

ZEICHENGENEHMIGUNG MARKS LICENCE

Schaffner EMV AG
EMC & Safety Service
Nordstrasse 11
CH - 4542 LUTERBACH

ist berechtigt, für ihr Produkt /
is authorized to use for their product

Passiver Filter zur Unterdrückung elektromagnetischer Störungen
Passive filter unit for electromagnetic interference suppression

die hier abgebildeten markenrechtlich geschützten Prüfzeichen für die
ab Blatt 2 aufgeführten Typen zu benutzen /
the legally protected Certification Marks as shown below for the types referred to on page 2 ff.



Geprüft und zertifiziert nach /
Tested and certified according to

prEN 133200:1998-02, Tabelle 2

VDE Prüf- und Zertifizierungsinstitut
VDE Testing and Certification Institute
Zertifizierungsstelle
Certification

Aktenzeichen: 7226-4730-0097 / 31RB0 F35 / SJ

File ref.:

Ausweis-Nr.: 115269

Licence No.:

Blatt 1
page

Weitere Bedingungen siehe Rückseite und Folgeblätter /
further conditions see overleaf and following pages

Offenbach, 1998-10-21

(letzte Änderung/updated 1999-11-15)

Name und Sitz des Zeichengenehmigungs-Inhabers / Name and registered seat of the Marks Licence holder

Schaffner EMV AG, EMC & Safety Service, Nordstrasse 11,
CH - 4542 LUTERBACH / Switzerland,

Aktenzeichen / File ref.

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Jahresgebühren-Einheiten /
Annual fee units

Passive Filter zur Unterdrückung elektromagnetischer Störungen Passive Filter units for electromagnetic interference suppression

38,13

Typ(en) / Type(s)	Nenninduktivität Rated inductance 2 x mH	Nennstrom Rated current A / 40 Cel	Nennkapazität Rated capacitance
FN 201PQ- 1...	12,0	1	0,1 µFX2 + 2x4,7 nFY2
FN 201PQ- 3...	2,5	3	0,1 µFX2 + 2x4,7 nFY2
FN 201PQ- 6...	1,0	6	0,1 µFX2 + 2x4,7 nFY2
FN 201PQ-10...	0,8	10	0,1 µFX2 + 2x4,7 nFY2
FN 201PQ-12...	0,7	12	0,1 µFX2 + 2x4,7 nFY2
FN 201PQ-16...	0,65	16	0,1 µFX2 + 2x4,7 nFY2
FN 201PQ-20...	0,6	20	0,1 µFX2 + 2x4,7 nFY2
FS 3966 -20...	0,6	20	1,0 µFX2 + 2x 22 nFY2
FN 201PQ-30...	0,67	30	0,47 µFX2 + 2x 10nFY2
FN 201PQ-60...	1,0	60	1,5 µFX2 + 2x 10nFY2
FN 202PQ- 1...	12,0	1	2x0,15µFX2 + 2x4,7 nFY2
FN 202PQ- 3...	2,5	3	2x0,15µFX2 + 2x4,7 nFY2
FN 202PQ- 6...	1,0	6	2x0,15µFX2 + 2x4,7 nFY2
FN 202PQ-10...	0,8	10	2x0,15µFX2 + 2x4,7 nFY2
FN 202PQ-12...	0,7	12	2x0,15µFX2 + 2x4,7 nFY2
FN 202PQ-16...	0,65	16	2x0,15µFX2 + 2x4,7 nFY2
FN 202PQ-20...	0,6	20	2x0,15µFX2 + 2x4,7 nFY2
FN 202PQ-30...	0,67	30	2x0,47µFX2 + 2x 10 nFY2
FN 202PQ-60...	1,0	60	2x1,5 µFX2 + 2x 10 nFY2
FN 206PQ- 1...	(12,0 + 12,0)	1	2x0,22 µFX2 + 2x4,7 nFY2
FN 206PQ- 3..	(2,5 + 2,5)	3	2x0,22 µFX2 + 2x4,7 nFY2
FN 206PQ- 6...	(0,97 + 0,97)	6	2x0,22 µFX2 + 2x4,7 nFY2
FN 206PQ-10...	(0,8 + 0,8)	10	2x0,47 µFX2 + 2x4,7 nFY2
FS 5230 -10...	(0,8 + 0,8)	10	2x0,47 µFX2 + 2x4,7 nFY2
FN 206PQ-12...	(0,58 + 0,58)	12	2x0,47 µFX2 + 2x4,7 nFY2
FN 206PQ-16...	(0,65 + 0,65)	16	2x0,33 µFX2 + 2x4,7 nFY2
FN 206PQ-20...	(0,6 + 0,6)	20	2x 1,0 µFX2 + 2x4,7 nFY2
FN 206PQ-30...	(0,6 + 0,6)	30	2x 1,0 µFX2 + 2x 10 nFY2

