

Single phase 250Vac 6 to 30A EMC Filters

https://product.tdk.com/en/products/emc/emc/power-line/tec_data/tdk_nf_rskn.html

<https://www.emea.lambda.tdk.com/uk/products/r-series>



Industrial



Test



LED



COMM



Broadcast

The RSKN single-phase, wide band, two stage high attenuation EMC filters are enclosed in a low profile metal case and are rated for 250Vac. Four current ratings of 6 to 30A enables the optimum attenuation to match the current rating. The RSKN series uses a nano crystal core for enhanced performance. The connection terminals are integrated into the case and a terminal cover provided for safety protection to avoid lost hardware. The RSKN series is UL certified for a short circuit current rating of 5,000A with the appropriate breaker.

Features	Benefits
• Wide Band, High Attenuation	• Improved Performance
• 6 to 30A Current Ratings	• Optimizes the Attenuation for the Current Rating
• Integrated Terminal Block	• No Lost Hardware
• Safety Certified	• Global Use

Model Selector						
Model	Rated Current (A)	SCCR (kA)	HV Pulse Protection	Maximum DC Resistance (mΩ)	Attenuation frequency range (MHz)	
					Common mode at 30dB	Differential mode at 25dB
RSKN-2006	6	5	Y	300	0.2 to 30	0.4 to 30
RSKN-2010	10	5	Y	100	0.2 to 30	0.5 to 30
RSKN-2020	20	5	Y	20	0.3 to 30	0.4 to 30
RSKN-2030	30	5	Y	10	0.4 to 30	0.4 to 30

RSKN	-	2	06
Series Name		Rated Voltage 2 = 250Vac	Rated Current 006 = 6A 030 = 30A

Related Single Phase Filter Products										
Type	Options									
	Current Rating (A)	Series	Low Leakage	Faston on terminals	Wire leads	DIN Rail Mount	Fused	Discharge Resistor	Metal case	
Board mount line filter, HV Pulse	0.5 - 6	RSAG								
Board mount line filter	0.5 - 6	RSEG								
General purpose with faston terminals	6	RSEC								
General purpose	0.5 - 6	RSEL	Y	Y	Y					Y
HV pulse protection	0.5 - 6	RSAL	Y	Y	Y					
Power Entry Module with line filter	3, 6, 10	RPE	Y				Y	Y		
Power Entry Module with line filter, HV Pulse	3, 6, 10	RPA	Y					Y		
Multipurpose	3 - 300	RSEN	Y (Up to 30A)			Y (Up to 30A)				
Multipurpose with HV pulse protection	3 - 60	RSAN	Y (Up to 30A)			Y (Up to 30A)				
High attenuation	3 - 300	RSHN	Y (Up to 30A)			Y (Up to 30A)				
High attenuation with pulse protection	3 - 300	RSMN	Y (Up to 30A)			Y (Up to 30A)				
Wide band, high attenuation	6 - 30	RSKN								

* Separate mounting bracket

[Click here for TDK-Lambda three phase filters](#)

