Three phase 500Vac 6 to 300A EMC Filters with DIN rail mount option

https://product.tdk.com/en/products/emc/emc/power-line/tec_data/tdk_nf_rten.html
https://www.emea.lambda.tdk.com/uk/products/r-series





The RTEN three-phase EMC filters are enclosed in compact cases and part numbers up to 30A have a DIN rail mount option. They are rated for 500Vac with multiple current ratings of 6 to 300A enabling the optimum attenuation to match the current rating. The series uses TDK's ferrite core material to provide noise attenuation. The connection terminals are integrated into the case with both the screws and terminal covers captive, avoiding dropped or lost hardware. The RTEN 6A to 30A models are UL certified for a short circuit current rating of up to 14kA, the 40, 50, 60A and 150A 10kA and 35kA for the 80 and 100A models the with the appropriate breaker.

Features	Benefits
• 6 to 300A Current Ratings	• Optimizes the Attenuation for the Current Rating
• Low Profile	• Space Saving for Cabinets
• DIN Rail Mount Option	• Flexible Mounting
• Captive Hardware	• No Lost Screws or Terminal Covers
• Safety Certified	• Global Use

Model Selector

Model	Rated Current (A)	SCCR (kA)(1)	Leakage Current 500V/60Hz* (mA)	Maximum DC Resistance (mΩ)	Attenuation frequency range (MHz)			Weight (g)
					Common mode at 25dB	Common mode at 10dB	Differential mode at 25dB	
RTEN-5006	6	14	5.0	145	0.2 to 10	-	0.2 to 30	360
RTEN-5010	10	14	5.0	60	0.2 to 10	-	0.2 to 30	360
RTEN-5020	20	14	5.0	25	0.3 to 8	-	0.2 to 30	560
RTEN-5030	30	14	5.0	13	0.5 to 8	-	0.2 to 30	560
RTEN-5040	40	10	5.0	10	0.3 to 7	-	0.2 to 30	1100
RTEN-5050	50	10	5.0	7	0.5 to 7	-	0.2 to 30	1100
RTEN-5060	60	10	5.0	5	0.7 to 5	-	0.2 to 30	1100
RTEN-5080	80	35	5.0	5	0.3 to 5	-	0.2 to 5	3900
RTEN-5100	100	35	5.0	4	0.3 to 5	-	0.2 to 5	4200
RTEN-5150	150	10	5.0	3	0.3 to 5	-	0.2 to 5	6500
RTEN-5200	200	-	5.0	2	0.5 to 5	-	0.2 to 5	9200
RTEN-5250	250	-	5.0	1.5	-	0.5 to 10	0.2 to 5	8700
RTEN-5300	300	-	5.0	1	-	0.5 to 10	0.2 to 5	8300

*2.5mA at 250V/60Hz

RTEN	-	5	006	D
Series Name		Rated Voltage 5 = 500Vac	Rated Current 006 = 6A 300 = 300A	DIN Rail Mount 6A to 30A models

Related Products

Type	Current Rating (A)	Series	DIN Rail Mount	For use with secondary side inverters
Multipurpose with a low profile	6 - 300	RTEN	Y (Up to 30A)	
High attenuation, narrow package, 2 stage	6 - 150	RTHB		
High attenuation, low profile, 2 stage	6 - 60	RTMN		
High attenuation, low leakage (250V)	3 - 600	RTHN		
Multipurpose with HV pulse protection	6 - 60	RTAN	Y (Up to 30A)	
Compact package size, 1 stage	6 - 300	RTCN	-	Y

