



TE connectivity KEP-BS Series Three Phase High Performance EMI Filter Owner's Manual

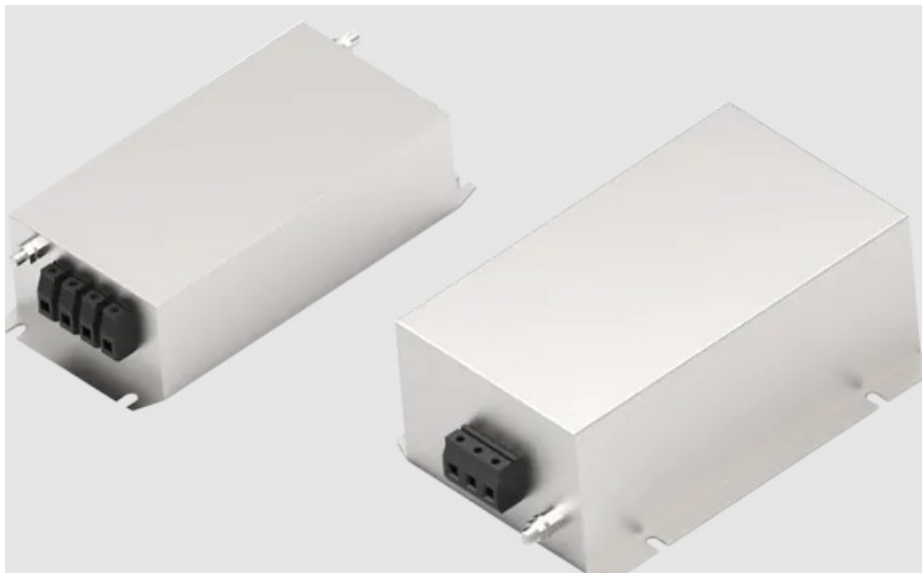
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TE connectivity KEP-BS Series Three Phase High Performance EMI Filter EMI Filter



Specifications

- **Electrical Characteristics:**

- Maximum Continuous Operating Voltage: 440VAC
- Current Ratings: 7A, 16A, 30A, 42A, 55A, 75A, 100A
- Operating Frequency: 50/60Hz
- High Potential Test Voltage: -440VAC for 1 Minute
- High Potential Test Voltage: -520VAC for 1 Minute
- Overload Capability: 135% of Rated current for 15 minutes

- **Functional Characteristics:**

- Operating Temperature Range:
- Climatic Category:
- Termination: Depends on Current Rating
- Flammability: UL 94 V-0
- Reference Standards: UL 60939-3 and CSA 22.2 No.8-13
- Shock Proof Design

- **TE Ordering Number:**

- 2-1609968-7
- 3-1609968-0
- 3-1609968-1
- 3-1609968-2
- 3-1609968-3
- 3-1609968-4
- 3-1609968-5
- 3-1609968-6
- 3-1609968-7
- 5-1609968-7
- 6-1609968-0
- 6-1609968-1
- 6-1609968-2
- 6-1609968-3

- 6-1609968-4
- 6-1609968-5
- 6-1609968-6
- 6-1609968-7

• **Catalog Number:**

- 7KEPS10ABSW (7A, 440 VAC)
- 16KEPS10ABSW (16A, 440 VAC)
- 30KEPS10ABSW (30A, 440 VAC)
- 42KEPS10ABSW (42A, 440 VAC)
- 55KEPS10ABSW (55A, 440 VAC)
- 75KEPS10ABSW (75A, 440 VAC)
- 100KEPS10ABSW (100A, 440 VAC)
- 125KEPS10ABSW (120A, 440 VAC)
- 150KEPS10ABSW (150A, 440 VAC)
- 7KEPS10BBSW (7A, 520 VAC)
- 16KEPS10BBSW (16A, 520 VAC)
- 30KEPS10BBSW (30A, 520 VAC)
- 42KEPS10BBSW (42A, 520 VAC)
- 55KEPS10BBSW (55A, 520 VAC)
- 75KEPS10BBSW (75A, 520 VAC)
- 100KEPS10BBSW (100A, 520 VAC)
- 125KEPS10BBSW (120A, 520 VAC)
- 150KEPS10BBSW (150A, 520 VAC)

• **Weight (Kgs):**

- 7KEPS10ABSW: 0.8
- 16KEPS10ABSW: 0.9
- 30KEPS10ABSW: 1.2
- 42KEPS10ABSW: 1.2
- 55KEPS10ABSW: 1.6
- 75KEPS10ABSW: 2
- 100KEPS10ABSW: 2.2
- 125KEPS10ABSW: 4
- 150KEPS10ABSW: 5
- 7KEPS10BBSW: 0.8
- 16KEPS10BBSW: 0.9
- 30KEPS10BBSW: 1.2
- 42KEPS10BBSW: 1.2
- 55KEPS10BBSW: 1.6
- 75KEPS10BBSW: 2
- 100KEPS10BBSW: 2.2
- 125KEPS10BBSW: 4
- 150KEPS10BBSW: 5

KEP-BS SERIES

THREE PHASE HIGH PERFORMANCE EMI FILTER

BOOKSHELF TYPE SINGLE STAGE WYE CONFIGURATION

INTRODUCTION

Bookshelf design for motor drive applications requiring minimum space and convenient installation with high performance at significant interference levels



STANDARD



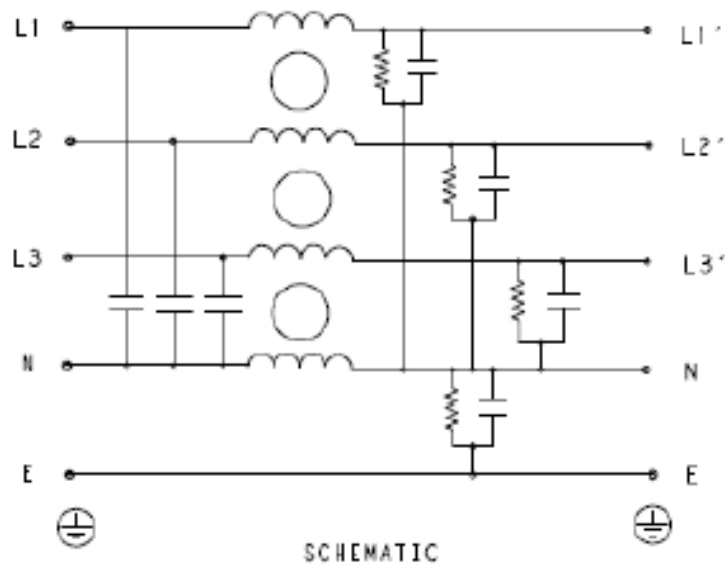
NEW-DIN RAIL

APPLICATION

- Industrial Automation
- HVAC
- CNC Machines
- Robotics

FEATURES

- 3 Phase filters for Drives/Invertors
- Bookshelf Design
- Chassis Mounting with Neutral



APPROVALS AND COMPLIANCE

- UL Recognised
- CSA Certified



Specifications

Electrical Characteristics	
Maximum Continuous Operating Voltage	440/520VAC
Current Ratings	7A to 150A @40°C, Din Mount 7A to 100A @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

