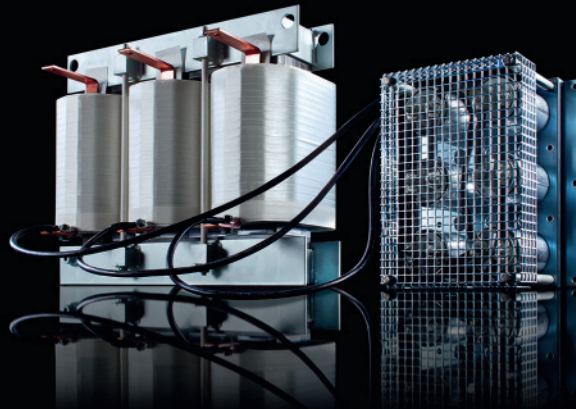
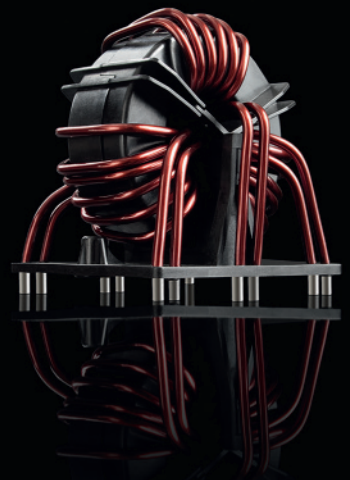
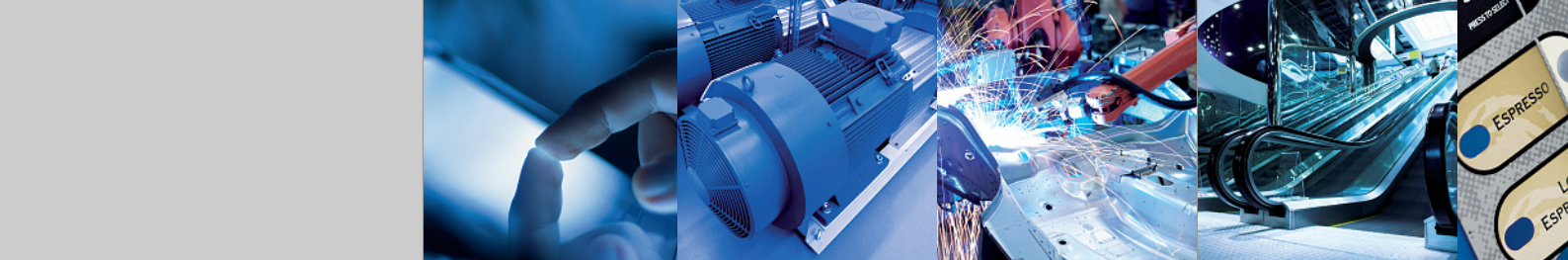












