

# KES SERIES

## THREE PHASE GENERAL PURPOSE EMI FILTER

### SINGLE STAGE WYE CONFIGURATION

#### INTRODUCTION

Three phase General Purpose Filters designed to be used in wide range of applications.

#### APPLICATION

- Industrial Automation
- HVAC
- CNC Machines

#### FEATURES

- General Purpose 3 Phase with neutral
- Standard Attenuation Performance
- Chassis Mounting, Din Rail Mount

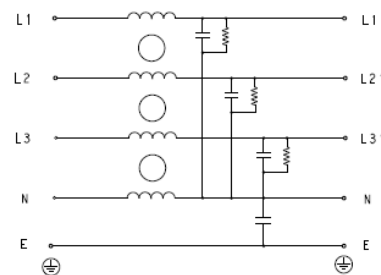
#### APPROVALS AND COMPLIANCE

- UL Recognised
- CSA Certified



STANDARD

NEW DIN RAIL



### Specifications

Electrical Characteristics	
Maximum Continuous Operating Voltage	440/520VAC
Current Ratings	1A to 150A @40°C, Din Mount 1A to 60A @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

## KES Series




### Three Phase General Purpose EMI Filter

Functional Characteristics	
Operating Temperature Range	-25°C to +85°C
Climatic Category	25/85/21
Termination (Depends on Current Rating)	Quick Connect (1-10A)/Bolt & Nut (15-150A)/Shock Proof (75-100A)
Flammability Corresponding to	UL 94 V-0

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




### Selection Table - Standard Version



TE Ordering Number	Catalog Number	Rated Current @40°C	Rated Voltage @40°C	Leakage Current (mA)	Weight (Kgs)	Termination		
								
1-1609966-0	1KESS1AFPW	1A	440 VAC	3	0.26	6.3 x 0.8		
1-1609966-1	3KESS1AFPW	3A	440 VAC	3	0.26	6.3 x 0.8		
1-1609966-2	6KESS1AFPW	6A	440 VAC	3	0.26	6.3 x 0.8		
1-1609966-3	10KESS1AFPW	10A	440 VAC	3	0.26	6.3 x 0.8		
1-1609966-4	15KESS6AFPW	15A	440 VAC	3	0.7		M5	
1-1609966-5	20KESS6AFPW	20A	440 VAC	3	0.7		M5	
1-1609966-6	25KESS6AFPW	25A	440 VAC	5	0.7		M5	
1-1609966-7	30KESS6AFPW	30A	440 VAC	5	0.7		M5	
1-1609966-8	40KESS6AFPW	40A	440 VAC	5	0.7		M5	
1-1609966-9	50KESS6AFPW	50A	440 VAC	5	1.2		M6	
2-1609966-0	60KESS6AFPW	60A	440 VAC	5	1.2		M6	
2-1609966-1	75KESS6AFPW	75A	440 VAC	6	9		M8	
2-1609966-2	80KESS6AFPW	80A	440 VAC	6	9		M8	
2-1609966-3	100KESS6AFPW	100A	440 VAC	6	9		M10	
2-1609966-4	125KESS6AFPW	125A	440 VAC	8	9		M10	
2-1609966-5	150KESS6AFPW	150A	440 VAC	8	9		M10	
2-1609966-6	75KESS10AFPW	75A	440 VAC	6	9			16
2-1609966-7	80KESS10AFPW	80A	440 VAC	6	9			25
2-1609966-8	100KESS10AFPW	100A	440 VAC	6	9			25
4-1609966-0	1KESS1BFPW	1A	520 VAC	3	0.26	6.3 x 0.8		

## KES Series

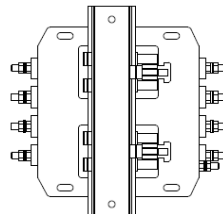
### Three Phase General Purpose EMI Filter

TE Ordering Number	Catalog Number	Rated Current @40°C	Rated Voltage @40°C	Leakage Current (mA)	Weight (Kgs)	Termination		
								
4-1609966-1	3KESS1BFPW	3A	520 VAC	3	0.26	6.3 x 0.8		
4-1609966-2	6KESS1BFPW	6A	520 VAC	3	0.26	6.3 x 0.8		
4-1609966-3	10KESS1BFPW	10A	520 VAC	3	0.26	6.3 x 0.8		
4-1609966-4	15KESS6BFPW	15A	520 VAC	3	0.7		M5	
4-1609966-5	20KESS6BFPW	20A	520 VAC	3	0.7		M5	
4-1609966-6	25KESS6BFPW	25A	520 VAC	5	0.7		M5	
4-1609966-7	30KESS6BFPW	30A	520 VAC	5	0.7		M5	
4-1609966-8	40KESS6BFPW	40A	520 VAC	5	0.7		M5	
4-1609966-9	50KESS6BFPW	50A	520 VAC	5	1.2		M6	
5-1609966-0	60KESS6BFPW	60A	520 VAC	5	1.2		M6	
5-1609966-1	75KESS6BFPW	75A	520 VAC	6	9		M8	
5-1609966-2	80KESS6BFPW	80A	520 VAC	6	9		M8	
5-1609966-3	100KESS6BFPW	100A	520 VAC	6	9		M10	
5-1609966-4	125KESS6BFPW	125A	520 VAC	8	9		M10	
5-1609966-5	150KESS6BFPW	150A	520 VAC	8	9		M10	
5-1609966-6	75KESS10BFPW	75A	520 VAC	6	9			16
5-1609966-7	80KESS10BFPW	80A	520 VAC	6	9			25
5-1609966-8	100KESS10BFPW	100A	520 VAC	6	9			25

