

## Overview

The KEMET SN coils are normal mode choke coil with wide variety of characteristic. These coils are designed with our proprietary Fe dust cores and are useful in various noise countermeasure fields.

## Applications

- Home appliances
- Power supplies

## Benefits

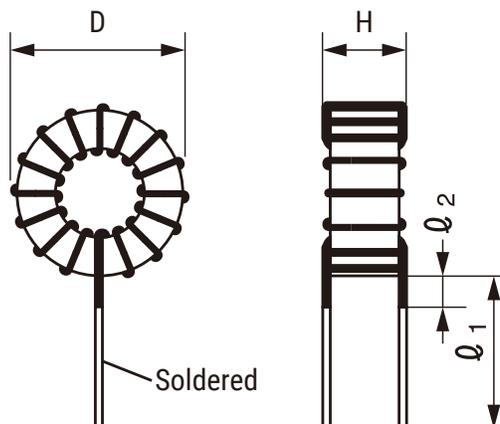
- Proprietary Fe dust core material
- Excellent for normal mode noise countermeasures
- Large core loss
- Wide variety of sizes and specifications
- Operating temperature range from  $-25^{\circ}\text{C}$  to  $+105^{\circ}\text{C}$



## Part Number System

SN	10-	300	J
Series	Dimension Code (See Dimensions)	Specification Code (See Table 1)	Terminal Base Type (See Dimensions)
SN	3 5 8S 8D 10 13 16	30 40 50 200 300 400 450 500	Blank = No terminal J JA JB P2

## Dimensions – Millimeters



Part Number	Dimensions (mm)			Mounting pitch for reference (mm)
	D x H Maximum	I <sub>1</sub> Maximum	I <sub>2</sub> Maximum	
SN3-200	8.5 x 5.5	20 ±2	1.5	5.0
SN5-300	13.0 x 7.0	20 ±2	1.5	6.0
SN5-400	13.0 x 8.0	20 ±2	1.5	6.0
SN8S-300	16.0 x 8.0	20 ±2	1.5	8.0
SN8S-400	16.0 x 8.0	20 ±2	1.5	8.0
SN8S-500	16.0 x 9.0	20 ±2	1.5	8.5
SN8D-300	16.0 x 11.0	20 ±2	1.5	9.5
SN8D-400	16.0 x 11.0	20 ±2	1.5	10.0
SN8D-500	17.0 x 13.0	20 ±2	1.5	10.5
SN10-300	21.0 x 11.0	20 ±2	1.5	9.0
SN10-400	21.0 x 11.0	20 ±2	1.5	9.0
SN10-500	21.0 x 12.0	20 ±2	1.5	10.0
SN12-400	25.0 x 12.0	20 ±2	1.5	11.0
SN12-500	26.0 x 12.0	20 ±2	1.5	12.0
SN13-300	30.0 x 17.0	20 ±2	1.5	16.0
SN13-400	30.0 x 18.0	20 ±2	1.5	16.0
SN13-500	31.0 x 18.0	20 ±2	1.5	16.5
SN16-300	34.0 x 19.0	20 ±2	1.5	15.0
SN16-400	35.0 x 19.0	20 ±2	1.5	15.0
SN16-500	35.0 x 21.0	20 ±2	1.5	16.5

## Environmental Compliance

All KEMET AC Line Filters are RoHS Compliant.