Click here for TDK-Lambda single phase filters

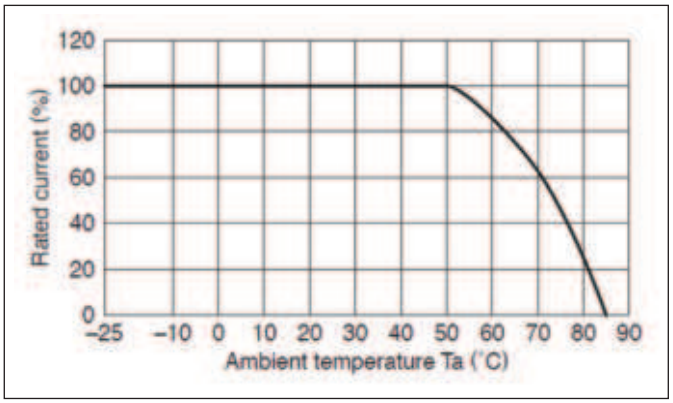
Specification

Model		
Input		
Rated Voltage (max)	Vac/Vdc	500 (Safety certified for AC input only)
Input Frequency	Hz	47 - 63
Leakage Current (500Vac, 60Hz)	mA	5. (2.5mA 250Vac, 60Hz)
Safety Certifications and Markings	-	UL1283 (up to 200A), EN60939-1/-2 (ENEC14), conforms to RoHS Directive
Environmental		
Operating Temperature	°C	-25 to +85, derating above 50. See derating curve below
Storage Temperature	°C	-25 to +85
Humidity (non condensing)	%RH	Operating: 15 - 85, storage: 5 - 85
Cooling	-	Convection
Withstand Voltage	Vac	2,500 input to earth
Isolation Resistance (For 1 minute)	MΩ	>100 at 500Vdc
Vibration	-	10-55Hz Amplitude 1.5mm, Sweep for 1 min. X, Y and Z directions for 2 hours each
Other		
Weight (Typ)	-	See model selector
Size (LxWxH)	mm	See outline drawings
Size (LxWxH)	Inches	See outline drawings
Connectors	-	See outline drawings
MIL-HDBK-217F NOTICE2	Hours	RTEN-5006: 4,012,519, RTEN-5300: 2,736,577
Warranty	Years	5

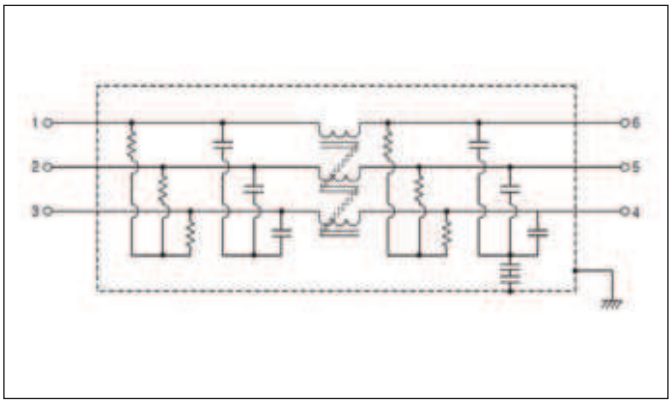
*Notes
(1) With inverse time circuit breaker. See UL report on website
See website for detailed specifications, test methods and installation manual
RTEN technical files