KEP-BS Series

Three Phase High Performance EMI Filter

Functional Characteristics	
Operating Temperature Range	-25°C to +85°C
Climatic Category	25/85/21
Termination (Depends on Current Rating)	Shock Proof
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
2-1609968-7	7KEPS10ABS W	7A	440 VAC	5	0.8	4
3-1609968-0	16KEPS10AB SW	16A	440 VAC	5	0.9	4
3-1609968-1	30KEPS10AB SW	30A	440 VAC	5	1.2	4
3-1609968-2	42KEPS10AB SW	42A	440 VAC	6	1.2	10
3-1609968-3	55KEPS10AB SW	55A	440 VAC	6	1.6	10
3-1609968-4	75KEPS10AB SW	75A	440 VAC	6	2	16
3-1609968-5	100KEPS10A BSW	100A	440 VAC	11	2.2	25
3-1609968-6	125KEPS10A BSW	120A	440 VAC	11	4	50
3-1609968-7	150KEPS10A BSW	150A	440 VAC	11	5	50
5-1609968-7	7KEPS10BBS W	7A	520 VAC	5	0.8	4
6-1609968-0	16KEPS10BB SW	16A	520 VAC	5	0.9	4
6-1609968-1	30KEPS10BB SW	30A	520 VAC	5	1.2	4
6-1609968-2	42KEPS10BB SW	42A	520 VAC	6	1.2	10
6-1609968-3	55KEPS10BB SW	55A	520 VAC	6	1.6	10
6-1609968-4	75KEPS10BB SW	75A	520 VAC	6	2	16
6-1609968-5	100KEPS10B BSW	100A	520 VAC	11	2.2	25
6-1609968-6	125KEPS10B BSW	120A	520 VAC	11	4	50
6-1609968-7	150KEPS10B BSW	150A	520 VAC	11	5	50

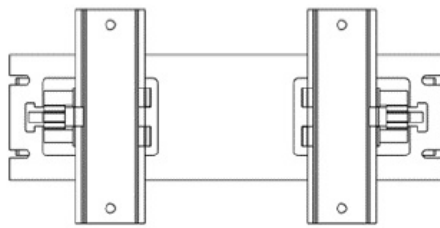
KEP-BS Series

Three Phase High Performance EMI Filter

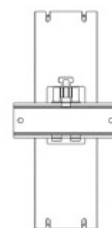
Selection Table – Din Rail Mount



NEW



VERTICAL MOUNT



HORIZONTAL MOUNT

TE Part Number	Catalog Number	Din Type	Rated Current @40°C	Rated Voltage @40°C	Leakage Current (mA)	Weight (Kgs)	 Termination
9-1609968-3	7KEPS10ABSWHM	HORIZONTAL	7A	440 VAC	5	0.9	4
9-1609968-4	16KEPS10ABSWHM	HORIZONTAL	16A	440 VAC	5	1	4
9-1609968-5	30KEPS10ABSWHM	HORIZONTAL	30A	440 VAC	5	1.3	4
9-1609968-6	42KEPS10ABSWHM	HORIZONTAL	42A	440 VAC	6	1.3	10
9-1609968-7	7KEPS10ABSWVM	VERTICAL	7A	440 VAC	5	1.8	4
9-1609968-8	16KEPS10ABSWVM	VERTICAL	16A	440 VAC	5	1.4	4
9-1609968-9	30KEPS10ABSWVM	VERTICAL	30A	440 VAC	5	1.4	4
7-1609969-0	42KEPS10ABSWVM	VERTICAL	42A	440 VAC	6	1.8	10
7-1609969-1	55KEPS10ABSWHM	HORIZONTAL	55A	440 VAC	6	2.2	10
7-1609969-2	75KEPS10ABSWHM	HORIZONTAL	75A	440 VAC	6	2.4	16
7-1609969-3	100KEPS10ABSWHM	HORIZONTAL	100A	440 VAC	11	3.2	25
8-1609969-5	7KEPS10BBSWHM	HORIZONTAL	7A	520 VAC	5	0.9	4
8-1609969-6	16KEPS10BBSWHM	HORIZONTAL	16A	520 VAC	5	1	4
8-1609969-7	30KEPS10BBSWHM	HORIZONTAL	30A	520 VAC	5	1.3	4

8-1609969-8	42KEPS10BBSWHM	HORIZONTAL	42A	520 VAC	6	1.3	10
8-1609969-9	7KEPS10BBSWVM	VERTICAL	7A	520 VAC	5	1.8	4
9-1609969-0	16KEPS10BBSWVM	VERTICAL	16A	520 VAC	5	1.4	4
9-1609969-1	30KEPS10BBSWVM	VERTICAL	30A	520 VAC	5	1.4	4
9-1609969-2	42KEPS10BBSWVM	VERTICAL	42A	520 VAC	6	1.8	10
9-1609969-3	55KEPS10BBSWHM	HORIZONTAL	55A	520 VAC	6	2.2	10
9-1609969-4	75KEPS10BBSWHM	HORIZONTAL	75A	520 VAC	6	2.4	16
9-1609969-5	100KEPS10BBSWHM	HORIZONTAL	100A	520 VAC	11	3.2	25

KEP-BS Series

Three Phase High Performance EMI Filter

Connectors Cross Section

	4	10	16	25	
50					
Wire Section (mm2)	4mm2	10 mm²	16 mm²	25 mm²	50 mm²
Wire Section (AWG)	12AWG	8 AWG	6 AWG	4 AWG	1/0 AWG
Wire Stripping	max 10mm	max 13.5 m m	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.lb s	2 Nm/18 in.lb s	6 Nm/54 in.lb s

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

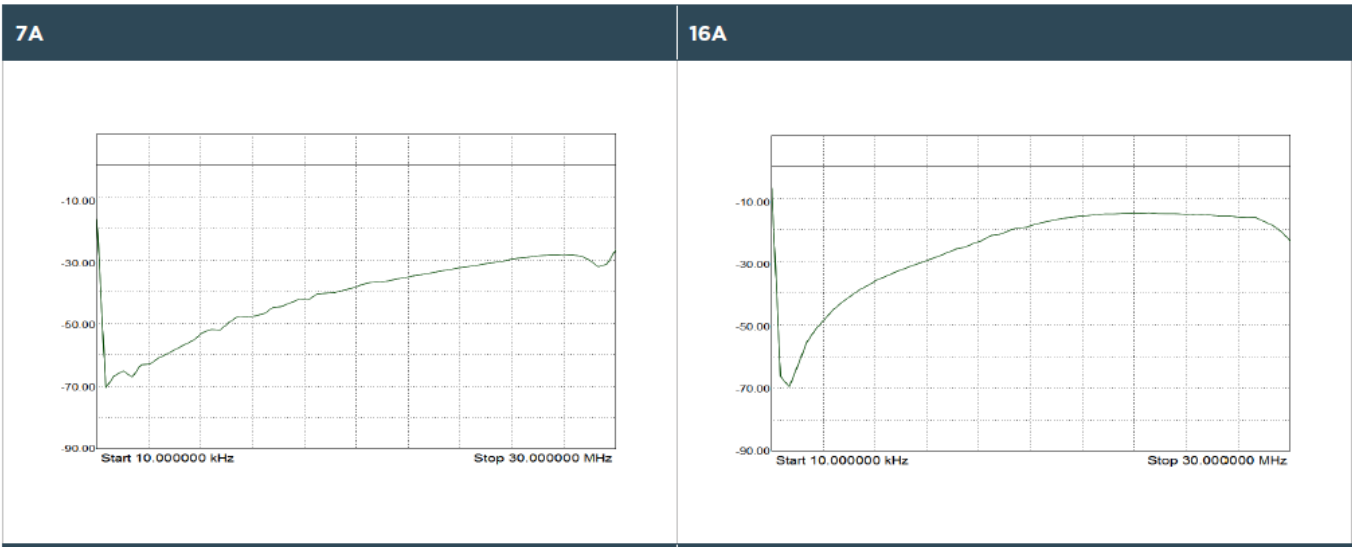
		Common Mode 50V/50V								
		0.01	0.05	0.15	Frequency in MHz			5	10	30
Current Rating	7A	22	18	48	60	70	65	58	31	11
	16A	20	25	56	64	75	70	60	31	11
	30A	21	23	35	61	67	50	43	37	19
	42A	35	42	55	54	52	48	34	24	10
	55A	32	40	55	56	52	48	34	24	12
	75A	30	35	48	60	64	57	30	22	15
	100A	24	24	29	56	46	50	54	23	12
	125A	25	25	32	55	45	32	28	22	12
	150A	24	25	31	50	41	30	26	21	13