RoHS Compliant

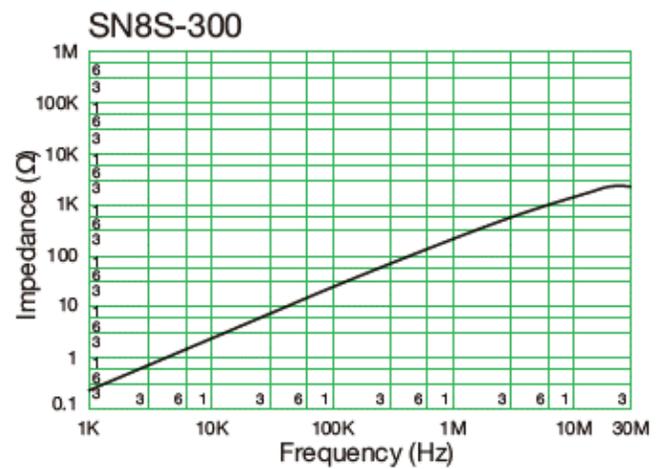
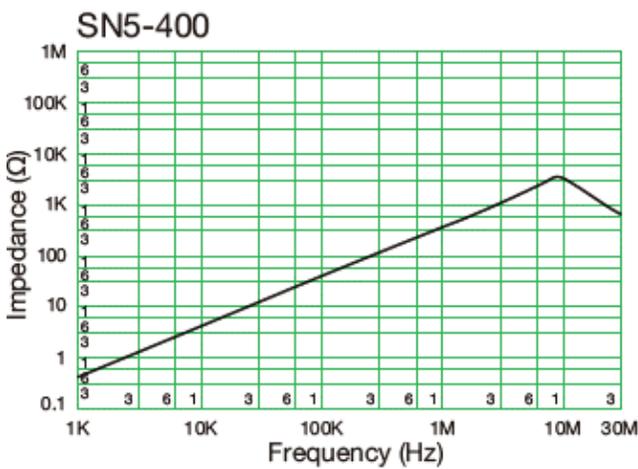
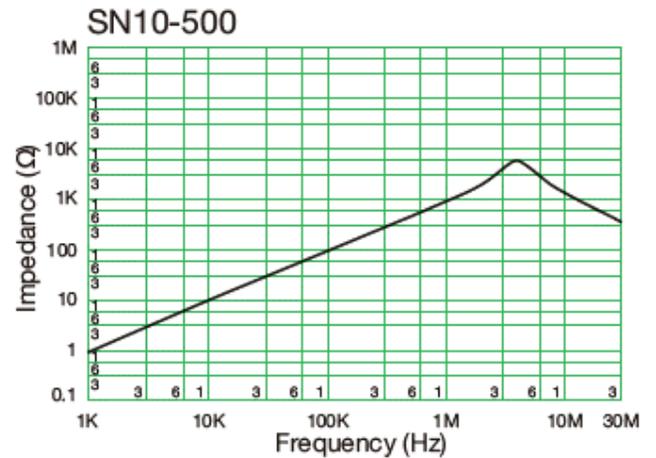
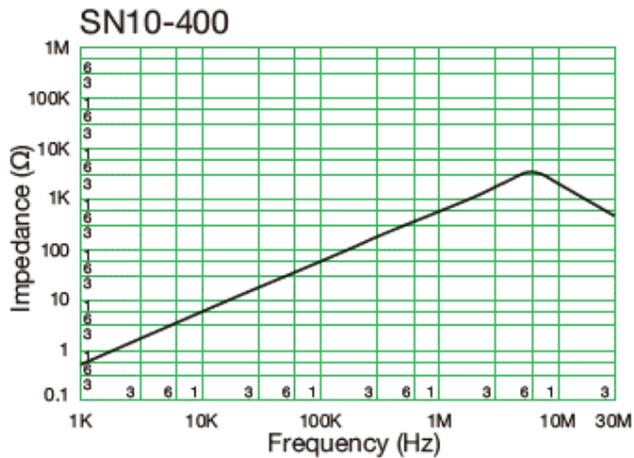
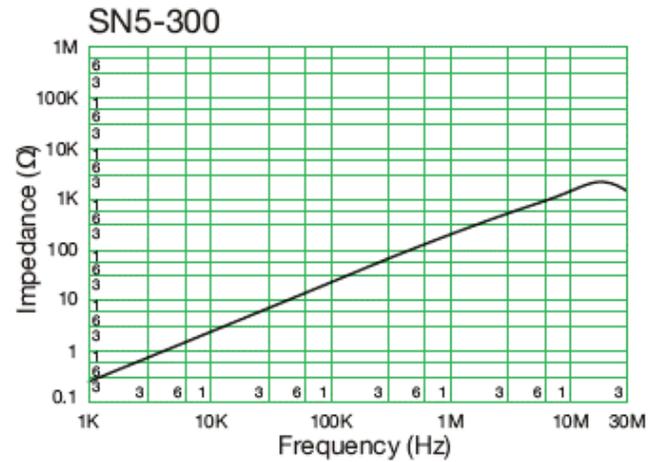
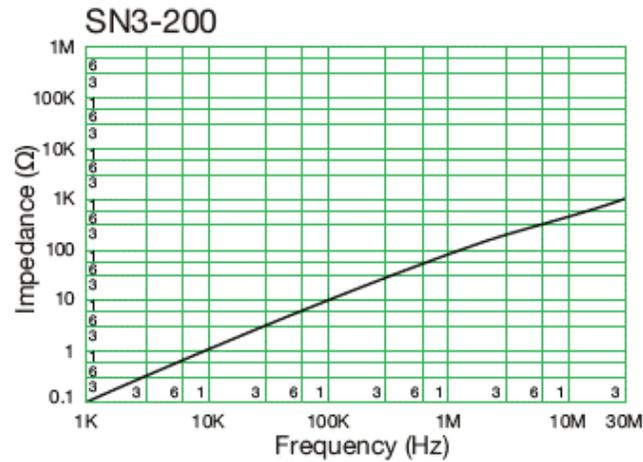
### Table 1 – Ratings & Part Number Reference