Fortsetzung siehe Blatt 3 / continued on page 3

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Jahresgebühren-Einheiten /
Annual fee units

Fortsetzung von Blatt 2 / continued from page 2

Typ(en) / Type(s):	Nenninduktivität Rated inductance 2 x mH	Nennstrom Rated current A / 40 Cel	Nennkapazität Rated capacitance
FN 207PQ- 1...	(22,0 + 22,0)	1	2x0,33 µFX2 + 2x4,7 nFY2
FN 207PQ- 3...	(9,8 + 9,8)	3	2x0,47 µFX2 + 2x4,7 nFY2
FN 207PQ- 6...	(7,8 + 7,8)	6	2x 1,0 µFX2 + 2x4,7 nFY2
FS 4148 -16...	(4,0 + 4,0)	16	2x 1,0 µFX2 + 2x2,2 nFY2
FS 5271 -16...	(4,0 + 4,0)	16	3,3+1,0 µFX2+ 2x1,5 nFY2
FN 207PQ-10...	(4,5 + 4,5)	10	2x 1,0 µFX2 + 2x4,7 nFY2
FN 207PQ-12...	(3,25 + 3,25)	12	2x 1,0 µFX2 + 2x4,7 nFY2
FS 5409 -12...	(7,0 + 7,0)	12	2x0,68 µFX2 + 2x(2x22) nFY2
FN 207PQ-16...	(2,8 + 2,8)	16	2x 1,0 µFX2 + 2x4,7 nFY2
FN 208PQ- 1...	(22,0 + 0,49)	1	2x0,33 µFX2 + 2x4,7 nFY2
FN 208PQ- 3...	(9,8 + 0,16)	3	2x0,47 µFX2 + 2x4,7 nFY2
FN 208PQ- 6...	(7,8 + 0,11)	6	2x 1,0 µFX2 + 2x4,7 nFY2
FN 208PQ-10...	(4,5 + 0,06)	10	2x 1,0 µFX2 + 2x4,7 nFY2
FN 208PQ-12...	(3,25 + 0,05)	12	2x 1,0 µFX2 + 2x4,7 nFY2
FN 208PQ-16...	(2,8 + 0,043)	16	2x 1,0 µFX2 + 2x4,7 nFY2

Bemessungsspannung AC 250 V
Rated voltage

Klimakategorie 25/100/21
Climatic category

Kondensatorklasse und -unterklasse X2Y2
Capacitor class and -subclass

Fortsetzung siehe Blatt 4 / continued on page 4

VDE Prüf- und Zertifizierungsinstitut

Zeichengenehmigung

Ausweis-Nr. /
Licence No.

Blatt /
Page

115269

4

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Jahresgebühren-Einheiten /
Annual fee units