Mechanical Specification

Derating Curve

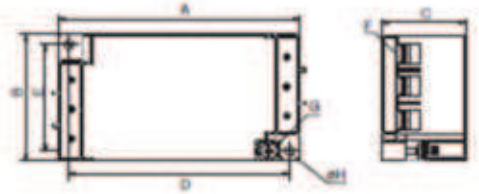


Schematic

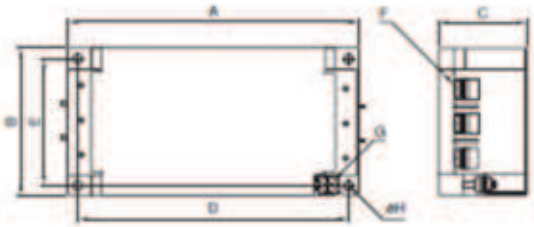


RTEN Outline Drawings

RTEN-5006/5010



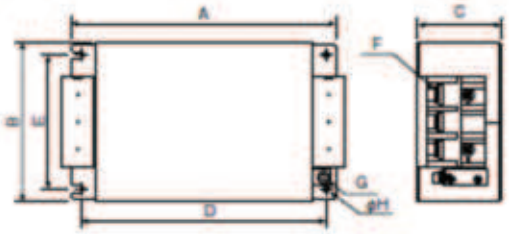
RTEN-5020/5030/5040/5050/5060



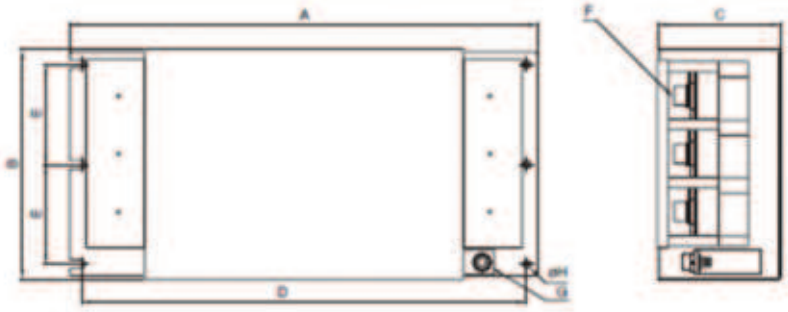
Dimensions in mm

Part No.	A	B	C	D	E	F	G	φH	Recommended clamping torque
RTEN-5006	120	63	42	110	53	M4	M4	4.5	M4 : 1.27N・m M5 : 2.5N・m
RTEN-5010									
RTEN-5020	140	70	42	130	60	M4	M4	4.5	
RTEN-5030									
RTEN-5040	170	90	54	160	80	M5	M4	4.5	
RTEN-5050									
RTEN-5060									