Part Number	Rated Current AC (A)	Inductance (μH) Minimum	DC Resistance/ Line (mΩ) Maximum	Temperature Rise (K) Maximum	Wire Diameter (mm)	Weight (g) Approximate
SN3-200	1	10	0.045	15	0.40	0.8
SN5-300	2	25	0.042	18	0.55	2.6
SN5-400	2	48	0.058	22	0.55	3.0
SN8S-300	2	26	0.042	19	0.60	4.1
SN8S-400	2	46	0.052	20	0.60	4.5
SN8S-500	2	72	0.068	23	0.60	4.9
SN8D-300	2	45	0.052	20	0.60	6.1
SN8D-400	2	80	0.072	24	0.60	6.8
SN8D-500	2	125	0.100	27	0.60	7.3
SN10-300	3	40	0.035	18	0.80	10.2
SN10-400	3	72	0.042	20	0.80	10.8
SN10-500	3	110	0.052	26	0.80	11.8
SN12-400	5	64	0.032	32	1.00	15.8
SN12-500	5	100	0.040	34	1.00	18.2
SN13-300	6	51	0.023	28	1.20	31.1
SN13-400	6	92	0.030	33	1.20	35.1
SN13-500	6	143	0.036	38	1.20	38.2
SN16-300	8	60	0.021	21	1.50	39.0
SN16-400	8	108	0.027	24	1.50	44.4
SN16-500	8	168	0.031	36	1.50	51.2

