

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>



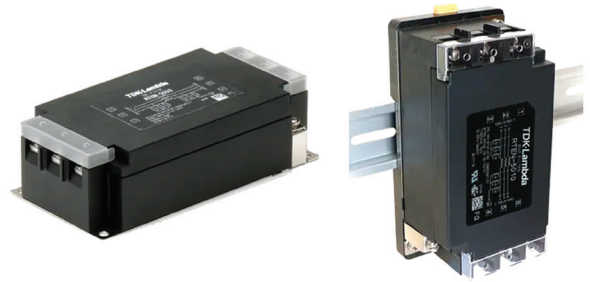
Industrial

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

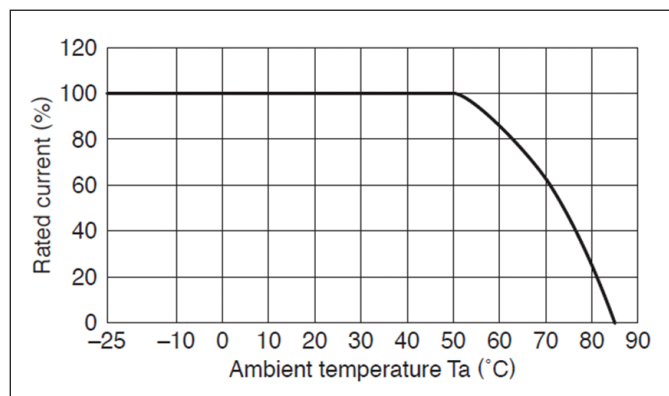
(1) With inverse time circuit breaker. See UL report on website

See website for detailed specifications, test methods and installation manual

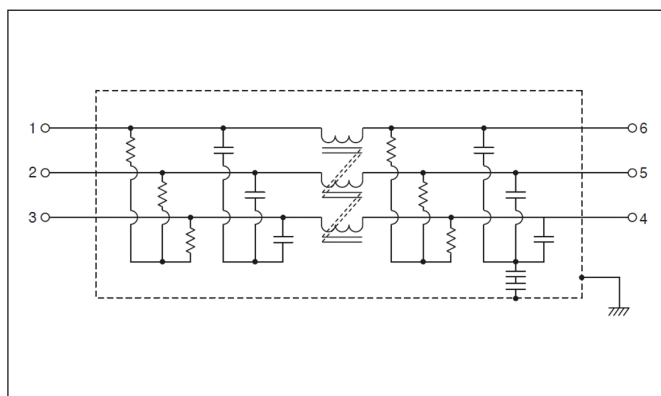
[RTAN technical files](#)

