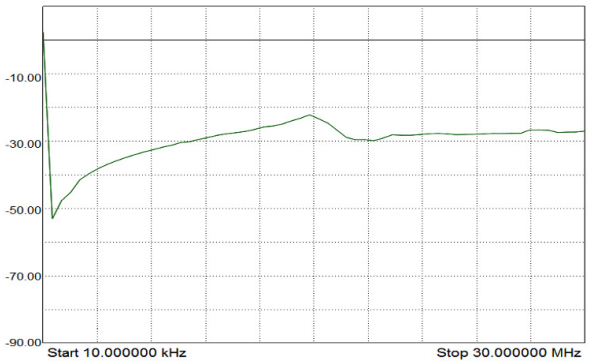
100A



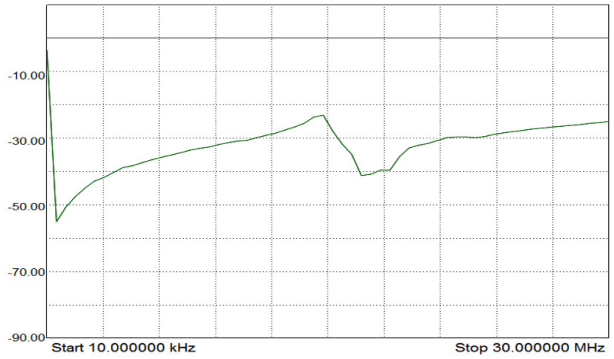
150A



200A

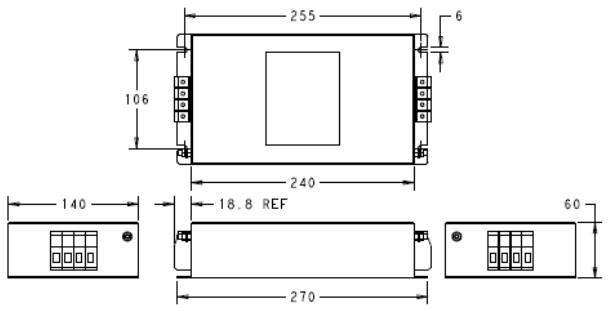


250A

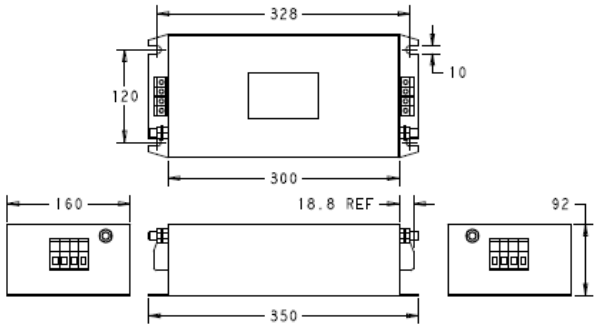


Case Dimensions

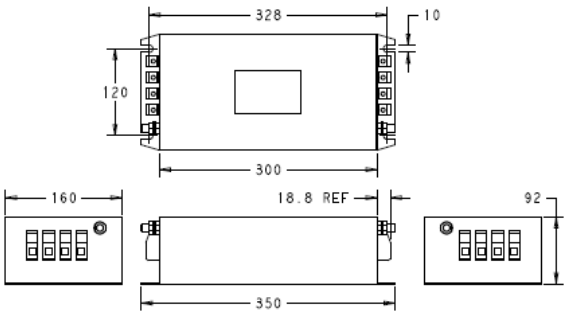
10A to 50A Shock Proof Types



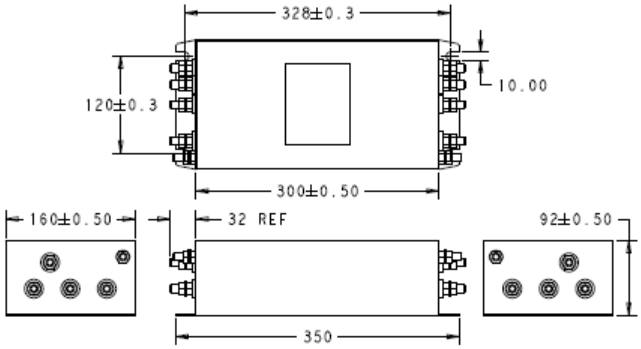
60A Shock Proof Type



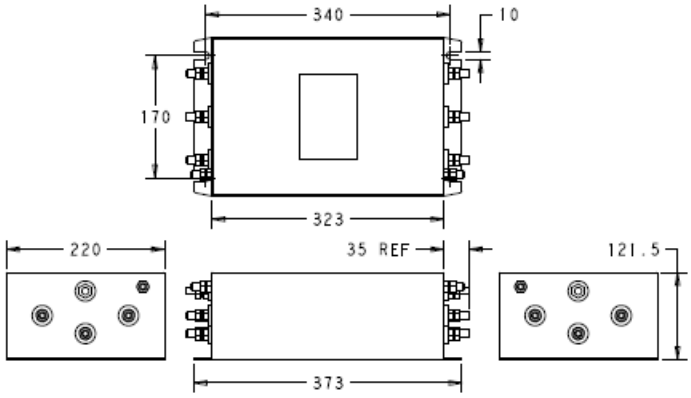
80A to 100A Shock Proof Types



150A Nut & Bolt Type



200A to 100A Nut & Bolt Types



HOW TO ORDER

Part Number
40 - KEV - D - 10 - A - FP - W

Current Rating

40	10, 16, 20, 40, 60, 80, 100, 150, 250

Series Type

KEV	Series Type

Filter Stage

S	Single
D	Dual

Termination

1	Quick Connect
6	Nut & Bolt
10	Touch Safe

Electrical Network

D	Star
W	WYE

Filter Type

FP	Fully Potted
BS	Book Shelf

Voltage

A	440VAC
B	520VAC

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