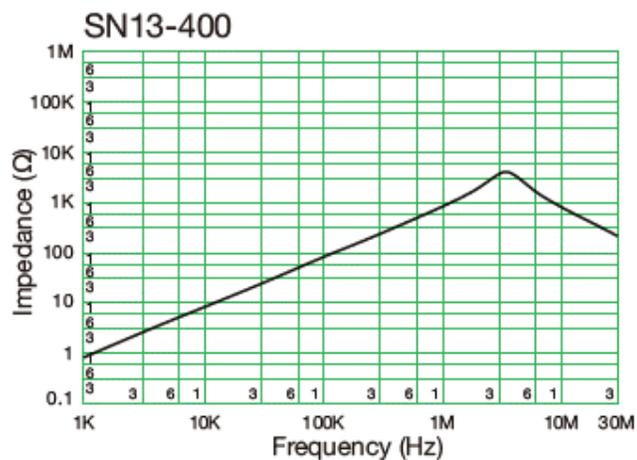
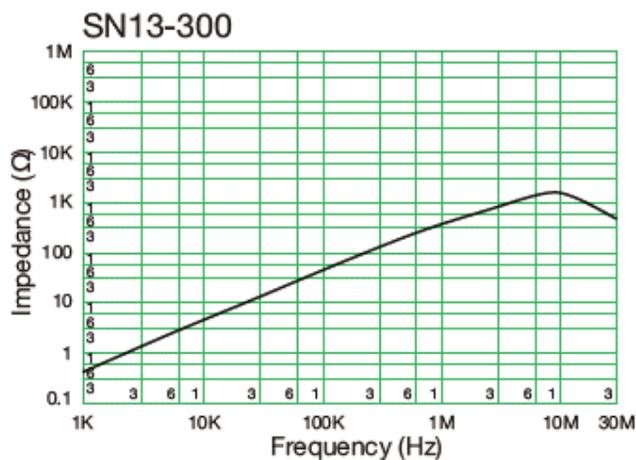
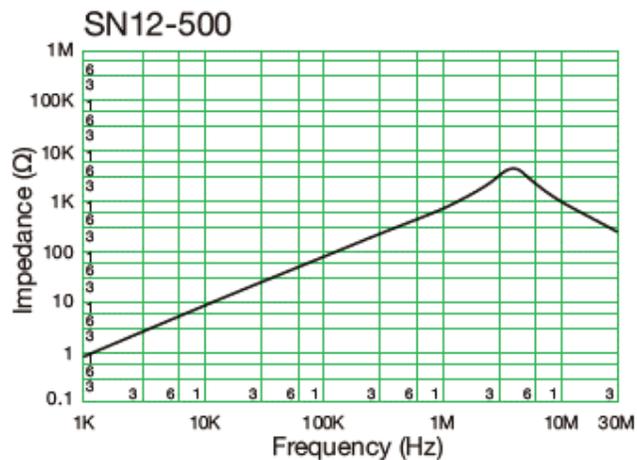
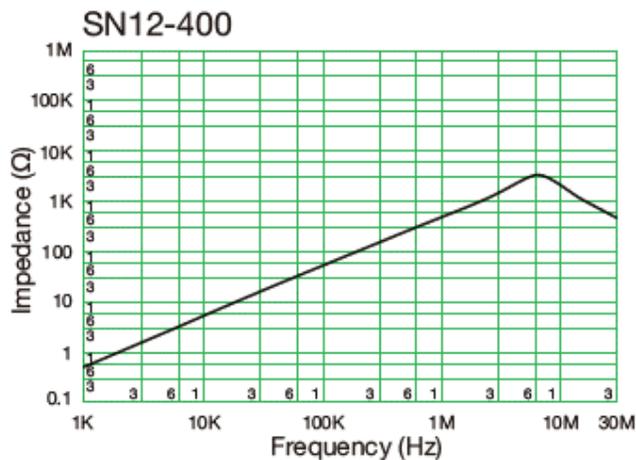
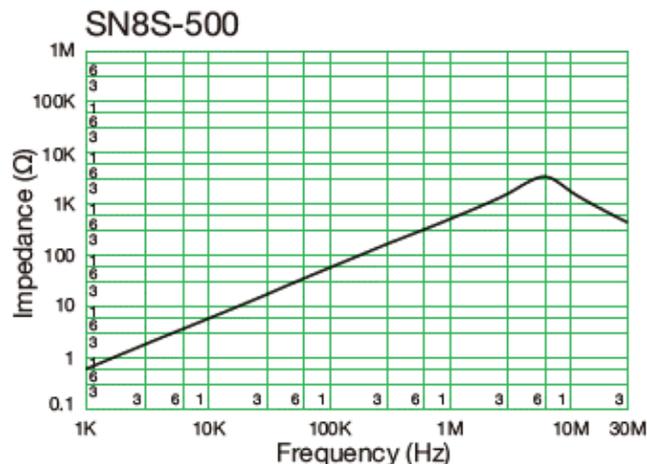
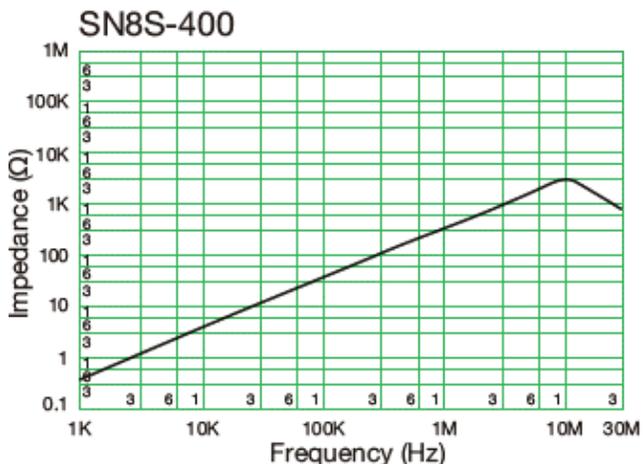
## Performance Characteristics