		Differential Mode 50Ω/50Ω								
		Frequency in MHz								
		0.01	0.05	0.15	0.5 3	1	5	10	30	
Cu rre nt Ra tin g	7A	24	22	63	50	67	60	56	70	50
	16A	32	40	63	60	70	65	60	50	60
	30A	28	29	38	75	67	59	48	21	24
	42A	32	40	50	65	62	68	62	40	18
	55A	32	41	52	68	62	68	56	40	16
	75A	27	32	41	56	68	60	49	38	19
	100A	17	20	23	42	40	52	58	20	20
	125A	44	45	49	48	40	31	25	17	16
	150A	42	43	47	48	41	30	24	18	18

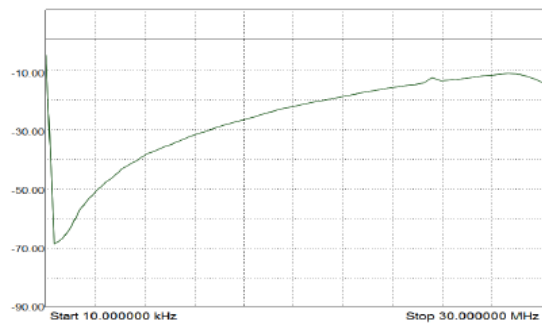
KEP-BS Series

Three Phase High Performance EMI Filter

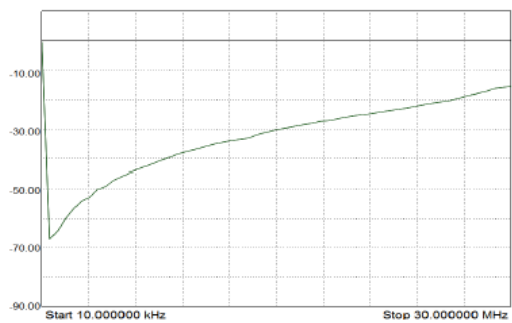
Common Mode Insertion Loss (Typical in dB – Refer to table above)