### Selection Table - Din Rail Mount

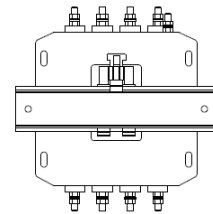


**NEW**





**VERTICAL MOUNT**

Note: Din Rail not supplied





**HORIZONTAL MOUNT**

TE Ordering Number	Catalog Number	Din Type	Rated Current @40°C	Rated Voltage @40°C	Leakage Current (mA)	Weight (Kgs)	Termination	
								
3-1609966-0	1KESS1AFPWDM	DUAL	1A	440 VAC	3	0.36	6.3 x 0.8	
3-1609966-1	3KESS1AFPWDM	DUAL	3A	440 VAC	3	0.36	6.3 x 0.8	
3-1609966-2	6KESS1AFPWDM	DUAL	6A	440 VAC	3	0.36	6.3 x 0.8	
3-1609966-3	10KESS1AFPWDM	DUAL	10A	440 VAC	3	0.36	6.3 x 0.8	
3-1609966-4	15KESS6AFPWDM	DUAL	15A	440 VAC	3	0.8		M5
3-1609966-5	20KESS6AFPWDM	DUAL	20A	440 VAC	3	0.8		M5

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### Three Phase General Purpose EMI Filter

TE Ordering Number	Catalog Number	Din Type	Rated Current @40°C	Rated Voltage @40°C	Leakage Current (mA)	Weight (Kgs)	Termination	
								
3-1609966-6	25KESS6AFPWDM	DUAL	25A	440 VAC	5	0.8		M5
3-1609966-7	30KESS6AFPWDM	DUAL	30A	440 VAC	5	0.8		M5
3-1609966-8	40KESS6AFPWDM	DUAL	40A	440 VAC	5	0.8		M5
3-1609966-9	50KESS6AFPWHM	HORIZONTAL	50A	440 VAC	5	1.3		M6
6-1609966-0	60KESS6AFPWHM	HORIZONTAL	60A	440 VAC	5	1.3		M6
6-1609966-1	50KESS6AFPWVM	VERTICAL	50A	440 VAC	5	1.4		M6
6-1609966-2	60KESS6AFPWVM	VERTICAL	60A	440 VAC	5	1.4		M6
6-1609966-3	1KESS1BFPWDM	DUAL	1A	520 VAC	3	0.36	6.3 x 0.8	
6-1609966-4	3KESS1BFPWDM	DUAL	3A	520 VAC	3	0.36	6.3 x 0.8	
6-1609966-5	6KESS1BFPWDM	DUAL	6A	520 VAC	3	0.36	6.3 x 0.8	
6-1609966-6	10KESS1BFPWDM	DUAL	10A	520 VAC	3	0.36	6.3 x 0.8	
6-1609966-7	15KESS6BFPWDM	DUAL	15A	520 VAC	3	0.8		M5
6-1609966-8	20KESS6BFPWDM	DUAL	20A	520 VAC	3	0.8		M5
6-1609966-9	25KESS6BFPWDM	DUAL	25A	520 VAC	5	0.8		M5
7-1609966-0	30KESS6BFPWDM	DUAL	30A	520 VAC	5	0.8		M5
7-1609966-1	40KESS6BFPWDM	DUAL	40A	520 VAC	5	0.8		M5
7-1609966-2	50KESS6BFPWHM	HORIZONTAL	50A	520 VAC	5	1.3		M6
7-1609966-3	60KESS6BFPWHM	HORIZONTAL	60A	520 VAC	5	1.3		M6
7-1609966-4	50KESS6BFPWVM	VERTICAL	50A	520 VAC	5	1.4		M6
7-1609966-5	60KESS6BFPWVM	VERTICAL	60A	520 VAC	5	1.4		M6

