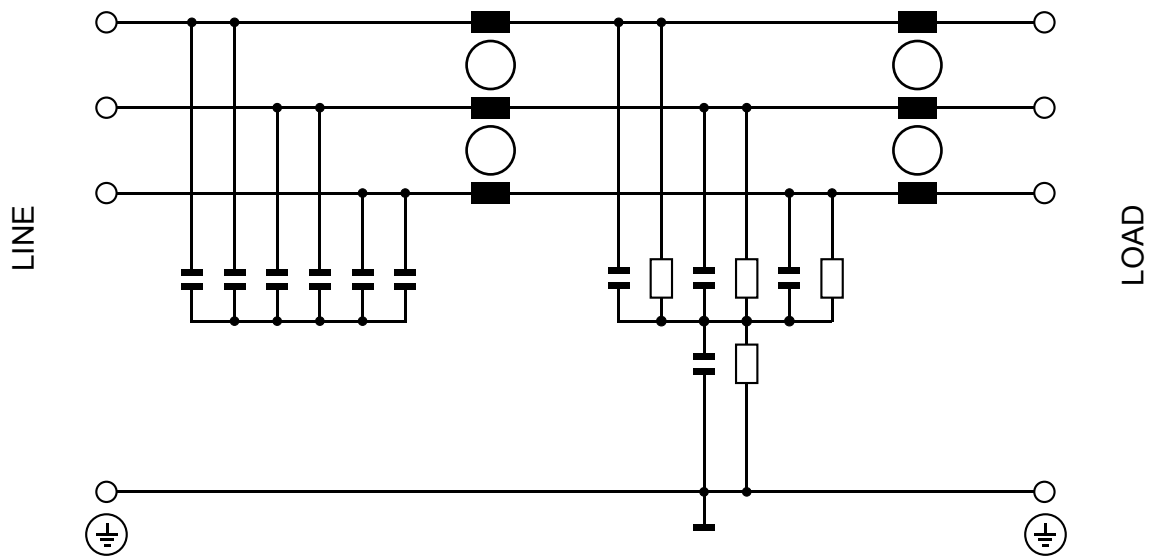


Low leakage EMI filter for power electronics and converters



Tolerances

L: +50 %
-30 %C: +20 %
-20 %R: +10 %
-10 %

Designation:	FS42753-20-33
Part Number:	822099
Customer's Part No.:	10108124
Document Number:	1041956 A
Created:	LUTSNO 2020-10-09
Checked:	LUTLUR 2020-10-09
Released:	LUTLUR 2020-10-09

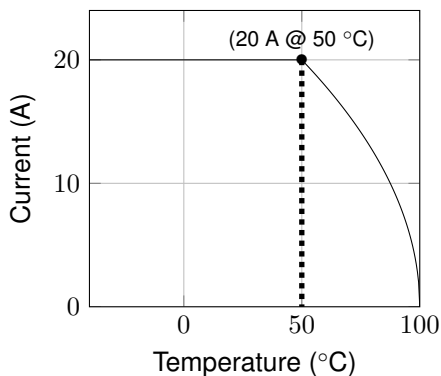
Revision History

A	2020-10-09	LUTLUR	initial version
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Electrical

Rated Current (I_{th}):	20 A	@ 50 °C amb. Temperature
Nominal Operating Voltage:	480/277 +/- 10% VAC	
Rated Operating Voltage:	530/305 VAC	
Max. Operating Frequency:	60 Hz	
Leakage Current (IEC60939-3):	2.5 mA	@ Rated Voltage and 50 Hz
Leakage Current Worst Case:	116mA @ Rated Voltage and 50Hz	
Production Line Test Voltage:	2.28 kVDC*	for 2 s (L to L)
	2.26 kVDC*	for 2 s (L/L to PE)
(* Repetition with max. 80 % of the specified values)		
Overvoltage Category (IEC60664-1):	II	
Typ. Power Dissipation:	10.7 W	
Max. DC Resistance @ 25 °C:	8.9 mOhm	L - L'

Current Derating



$$I = I_N \cdot \sqrt{\frac{\Theta_{max} - \Theta_{act}}{\Theta_{max} - \Theta_N}}$$

for $\Theta_{act} > \Theta_N$ and $\Theta_{act} < \Theta_{max}$

I_N rated current at Θ_N
 Θ_{act} actual ambient temperature
 Θ_N temperature at which the rated current is defined
 Θ_{max} rated maximum temperature of the component