Specification

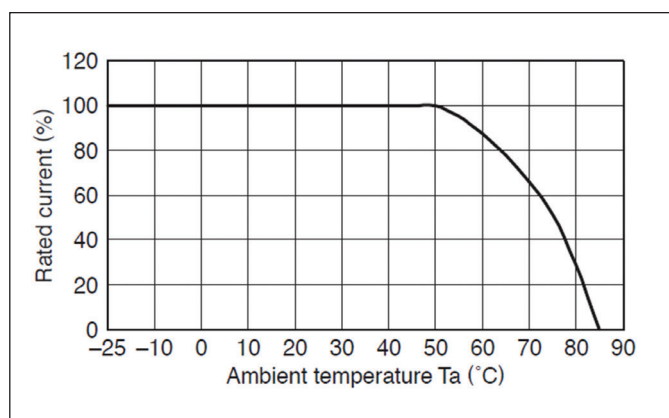
Model		RSKN-2006	RSKN-2010	RSKN-2020	RSKN-2030
Input					
Rated Voltage	Vac/Vdc	250 (Safety certified for AC input only)			
Input Frequency	Hz	47 - 63			
Leakage Current	mA	<1 at 250Vac, 60Hz			
Safety Certifications and Markings	-	UL1283, CSA C22.2 No.8 (cUL), EN60939-1 / -2 (SEMKO), conforms to RoHS Directive			
Environmental					
Operating Temperature	°C	-25 to +85. See derating curves below			
Storage Temperature	°C	-30 to +85			
Humidity (non condensing)	%RH	Operating: 30 - 90, storage: 10 - 95			
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	220	310	530	660
Size (LxWxH)	mm	107 x 47 x 26	117 x 47 x 30	151 x 52 x 35	151 x 67 x 35
Size (LxWxH)	Inches	4.21 x 1.85 x 1.02	4.61 x 1.85 x 1.18	5.94 x 2.05 x 1.38	5.94 x 2.64 x 1.38
Connectors	-	M4 Screw terminals			
MIL-HDBK-217F NOTICE2	Hours	RSKN-2006: 5,137,690, RSKN-2030 : 4,641,664			
Warranty	Years	5			

Notes

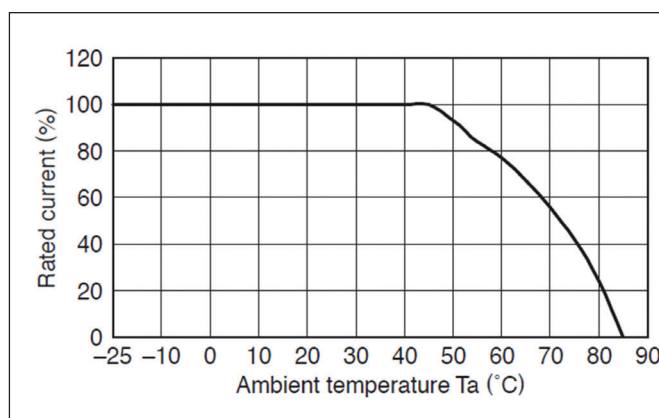
See website for detailed specifications, test methods and installation manual [RSKN technical files](#)