April 2017

Short Form Catalog
EMC/EMI Components and Power Quality Filters

SCHAFFNER
shaping electrical power





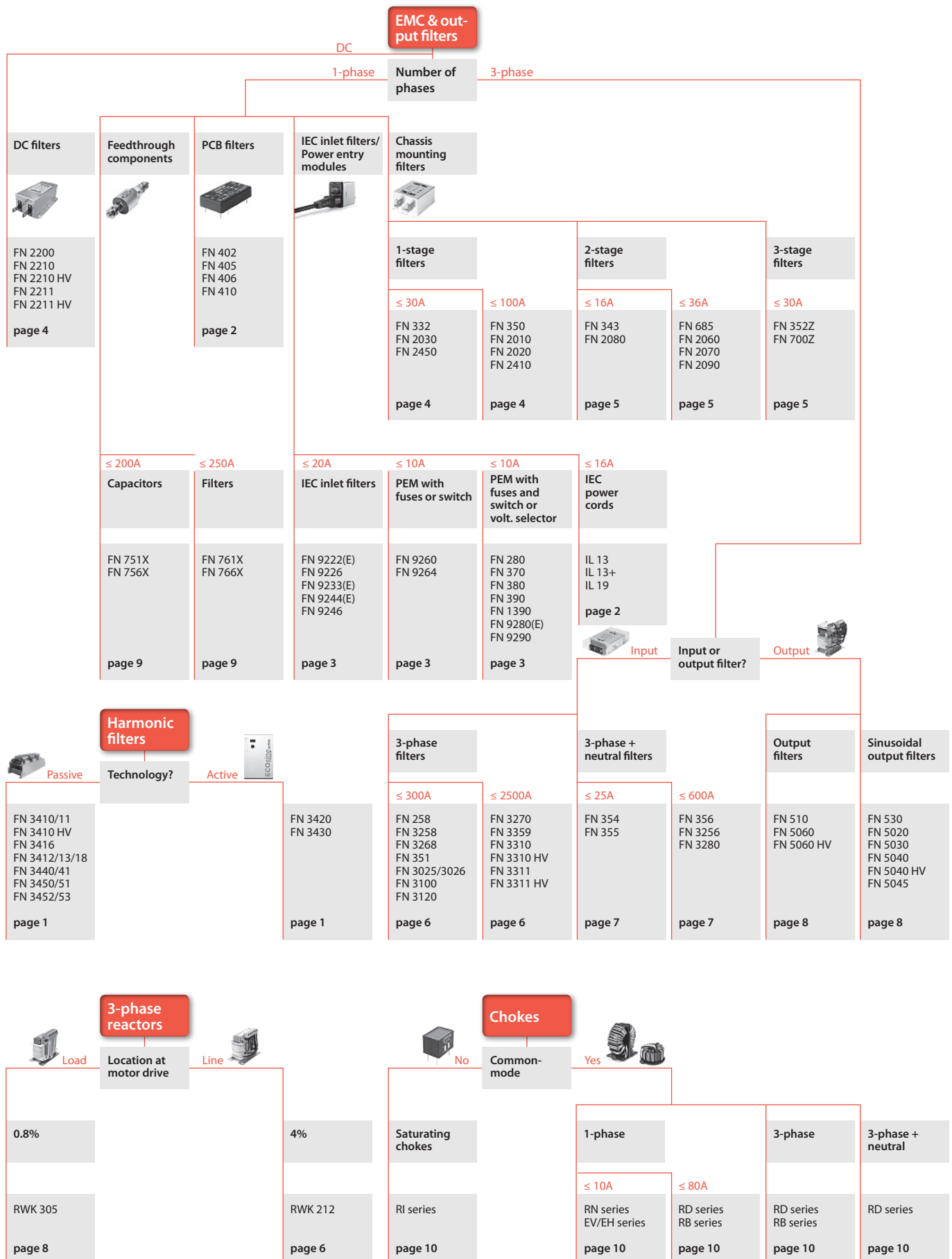
Typical applications	EDP & office – PCs – Printers – PC periphery – Fax machines – Copy machines – Monitors – Plotters – Mainframe computers	Drives & controls – AC & DC motor drives – SCR drives – Servo drives – Regenerative drives – Rectifiers (AC-DC) – Converters (AC-AC, DC-DC) – Inverters (DC-AC) – Battery chargers	Process automation – Robotics – Conveyors – Assembly lines – Control units – Mining industry – Chemical industry – Oil production – Metal processing	Elevators & cranes – Elevators for people and goods – Escalators – Cranes – Lifts – Hoists – Dumbwaiters	Consumer goods – Amplifiers, video, TV, stereo – Receivers, DVD players – Laundry machines – Tumblers – Cooking equipment – Induction hobs – Exercise machines – Coffee machines
Line reactors and harmonic filters		FN 3410/11 (page 1) FN 3412/13 (page 1) FN 3416/18 (page 1) FN 3440/41 (page 1) FN 3450/51 (page 1) FN 3452/53 (page 1) RWK 212 (page 6)	FN 3410/11 (page 1) FN 3412/13 (page 1) FN 3416/18 (page 1) FN 3420 (page 1) FN 3440/41 (page 1) FN 3450/51 (page 1) FN 3452/53 (page 1)	FN 3410/11 (page 1) FN 3412/13 (page 1) FN 3416/18 (page 1) FN 3420 (page 1) FN 3440/41 (page 1) FN 3450/51 (page 1) FN 3452/53 (page 1) RWK 212 (page 6)	
PCB filters		FN 402 (page 2) FN 405 (page 2) FN 406 (page 2) FN 410 (page 2)			FN 402 FN 405 FN 406 FN 410
IEC inlet filters and Power entry modules		FN 280 (page 3) FN 390 (page 3) FN 9222(E) (page 3) FN 9233(E) (page 3) FN 9244(E) (page 3) FN 9264 (page 3) FN 9280(E) (page 3) FN 9290 (page 3) IL 13 (page 2) IL 13+ (page 2) IL 19 (page 2)			FN 280 FN 3x0 FN 9222(E) FN 9233(E) FN 9260 FN 9280(E) FN 9290 IL 13 IL 13+ IL 19