## KES Series

Three Phase General Purpose EMI Filter

### Connectors Cross Section

	4	10	16	25	50
Wire Section (mm <sup>2</sup> )	4mm <sup>2</sup>	10 mm <sup>2</sup>	16 mm <sup>2</sup>	25 mm <sup>2</sup>	50 mm <sup>2</sup>
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	1A	3	3	4	11	22	40	35	36	43
	3A	2	2	19	22	40	38	45	47	32
	6A	4	5	13	19	28	35	40	45	31
	10A	3	4	15	25	29	32	30	35	29
	15A	4	4	9	20	38	36	46	30	23
	20A	4	5	15	25	45	48	42	40	29
	25A	5	5	5	18	23	35	40	44	24
	30A	4	4	9	21	28	42	58	39	20
	40A	4	5	11	29	34	42	56	39	23
	50A	4	4	11	24	32	42	48	34	20
	60A	4	5	10	25	30	39	50	38	24
	75A	2	3	7	22	29	44	43	30	16
	80A	5	5	8	15	20	22	35	42	45
	100A	3	4	3	17	23	25	20	32	38
	125A	2	2	5	15	18	25	30	40	46
150A	3	4	11	25	35	34	28	22	11	

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Three Phase General Purpose EMI Filter

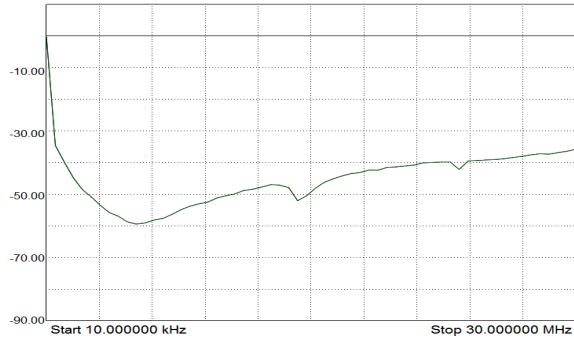
		Differential Mode 50Ω/50Ω								
		Frequency in MHz								
		0.01	0.05	0.15	0.5	1	3	5	10	30
<b>Current Rating</b>	<b>1A</b>	3	4	6	19	27	30	36	38	49
	<b>3A</b>	4	5	26	32	29	35	37	46	44
	<b>6A</b>	4	3	15	25	30	38	45	51	49
	<b>10A</b>	4	5	17	26	30	31	32	36	40
	<b>15A</b>	6	8	12	16	30	33	40	38	47
	<b>20A</b>	3	5	10	20	28	36	29	23	19
	<b>25A</b>	4	4	19	22	26	32	48	50	52
	<b>30A</b>	17	18	22	39	46	29	26	20	16
	<b>40A</b>	17	18	21	34	43	40	29	19	33
	<b>50A</b>	14	20	28	42	50	30	26	20	22
	<b>60A</b>	11	18	22	39	45	28	24	17	15
	<b>75A</b>	37	39	46	53	41	31	27	19	17
	<b>80A</b>	5	6	10	20	24	30	36	38	42
	<b>100A</b>	8	9	14	37	40	44	35	30	40
	<b>125A</b>	3	3	9	17	19	31	35	42	42
<b>150A</b>	34	39	57	40	33	24	20	15	10	

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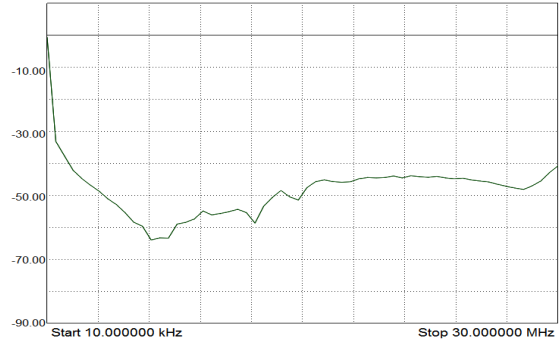
Three Phase General Purpose EMI Filter