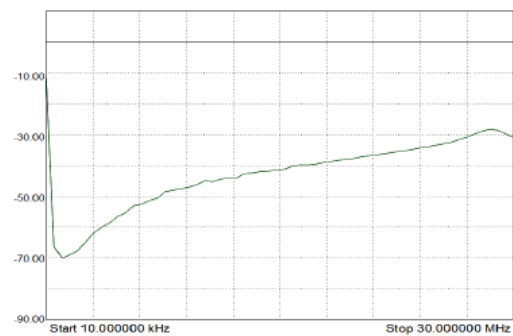
30A



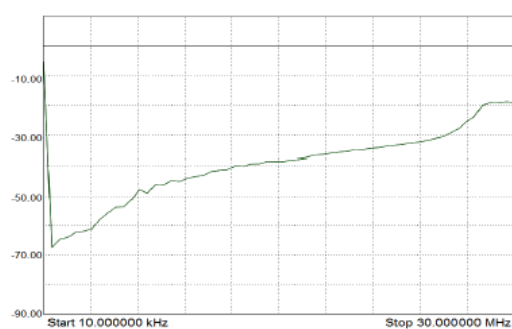
42A



55A



75A

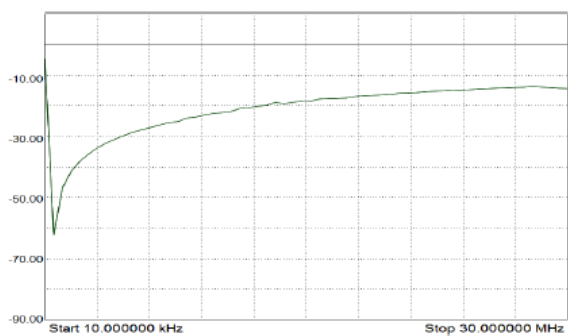


KEP-BS Series

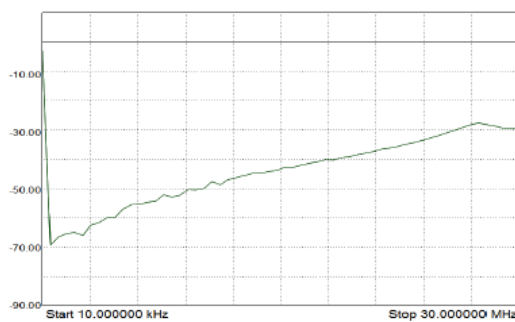
Three Phase High Performance EMI Filter

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

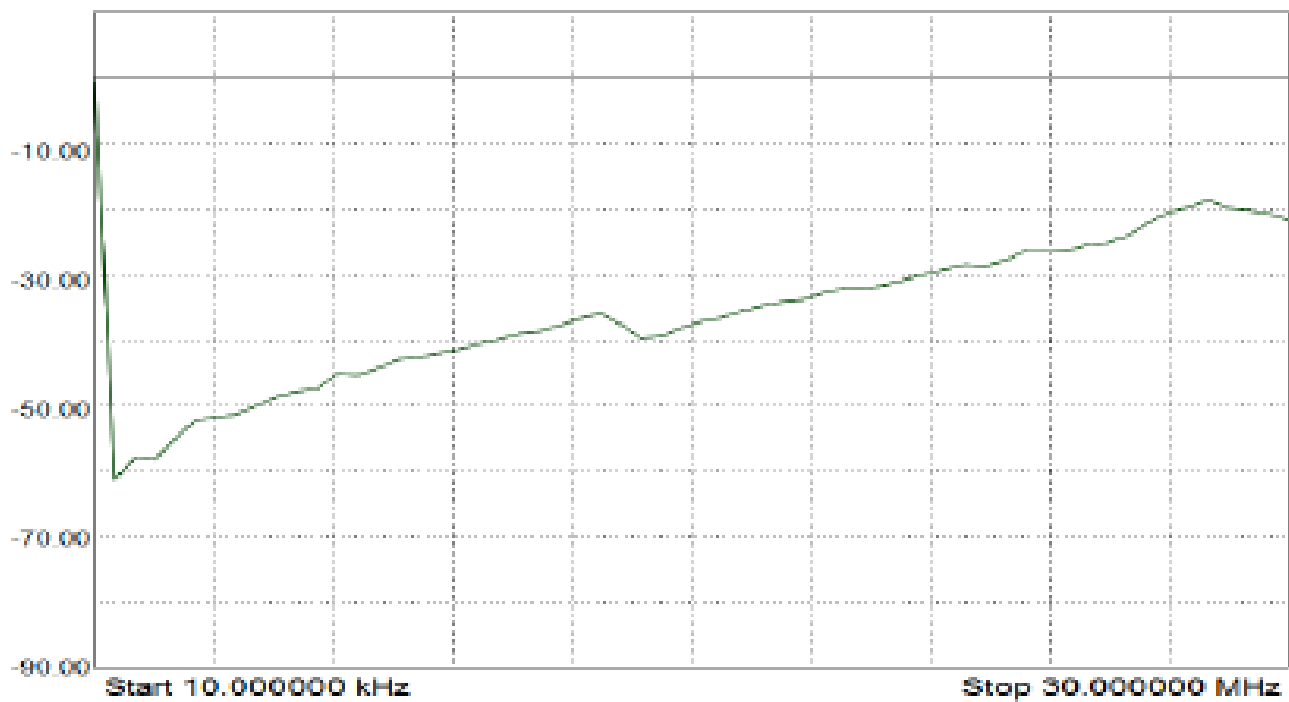
100A



125A



150A

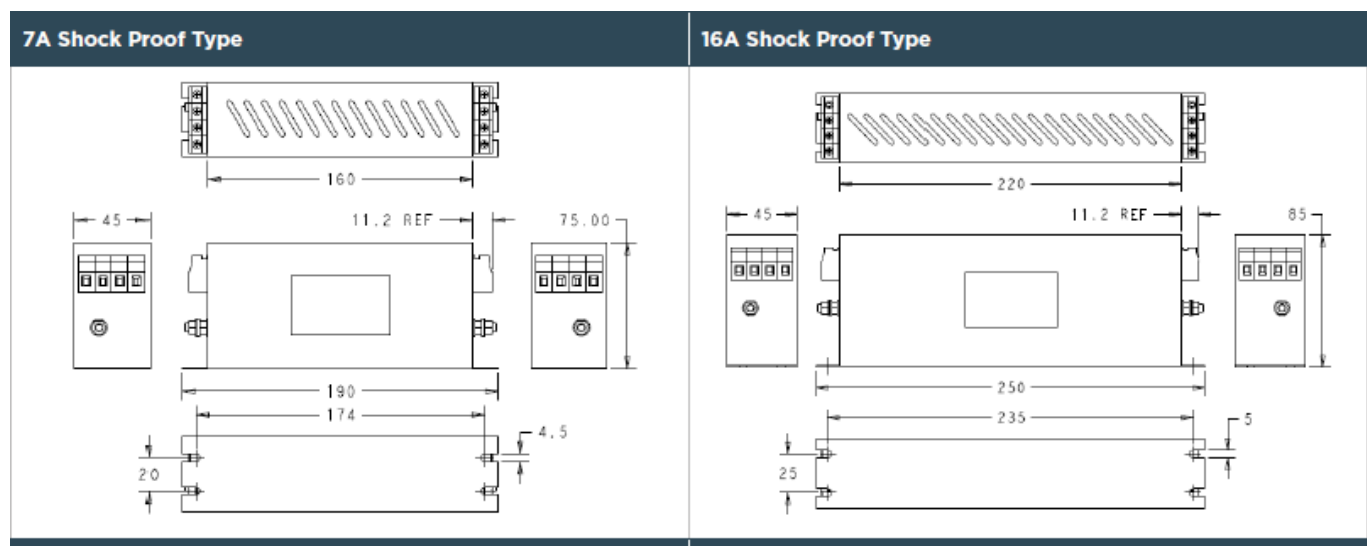


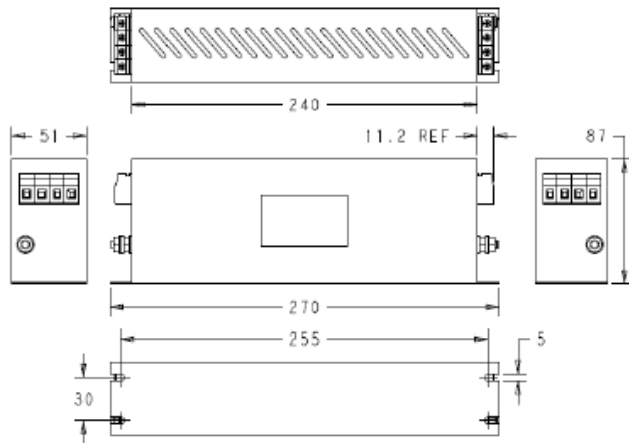
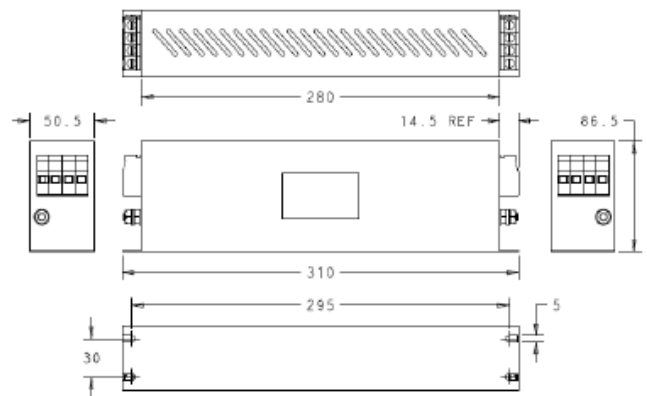
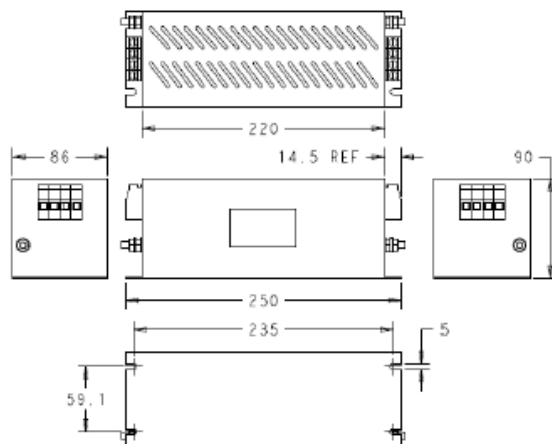
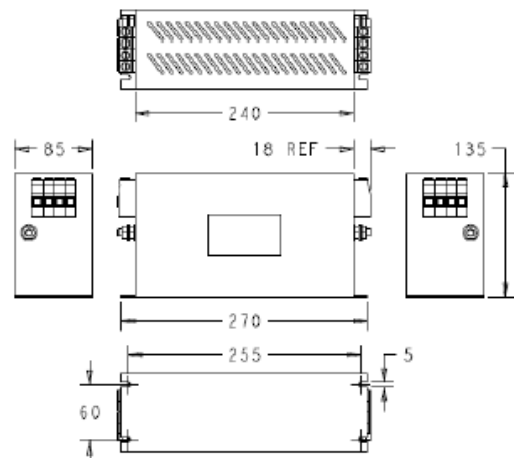
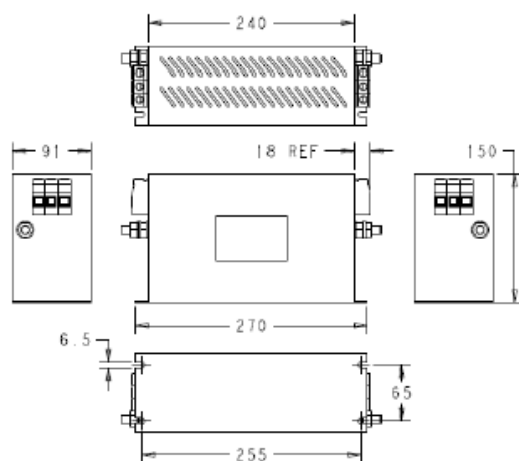
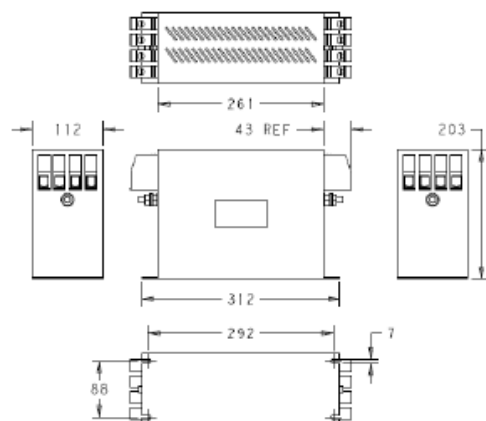
All dimensions in mm; Tolerances according: ISO2768-m