Single-phase filters and DC filters		FN 343 (page 5) FN 20x0 (page 4/5)	FN 350 (page 4) FN 2070 (page 5) FN 2080 (page 5) FN 2090 (page 5) FN 241x (page 4/5) FN 2200 (page 4) FN 2210/FN 2210 HV (page 4) FN 2211/FN 2211 HV (page 4)	FN 350 (page 4) FN 2070 (page 5) FN 2080 (page 5) FN 2090 (page 5) FN 241x (page 4/5)	FN 685 (page 5) FN 2070 (page 5) FN 2080 (page 5) FN 241x (page 4/5)
Three-phase filters		FN 3025/26 (page 6) FN 3258 (page 6) FN 3268 (page 6)	FN 258 (page 6) FN 3025/26 (page 6) FN 3100 (page 6) FN 3258 (page 6) FN 3268 (page 6) FN 3270 (page 6) FN 3310/FN 3310 HV (page 6) FN 3311/FN 3311 HV (page 6) FN 3359 (page 6)	FN 258 (page 6) FN 3025/26 (page 6) FN 31xx (page 6) FN 3258 (page 6) FN 3268 (page 6) FN 3270 (page 6) FN 3310/FN 3310 HV (page 6) FN 3311/FN 3311 HV (page 6) FN 3359 (page 6)	FN 258 (page 6) FN 3100 (page 6) FN 3258 (page 6) FN 3268 (page 6)
Three-phase and neutral line filters		FN 354 (page 7) FN 355 (page 7) FN 3256 (page 7)	FN 356 (page 7) FN 3256 (page 7) FN 3280 (page 7)	FN 356 (page 7) FN 3256 (page 7) FN 3280 (page 7)	FN 354 FN 355
Output filters and load reactors		FN 5x0 (page 8) FN 5020 (page 8) FN 5030 (page 8) FN 5040 (page 8) FN 5040 HV (page 8) FN 5045 (page 8) RWK 305 (page 8) FN 5060/FN 5060 HV (page 8)	FN 510 (page 8) FN 5020 (page 8) FN 5030 (page 8) FN 5040 (page 8) FN 5040 HV (page 8) FN 5045 (page 8) RWK 305 (page 8) FN 5060/FN 5060 HV (page 8)	FN 510 (page 8) FN 5040 (page 8) FN 5040 HV (page 8) FN 5045 (page 8) RWK 305 (page 8) FN 5060 (page 8) FN 5060 HV (page 8)	
Feedthrough components		FN 756x (page 9) FN 766x (page 9)	FN 756x (page 9) FN 766x (page 9)	FN 751x (page 9) FN 761x (page 9)	
EMC/EMI chokes		EV/EH series (page 10) RD series (page 10) RN series (page 10) RB series (page 10)	RD series (page 10) RI series (page 10) RB series (page 10)	RD series (page 10)	EV/EH series RD series RN series
Pulse transformers		IT series (page 11)	IT series (page 11)	IT series (page 11)	