Environmental & Reliability

Operating Ambient Temp. Range:	-40 °C to 100 °C
Storage Temp. Range:	-40 °C to 100 °C
Cooling:	AN
Pollution Degree (IEC60664-1):	2
Climatic Class (IEC60068-1):	40/100/21

Standards, Certifications and Compliances

Design Standard	Certification
UL 60939-3	E493879
IEC 60939-3	SE-ENEC-0037-71

Material Compliances

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

Mechanical

Line:	(-33) STB 10	Type:	Safety terminal block
		Torque (Nm):	1.5-1.8
		Flex Wire (AWG):	22-6
		Solid Wire (mm ²):	0.5-16
		Flex Wire (mm ²):	0.5-10
Load:	(-33) STB 10	Type:	Safety terminal block
		Torque (Nm):	1.5-1.8
		Flex Wire (AWG):	22-6
		Solid Wire (mm ²):	0.5-16
		Flex Wire (mm ²):	0.5-10
PE:	Thread M5	Torque (Nm):	2.0-2.2
Net Weight:	1.2 kg		
IP Class (IEC60529-1):	20		

Annex 1

Description:	Mechanical Drawing
Document Number:	1004984

Annex 2

Description:	Cross Reference Dimensions FS42753 series
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Marking

Annex 3

Description:	Product Label
Document Number:	1040970

Annex 4

Description: Packaging Label

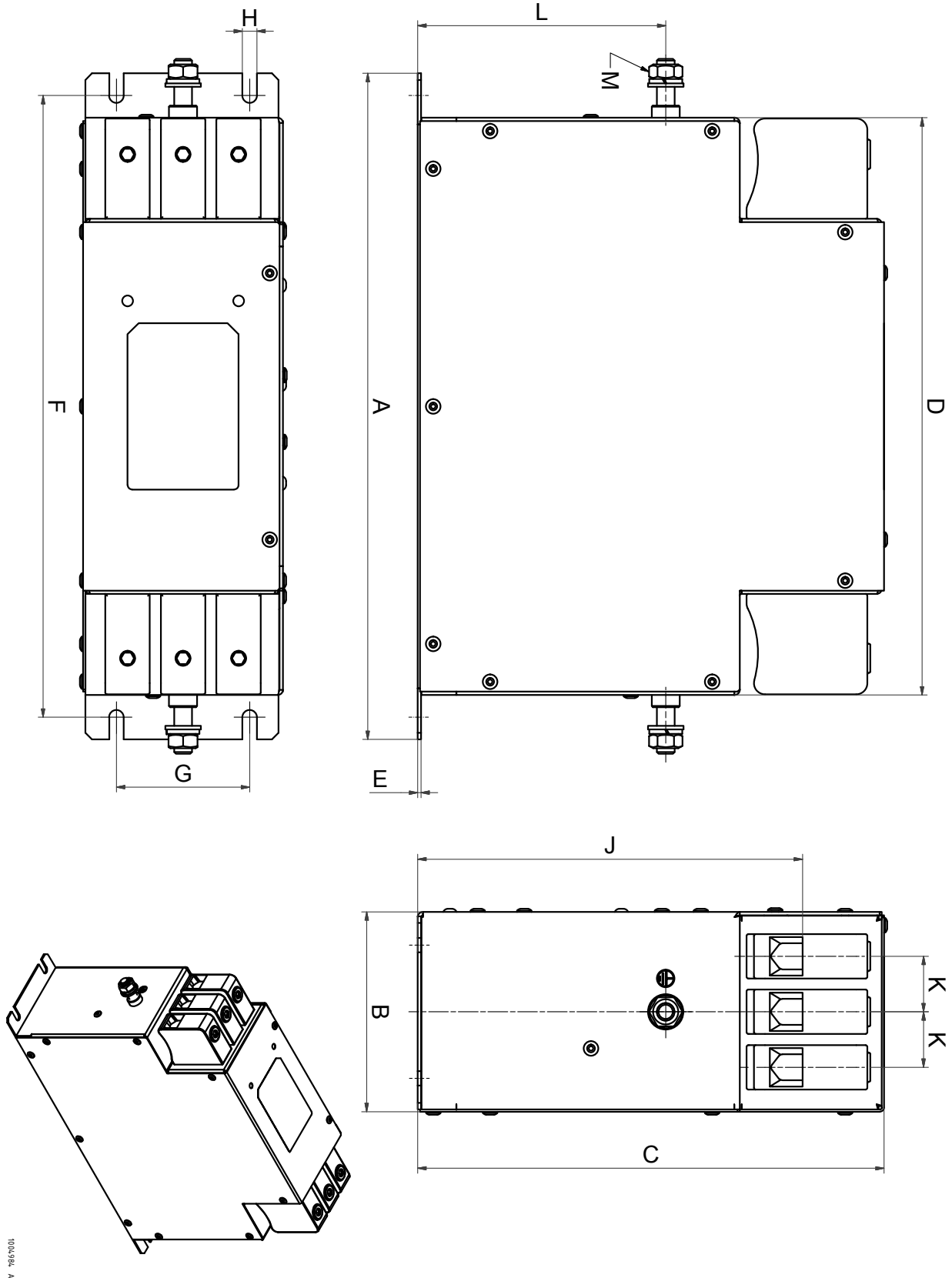
Document Number: 1043791

Annex 5

Description: Box Label

Document Number: 1043789

Annex 1



1041956
A

Annex 2

Dimensions FS42753 series

FS42753-10-44