KEP-BS Series

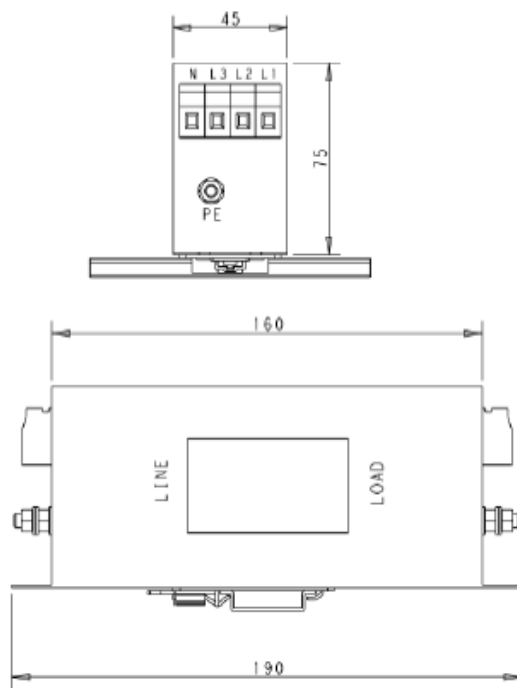
Three Phase High Performance EMI Filter

Case Dimensions – Standard Version

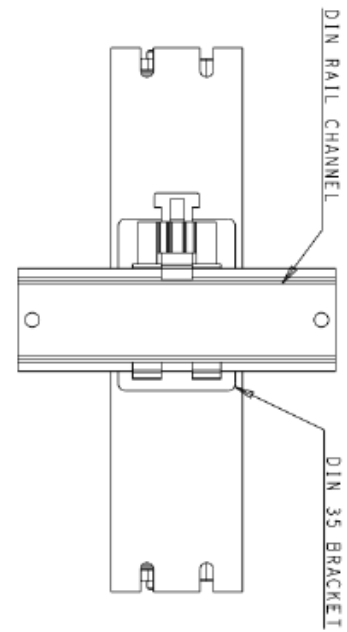


30A Shock Proof Types**42A Shock Proof Type****55A Shock Proof Type****75A Shock Proof Type****Case Dimensions – Standard Version****100A Shock Proof Type****125A to 150A Shock Proof Types****Case Dimensions – Din Rail Mount**

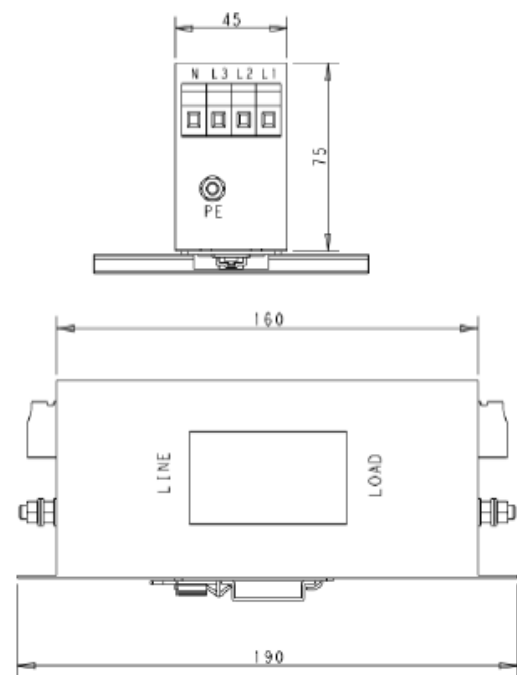
7A Shock Proof Type - Horizontal Mount



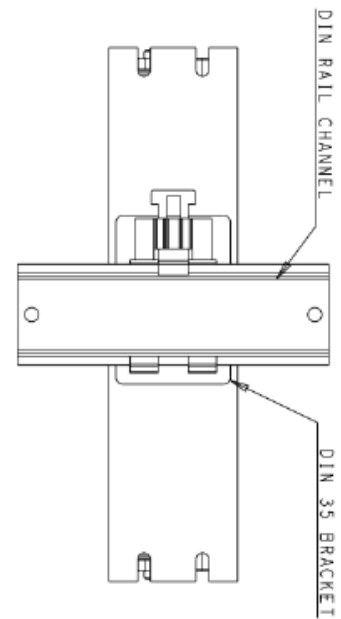
Note: Din Rail not supplied



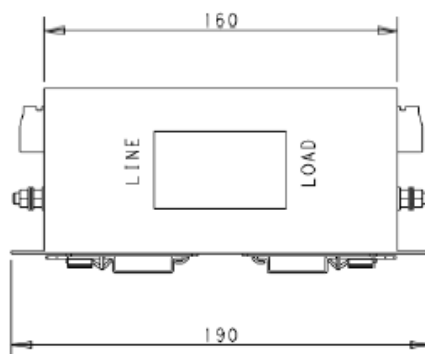
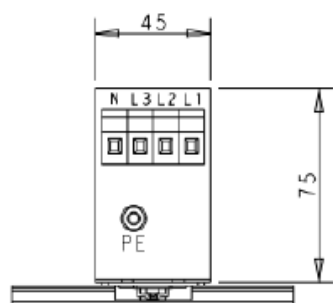
7A Shock Proof Type - Horizontal Mount