This illustration only contains a few typical products and applications. Schaffner is also active in numerous other industry segments. Most standard components can be customized to meet special requirements.






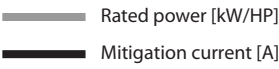
















Goods audio, screens, recorders, machines, equipment, heaters, machines, machines	Medical – X-ray equipment – CAT scanners – Defibrillators – Laboratory equipment – Analyzers – Measurement devices – MRI, MSI, EEG, ECG – Test equipment – Hospitals	Building automation – HVAC – Security systems – Control units – Pumps – Self-ballasted lighting equipment – Autom. window shades – Water treatment – Office buildings	Power & energy – SMPS, UPS – DC/DC converters – Gen-sets – Wind turbines – Fuel cells – Gas turbines – UPS – PV systems	Telecom & datacom – Base stations for GSM, UMTS, GPRS – Power line communications – Network technology – Servers – Telephone installations – Broadcast installations – Data centers	Machinery – Machine tools – Printing machines – Packaging machines – Extruders – Wood working mach. – Milling/drilling mach. – Laser cutting machines – Welding machines – Grinding machines
	FN 3420 (page 1) FN 3430 (page 1)	FN 3410/11 (page 1) FN 3412/13 (page 1) FN 3416/18 (page 1) FN 3420 (page 1) FN 3430 (page 1) FN 3440/41 (page 1) FN 3450/51 (page 1) FN 3452/53 (page 1)	FN 3420 (page 1) FN 3430 (page 1) Customized reactor and filter solutions for (renewable) energy production and feeding power into the network	FN 3420 (page 1) FN 3430 (page 1)	FN 3410/11 (page 1) FN 3412/13 (page 1) FN 3416/18 (page 1) FN 3420 (page 1) FN 3440/41 (page 1) FN 3450/51 (page 1) FN 3452/53 (page 1) RWK 212 (page 6)
(page 2) (page 2) (page 2) (page 2)	FN 402B (page 2) FN 406B (page 2)	FN 406 (page 2) FN 410 (page 2)	FN 402 (page 2) FN 405 (page 2) FN 406 (page 2) FN 410 (page 2)		
(page 3) (page 3) (page 3) (page 3) (page 3) (page 3) (page 3) (page 2) (page 2) (page 2)	FN 280B (page 3) FN 9222(E)B (page 3) FN 9233(E)B (page 3) FN 9244(E)B (page 3) FN 9246B (page 3) FN 9260B (page 3) FN 9264 (page 3) FN 9280B (page 3) FN 9290B (page 3) IL 13 (page 2) IL 13+ (page 2) IL 19 (page 2)	FN 9246 (page 3)	FN 280 (page 3) FN 3x0 (page 3) FN 9222(E) (page 3) FN 9233(E) (page 3) FN 9244(E) (page 3) FN 926x (page 3) FN 9280(E) (page 3) FN 9290 (page 3)	FN 9246 (page 3)	
(page 4) (page 4/5)	FN 332 (page 4) FN 20x0B (page 4/5) FN 700Z (page 5)	FN 350 (page 4) FN 2060 (page 5) FN 2070 (page 5) FN 2090 (page 5)	FN 2030 (page 4) FN 2060 (page 5) FN 2070 (page 5) FN 2090 (page 5) FN 2200 (page 4) FN 2210/FN 2210 HV (page 4) FN 2211/FN 2211 HV (page 4)	FN 700Z (page 5) Customized single-phase telecom filters	FN 350 (page 4) FN 2070 (page 5) FN 2080 (page 5) FN 2410 (page 4) FN 2412 (page 4) IL
(page 6) (page 6) (page 6) (page 6)	FN 258P (page 6) FN 258L (page 6) FN 3025/26 (page 6) FN 3268 (page 6)	FN 258 (page 6) FN 351 (page 6) FN 3025/26 (page 6) FN 3258 (page 6) FN 3268 (page 6)	FN 258 (page 6) FN 3025/26 (page 6) FN 3100 (page 6) FN 3120 (page 6) FN 3258 (page 6) FN 3268 (page 6) FN 3310/FN 3310 HV (page 6) FN 3311/FN 3311 HV (page 6) FN 3359 (page 6)	Customized three-phase telecom filters	FN 258 (page 6) FN 3100 (page 6) FN 3120 (page 6) FN 3258 (page 6) FN 3268 (page 6) FN 3270 (page 6) FN 3310/FN 3310 HV (page 6) FN 3311/FN 3311 HV (page 6) FN 3359 (page 6)
(page 7) (page 7)	FN 354 (page 7) FN 355 (page 7)	FN 3256 (page 7)	FN 356 (page 7) FN 3256 (page 7) FN 3280 (page 7)	FN 354 (page 7)	FN 356 (page 7) FN 3256 (page 7) FN 3280 (page 7)
		FN 510 (page 8) FN 5040 (page 8) FN 5040 HV (page 8) FN 5045 (page 8) RWK 305 (page 8) FN 5060 (page 8) FN 5060 HV (page 8)	Customized reactor and filter solutions for (renewable) energy production and feeding power into the network		FN 510 (page 8) FN 5040 (page 8) FN 5040 HV (page 8) FN 5045 (page 8) RWK 305 (page 8) FN 5060 (page 8) FN 5060 HV (page 8)
	FN 751x (page 9) FN 756x (page 9) FN 761x (page 9) FN 766x (page 9)		FN 751x (page 9) FN 756x (page 9) FN 761x (page 9) FN 766x (page 9)	FN 751x (page 9) FN 756x (page 9) FN 761x (page 9) FN 766x (page 9)	FN 751x (page 9) FN 761x (page 9)
(page 10) (page 10) (page 10)	EV/EH series (page 10) RD series (page 10) RN series (page 10) RB series (page 10)	EV/EH series (page 10) RD series (page 10) RI series (page 10) RN series (page 10) RB series (page 10)	EV/EH series (page 10) RD series (page 10) RN series (page 10) RB series (page 10)	EV/EH series (page 10) RN series (page 10) RB series (page 10)	RD series (page 10) RB series (page 10)
	IT series (page 11)	IT series (page 11)	IT series (page 11)	IT series (page 11)	

Product selection chart



To define your proper solution competent assistance and more detailed product specifications can be obtained by your local partner within Schaffner's global network.

