Three phase 500Vac 6 to 60A EMC Filters with DIN rail mount option

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



Industrial Test LED COMM Broadcast

The RTAN 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 seven current ratings of 6 to 60A enabling the optimum attenuation to match the current rating. The series uses TDK's amorphous core material to provide pulse and noise attenuation. Amorphous cores offer a higher resistance to saturation from high voltage pulses and greater long term reliability than semiconductor clamps. The connection terminals are integrated into the case with both the screws and terminal covers captive, avoiding dropped or lost hardware. The RTAN 6A to 30A models are UL certified for a short circuit current rating of up to 14kA, the 40, 50 and 60A models 10kVA with the appropriate breaker.

Features	Benefits
• 6 to 60A Current Ratings	• Optimizes the Attenuation for the Current Rating
• Amorphous Core Technology	• Reduces High Voltage Pulse Core Saturation
• 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)	HV Pulse Protection	Leakage Current 500V/60Hz* (mA)	Maximum DC Resistance (mΩ)	Attenuation frequency range (MHz)	
						Common mode at 25dB	Common mode at 25dB
RTAN-5006	6	14	Y	5.0	145	0.2 to 10	0.2 to 30
RTAN-5010	10	14	Y	5.0	60	0.3 to 10	0.2 to 30
RTAN-5020	20	14	Y	5.0	25	0.4 to 10	0.2 to 30
RTAN-5030	30	14	Y	5.0	13	0.6 to 10	0.3 to 30
RTAN-5040	40	10	Y	5.0	10	0.5 to 8	0.2 to 30
RTAN-5050	50	10	Y	5.0	7	0.6 to 10	0.3 to 30
RTAN-5060	60	10	Y	5.0	5	0.7 to 10	0.3 to 30

*2.5mA at 250V/60Hz

RTAN	-	5	006	D
Series Name		Rated Voltage 5 = 500Vac	Rated Current 006 = 6A 060 = 60A	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 HV pulse protection	6 - 60	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

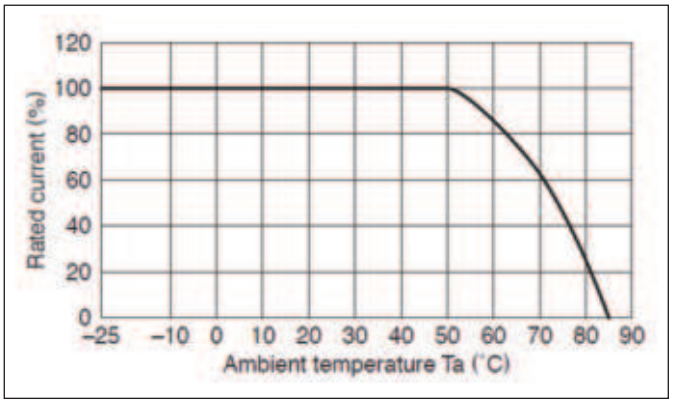
Specification

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, 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)	g	RTAN5006-5010: 360, RTAN5020-5030: 570, RTAN5040-5060: 1120
Size (LxWxH)	mm	See outline drawings
Size (LxWxH)	Inches	See outline drawings
Connectors		See outline drawings
MIL-HDBK-217F NOTICE2	Hours	4012519
Warranty	Years	5

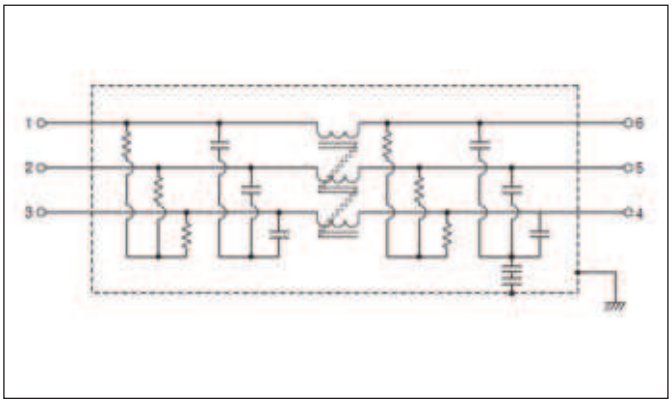
*Notes
(1) With inverse time circuit breaker. See UL report on website
See website for detailed specifications, test methods and installation manual
RTAN technical files