Mechanical Specification

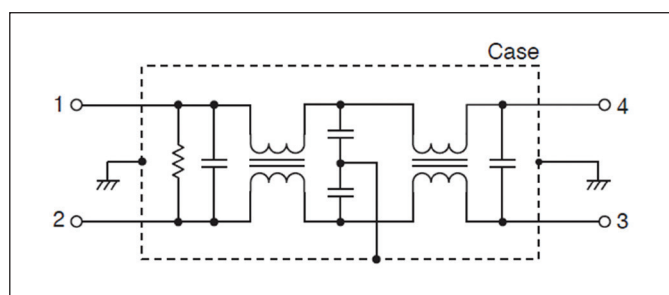
Derating Curve RSKN-2006/ -2010



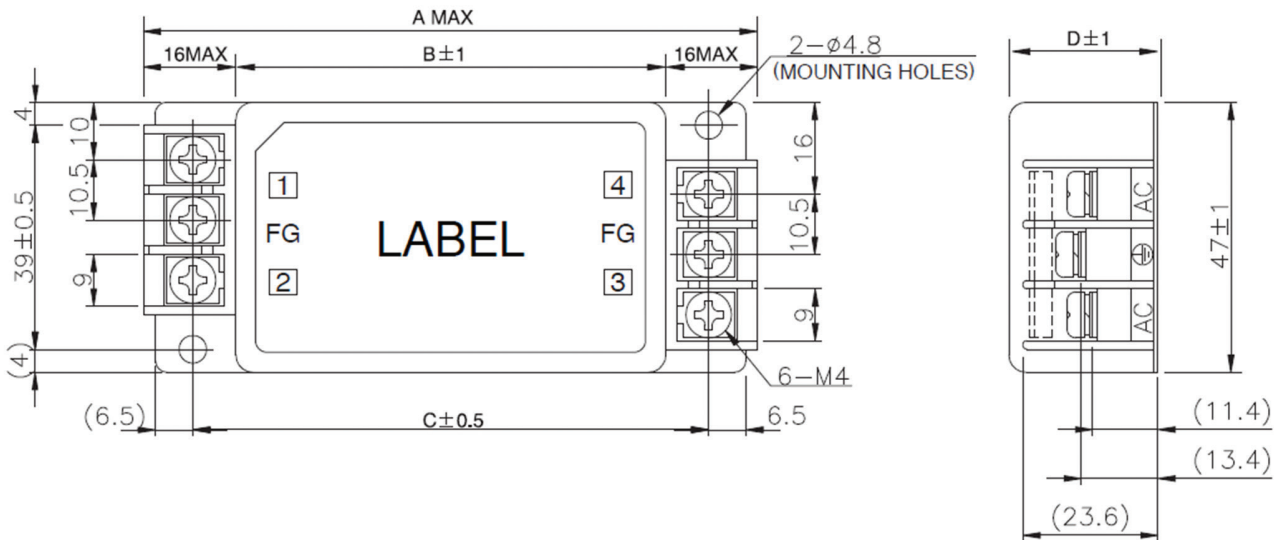
Derating Curve RSKN-2020/ -2030



Schematic

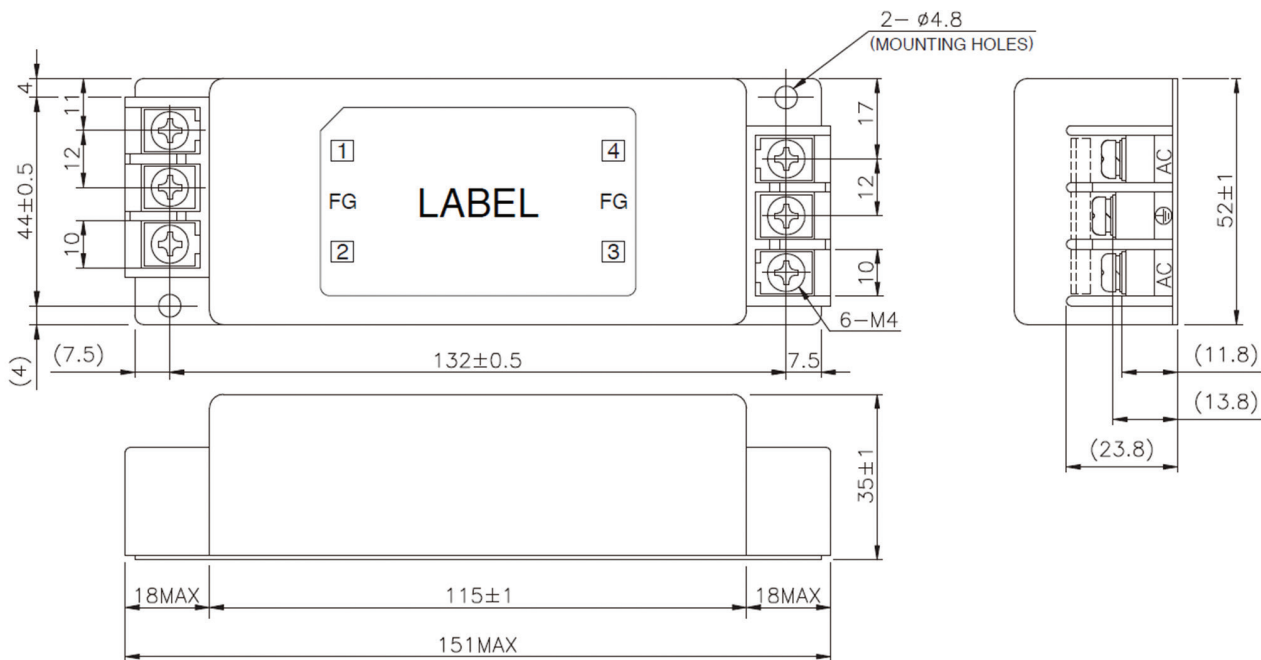


RSKN-2006/2010 Outline Drawing



Part No.	A	B	C	D
RSKN-2006	107	75	90	26
RSKN-2010	117	85	100	30

RSKN-2020 Outline Drawing



The technical drawing illustrates the ESD-06A terminal block from three perspectives:

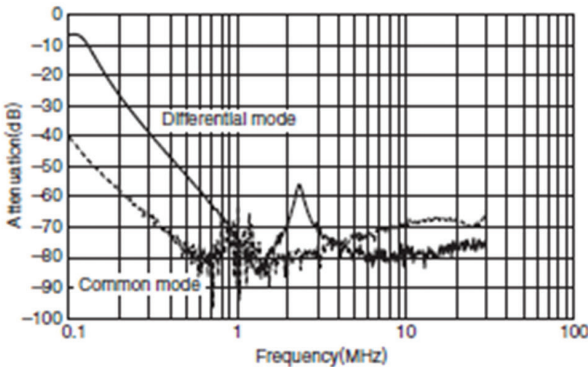
- Front View:** Shows a rectangular body with a central label area labeled "LABEL". The label has four positions numbered 1 through 4, with "FG" (Ground) markings at positions 1 and 3. Dimensions include a total width of 132 ± 0.5 mm, a mounting hole pitch of 21.5 mm, and individual hole spacings of 12 mm and 10 mm. There are four mounting holes ($4 - \phi 4.8$) along the top edge.