Active and passive harmonic filters. Harmonic filters help to obtain compliance with international standards like e.g. IEEE 519-1992 or EN 61000-3-12, and with local utility codes. They reduce electrical and thermal stress upon the electrical infrastructure, eliminate the risk of harmonics-related reliability problems, and support long-term energy efficiency and cost savings. Ecosine passive filters are the industry standard for 6-pulse rectifiers and non-regenerative motor drives to achieve the often specified level of < 5% THID. Ecosine active harmonic filters provide latest generation digital technology. With a response time of less than 300 μs an efficient harmonics mitigation, power factor correction, and load balancing is achieved in real time.

Approvals *		Rated power [kW/HP]					Features										Typical applications					
  							For 50 Hz grids	For 60 Hz grids	For 6-pulse diode rectifiers without L _{dc}	For 6-pulse diode rectifiers with L _{dc}	For 6-pulse SCR rectifiers	THID < 5%	Power factor correction	Load balancing	3-phase/3-wire	3-phase/4-wire	AC motor drives	DC motor drives/welding	HVAC + building technology	Industry	Water/wastewater	Mixed (complex) loads
Filter family	Nom. voltage	0	100	200	300	400	500															
NEW	FN 3440 	380–415 VAC	1.1	200 kW																		
NEW	FN 3441 	380–415 VAC	1.1	200 kW																		
NEW	FN 3450 	440–500 VAC	1.1	250 kW																		
NEW	FN 3451 	440–500 VAC	1.1	250 kW																		
	FN 3410 	380–500 VAC			200	400 kW																
	FN 3411 	380–500 VAC			200	400 kW																
	FN 3410 HV 	690 VAC	7.5	250 kW																		
	FN 3416 	200–500 VAC	2.5	200 kW																		
NEW	FN 3452 	440–480 VAC	1.5	300 HP																		
NEW	FN 3453 	440–480 VAC	1.5	300 HP																		
	FN 3412 	380–480 VAC				300	500 HP															
	FN 3413 	380–480 VAC				300	500 HP															
	FN 3418 	200–480 VAC	2.5	250 HP																		
	FN 3420 (active) 	200–480 VAC	30	300 A																		
	FN 3420 (active) 	500–690 VAC			200 A																	
	FN 3430 (active) 	200–415 VAC	30	300 A																		

* Products evaluated by one or more of the above certification agencies. For details please consult the detailed data sheet.

¹⁾ 5% THID is not guaranteed when FN 3440, FN 3450 and FN 3452 filters are applied to SCRs

²⁾ With and up to 45 A filters

³⁾ 60 A–320 A filters

IEC inlet filters / Power entry modules.







All the advantages of IEC connector, EMC/EMI filter, fuses, switch and voltage selector combined in a powerful compact all-in-one solution. Ideal for computers, monitors and office equipment like printers and copy machines.

Approvals *				Features										Typical applications													
Filter family	Max. voltage	Attenuation performance										With earth line choke	For fuse(s)	With switch (1-pole)	With switch (2-pole)	With voltage selector	For PCB mounting	Snap-in version	Extra wide mounting	IT equipment	Medical equipment	Switch-mode power supplies	Office equipment	Prof. audio, TV, VCR	Telecommunication	Light industrial equipment	General purpose
		standard			high			very high																			
		0	4	8	12	16	20																				
FN 9222 FN 9222E	250 VAC	1					20																				
FN 9226	250 VAC	1			10																						
FN 9233 FN 9233E	250 VAC	1				15																					
FN 9244 FN 9244E	250 VAC	1				15																					
FN 9246	250 VAC	1					20																				
FN 9260	250 VAC	1			10																						
FN 9264	250 VAC	1			10																						
FN 9280 FN 9280E	250 VAC	1			10																						
FN 9290	250 VAC	1					10																				
FN 280	250 VAC	1			10																						
FN 370	250 VAC	2			6																						
FN 380	250 VAC	2			6																						
FN 390 FN 1390	250 VAC	1					10																				

* Products evaluated by one or more of the above certification agencies. For details please consult the detailed data sheet.

