

# Low leakage EMI filter for power electronics and converters

Tolerances

+50 %

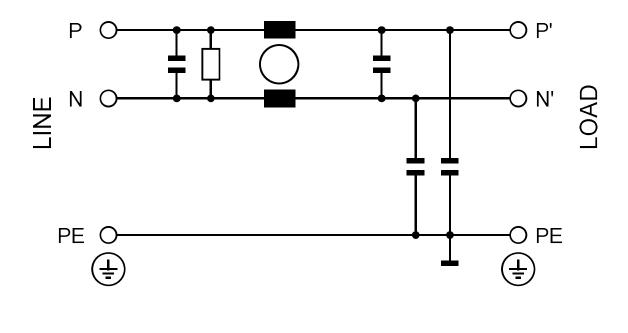
-30 %











Designation:	FS42751-16	6-44
Part Number:	822094	
Customer's Part No.:	10108117	
Document Number:	1041951 A	
Created:	LUTNGI 20	20-09-30
Checked:	LUTLUR 20	20-09-30
Released:	LUTLUR 20	20-09-30

C: +20 %

-20 %

+10 %

-10 %

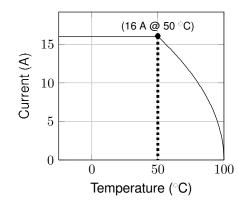


#### **Revision History**

### **Electrical**

Rated Current (I <sub>th</sub> ):	16 A	@ 50 °C amb. Temperature		
Nominal Operating Voltage:	230 +/- 10%	VAC		
Rated Operating Voltage:	250 VAC			
Max. Operating Frequency:	60 Hz			
Leakage Current (IEC60939-3):	2.59 mA	@ Rated Voltage and 50 Hz		
Production Line Test Voltage:	2.25 kVDC*	for 2 s (L/N to PE)		
	1.1 kVDC*	for 2 s (L to N)		
	(* Repetition with max. 80 % of the specified values)			
Overvoltage Category (IEC60664-1):	II			
Typ. Power Dissipation:	4 W			
Max. DC Resistance @ 25 °C:	7.9 mOhm	L-Ľ		

## **Current Derating**



$$I = I_N \cdot \sqrt{\frac{\Theta_{max} - \Theta_{act}}{\Theta_{max} - \Theta_N}}$$
 for  $\Theta_{act} > \Theta_N$  and  $\Theta_{act} < \Theta_{max}$ 

rated current at  $\Theta_N$  actual ambient temperature temperature at which the rated current is defined rated maximum temperature of the component

## **Environmental & Reliability**

Operating Ambient Temp. Range:	-25 °C to 100 °C
Storage Temp. Range:	-25 °C to 100 °C
Cooling:	AN
Pollution Degree (IEC60664-1):	2
Climatic Class (IEC60068-1):	25/100/21

 $I_N$ 

 $\Theta_{act}$ 

 $\Theta_N$ 

 $\Theta_{max}$ 



## Standards, Certifications and Compliances

Design Standard	Certification
UL 60939-3	E64388
IEC 60939-3	SE-ENEC-0037-43C
CSA C22.2 No. 8	1732491

### **Material Compliances**

ROHS 2011/65/EU, 2015/863/EU

#### Mechanical

Line:	(-44) STB 6	Type:	Safety terminal block
LIIIG.	( ++) 010 0	Torque (Nm):	1.0-1.2
		Flex Wire (AWG):	20-8
		Solid Wire (mm2):	0.5-10
		Flex Wire (mm2):	0.5-6
Load:	(-44) STB 6	Type:	Safety terminal block
		Torque (Nm):	1.0-1.2
		Flex Wire (AWG):	20-8
		Solid Wire (mm2):	0.5-10
		Flex Wire (mm2):	0.5-6
PE:	Thread M6	Torque (Nm):	3.5-4.0
Net Weight:	0.46 kg		
IP Class (IEC60529-1):	20		