Fortsetzung von Blatt 3 / continued from page 3

Kapazitätstoleranz $\pm 20 \%$
Tolerance on rated capacitance

Weitere Einzelheiten *Further details* Anlage Nr. 1 bis 7
Enclosure no 1 to 7

Summe der Jahresgebühren
Sum of annual fee units

38,13

VDE Prüf- und Zertifizierungsinstitut
VDE Testing and Certification Institute

Fachgebiet F35
Section F35



SCHAFFNER EMV AG, CH-4542 LUTERBACH

TYPE SUMMARY FN 20.....- SERIES

Type	Current [A]	Terminal	Max. R _{DC} /Pfad [mΩ]	Induct. (L 1) [mH]	Turns (2 x)	Wire-Ø [mm]	X2-Caps [μF]	X2-Caps [μF]	Y2-Caps [nF]	Resistor [kΩ]	Case
FN 201PQ-1...	1	X	345	12	64	0.335	0.1	-	4.7	1000	F3
FN 201PQ-3...	3	X	51	2.5	29	0.6	0.1	-	4.7	1000	F3
FN 201PQ-6...	6	X	22	1.0	19	0.8	0.1	-	4.7	1000	F3
FN 201PQ-10...	10	X	11	0.8	13	1.12	0.1	-	4.7	1000	F2
FN 201PQ-12...	12	X	10	0.7	12	1.18	0.1	-	4.7	1000	F2
FN 201PQ-16...	16	X	6	0.65	11	1.8	0.1	-	4.7	1000	H2
FN 201PQ-20...	20	Y	5	0.60	9	2.24	0.1	-	4.7	1000	K1
FS 3966 -20...	20	Y	5	0.60	9	2.24	1.0	-	22.0	1000	K1
FN 201PQ-30...	30	Z	3	0.67	10	2.65	0.47	-	10.0	1000	P
FN 201PQ-60...	60	W	8.5	1.0	9	2x(Ø3.0)	1.5	-	10.0	330	L2
FN 202PQ-1...	1	X	345	12	64	0.335	0.15	0.15	4.7	1000	F2
FN 202PQ-3...	3	X	51	2.5	29	0.6	0.15	0.15	4.7	1000	F2
FN 202PQ-6...	6	X	22	1.0	19	0.8	0.15	0.15	4.7	1000	F2
FN 202PQ-10...	10	X	11	0.8	13	1.12	0.15	0.15	4.7	1000	F2
FN 202PQ-12...	12	X	10	0.7	12	1.18	0.15	0.15	4.7	1000	F2
FN 202PQ-16...	16	X	6	0.65	11	1.8	0.15	0.15	4.7	1000	H2
FN 202PQ-20...	20	Y	5	0.60	9	2.24	0.15	0.15	4.7	1000	K1
FN 202PQ-30...	30	Z	3	0.67	10	2.65	0.47	0.47	10.0	470	P
FN 202PQ-60...	60	W	8.5	1.0	9	2x(Ø3.0)	1.5	1.5	10.0	220	L2

- Q: stands for changed Y2-Capacitors *
- P: 0 to 3 = Circuit diagram (See enclosure)
- X: 01 = Soldering lugs
 05 = Faston 6.3 x 0.8 (spade)
 06 = Faston 6.3 x 0.8 (spade / soldering)
 07 = Wire
- Y: 01 = Soldering lugs
 03 = Clamp terminal
 05 = Faston 6.3 x 0.8 (spade)
 06 = Faston 6.3 x 0.8 (spade / soldering)
 08 = Screw terminal M4
 10 = Screw terminal UNC 8-32
 17 = Screw terminal UNF 10-32
- Z: 03 = Clamp terminal
 08 = Screw terminal M4
 10 = Screw terminal UNC 8-32
 17 = Screw terminal UNF 10-32
- W: 24 = Screw terminal M6

Y2-Capacitors: Standard version = without letter, which means the value is according to the table above;
 A = 0.47 nF; A1 = 0.22 nF; B = no Y2-Caps; C2 = 0.68 nF; C1 = 1 nF; C = 1.5 nF; D = 2.2 nF; V = 2.8 nF; W = 3 nF; F = 3.3 nF; X = 4 nF; G = 4.7 nF;
 Y = 5.5 nF; H1 = 6.8 nF; H = 10 nF; I = 15 nF; K = 22 nF; L = 33 nF; M = 47 nF; N = 100 nF