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

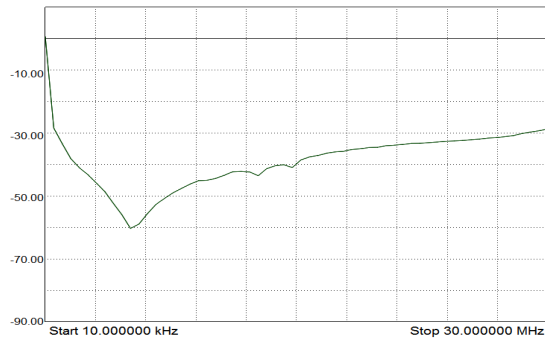
1A



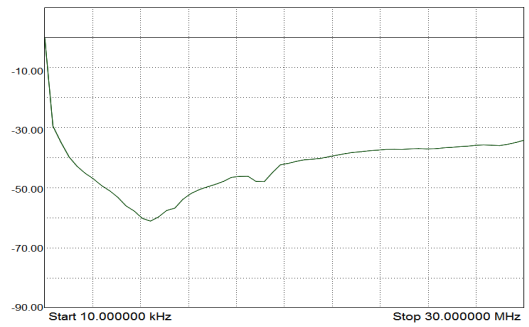
3A



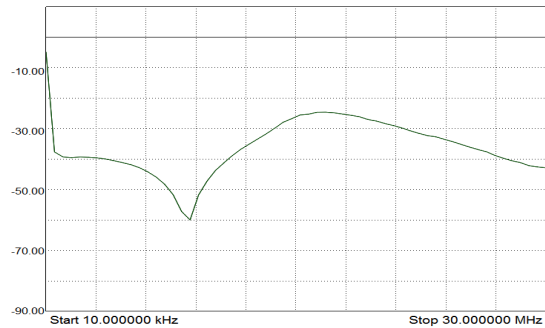
6A



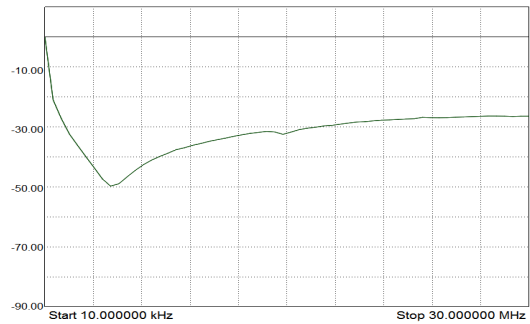
10A



15A



20A

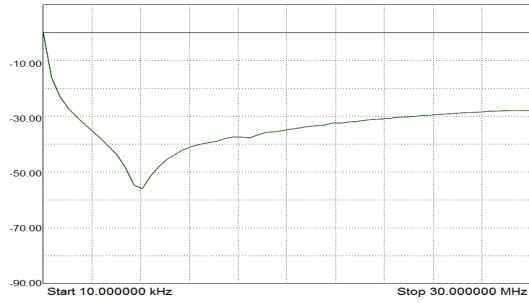


# KES Series

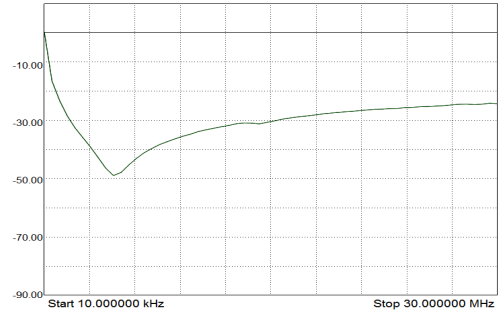
Three Phase General Purpose EMI Filter