#### Annex 1

Description: Mechanical Drawing

Document Number: 1042003

## Marking

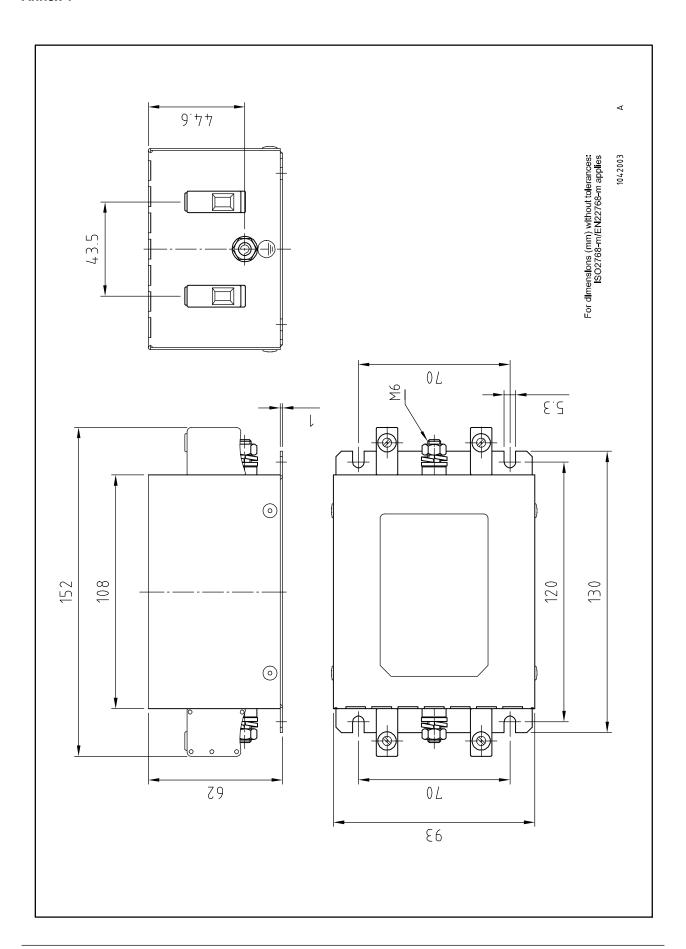
#### Annex 2

Description: Product Label

Document Number: 1040969

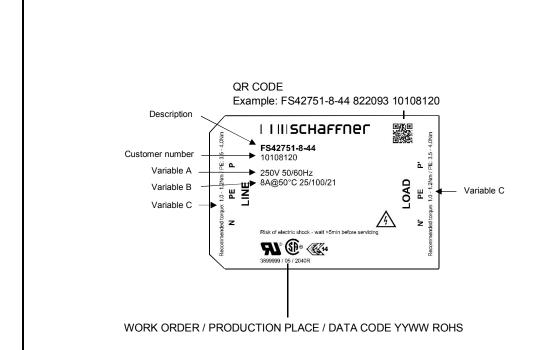


#### Annex 1





#### Annex 2



Material	Description	Customer number	Variable A	Variable B	Variable C
822093	FS42751-8-44	10108120	250V 50/60Hz	8A@50°C 25/100/21	1.0 - 1.2Nm / PE: 3.5 - 4.0Nm
822094	FS42751-16-44	10108117	250V 50/60Hz	16A@50°C 25/100/21	1.0 - 1.2Nm / PE: 3.5 - 4.0Nm
822095	FS42751-25-33	10108118	250V 50/60Htz	25A@50°C 25/100/21	1.5 - 1.8Nm / PE: 3.5 - 4.0Nm
822096	FS42751-45-33	10108119	250V 50/60Htz	45A@50°C 25/100/21	1.5 - 1.8Nm / PE: 3.5 - 4.0Nm

#### Label printout directly from ZO11N based on the settings from Classification in SAP!

#### Packing labels are also printed directly from ZO11N!

Note: Production place LABEL: 202349
05 for Thailand SIZE: 75x50mm
06 for Hungary FILE: 1040969A

88 for China

					created	29.09.2020	LUTLNI
Α	Add UL CSA ENEC	29.09.2020	no scale	A4	checked	29.09.2020	LUTLUR
A3	Add UL CSA ENEC	29.09.2020			released	29.09.2020	LUTLUR
A2	Add new product	31.08.2020	scale	format	status	date	user
A1	Change size line load	12.08.2020	LABEL				
A0		16.07.2020	LADEL				
rev.	change no. / change description	date	doc. description				
	I   SCHAFFNEC		several	FS42751-SERIES			
			mat. number	project			
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#### Disclaimer

- 1. Product suitability for a given application must ultimately be determined by the user (the party that is putting the product into operation) on a case by case basis. Product functionality and suitability must be determined with proper verification within the final application. Neither Schaffner nor its subsidiaries will assume liability for any consequential downtimes or damages resulting from use of products outside their specifications or due to incomplete verification in application.
- 2. Do not attempt to install, operate, maintain or inspect any product until you have read and understood the related safety notes and installation guidelines delivered with the product. If not available, general safety and installation notes are available on Schaffner Website: www.schaffner.com.

Non-qualified persons are not allowed to install or maintain Schaffner products!

- 3. The user is responsible to observe compliance with all local installation and electrical regulations.
- 4. All products must have their safety earth connected using properly dimensioned connectors. It is recommended to avoid chaining safety earth of multiple equipment together.
- 5. Warnings, cautions and notes as displayed on the product label must be observed at all times.
- 6. Overcurrent or overvoltage applied to products or resulting from an improper setup (i.e. resonances) may cause substantial damages, represent a fire hazards and lead to body injury or death.
- 7. Unless specifically indicated in datasheet, products do not contain any protection components. Suitable overcurrent and overvoltage protection circuits must be placed upstream of the product to avoid any consequential damage in case of any system malfunction.
- 8. Products with capacitive elements can have significant amount of stored energy. If misused or mishandled it could lead to body harm, damage and eventually fire hazard.
- 9. Products have limited lifetime and are subject to ageing effects heavily depending on operating conditions and environment. Schaffner recommends to regularly check any inbuilt capacitance to ensure constant performance and considering replacement after 12 years from initial commissioning unless otherwise indicated. Even when properly operated as in specifications, it is not possible to rule out single malfunctioning or failures of components happening before the usual lifetime.

User is responsible to evaluate the environment in the application and eventually perform preventive maintenance before the above recommendation. User shall also evaluate risk of possible failures and implement proper containment actions to avoid damage or injury.

10. Schaffner reserves the right to change raw materials used in this product during its life cycle on the companys own discretion, mainly for the purpose of managing and maintaining a capable international supplier base and for ensuring prompt product availability at all times. All changes having no impact on form, fit, function and technical specifications according to company internal evaluation will be carried out without notification.

Stricter change management process can be implemented on request.

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