A	B	C	D	E	F	G	H	J±2	K	L±1	M
185	40	120	157	0.8	175	20	4.5	102	11	76	M5

FS42753-16-44

A	B	C	D	E	F	G	H	J±2	K	L±1	M
195	45	140	164	0.8	180	25	5.4	122	11	93	M5

FS42753-20-33

FS42753-25-33

A	B	C	D	E	F	G	H	J±2	K	L±1	M
210	45	145	174	0.8	195	25	5.4	126	13	96	M5

FS42753-40-33

A	B	C	D	E	F	G	H	J±2	K	L±1	M
235	50	168	207	1	220	30	5.4	149	13	115	M6

FS42753-50-53

FS42753-63-53

A	B	C	D	E	F	G	H	J±2	K	L±1	M
255	65	180	226	1	240	45	5.4	156	16	120	M6

FS42753-80-34

A	B	C	D	E	F	G	H	J±2	K	L±1	M
290	80	205	250	1.2	270	50	6.5	172	22	110	M6

FS42753-83-35

FS42753-115-35

A	B	C	D	E	F	G	H	J±2	K	L±1	M
300	90	210	260	1.5	280	60	6.5	173	25	112	M8

Annex 3

QR CODE
Example: FS42753-10-44 822097 10108121

WORK ORDER / PRODUCTION PLACE / DATA CODE YYWW ROHS

Material	Description	Customer number	Variable A	Variable B	Variable C
822097	FS42753-10-44	10108121	3x530/305V 50/60Hz	10A@50°C 40/100/21	1.0 - 1.2Nm / PE: 2.0 - 2.2Nm
822098	FS42753-16-44	10108123	3x530/305V 50/60Hz	16A@50°C 40/100/21	1.0 - 1.2Nm / PE: 2.0 - 2.2Nm
822099	FS42753-20-33	10108124	3x530/305V 50/60Hz	20A@50°C 40/100/21	1.5 - 1.8Nm / PE: 2.0 - 2.2Nm
822100	FS42753-25-33	10108125	3x530/305V 50/60Hz	25A@50°C 40/100/21	1.5 - 1.8Nm / PE: 2.0 - 2.2Nm
822101	FS42753-40-33	10108126	3x530/305V 50/60Hz	40A@50°C 40/100/21	1.5 - 1.8Nm / PE: 3.5 - 4.0Nm