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

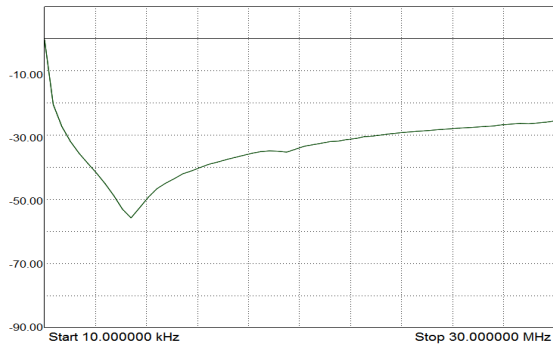
25A



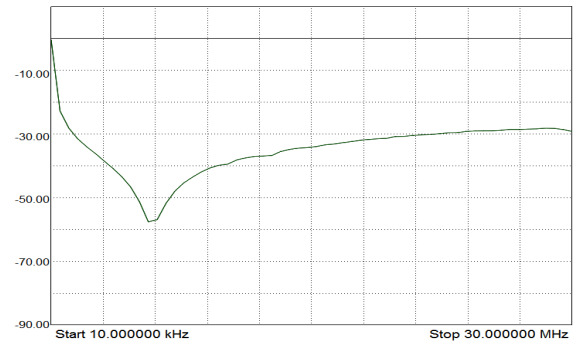
30A



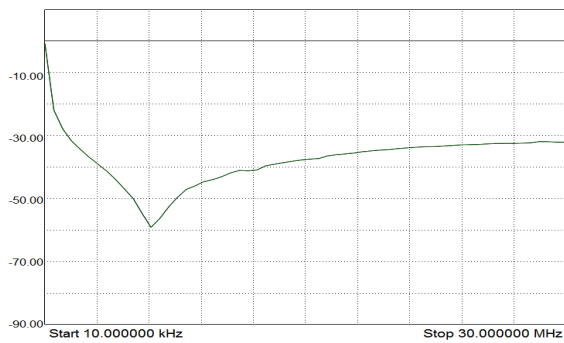
40A



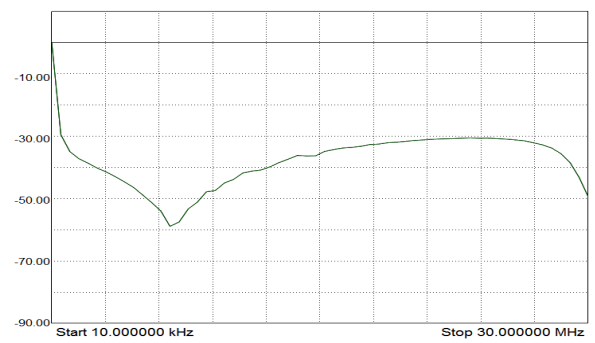
50A



60A



75A



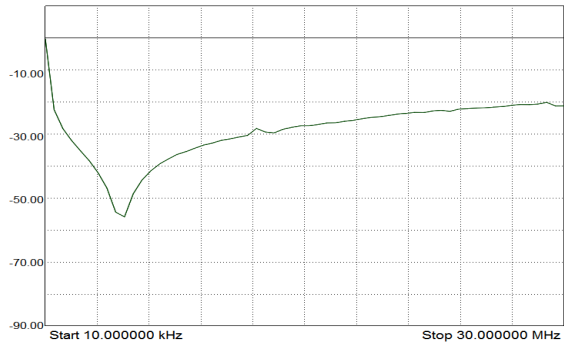


# KES Series

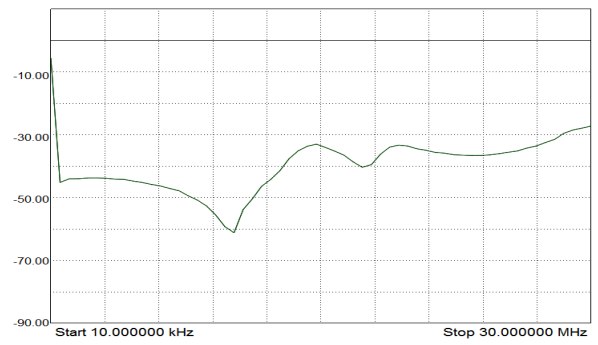
Three Phase General Purpose EMI Filter