Approvals *



Filter family	Max. voltage	Attenuation performance			Features										Typical applications					
		standard	high	very high	1-stage filter circuit	2-stage filter circuit	3-stage filter circuit	With earth line choke	With overvoltage protection	Low frequency attenuation	High frequency attenuation	Choice of connection style	TEMPEST protection	Power supplies, SMPS	Medical equipment	Single-phase motor drives	Control unit in machine tools	Interception protection	Office, test & measure. equip.	General purpose
FN 343 	250 VAC	1-10	30-60			■	■												■	■
FN 2060 	250 VAC	1-30	30-50			■					■		■	■					■	■
FN 2070 	250 VAC	1-36	30-60			■				■	■		■	■	■				■	
FN 2080 	250 VAC	1-16	40-60			■			■		■		■	■	■					
FN 2090 	250 VAC	1-30	50-70			■		■	■	■	■		■	■	■					
FN 700Z 	250 VAC	6-20	60-80				■	■	■	■		■	■	■				■	■	

* Products evaluated by one or more of the above certification agencies. For details please consult the detailed data sheet.






Three-phase filters and line reactors. EMC/EMI filter solutions for industrial applications like motor drives and machine tools. Furthermore, these types of filters are also suitable for mainframe computer systems, large uninterruptible power supplies, medical equipment, wind turbine power stations and a vast array of other three-phase power electronics. Line reactors, also operated on the line side of power drive systems, efficiently protect inverter electronics and DC link capacitors from inrush, peak and short-circuit currents. Additionally, low-frequency interference and harmonics are reduced significantly.



Filter family	Max. voltage	Attenuation performance			Features													Typical applications				
		standard	high	very high	Multi-stage filter circuit	Safety connector blocks	Busbar connection	Optional protective covers	Standard protective covers	Offering EMC compliance	Low leakage current	Less commutation notches	Inrush current limitation	Harmonics reduction	4% impedance	Inverters, servo drives	Energy regeneration drives	Machinery, machine tools	Industrial automation	General purpose	Power and energy	
FN 258	480 VAC 690 VAC (HV)	7-250			■	■				■	■					■		■	■	■	■	
FN 351	440 VAC 520 VAC (H)	8-280				■				■						■			■	■	■	
FN 3025	520 VAC	10-50			■				■	■	■					■			■	■	■	
FN 3026	520 VAC	10-50			■				■	■	■					■			■	■	■	
FN 3100	520 VAC	35-300			■					■						■	■	■	■	■	■	
FN 3120	520 VAC (H)	25-230			■					■						■	■	■	■	■	■	
FN 3258	480 VAC 520 VAC (H)	7-180			■					■						■		■	■	■	■	
FN 3268	520 VAC	7-180			■					■	■					■		■	■	■	■	
FN 3270	520 VAC	10-1000			■	■	■			■						■		■	■	■	■	
FN 3310 FN 3311	520 VAC	250-2300								■						■		■	■	■	■	
NEW FN 3310 HV FN 3311 HV	690 VAC	250-2300								■						■		■	■	■	■	
FN 3359	520 VAC 690 VAC (HV)	150-2500			■	■	■			■						■	■	■	■	■	■	
RWK 212	500 VAC	4-1100			■	■						■	■	■	■	■		■	■	■	■	

* Products evaluated by one or more of the above certification agencies. For details please consult the detailed data sheet.

Three-phase and neutral line filters. Three-phase and neutral line filters are a compact solution for the interference suppression on the mains input of cabinets and control units of equipment, ranging from industrial applications like machine tools to sensitive medical installations. These typically involve separate and often insufficiently filtered frequency inverters and SMPS, causing current imbalance and significant interference problems. As individual elements they may be interference-suppressed already. The conjunction of several switching components in the same cabinet and a non-EMC conscious cabling will rise the demand for an additional EMC/EMI filter on the mains input of the whole installation. Many times this is the only way to get the CE mark for the cabinet in accordance with the EMC directive.

Approvals *				Features										Typical applications													
Filter family	Max. voltage	Attenuation performance						Rated current [A]																			
		standard		high		very high																					
		0	120	240	360	480	600	1-stage filter circuit	2-stage filter circuit	Safety connector blocks	Faston connectors	Offering EMC compliance	For asymmetrical loads	Broadband attenuation	Very low leakage current	For entire systems, install.	Machinery, machine tools	Industrial automation	Power supplies	Medical equipment	For high frequency appl.	High power office equipment	General purpose				
FN 354 	440 VAC	4-25							■		■	■		■					■	■	■	■	■				
FN 355 	440 VAC	3-20						■			■	■		■						■		■	■				
FN 356 	440 VAC	16-150						■		■		■	■		■		■	■									
FN 3256 	520 VAC (H)	8-160						■		■		■	■		■	■	■	■				■	■				
FN 3280 	520 VAC (H)	8-600						■	■		■	■	■	■	■	■	■	■									











* Products evaluated by one or more of the above certification agencies. For details please consult the detailed data sheet.

