

# EMC/EMI & POWER QUALITY FILTERS AND COMPONENTS

Schaffner and Corcom – Short Form Catalog



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# ABOUT US

**Leveraging our combined strengths to drive product innovation and ensure the global supply chain resilience expected by our customers.**

Schaffner is a leader and innovator in the EMC filters and power quality market, offering the broadest product range in the industry. TE Connectivity (TE) Corcom and Schaffner's combined product portfolio allows us to provide a stronger value proposition to customers and partners through accelerated product advancement, global field engineering capabilities, and a manufacturing footprint that provides for the global supply chain resilience our customers expect from their strategic suppliers.



# EMC/EMI & POWER QUALITY FILTERS AND COMPONENTS

## Short form catalog

### Industries

Motion & Drives	Industrial Robotics	Semiconductor Manufacturing Equipment (SME)	Battery Energy Storage System (BESS)	Electric Vehicle Infrastructure (EVI)	Warehouse Automation	Outdoor LED Lighting	Heating, Ventilation and Air Conditioning (HVAC)	Medical	Data and Devices	Energy
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#### DC Filters



FN2200				•						•
FN2210, FN2211				•						•
FN2210HV, FN2211HV				•						•
FN2220, FN2230, FN2240				•	•					•
EVX				x	x					

#### Single-Phase Filters



Motion & Drives	Industrial Robotics	Semiconductor Manufacturing Equipment (SME)	Battery Energy Storage System (BESS)	Electric Vehicle Infrastructure (EVI)	Warehouse Automation	Outdoor LED Lighting	Heating, Ventilation and Air Conditioning (HVAC)	Medical	Data and Devices	Energy
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FN2010			•	•	•	•		•		•
FN2020			•	•	•	•		•		•
FN2030			•	•	•	•		•		•
FN2060			•	•	•	•		•		•
FN2070, FN2071	•	•	•	•	•	•	•	•		•
FN2080	•	•	•	•	•	•	•	•		•
FN2090, FN2091	•	•	•	•	•	•	•	•		•
FN2410, FN2412	•	•	•	•	•	•	•	•		•
FN2415	•	•			•					
FN2450	•	•	•	•	•		•	•		•
FN2500, FN2520	•	•	•	•	•		•	•		•
FN2560						•	•			
FN332				•	•	•		•		•
FN343				•	•	•				•
FN350	•	•								
FN352Z, FN353Z				•	•	•	•		•	•
FN700Z								•	•	•
LIS140C-1E							•			•
B, VB, EB Style		x	x		x					
EOP, EBD, EBP Style	•				•					
FB Style						•				
H Style										
K, VK, EK Style		x	x		x					
R, VR, ER Style		x	x		x					
EP, VP Style		x	x		x					
FC Style	•	•	•		•					
HQ Style								•		
HT Style								x		
MV Style								x		
S, VS Style	•	•	•		•					
VQ, EQ Style					•					
VSK, ESK Style	x	x	x		x					
VT, ET Style	•	•	•		•					
W, V W Style	x	x	x		x					

#### 3-Phase Filters




Motion & Drives	Industrial Robotics	Semiconductor Manufacturing Equipment (SME)	Battery Energy Storage System (BESS)	Electric Vehicle Infrastructure (EVI)	Warehouse Automation	Outdoor LED Lighting	Heating, Ventilation and Air Conditioning (HVAC)	Medical	Data and Devices	Energy
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FN3025, FN3026	•	•		•	•			•		•
FN3100	•	•								•
FN3120H	•	•								•
FN3258	•	•								•