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

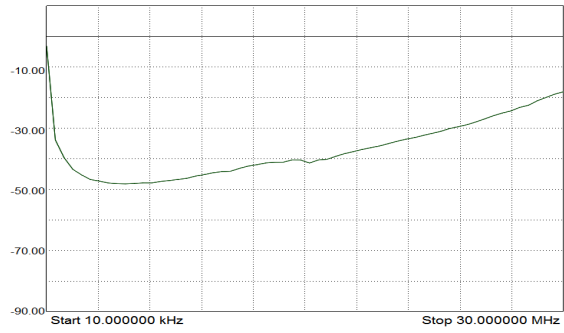
80A



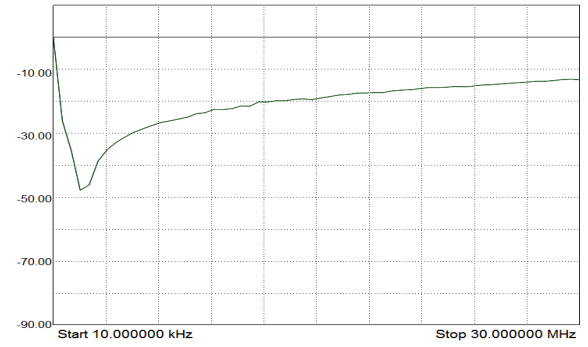
100A



125A



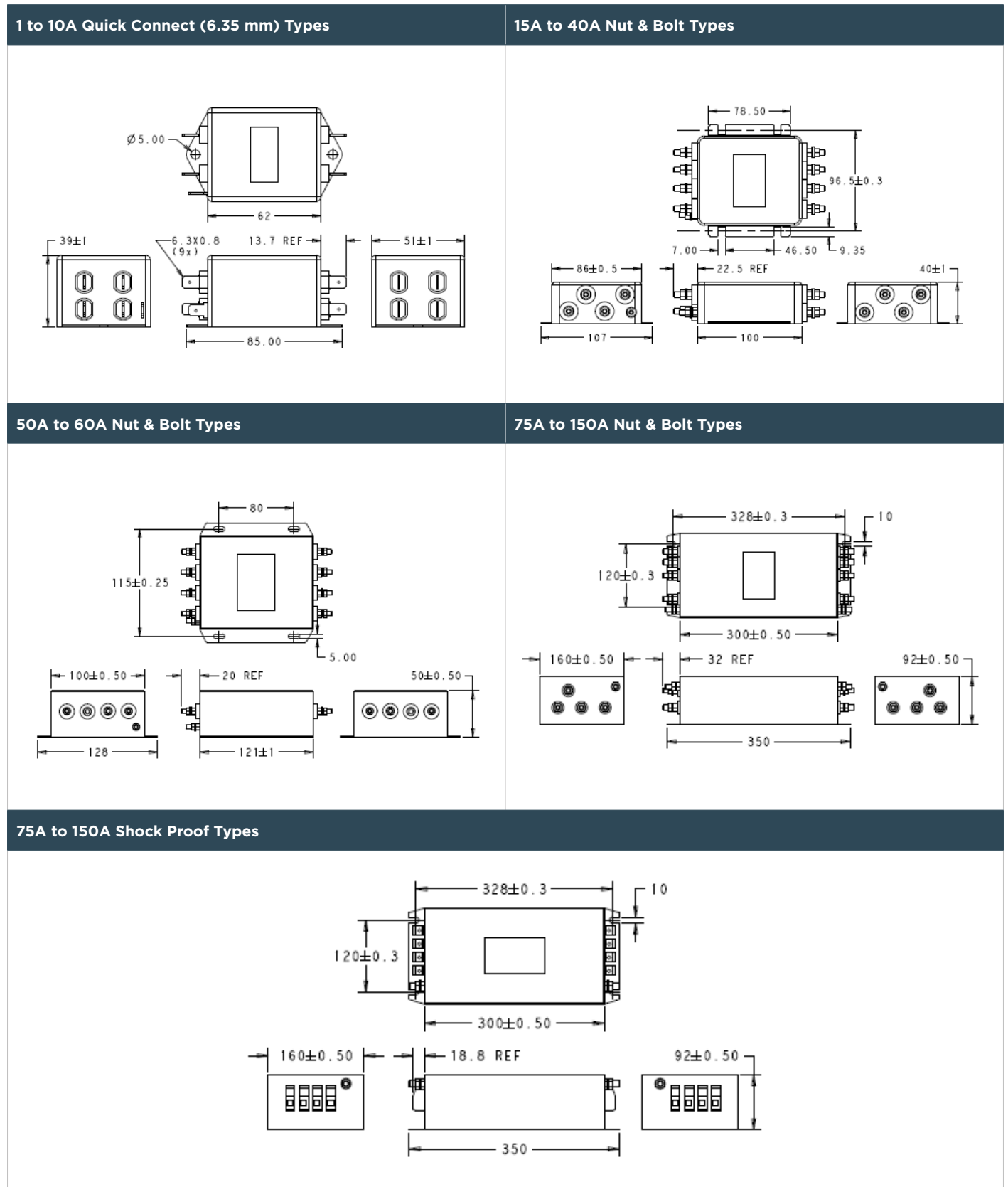
150A



# KES Series

Three Phase General Purpose EMI Filter

## Case Dimensions - Standard Version



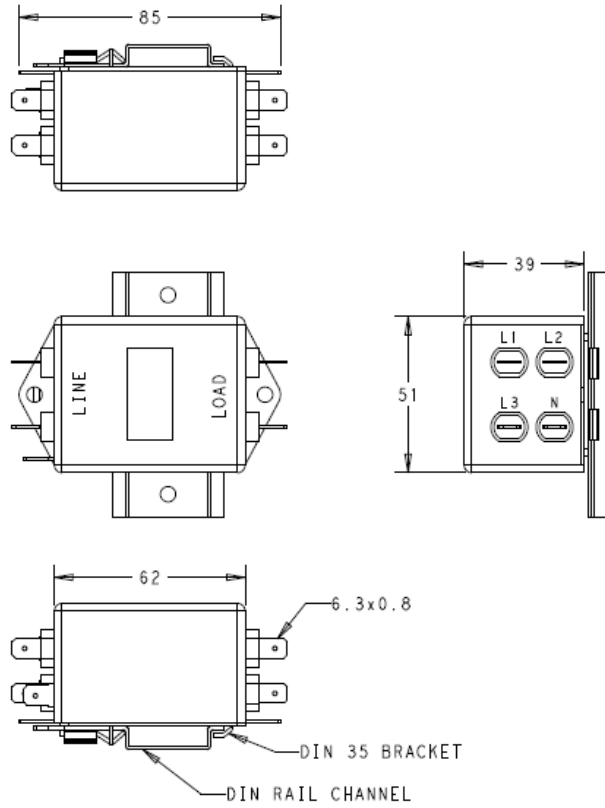
All dimensions in mm; Tolerances according: ISO2768-m