RTEN-5080/5100/5150



RTEN-5200/5250/5300

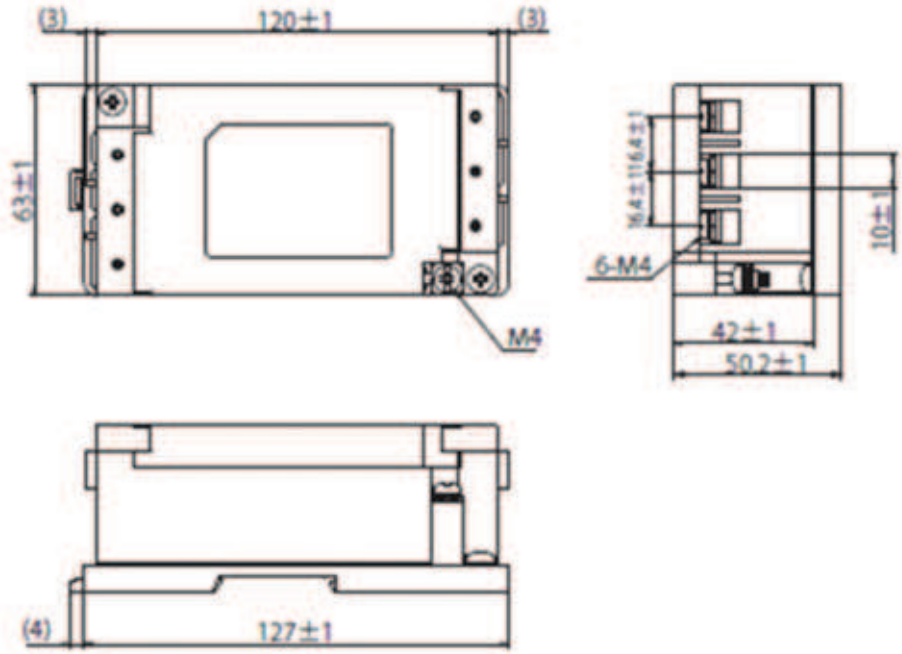


Dimensions in mm

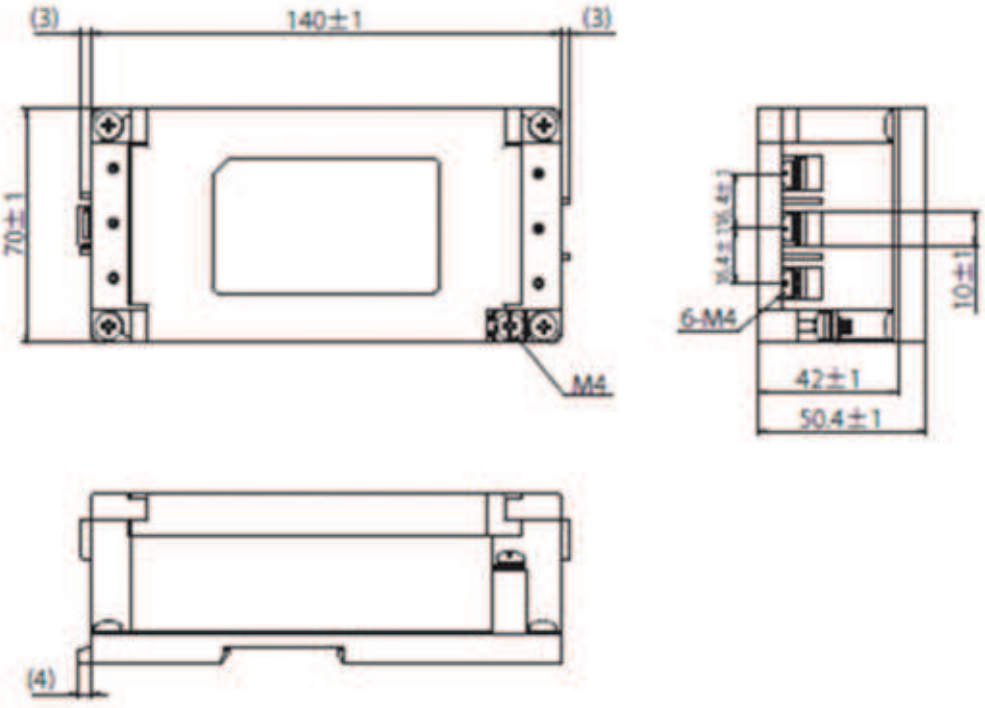
Part No.	A	B	C	D	E	F	G	φH	Recommended clamping torque
RTEN-5080	267	161	85	247	135	M8	M6	6.5	M6 : 4.8N・m M8 : 7.64N・m M10 : 11.8N・m
RTEN-5100									
RTEN-5150	290	190	88	270	164	M8	M6	6.5	
RTEN-5200	390	195	103	370	84.5	M10	M8	6.5	
RTEN-5250									
RTEN-5300									