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Industries

	Motion & Drives	Industrial Robotics	Semiconductor Manufacturing Equipment (SME)	Battery Energy Storage System (BESS)	Electric Vehicle Infrastructure (EVI)	Warehouse Automation	Outdoor LED Lighting	Heating, Ventilation and Air Conditioning (HVAC)	Medical	Data and Devices	Energy
<b>3-Phase Filters</b>											
FN3268	•										
FN3270, FN3271	•	•	•	•	•			•			•
FN3287, FN3288	•	•	•	•	•	•		•	•		•
FN3310, FN3311	•			•	•			•			•
FN3310HV, FN3311HV	•			•	•						•
FN3359, FN3359HV	•			•	•						•
FN3840	•										
FN351H	•	•						•			
KEB	x	x	x	x	x	x			x		
KEM	x	x	x	x	x	x			x		
KEH-BS	x	x	x	x	x	x			x		
APS/APH	x	x	x	x	x						
AHV	x	x	x	x	x						
<b>3-Phase Filters with Neutral</b>											
	Motion & Drives	Industrial Robotics	Semiconductor Manufacturing Equipment (SME)	Battery Energy Storage System (BESS)	Electric Vehicle Infrastructure (EVI)	Warehouse Automation	Outdoor LED Lighting	Heating, Ventilation and Air Conditioning (HVAC)	Medical	Data and Devices	Energy
FN3256H	•	•	•	•	•	•		•	•		•
FN3280H	•	•	•	•	•			•			•
FN354									•		
FN355					•				•		•
KES	x	x	x	x	x	x			x		
KEP	x	x	x	x	x	x			x		
KEV-BS	x	x	x	x	x	x			x		
<b>IEC Inlet Filters and Power Entry Modules</b>											
	Motion & Drives	Industrial Robotics	Semiconductor Manufacturing Equipment (SME)	Battery Energy Storage System (BESS)	Electric Vehicle Infrastructure (EVI)	Warehouse Automation	Outdoor LED Lighting	Heating, Ventilation and Air Conditioning (HVAC)	Medical	Data and Devices	Energy
FN2640, FN2660	•								•	•	
FN9222	•								•	•	
FN9222E	•								•	•	
FN9226	•								•	•	
FN9233	•								•	•	
FN9233E	•								•	•	
FN9244	•								•	•	
FN9244E	•								•	•	
FN9246	•								•	•	
FN9255	•								•	•	
FN9255E	•								•	•	
FN9260	•								•	•	
FN9262	•								•	•	
FN9264	•								•	•	
FN9266	•								•	•	
FN9274	•								•	•	
FN9280	•								•	•	
FN9280E	•								•	•	
FN9290, FN9299	•								•	•	
FN261	•								•	•	
FN280	•								•	•	
FN370, FN372, FN378, FN379	•								•	•	
FN380	•								•	•	
FN390, FN1390	•								•	•	
Power Cords with EMC-Filter IF13	•							•		•	
EBF Style						•			•		
EEJ Style						x			x		
EJH Style						x			x		
EJT Style						•					