# KES Series

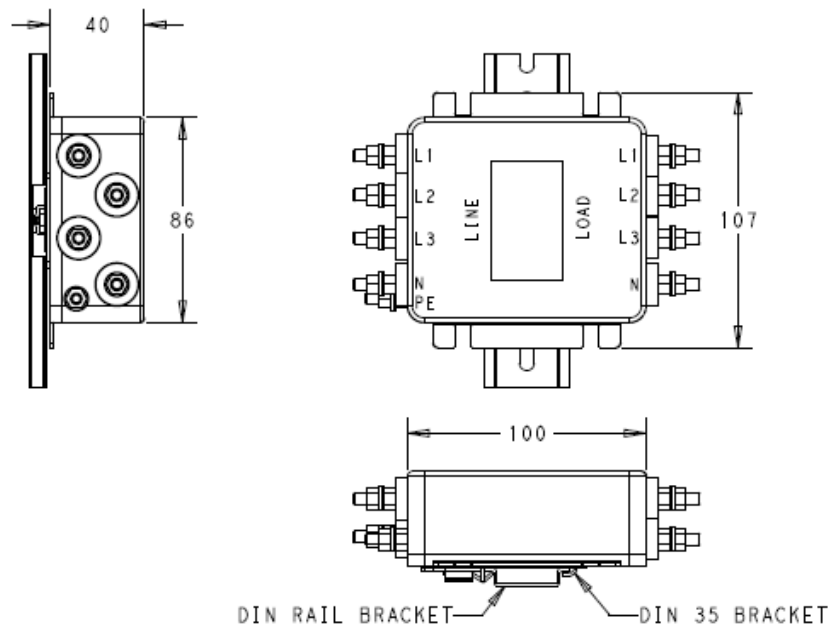
Three Phase General Purpose EMI Filter

## Case Dimensions - Din Rail Mount

### 1 to 10A Quick Connect (6.35mm) Types - Dual Mount



### 15A to 40A Nut & Bolt Types - Dual Mount



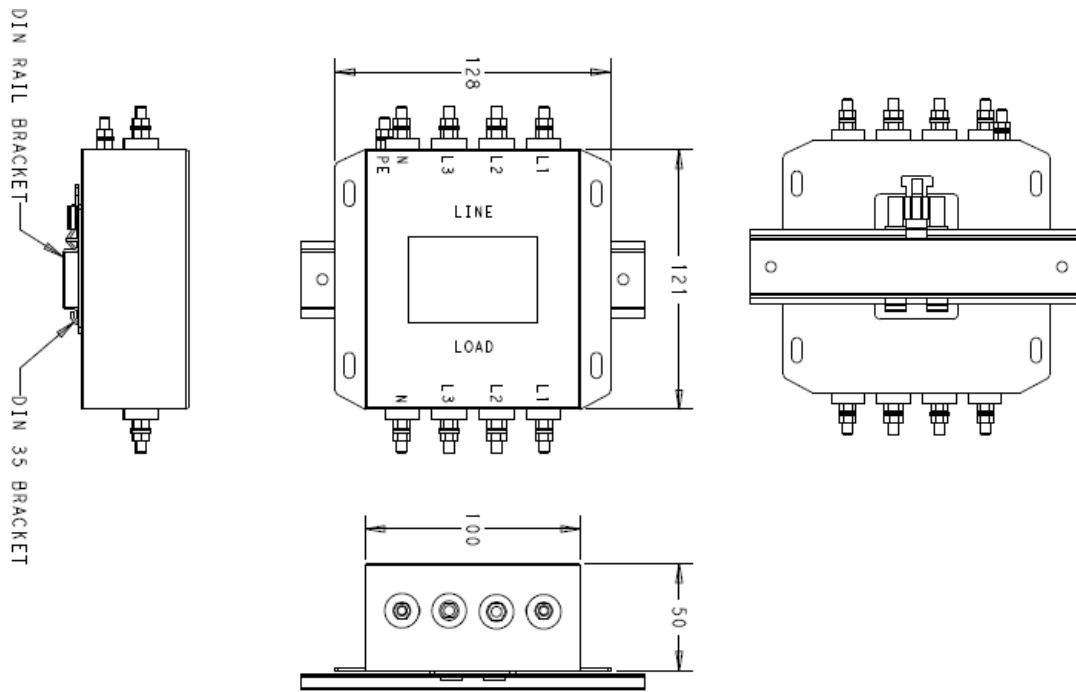
# KES Series

Three Phase General Purpose EMI Filter

## Case Dimensions - Din Rail Mount

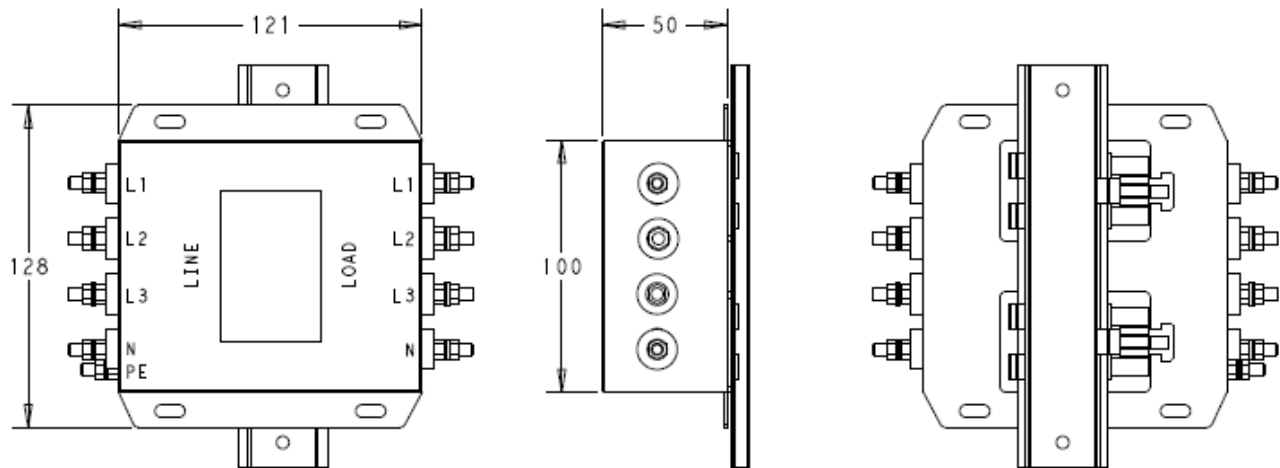
### 50A to 60A Nut & Bolt Types - Horizontal Mount