- Side View:** Shows the profile of the terminal block with a height of 35 ± 1 mm. The base plate has a maximum width of 18 mm on both sides, resulting in a total base width of 151 mm. The main body width is 115 ± 1 mm.
- End View:** Shows the terminal arrangement with two AC terminals and one ground terminal. The overall depth is 67 ± 1 mm. Spacing dimensions between terminals are (11.8), (13.8), and (23.8) mm.

Additional details include a 6-M4 screw specification for the terminal screws and a note indicating the unit is in mm.

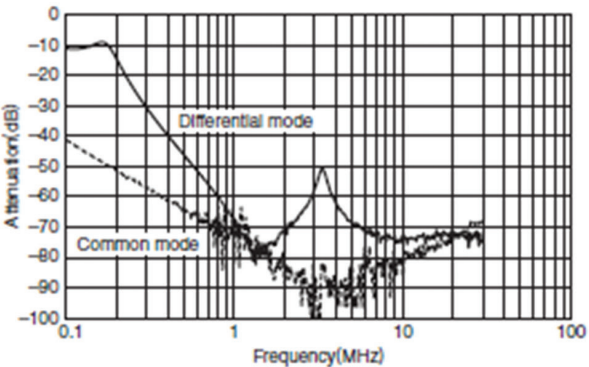
※ Unit : mm
 ※ Recommended clamping torque : 1.27N · m
 ※ Case and Base plate : Metal (Surface treatment : Nickel plating)
 $t=0.6\text{mm}(6,10\text{A}) / 0.8\text{mm}(20,30\text{A})$