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Short form catalog

Industries	Motion & Drives	Industrial Robotics	Semiconductor Manufacturing Equipment (SME)	Battery Energy Storage System (BESS)	Electric Vehicle Infrastructure (EVI)	Warehouse Automation	Outdoor LED Lighting	Heating, Ventilation and Air Conditioning (HVAC)	Medical	Data and Devices	Energy
<b>IEC Inlet Filters and Power Entry Modules</b>											
GG, HG Style						x			x		
HP Series						.			.		
M Style						.			.		
P Style Filtered						.			.		
SRB Style						.			.		
CU Style Unfiltered											
C Style Unfiltered											
P Style Unfiltered											
<b>EMC/EMI Chokes</b>											
	Motion & Drives	Industrial Robotics	Semiconductor Manufacturing Equipment (SME)	Battery Energy Storage System (BESS)	Electric Vehicle Infrastructure (EVI)	Warehouse Automation	Outdoor LED Lighting	Heating, Ventilation and Air Conditioning (HVAC)	Medical	Data and Devices	Energy
ED Common Mode Chokes	.						.	.			
EV/EH Common Mode Chokes				.	.			.	.	.	
RB Common Mode Chokes	.			.	.			.	.		
RC Common Mode Chokes	.	.	.	.	.	.		.	.	.	
RD Common Mode Chokes	.			.	.			.	.		
RN Common Mode Chokes	.	.	.	.	.	.		.	.	.	.
RT Common Mode Chokes	.	.		.	.			.	.		.
RV Common Mode Chokes	.	.		.	.			.			.
RR Series	.										.
<b>PCB Filters</b>											
	Motion & Drives	Industrial Robotics	Semiconductor Manufacturing Equipment (SME)	Battery Energy Storage System (BESS)	Electric Vehicle Infrastructure (EVI)	Warehouse Automation	Outdoor LED Lighting	Heating, Ventilation and Air Conditioning (HVAC)	Medical	Data and Devices	Energy
FN402				.	.				.	.	.
FN405				.	.				.	.	.
FN406				.	.				.	.	.
FN409				.	.				.	.	.
FN410				.	.				.	.	.
<b>Feedthrough Capacitors &amp; Filters</b>											
	Motion & Drives	Industrial Robotics	Semiconductor Manufacturing Equipment (SME)	Battery Energy Storage System (BESS)	Electric Vehicle Infrastructure (EVI)	Warehouse Automation	Outdoor LED Lighting	Heating, Ventilation and Air Conditioning (HVAC)	Medical	Data and Devices	Energy
FN7510, FN7511, FN7512, FN7513, FN7514									.	.	
FN7560, FN7561, FN7562, FN7563										.	
FN7611, FN7612									.	.	
FN7660, FN7661										.	
<b>Pulse Transformers</b>											
IT series, single secondary winding	.			.	.				.		.
IT series, double secondary winding	.			.	.				.		.
<b>Accessories</b>											
	Motion & Drives	Industrial Robotics	Semiconductor Manufacturing Equipment (SME)	Battery Energy Storage System (BESS)	Electric Vehicle Infrastructure (EVI)	Warehouse Automation	Outdoor LED Lighting	Heating, Ventilation and Air Conditioning (HVAC)	Medical	Data and Devices	Energy
IL13, 13 P, 19 Power Cords with Locking System									.	.	.
IL13P Angled IEC Lock C13									.	.	.
IL13P Rewireable IEC Locking Connector									.	.	.
IL13P Rewireable Angled Locking Connector									.	.	.
MRI filter							.				
Line reactors - 1ph	.	.	.	.	.	.					
Line reactors - 3 ph	.	.	.	.	.	.					

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Industries

	Motion & Drives	Industrial Robotics	Semiconductor Manufacturing Equipment (SME)	Battery Energy Storage System (BESS)	Electric Vehicle Infrastructure (EVI)	Warehouse Automation	Outdoor LED Lighting	Heating, Ventilation and Air Conditioning (HVAC)	Medical	Data and Devices	Energy
<b>Active Harmonic Filters</b>											
											
FN3530, FN3531, FN3540, FN3541	•	•	•		•			•	•	•	•
FN3532, FN3542	•	•	•		•			•	•	•	•
FN3545	•	•	•		•			•	•	•	•
SYNC300A, SYNC300X	•	•	•		•			•	•	•	•
<b>Passive Harmonic Filters</b>											
											
FN3440, FN3442, FN3450, FN3452	•	•	•					•			
FN3441, FN3443, FN3451, FN3453	•	•	•					•			
FN3446, FN3458 NEW	•	•	•					•			
FN3470, FN3472, FN3480, FN3482	•	•	•					•			
FN3471, FN3473, FN3481, FN3483	•	•	•					•			
FN3416LV, FN3418LV	•	•	•					•			
<b>Output Filters</b>											
											
FN5060, FN5060HV	•										
FN5420 NEW, FN5040HV	•							•			
FN530	•										•
<b>Reactors</b>											
											
RWK3044, RWK3062	•	•			•			•			•
RWK305, RWK5420 NEW	•	•			•			•			•
<b>LCL Filters</b>											
											