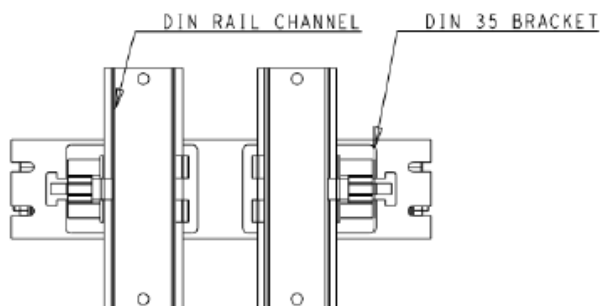
Note: Din Rail not supplied



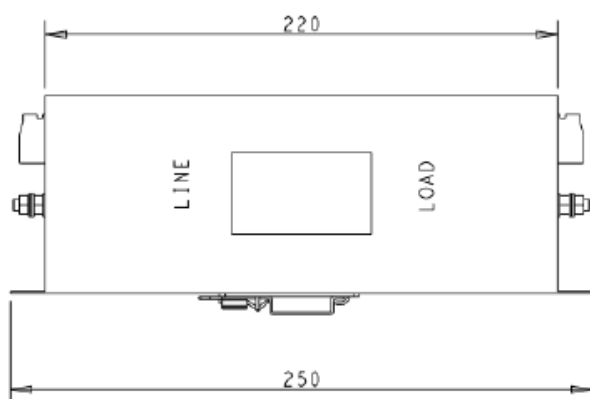
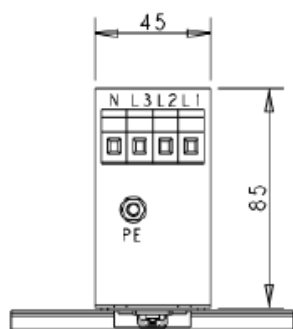
7A Shock Proof Type - Vertical Mount