Note: Din Rail not supplied

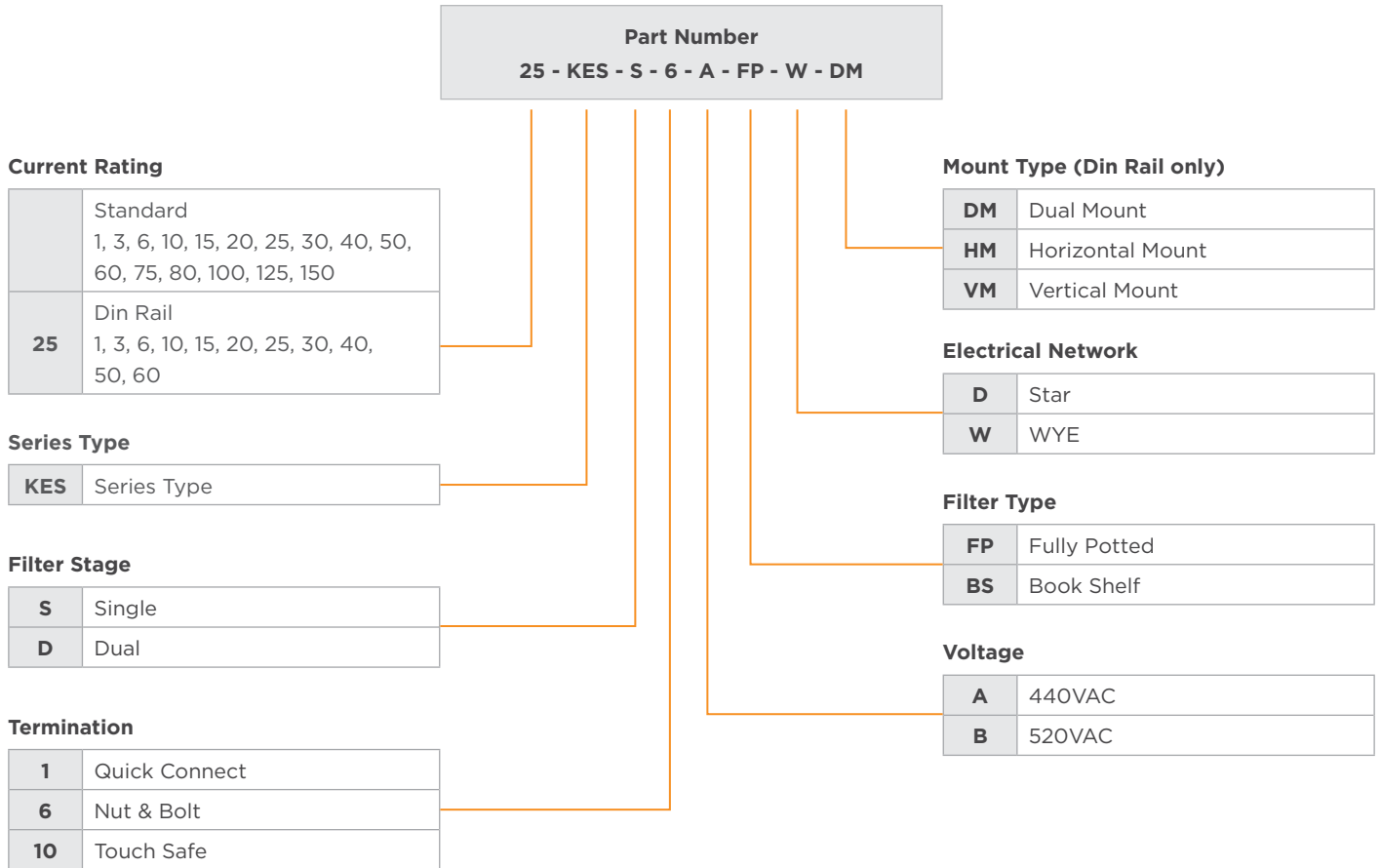


### 50A to 60A Nut & Bolt Types - Vertical Mount

Note: Din Rail not supplied



## HOW TO ORDER



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