RTEN-5xxxD Outline Drawings

RTEN-5006D/5010D



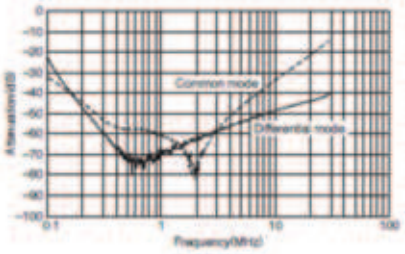
RTEN-5020D/5030D



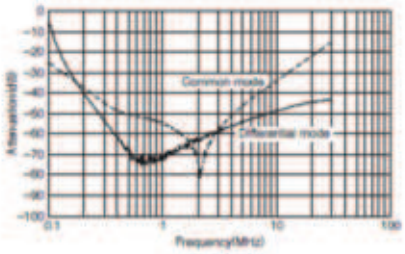
Dimensions in mm

RTEN Attenuation vs. Frequency

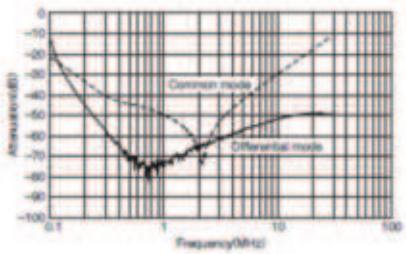
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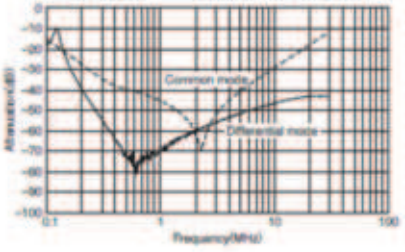
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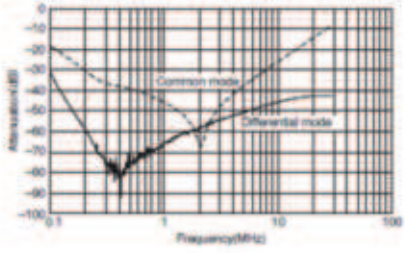
RTEN-5020



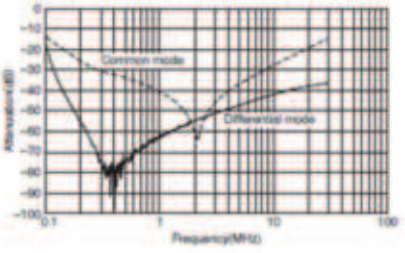
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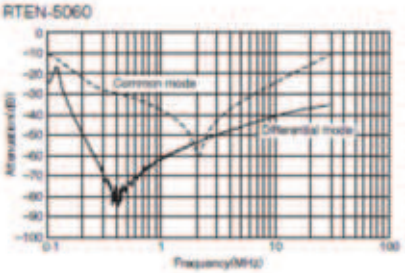
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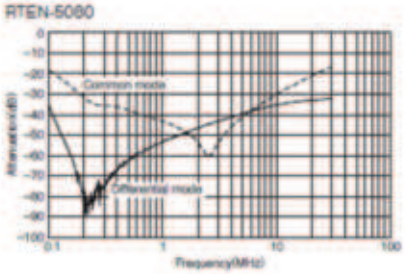
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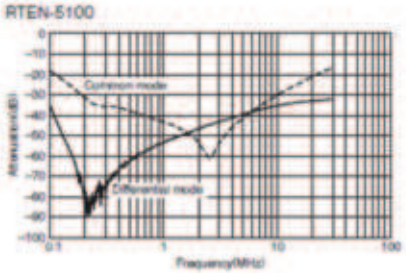
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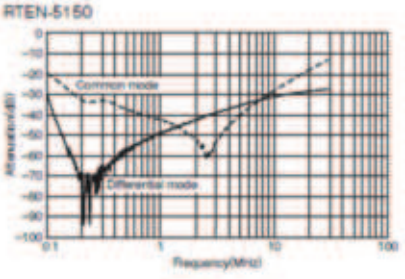
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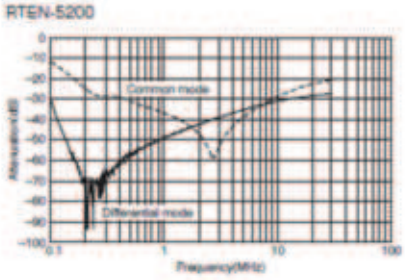
RTEN-5100



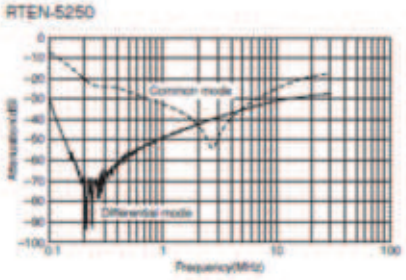
RTEN-5150



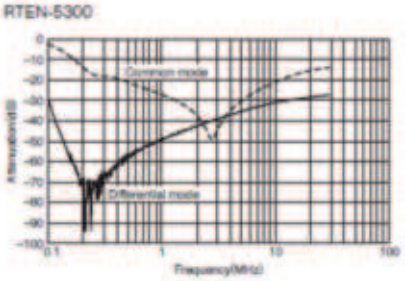
RTEN-5200



RTEN-5250



RTEN-5300





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