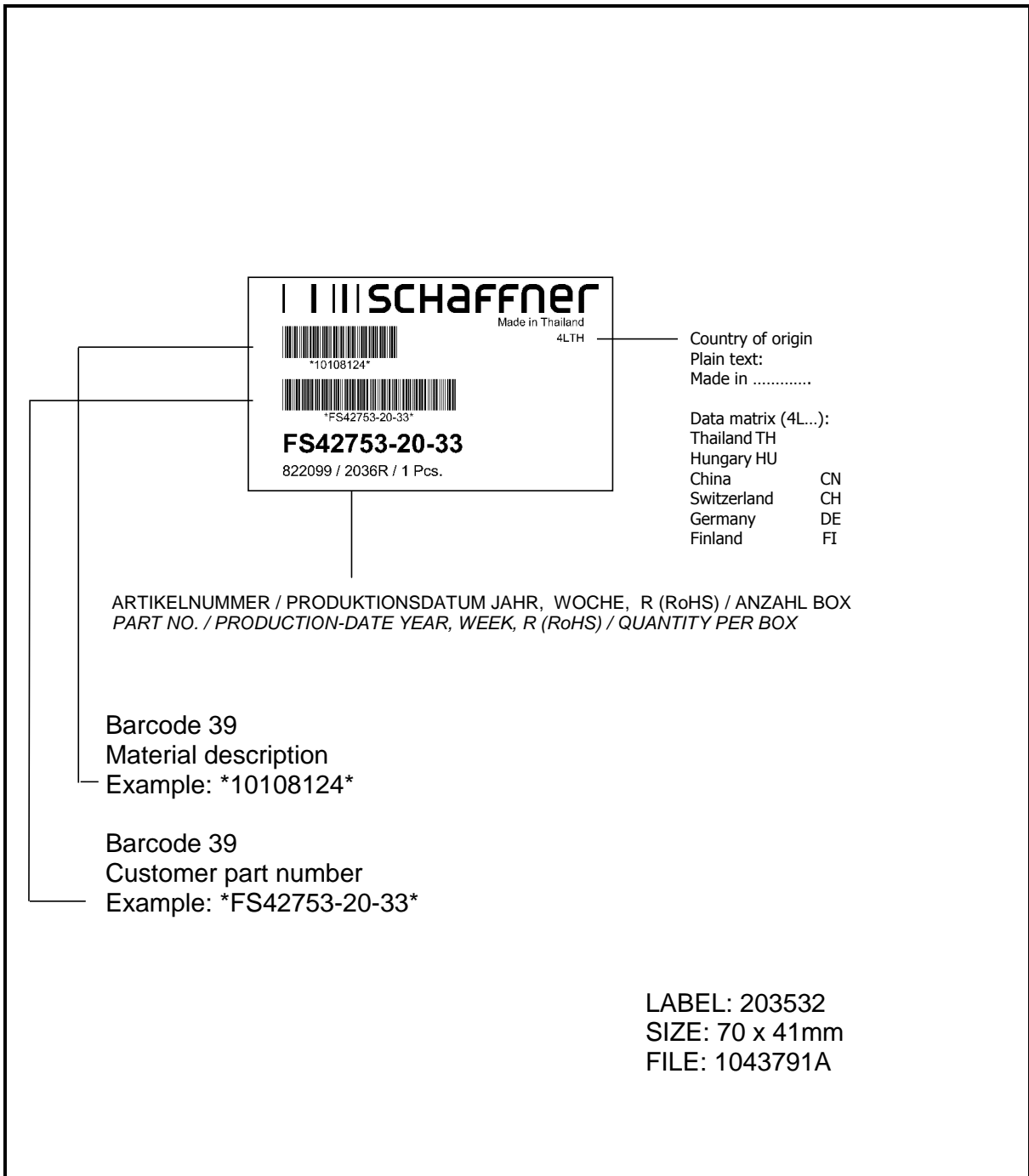
Label printout directly from ZO11N based on the settings from Classification in SAP!
Packing labels are also printed directly from ZO11N!