RSKN Attenuation vs. Frequency

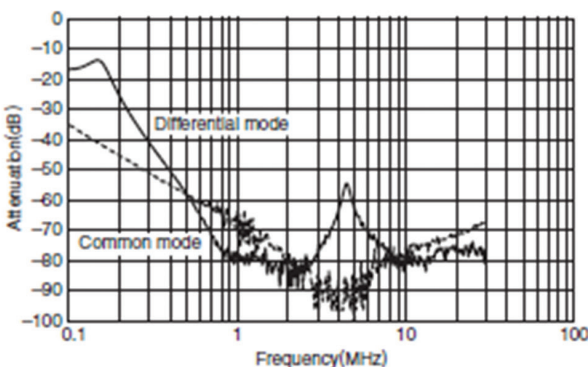
RSKN-2006



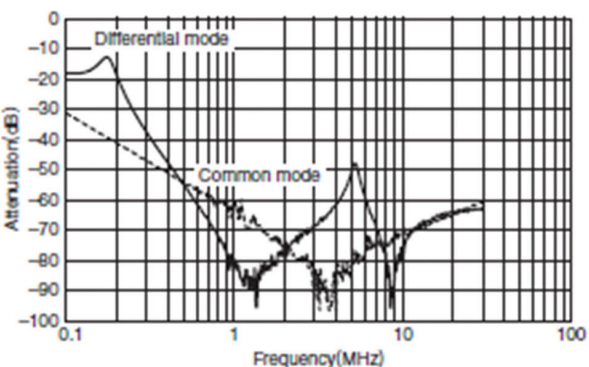
RSKN-2010



RSKN-2020

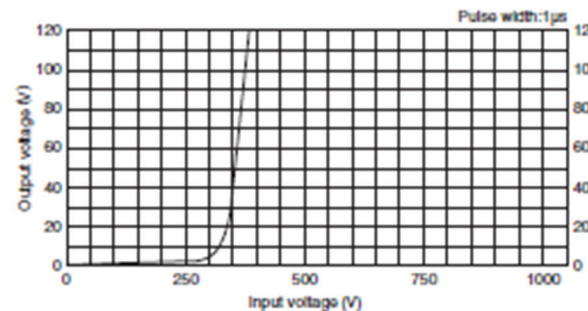


RSKN-2030

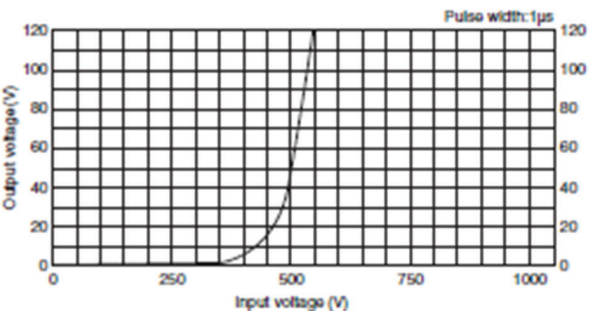


RSKN Pulse Attenuation Characteristics

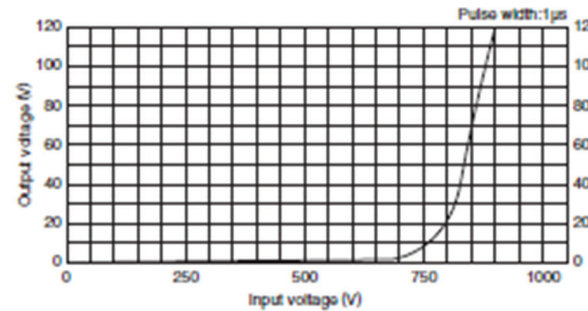
RSKN-2006



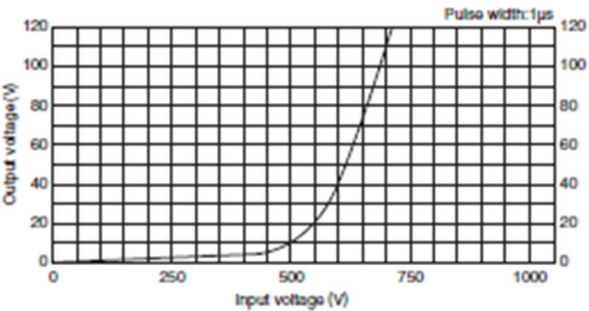
RSKN-2010



RSKN-2020



RSKN-2030



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