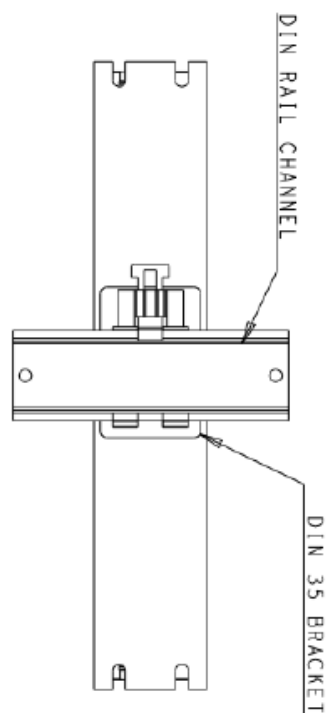
Note: Din Rail not supplied



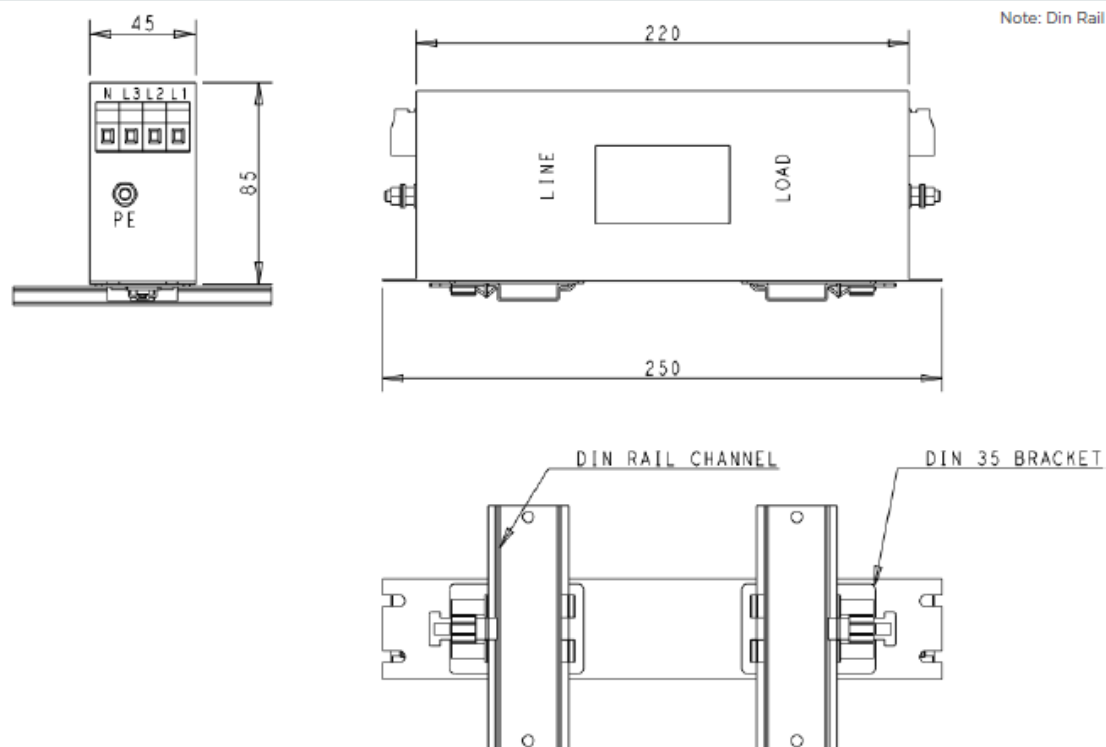
16A Shock Proof Type - Horizontal Mount



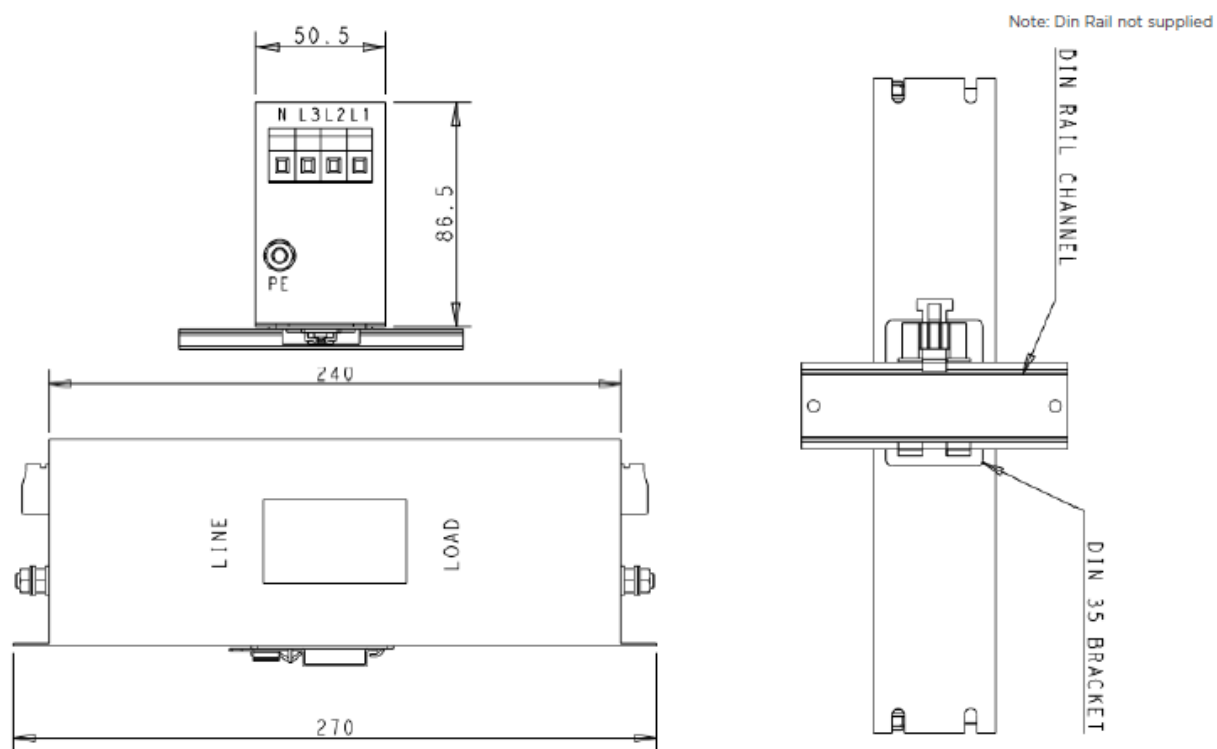
Note: Din Rail not supplied



16A Shock Proof Type - Vertical Mount

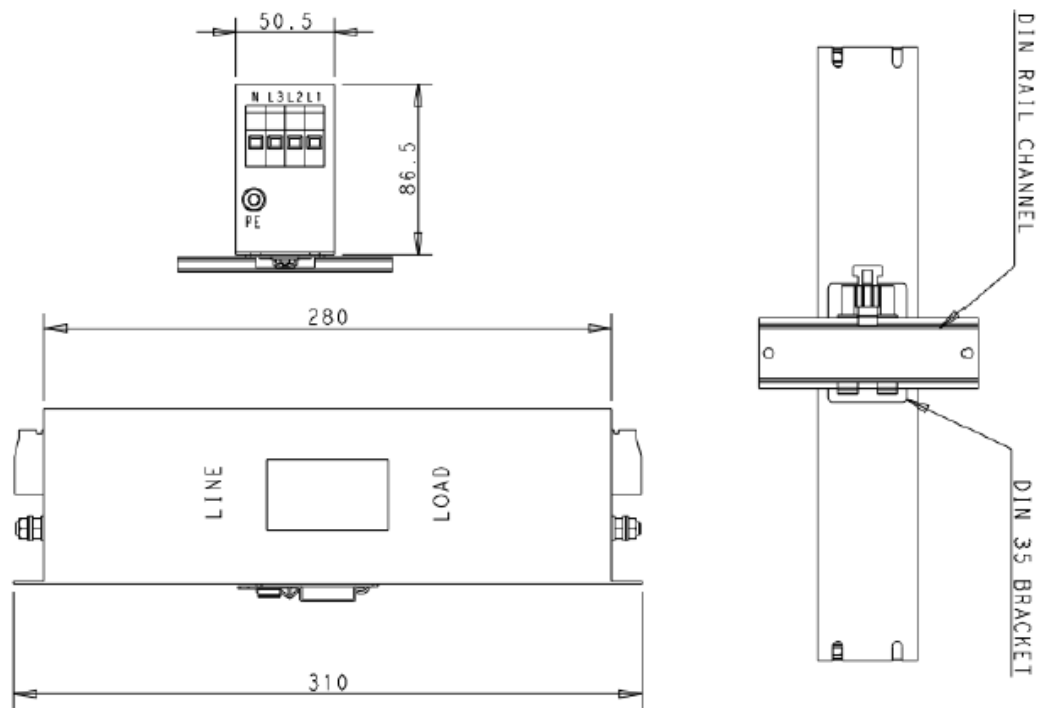


30A Shock Proof Type - Horizontal Mount



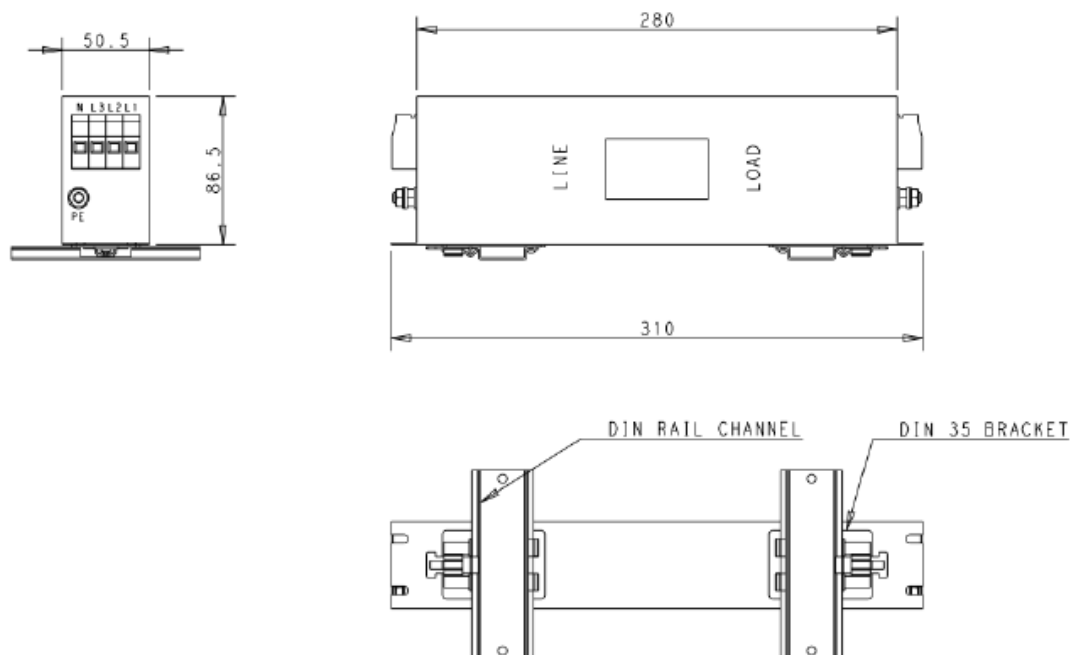
42A Shock Proof Type - Horizontal Mount

Note: Din Rail not supplied

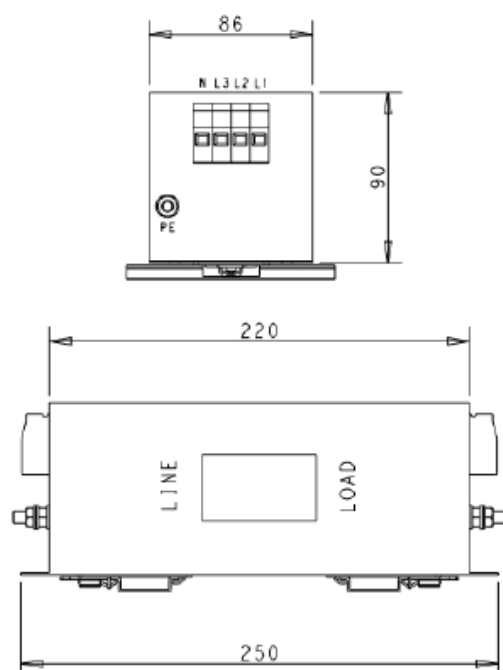


42A Shock Proof Type - Vertical Mount

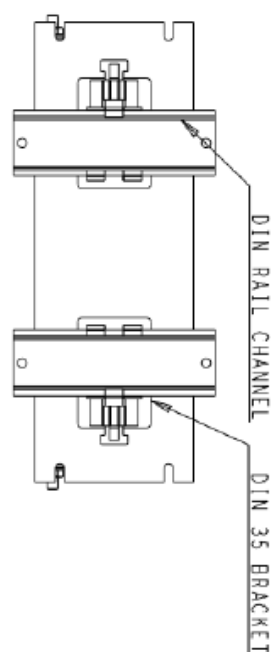
Note: Din Rail not supplied



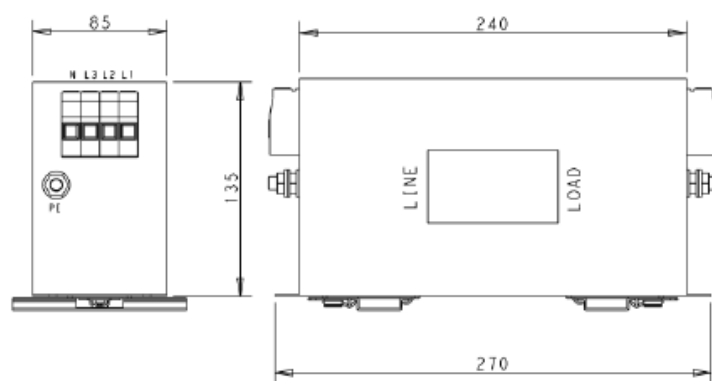
55A Shock Proof Type - Horizontal Mount



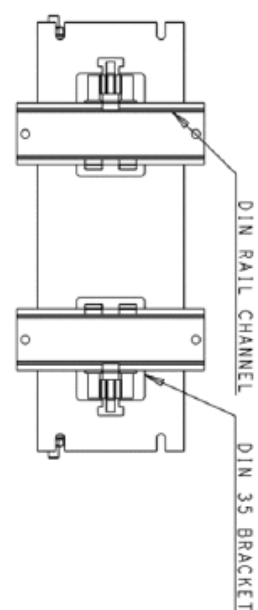
Note: Din Rail not supplied



75A Shock Proof Type - Horizontal Mount