Item	Performance Characteristics
Rated Current AC Range	1 – 8 A
Rated Inductance Range	10 – 168 μH minimum
Inductance Measurement Condition	100 kHz
Wire Type	1 PVF and 1 UEW and 1 PEW
Thermal Class	A (105°C)
Operating Temperature Range	-25°C to +105°C (include self temperature rise)

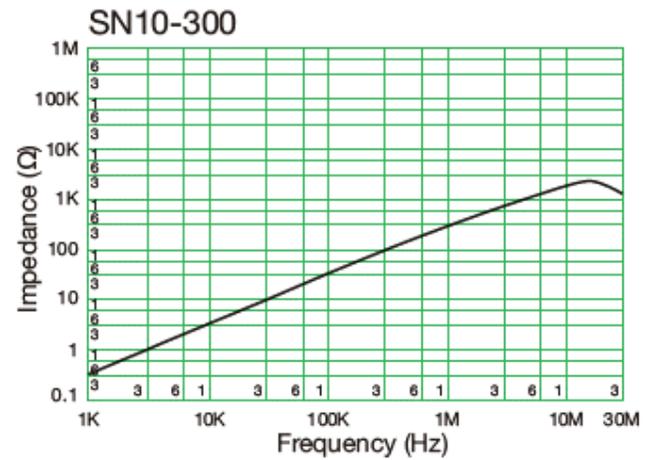
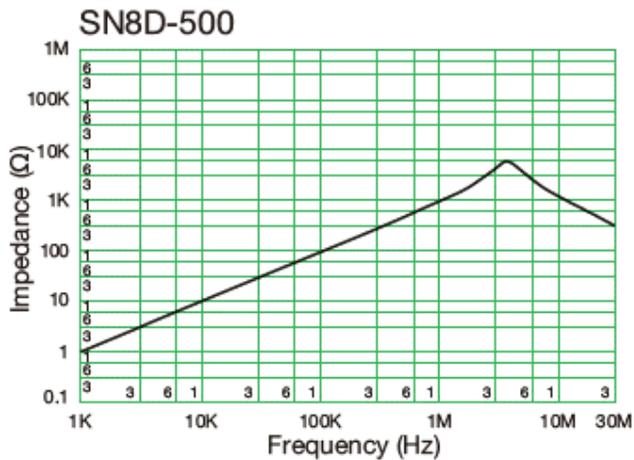
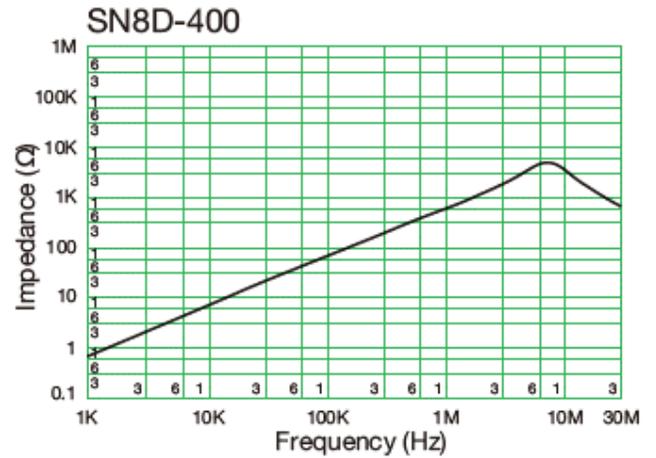
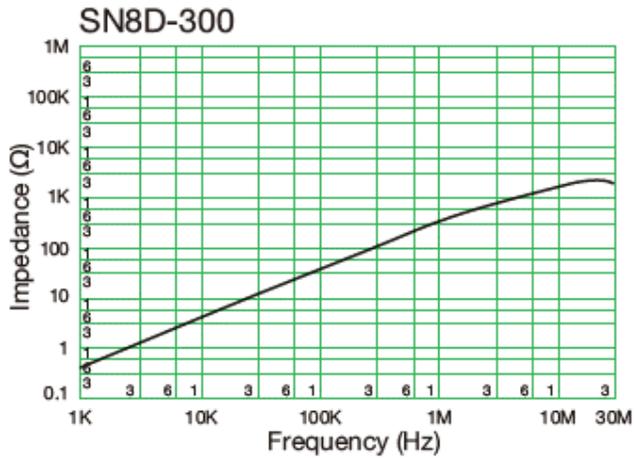
## Frequency Characteristics