Mechanical Specification

Derating Curve

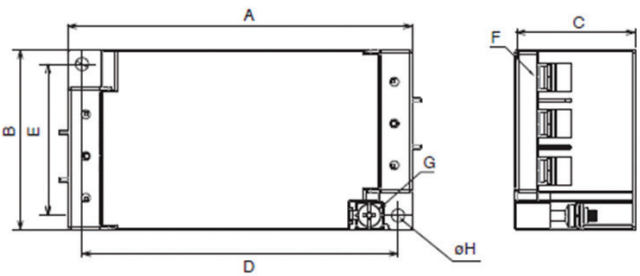


Schematic

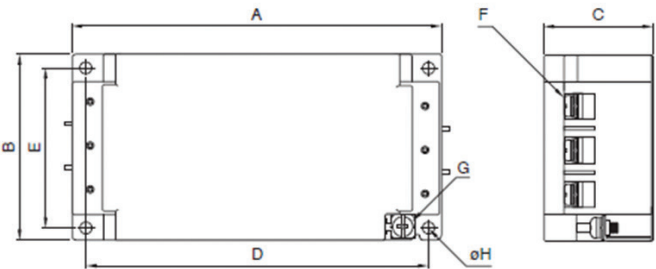


RTAN Outline Drawing

RTAN-5006/5010



RTAN-5020/5030/5040/5050/5060

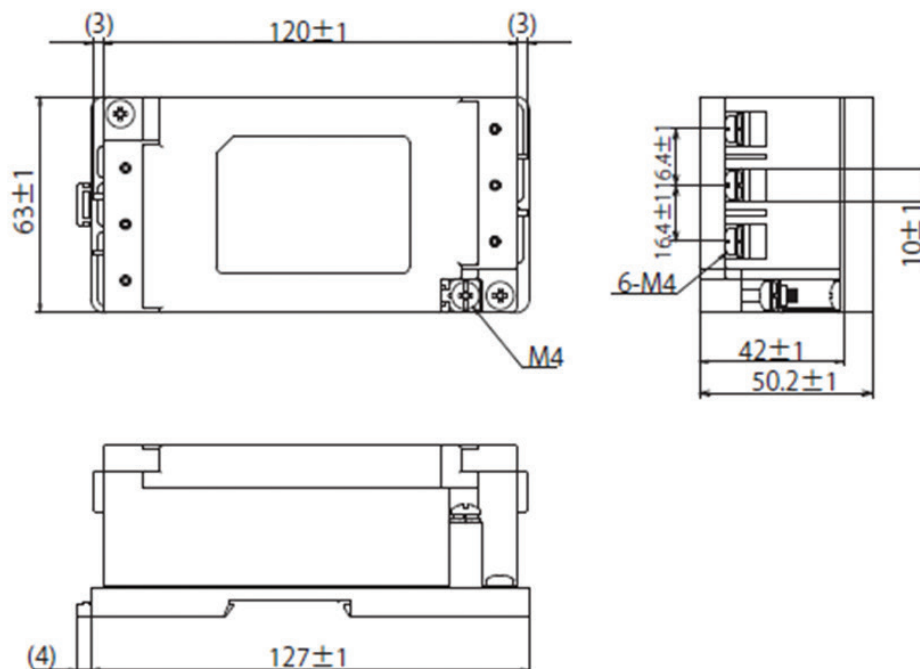


Dimensions in mm

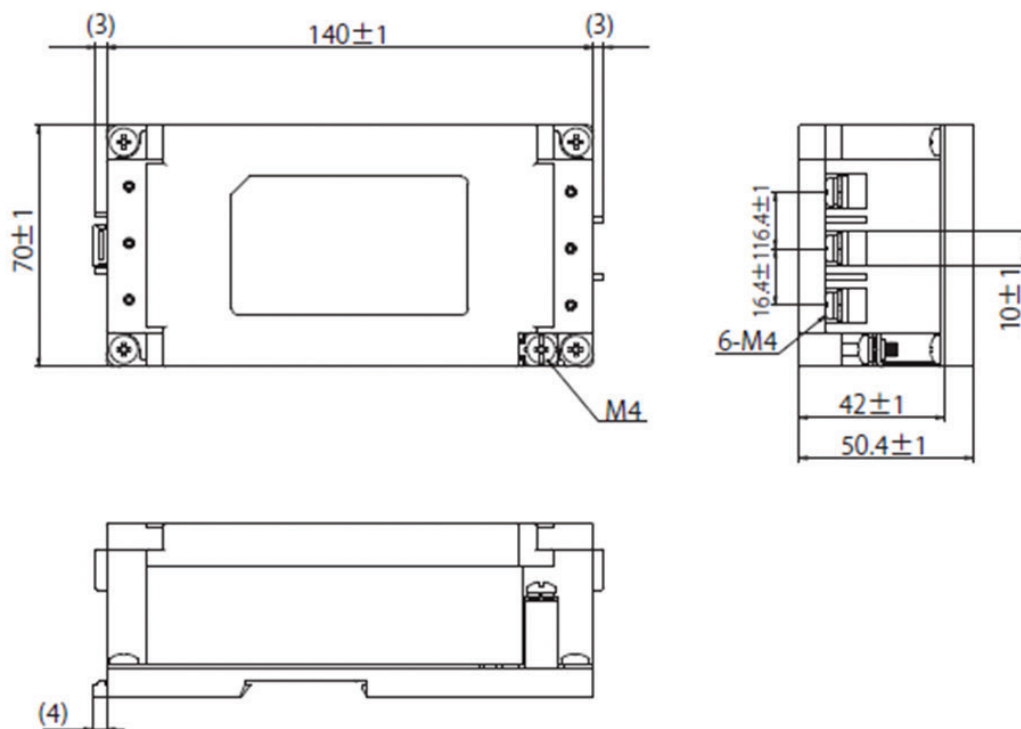
Part No.	A	B	C	D	E	F	G	φH	Recommended clamping torque
RTAN-5006	120	63	42	110	53	M4	M4	4.5	M4 : 1.27N · m M5 : 2.5N · m
RTAN-5010									
RTAN-5020	140	70	42	130	60	M4	M4	4.5	
RTAN-5030									
RTAN-5040	170	90	54	160	80	M5	M4	4.5	
RTAN-5050									
RTAN-5060									