Mechanical Specification

Derating Curve

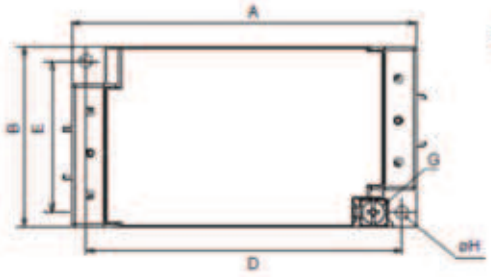


Schematic

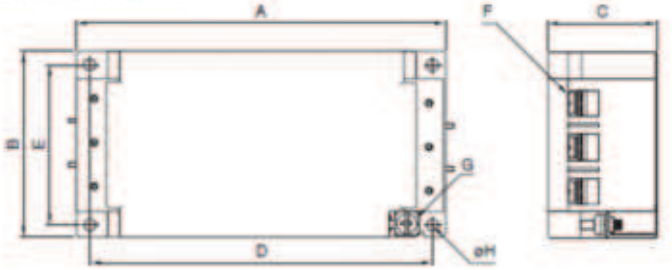


RTAN Outline Drawing

RTAN-5006/5010



RTAN-5020/5030/5040/5050/5060

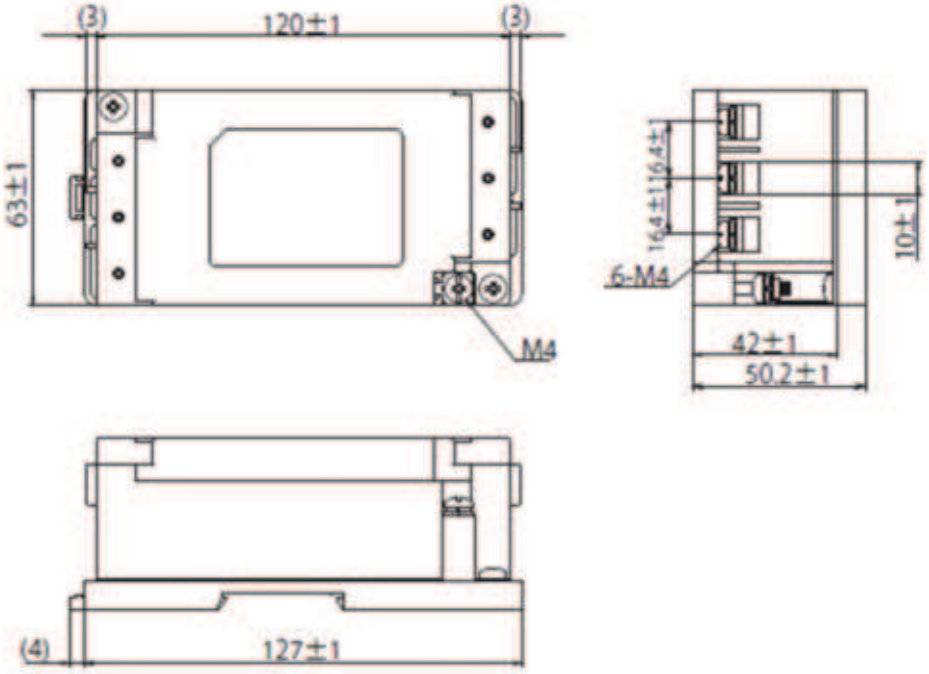


Dimensions in mm

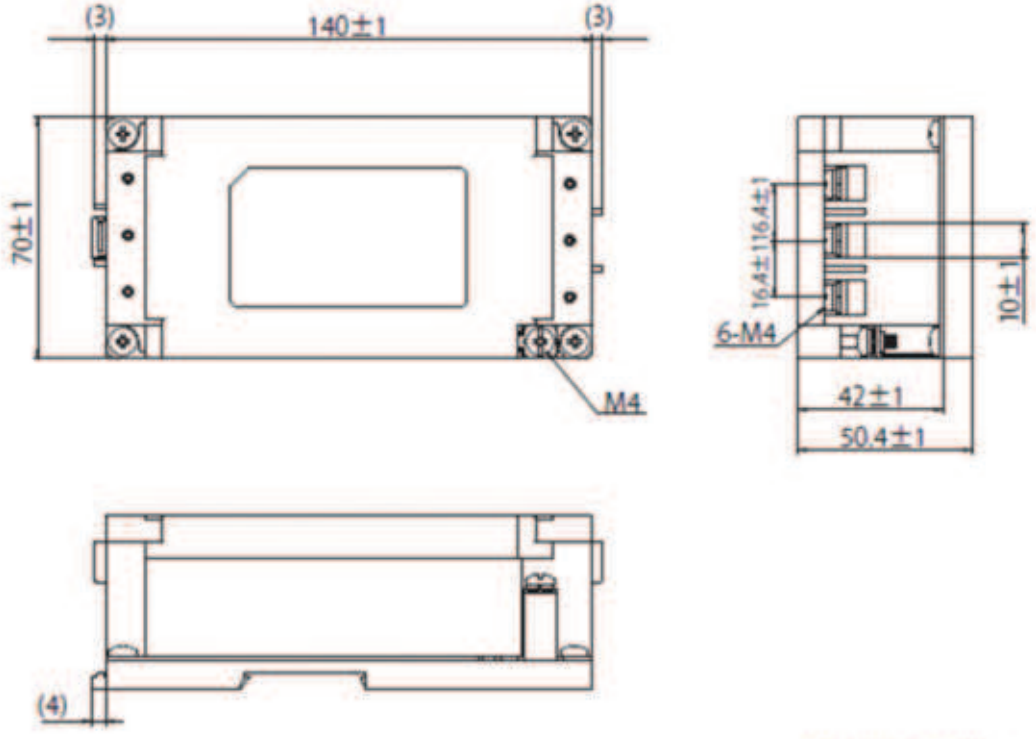
Part No.	A	B	C	D	E	F	G	φH	Recommended clamping torque
RTAN-5006 RTAN-5010	120	63	42	110	53	M4	M4	4.5	M4 : 1.27N・m M5 : 2.5N・m
RTAN-5020 RTAN-5030	140	70	42	130	60	M4	M4	4.5	
RTAN-5040 RTAN-5050 RTAN-5060	170	90	54	160	80	M5	M4	4.5	