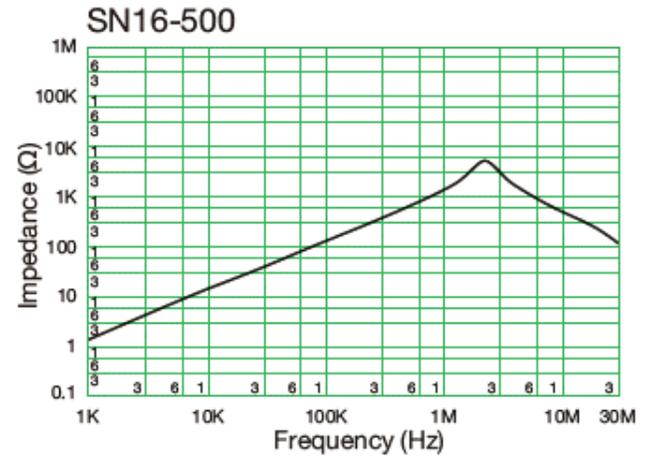
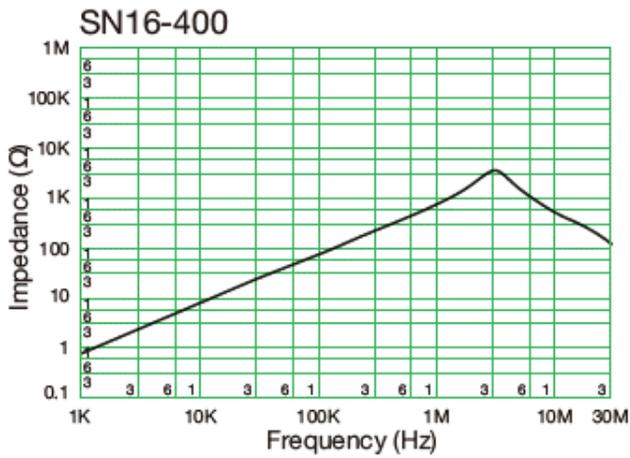
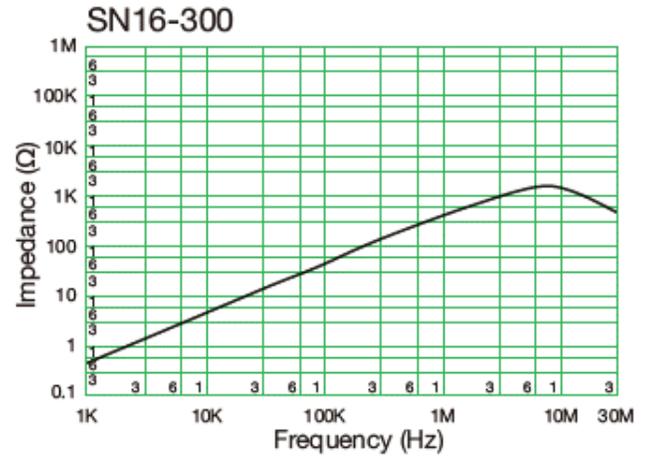
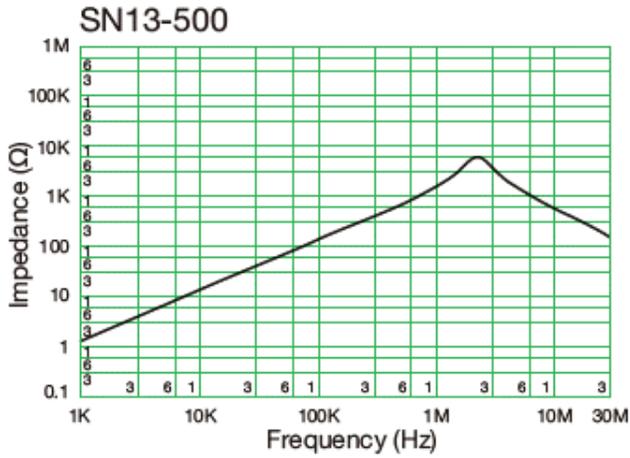
## Frequency Characteristics cont.