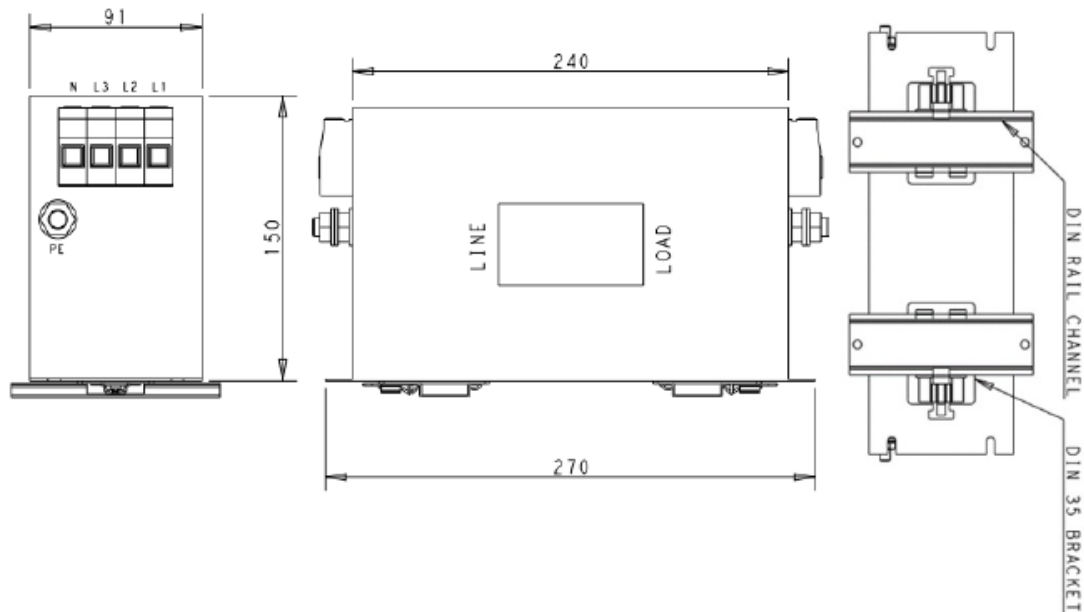


Note: Din Rail not supplied

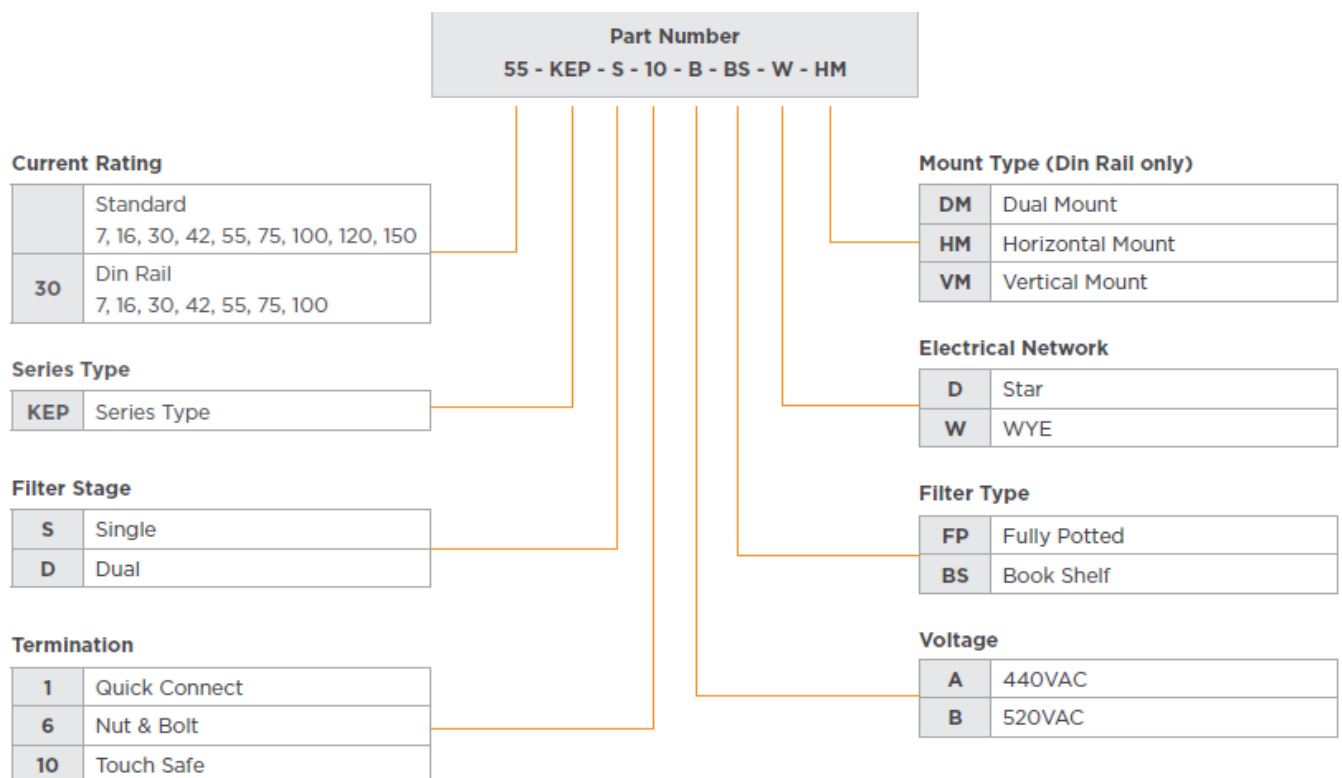


100A Shock Proof Type - Horizontal Mount

Note: Din Rail not supplied



HOW TO ORDER



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Documents / Resources

	TE connectivity KEP-BS Series Three Phase High Performance EMI Filter [pdf] Owner's Manual 75KEPS10BBSW, KEP-BS Series Three Phase High Performance EMI Filter, Three Phase High Performance EMI Filter, High Performance EMI Filter, Performance EMI Filter, EMI Filter, 7KEPS10BBSW, 16KEPS10BBSW, 30KEPS10BBSW, 42KEPS10BBSW, 55KEPS10BBSW, 75KEPS10BBSW, 100KEPS10BBSW, 125KEPS10BBSW, 150KEPS10BBSW
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References

- [TE Connectivity: Connectors & Sensors for a Connected, Sustainable Future](#)
- [User Manual](#)