SCHAFFNER EMV AG, CH-4542 LUTERBACH

TYPE SUMMARY FN 20.....- SERIES

Type	Current [A]	Terminal	Max. R _{OC} /Pfad [mΩ]	Induct. (L 1) [mH]	Turns (2 x)	Wire- Ø [mm]	Induct. (L 2) [mH]	Turns (2 x)	Wire- Ø [mm]	X2-Caps [μF]	X2-Caps [μF]	Y2-Caps [nF]	Resistor [KΩ]	Case
FN 206PQ- 1...	1	X	690	12	64	0.335	12	64	0.335	0.22	0.22	4.7	1000	H2
FN 206PQ- 3...	3	X	107	2.5	29	0.6	2.5	29	0.6	0.22	0.22	4.7	1000	H2
FN 206PQ- 6...	6	X	38	0.97	18	0.8	0.97	18	0.8	0.22	0.22	4.7	1000	H2
FN 206PQ-10...	10	X	18	0.8	13	1.18	0.8	13	1.18	0.47	0.47	4.7	470	K1
FS 5230 -10...	10	X	18	0.8	13	1.18	0.8	13	1.18	0.47	0.47	4.7	470	K2
FN 206PQ-12...	12	X	17	0.58	11	1.25	0.58	11	1.25	0.47	0.47	4.7	470	K1
FN 206PQ-16...	16	Y	10	0.65	11	1.8	0.65	11	1.8	0.33	0.33	4.7	1000	K2
FN 206PQ-20...	20	Y	7	0.6	9	2.24	0.6	9	2.24	1.0	1.0	4.7	220	P
FN 206PQ-30...	30	Z	4.5	0.6	11	2x(Ø2.0)	0.6	11	2x(Ø2.0)	1.0	1.0	10.0	220	L2
FN 207PQ- 1...	1	Y	1060	22	90	0.335	22	90	0.335	0.33	0.33	4.7	1000	K1
FN 207PQ- 3...	3	Y	165	9.8	42	0.71	9.8	42	0.71	0.47	0.47	4.7	470	K2
FN 207PQ- 6...	6	Y	69	7.8	33	1.12	7.8	33	1.12	1.0	1.0	4.7	220	P
FS 4148 -16...	16	Y	15	4.0	18	2.0	4.0	18	2.0	1.0	1.0	2.2	220	P
FS 5271 -16...	16	Y	15.5	4.0	18	2.0	4.0	18	2.0	3.3	1.0	1.5	220	Q
FN 207PQ-10...	10	Y	37	4.5	26	1.6	4.5	26	1.6	1.0	1.0	4.7	220	Q
FN 207PQ-12...	12	Y	27	3.25	22	1.8	3.25	22	1.8	1.0	1.0	4.7	220	Q
FS 5409 -12...	12	Y	27	7.0	32	2.0	7.0	32	2.0	0.68	0.68	2 * 22	1000	L2
FN 207PQ-16...	16	Y	17	2.8	20	2.24	2.8	20	2.24	1.0	1.0	4.7	220	L2
FN 208PQ- 1...	1	Y	1035	22	90	0.335	0.49	90	0.355	0.33	0.33	4.7	1000	K1
FN 208PQ- 3...	3	Y	179	9.8	42	0.71	0.16	36	0.71	0.47	0.47	4.7	470	K2
FN 208PQ- 6...	6	Y	65	7.8	33	1.12	0.11	30(1x)	1.12	1.0	1.0	4.7	220	P
FN 208PQ-10...	10	Y	37	4.5	26	1.6	0.06	22(1x)	1.25	1.0	1.0	4.7	220	Q
FN 208PQ-12...	12	Y	25	3.25	22	1.8	0.05	20(1x)	1.6	1.0	1.0	4.7	220	Q
FN 208PQ-16...	16	Y	15	2.8	20	2.24	0.043	16	2.24	1.0	1.0	4.7	220	L2

W: 24 = Screw terminal M6

- Y: 01 = Soldering lugs
 03 = Clamp terminal
 05 = Faston 6.3 x 0.8 (spade)
 06 = Faston 6.3 x 0.8 (spade / soldering)
 07 = Wire (only for FN 20.....-16 !)
 08 = Screw terminal M4
 10 = Screw terminal UNC 8-32
 17 = Screw terminal UNF 10-32

- X: 01 = Soldering lugs
 05 = Faston 6.3 x 0.8 (spade)
 06 = Faston 6.3 x 0.8 (spade / soldering)
 07 = Wire
 Z: 03 = Clamp terminal
 08 = Screw terminal M4
 10 = Screw terminal UNC 8-32
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 Y = 5.5 nF; H1 = 6.8 nF; H = 10 nF; I = 15 nF; K = 22 nF; L = 33 nF; M = 47 nF; N = 100 nF