RTAN-5xxxD Outline Drawings

RTAN-5006D/5010D

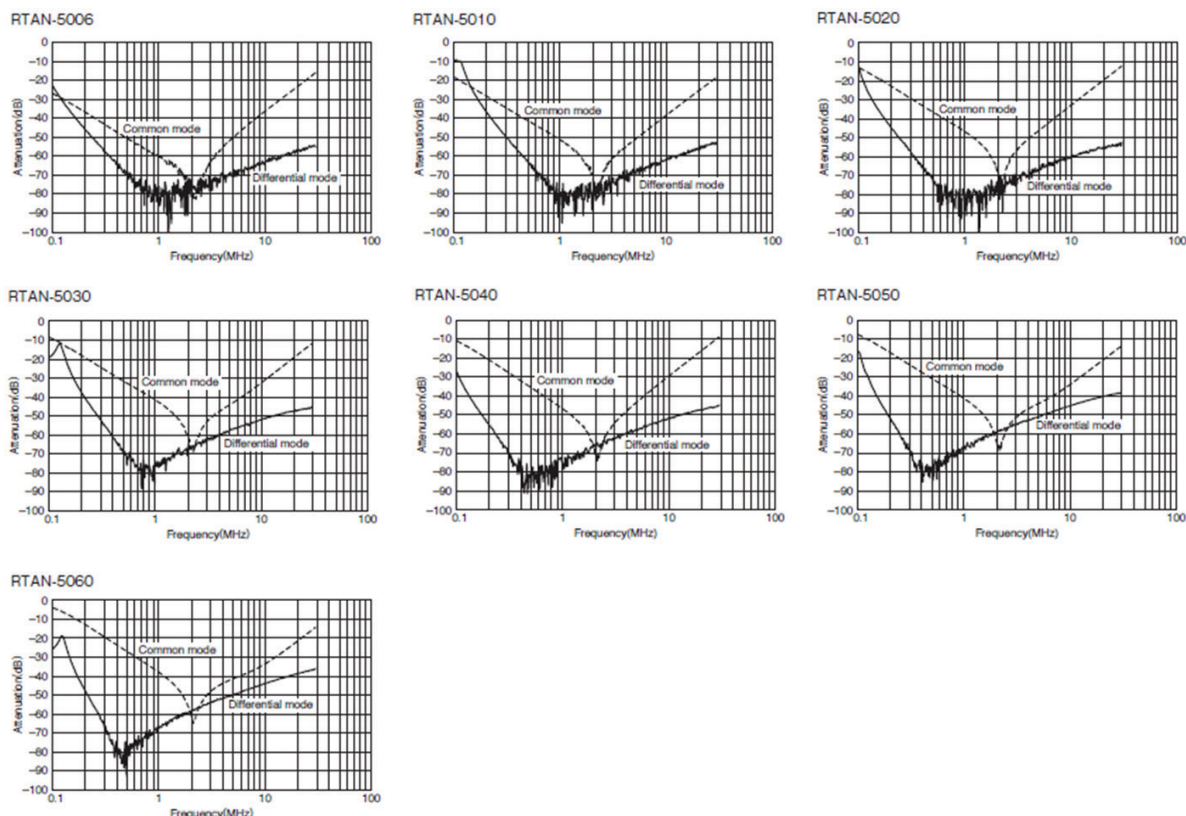


RTAN-5020D/5030D

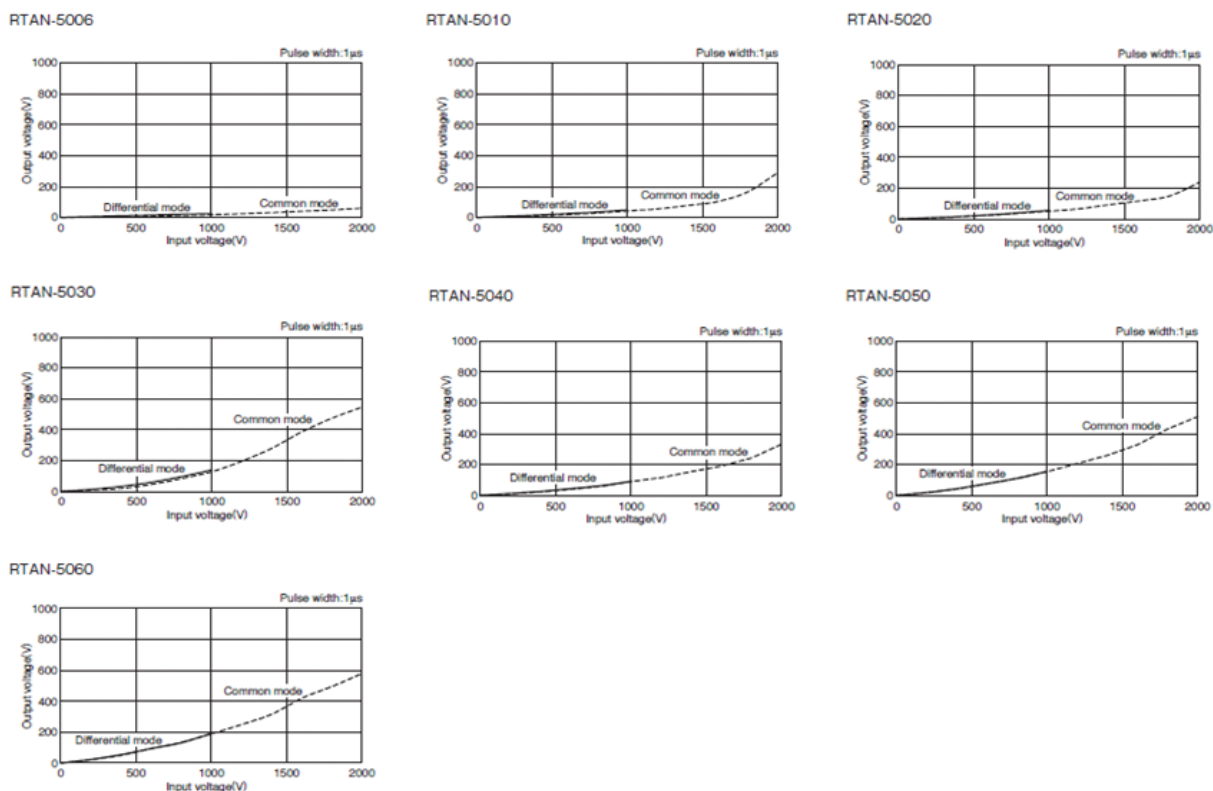


Dimensions in mm

RTAN Attenuation vs. Frequency



RTAN Pulse Attenuation Characteristics



**TDK-Lambda France SAS**

Tel: +33 1 60 12 71 65
 ttf.fr-powersolutions@tdk.com
 www.emea.lambda.tdk.com/fr

**Italy Sales Office**

Tel: +39 02 61 29 38 63
 ttf.it-powersolutions@tdk.com
 www.emea.lambda.tdk.com/it

**Netherlands**

ttf.nl-powersolutions@tdk.com
 www.emea.lambda.tdk.com/nl

**TDK-Lambda Germany GmbH**

Tel: +49 7841 666 0
 tlq.powersolutions@tdk.com
 www.emea.lambda.tdk.com/de

**Austria Sales Office**

Tel: +43 2256 655 84
 tlq.at-powersolutions@tdk.com
 www.emea.lambda.tdk.com/at

**Switzerland Sales Office**

Tel: +41 44 850 53 53
 tlq.ch-powersolutions@tdk.com
 www.emea.lambda.tdk.com/ch

**Nordic Sales Office**

Tel: +45 8853 8086