Output filters and load reactors. Output components for motor protection and the improvement of system reliability, availability and functionality. Deployed at the output side of frequency inverters, these filters ensure reliable operation by avoiding expensive downtimes of installations, manufacturing plants, machinery and a vast array of other industrial and domestic motor drive applications due to premature motor damage. An appropriate output solution will even allow the deployment of unshielded motor cables, the use of multiple motors in parallel on the same drive or the retrofit of modern drives in existing installations with old motors and unshielded cabling.

Approvals *















— Typical motor power [kW]
 — Rated current [A]





Filter family	Max. voltage	Typical motor power [kW]						Features										Typ. applications					
		0	60	120	180	240	300	dv/dt restriction	Overvoltage restriction	Motor temperature reduction	Red. acoustic motor noise	Sym. sinusoidal output signal	Asym. sinusoidal output signal	Eliminat. of bearing damage	Replaces cable shields	Connection to DC link required	Improves overall EMC	Reduces equipment downtime	Motor drives	Servo drives, torque motors	High-speed motor applications	Appl. with long unshield. cabl.	Retrofit of motor drives
FN 510 	520 VAC	1.5-30	4-66					■	■	■						■	■	■	■				
FN 530 	520 VAC	1.5-7.5	4-16					■	■	■	■	■	■	■	■	■	■	■	■		■	■	
FN 5020 	500 VAC	11-55	25-120					■	■	■	■					■	■	■		■			
FN 5030** 	500 VAC	11-55	25-120							■	■	■	■	■	■	■	■	■		■	■	■	
FN 5040 	500 VAC	1.1-630	4.5-1200					■	■	■	■	■				■	■	■					■
FN 5040 HV 	690 VAC	7.5-1200	13-1320					■	■	■	■	■				■	■	■					■
FN 5045 	500 VAC	1.1-630	4.5-1200					■	■	■	■	■				■	■	■					■
FN 5060 	500 VAC	5-630	12-1100					■	■	■						■	■	■	■				
NEW FN 5060 HV 	690 VAC	7.5-1000	16-1200					■	■	■						■	■	■	■				
RWK 305 	500 VAC	1.5-630	4-1100					■		■						■	■	■	■				

* Products evaluated by one or more of the above certification agencies. For details please consult the detailed data sheet.
 ** Additional output filter module to be operated in conjunction with FN 5040/45 or FN 5020.

Feedthrough components.









Interference suppression up into the GHz range for high-tech applications such as IT, telecom, server and networking equipment.

Approvals *							Features						Typical applications								
		 Capacitance [nF]  Rated current [A]  Attenuation performance					AC capacitors	DC capacitors	AC filters	DC filters	Very high performance	Y2 capacitor class	Y4 capacitor class	Medical equipment	Professional power supplies	Power electronic equipment	Telecommunication	Scientific equipment	Test and measurement equip.	Security systems	IT, server and network
Feedthrough capacitors	Max. voltage	0	1000	2000	3000	4000	5000														
		0	50	100	150	200	250														
FN 7510 	300 VAC	2.2-47		100																	
FN 7511 	300 VAC	4.7-220				200															
FN 7512 	300 VAC	47-100		16	63																
FN 7513 	300 VAC	100		16																	
FN 7560 	130 VDC	10-100				200															
FN 7561 	130 VDC	47-470		63		200															
FN 7562 	130 VDC	100-1000		16		200															
FN 7563 	130 VDC	470		16		200	4700														

Feedthrough filters		standard	high	very high													
FN 7611 	300 VAC	10		250													
FN 7612 	300 VAC	10	100														
FN 7660 	130 VDC	10		200													
FN 7661 	130 VDC	10		200													

* Products evaluated by one or more of the above certification agencies. For details please consult the detailed data sheet.

EMC/EMI chokes. An extensive selection of discrete EMC/EMI chokes with various inductance and current ratings allows optimized circuitry for EMC compliance to be designed easily and economically.