FN6840	•										•

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Product Selection EMC/EMI

EMC/EMI Filters & Components									
Single-Phase Filters					DC Filters	3-Phase Filters			
PCB Filters	Feedthrough Components	Chassis Mount Filters			DC Filters	3-Phase Filters		3-Phase Filters with Neutral	
<b>≤10 A</b> FN402 FN405 FN406 FN409 FN410	<b>≤250 A</b> Capacitors FN7510 FN7511 FN7512 FN7513 FN7514 FN7560 FN7561 FN7562 FN7563  <b>Filters</b> FN7611 FN7612 FN7660 FN7661	<b>≤100 A</b> Standard Performance FN2010 FN2020 FN2410 FN2412 FN2450 FN332 FN350 FN7561 FN7562 FN7563 B,VB,EB style K,VK,EK style HT style	<b>≤36 A</b> High Performance FN2030 FN2060 FN2070 FN2071 FN2080 FN2415 FN2500 FN343 R,VR,ER style EP,VP style MV style VSK,ESK style VT,ET style W,V,W style	<b>≤32 A</b> Very High Performance FN2090 FN2091 FN2520 FN2560 FN2580 FN352Z FN353Z FN700Z	<b>25A-2300 A</b> FN2200 FN2211 FN2210 FN2211HV FN2210HV MRI  <b>EV-Charging Application</b> FN2230 FN2231 FN2220 FN2221 FN2240 FN2241 EVX	<b>≤300 A</b> FN3025 FN3026 FN3030 FN3040 FN3100 FN3120H FN3258 FN3287 FN3288 FN3268 FN351H KEB style KEM style KEH style AHV style	<b>25A-2300 A</b> FN3270 FN3271 FN3310 FN3311 FN3310HV FN3311HV FN3359 AHV style APS/APH style	<b>3 A-30 A</b> FN354 FN355	<b>8 A-600 A</b> FN3256H FN3280H KES style KEP style KEV style
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IEC Inlet Filters/Power Entry Modules PEM			
IEC Inlet Filters	PEM with Fuse or Switch	PEM with Fuse and Switch or Voltage Selector	Power Cords with Filters
<b>≤20 A</b> FN2640 FN2660 FN9222 FN9222E FN9226 FN9233 FN9233E FN9244 FN9244E FN9246 FN9255 FN9255E FN9274 EEJ style SRB style EJT style EBF style EJH style	<b>≤10 A</b> FN9260 FN9262 FN9264 FN9266 FN261 GG,HG Style HP style C style unfiltered	<b>≤10 A</b> FN1390 FN9280 FN9280E FN9290 FN9299 FN280 FN370 FN372 FN378 FN379 FN380 FN390 P style filtered P style unfiltered M style	<b>≤10 A</b> IF13
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Common Mode Chokes		
Single-Phase 0.2 A-10 A	3-Phase 6 A-63 A	3-Phase with Neutral 6 A-50 A
ED Series EV/EH Series RC Series RN Series  <b>6 A-85 A</b> RT Series RV Series		RV Series
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Product Selection PQ








Harmonic Filters		
Mitigation Requirement		
<b>Active</b> FN3530 FN3531 FN3540 FN3541 FN3532 FN3542 FN3545	<b>Passive ≤250 kW</b> FN3440 FN3441 FN3442 FN3443 FN3450 FN3451 FN3452 FN3453 FN3446 FN3458 FN3416LV FN3418LV	<b>Passive ≥250 kW</b> FN3470 FN3471 FN3472 FN3473 FN3480 FN3481 FN3482 FN3483
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3-Phase Reactors and LCL Filters		Output Filters	
Line Side		Load Side	Voltage Shape
<b>Line Reactors 4% ≤1000 A</b> RWK3044 RWK3062	<b>LCL Filters 50 A</b> FN6840	<b>Load Reactors 0.8% ≤1000 A</b> RWK305  <b>6% ≤1000 A</b> RWK5420	<b>dv/dt Filters ≤1200 A</b> FN5060 FN5060HV  <b>Sine Wave Filters ≤1320 A</b> FN5040HV FN5420 FN530
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### DC Filters – Schaffner and Corcom

DC filters are specifically enhanced for applications with DC supply like EV charging, DC grids, energy storage and PV installations.





