 tlq.dk-powersolutions@tdk.com
 www.emea.lambda.tdk.com/dk

**TDK-Lambda UK Ltd.**

Tel: +44 (0) 12 71 85 66 66
 tlu.powersolutions@tdk.com
 www.emea.lambda.tdk.com/uk

**TDK-Lambda Ltd.**

Tel: +9 723 902 4333
 tli.powersolutions@tdk.com
 www.emea.lambda.tdk.com/il-en

**TDK-Lambda Americas**

Tel: +1 800-LAMBDA-4 or 1-800-526-2324
 tia.powersolutions@tdk.com
 www.us.lambda.tdk.com

**TDK Electronics do Brasil Ltda**

Tel: +55 11 3289-9599
 sales.br@tdk-electronics.tdk.com
 www.tdk-electronics.tdk.com/en

**TDK-Lambda Corporation**

Tel: +81-3-6778-1113
 www.jp.lambda.tdk.com

**TDK-Lambda (China) Electronics Co. Ltd.**

Tel: +86 21 6485-0777
 tlc.powersolutions@tdk.com
 www.lambda.tdk.com.cn

**TDK-Lambda Singapore Pte Ltd.**

Tel: +65 6251 7211
 tls.marketing@tdk.com
 www.sg.lambda.tdk.com

**TDK India Private Limited, Power Supply Division**

Tel: +91 80 4039-0660
 mathew.philip@tdk.com
 www.sg.lambda.tdk.com