Approvals *		Inductance value [mH]							Features							Typical applications								
Choke family	Max. voltage	Inductance value [mH]							For common-mode noise	Saturating chokes	Single-choke	Dual-choke	Triple-choke	Quad-choke	PCB mounting	With flying leads	Frequency converters, UPS	Medical equipment	Traction systems	DC/DC or AC/DC converters	Switch-mode power supplies	Home electronics, TV, ballasts	Battery chargers	Heaters, air conditioners
		0	20	40	60	80	100	150																
RD 5000 series 	600 VAC 850 VDC	1-10							■		■	■			■	■	■							
RD 6000 series 	600 VAC 850 VDC	1.5	15						■		■	■			■	■	■							
RD 7000 series 	600 VAC 850 VDC	0.2	25						■		■	■	■		■	■	■							
RD 8000 series 	600 VAC 850 VDC	0.2-12							■		■	■	■		■	■	■							
NEW RN series 	300 VAC 300 VDC	0.4						100	■		■	■	■	■	■	■	■	■	■	■	■	■	■	■
EV/EH series 	250 VAC	0.5						90	■		■				■	■	■			■	■	■	■	■
RI series 	500 VAC	1.5	25							■	■	■			■	■	■	■	■	■				
RB series 	600 VAC 1000 VDC	0.2	3						■		■	■			■	■	■	■	■	■		■	■	■

* Products evaluated by one or more of the above certification agencies. For details please consult the detailed data sheet.

** forced cooling

EMC Support

EMI measurement and EMC engineering services. In addition to offering one of the world's most comprehensive ranges of standard filter products, Schaffner offers the full complement of measurement and engineering services, along with customized product development, to support equipment manufacturers and users.

EMC/EMI testing. Schaffner operates the most sophisticated EMC test facilities available anywhere today with extensive investment in specialized test equipment and application engineering teams. As a global provider these services are distributed at several locations throughout the world.

Service available at these locations include:

- open field testing
- harmonics instrumentation for current and voltage up to the 50th harmonic
- emission and immunity tests according to European and international standards (EN, IEC, FCC, CISPR)

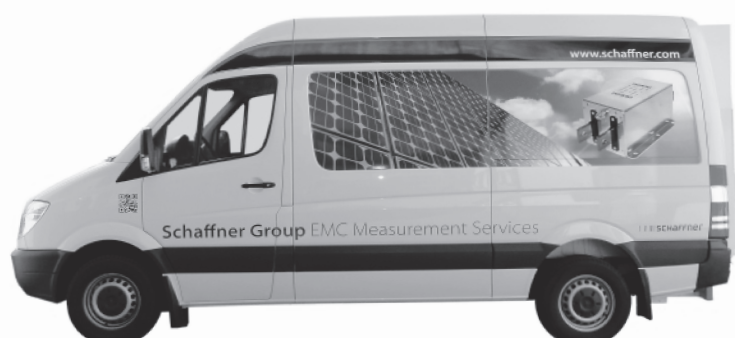
Additional services available at the accredited testing facility in Switzerland:

- 500 kW full load test set-up for motor drives
- safety testing and environmental simulation for passive components for electromagnetic interference suppression according to European, international and North American standards

Engineering services. Schaffner has the world's most engineering experience in solving EMC problems. In addition to testing and measuring services, Schaffner can provide the expert engineering support to help you bring your equipment to market quickly and efficiently.

Services available include:

- custom filter design – to optimize filter performance and solve space, layout, mounting or connection problems
- circuit and equipment design – advising on circuit and equipment or enclosure design to overcome EMC problems
- turnkey component design and build





The Schaffner Group is the international leader in the development and production of solutions which ensure the efficient and reliable operation of electronic systems. The Group's broad range of products and services includes EMC/EMI components, harmonic filters and magnetic components as well as the development and implementation of customized solutions. Schaffner components are deployed in energy-efficient drive systems and electronic motor controls, in wind power and photovoltaic systems, rail technology, machine tools and robotics as well as power supplies for numerous electronic devices in sectors such as medical technology or telecommunications. Schaffner provides on-site service to customers around the world through an efficient, global organization and makes ongoing investments in research, development, production and sales to systematically expand its position as leader on the international market.

A global one-stop shop

EMC/EMI filters

- PCB filters
- IEC inlet filters / Power entry modules
- DC filters
- Single-phase filters
- Three-phase filters
- Three-phase + neutral line filters
- Open frame filters

EMC/EMI chokes

Feedthrough filters and capacitors

Automotive components

Customized solutions

Power Quality products

- Line reactors
- dv/dt reactors and filters
- Sine wave filters
- Harmonic filters
- Regen reactors and filters
- Transformers

Customized solutions

**Headquarters, global innovation
and development center**

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