RTAN-5xxxD Outline Drawings

RTAN-5006D/5010D



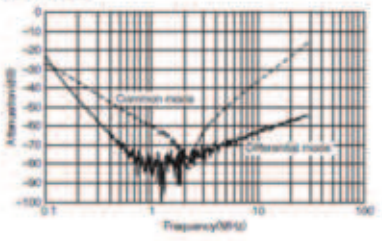
RTAN-5020D/5030D



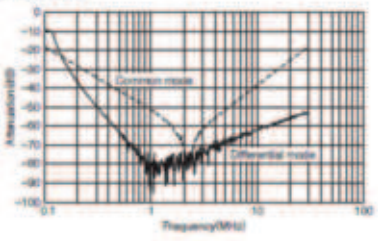
Dimensions in mm

RTAN Attenuation vs. Frequency

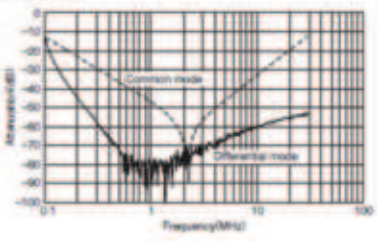
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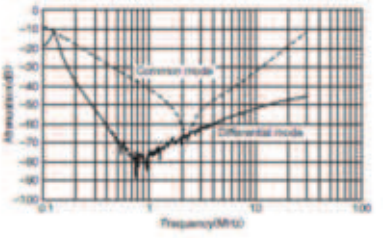
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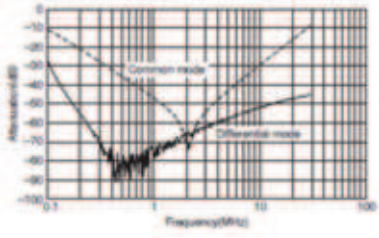
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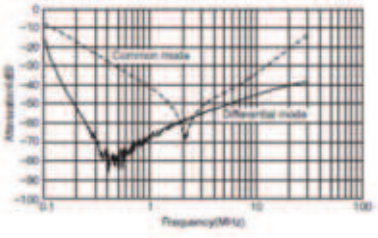
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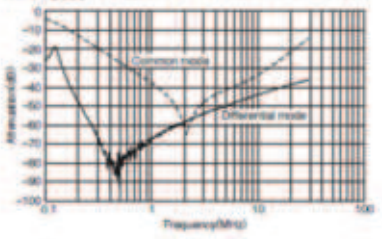
RTAN-5040



RTAN-5050

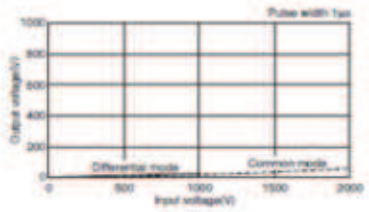


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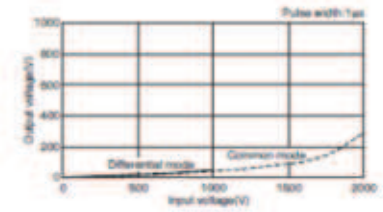


RTAN Pulse Attenuation Characteristics

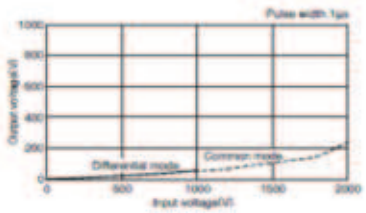
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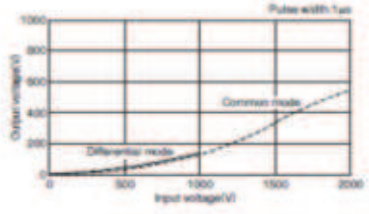
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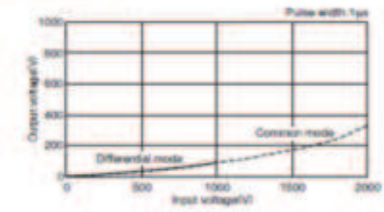
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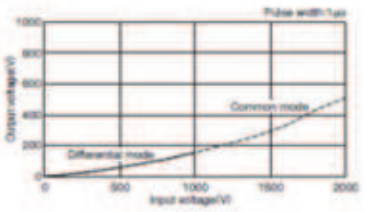
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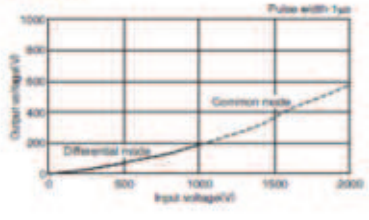
RTAN-5040



RTAN-5050



RTAN-5060





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