Note: Production place
05 for Thailand
06 for Hungary
88 for China

LABEL: 251333
SIZE: 46x30mm
FILE: 1040970A

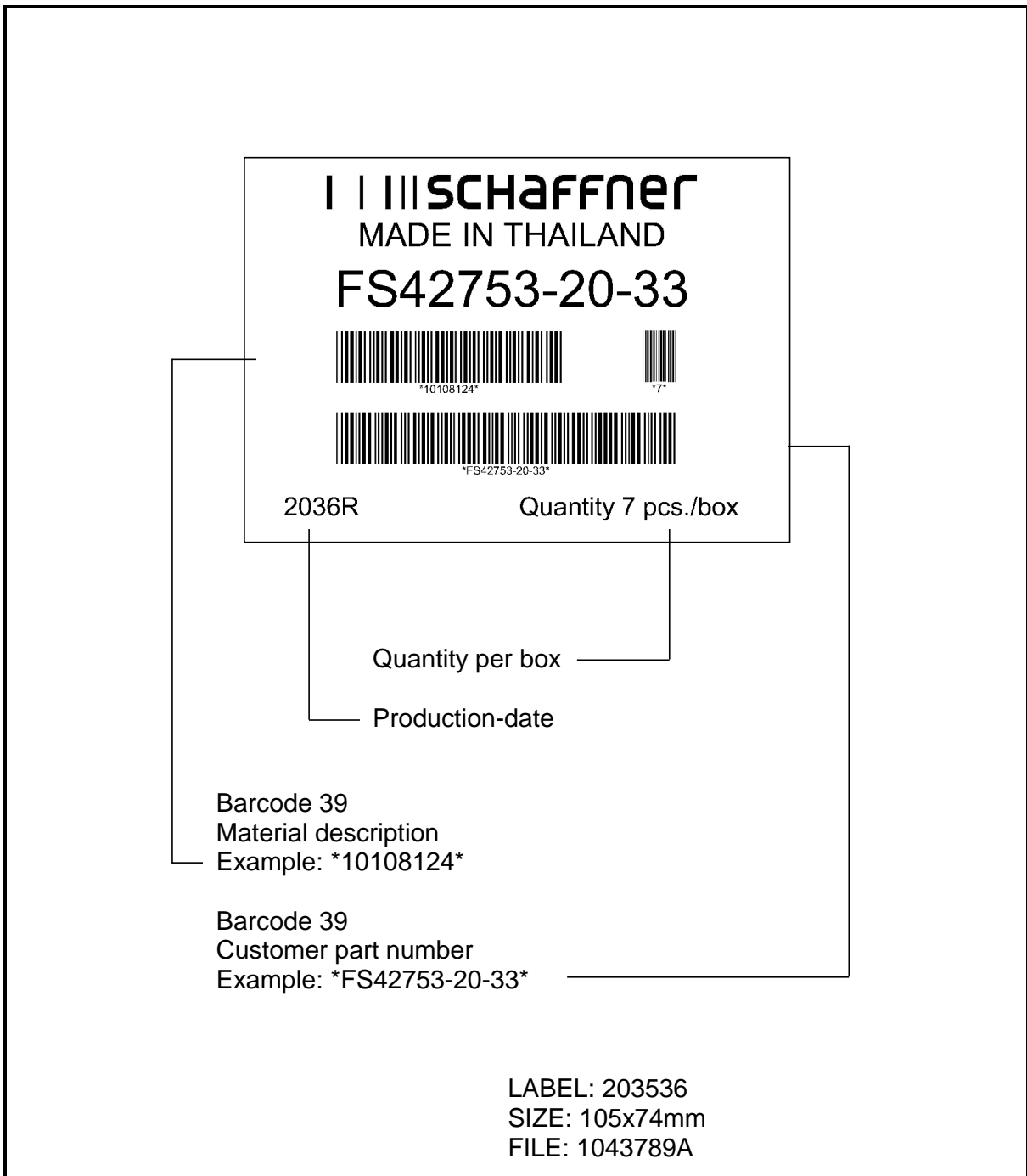
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A	Add approvals	08.10.2020	no scale	A4	checked	08.10.2020	LUTLUR	
A3	Add approvals	08.10.2020			released	08.10.2020	LUTLUR	
A2	Add new product	31.08.2020	scale	format	status	date	user	
A1	Change size line load	11.08.2020	LABEL					
A0		16.07.2020						
rev.	change no. / change description	date	doc. description					
SCHAFFNER			several	FS42753-SERIES				
			mat. number	project				
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Template: SPC 159332 / A			LAB	1040970	A	1 / 1		
www.schaffner.com			doc. type	doc. number	doc. rev.	page		

Annex 4



			no scale	A4	created	02.09.2020	LUTLNI
					checked	04.09.2020	LUTLUR
					released	08.10.2020	LUTLUR
			scale	format	status	date	user
A		08.10.2020	LABEL (INNER BOX)				
A0		02.09.2020					
rev.	change no. / change description	date	doc. description				
			822099	FS42753-20-33			
			mat. number	project			
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Template: SPC 159332 / A			www.schaffner.com	doc. type	doc. number	doc. rev.	page

Annex 5



LABEL: 203536
 SIZE: 105x74mm
 FILE: 1043789A

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					checked	04.09.2020	LUTLUR
					released	08.10.2020	LUTLUR
			scale	format	status	date	user
A		08.10.2020	LABEL BOX				
A0		02.09.2020					
rev.	change no. / change description	date	doc. description				
			822099	FS42753-20-33			
			mat. number	project			
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Template: SPC 159332 / A			www.schaffner.com	doc. type	doc. number	doc. rev.	page

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.