## Frequency Characteristics cont.



## Frequency Characteristics cont.



## Packaging

Type	Packaging Type	Pieces per Box
SN3-200	Bulk	6000
SN5-300		4800
SN5-400		
SN8S-300		3000
SN8S-400		
SN8S-500		
SN8D-300		1800
SN8D-400		
SN8D-500		
SN10-300		1000
SN10-400		
SN10-500		
SN12-400		Tray
SN12-500		
SN13-300	250	
SN13-400		
SN13-500		
SN16-300		
SN16-400		
SN16-500		
SN16-500		

## Handling Precautions

### Precautions for product storage

AC Line Filters should be stored in normal working environments. While the chokes themselves are quite robust in other environments, solderability will be degraded by exposure to high temperatures, high humidity, corrosive atmospheres, and long term storage.

KEMET recommends that maximum storage temperature not exceed 40°C and maximum storage humidity not exceed 70% relative humidity and atmospheres should be free of chlorine and sulfur bearing compounds. Temperature fluctuations should be minimized to avoid condensation on the parts. Avoid also storage near strong magnetic fields as this might magnetize the product.

For optimized solderability, AC Line Filters' stock should be used promptly, preferably within 6 months of receipt.

### Product temperature rise values

The values listed for temperature rise are the result of self-heating in wires when the rated current (commercial frequency) is applied.

Check and evaluate the value of the core temperature rise under actual operating conditions when using.

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## Export Control

### For customers in Japan

For products that are controlled items subject to the "Foreign Exchange and Foreign Trade Law" of Japan, the export license specified by the law is required for export.

### For customers outside Japan

AC Line Filters should not be used or sold for the use in the development, production, stockpiling or utilization of any conventional weapons, mass-destruction weapons (nuclear, chemical, biological weapons or missiles) or any other weapons.

## KEMET Electronics Corporation Sales Offices

For a complete list of our global sales offices, please visit [www.kemet.com/sales](http://www.kemet.com/sales).

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### Disclaimer

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Although KEMET designs and manufactures its products to the most stringent quality and safety standards, given the current state of the art, isolated component failures may still occur. Accordingly, customer applications which require a high degree of reliability or safety should employ suitable designs or other safeguards (such as installation of protective circuitry or redundancies) in order to ensure that the failure of an electrical component does not result in a risk of personal injury or property damage.

Although all product-related warnings, cautions and notes must be observed, the customer should not assume that all safety measures are indicated or that other measures may not be required.

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