		Rated Current [A]				Attenuation Performance				Features			
		25	150	250	600	1000	2300						
		standard		high	very high			1-stage filter circuit	2-stage filter circuit	Low frequency attenuation	High frequency attenuation		
	Family <b>FN2200</b>	Max. Voltage 1200 VDC	25		2300			•		•	•		
	Family <b>FN2210 FN2211</b>	Max. Voltage 1000 VDC	250		2300			•		•	•		
	Family <b>FN2210HV FN2211HV</b>	Max. Voltage 1500 VDC	250		2300			•		•	•		
	Family <b>FN2220 FN2221</b>	Max. Voltage 1000 VDC	150		600				•	•	•		
	Family <b>FN2230 FN2231</b>	Max. Voltage 500 VDC	150		600				•	•	•		
	Family <b>FN2240 FN2241</b>	Max. Voltage 1000 VDC	150		600				•	•	•		
	Family <b>EVX</b>	Max. Voltage 1500 VDC	150		1600				•	•	•		

### DC EMI Filter for Lighting applications
















	Family <b>MRI</b>	Max. Voltage 40 VDC	3							•	•		
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### Schaffner - Single Phase Filters

Single-phase filters for chassis or DIN-rail mounting are key for EMC compliance of low to medium power industrial applications. A broad selection of electrical and mechanical features allows a specific choice and deployment for countless applications.

			Rated Current [A]				Features									
			1	10	20	40	60	100	Choice of connectors	Low frequency attenuation	High frequency attenuation	Earth line choke	Overvoltage protection	TEMPEST protection	DIN Rail Mounting	Multiple terminal choice
Family	Max. Voltage		standard			high	very high									
 EN2010	250 VAC/VDC		1				60		•							
 EN2020	250 VAC/VDC		1				60		•							
 EN2030	250 VAC/VDC		1			30			•	•	•	•				
 EN2060	250 VAC/VDC		1			30			•							
 EN2070/EN2071	250 VAC/VDC		1			36			•		•					
 EN2080	250 VAC/VDC		1			16			•	•						
 EN2090/EN2091	250 VAC/VDC		1			30			•	•	•	•			•	
 EN2410/EN2410H	250 VAC 520 VAC			8				100		•						
 EN2412/EN2412H	250 VAC 520 VAC			8			45		•						•	
 EN2415	250 VAC			6			20		•	•						
 EN2450	250 VAC			6			20		•	•						•
 EN2500	277 VAC 400 VDC			10			32		•	•						•
 EN2520	277 VAC 400 VDC			10			32		•	•						•
 EN2560	300 VAC 300 VDC		1			8			•	•						•
 EN2580	350 VAC		1			8			•	•						•
 EN332	250 VAC		1			10						•				
 EN343	250 VAC		1			10					•					
 EN350	250 VAC			8			55		•							
 EN352Z/EN353Z	250 VAC			6	10				•	•		•	•			
 EN700Z	250 VAC			6			20		•	•		•	•			

Corcom - Single Phase Filters







		Rated Current [A]			Features							
		1 10 20 40 60 100			Choice of connectors	Low frequency attenuation	High frequency attenuation	Earth line choke	Overvoltage protection	TEMPEST protection	Dinrail mounting	Multiple terminal choice
Family	Max. Voltage	standard	high	very high								
	VT_ET Style	250 VAC	3	20		•						•
	HQ Style	250 VAC	3	6								•
	S_VS Style	250 VAC	3	60								•
	VQ_EQ Style	250 VAC	3	20								•
	FC Style	250 VAC	3	50								
	FB Style	250 VAC	0.5	5								
	H Style	250 VAC	3	15				•				•
	B_VB_EB Style	250 VAC	1	30								•
	K_VK_EK Style	250 VAC	1	60				•				•
	R_VR_ER Style	250 VAC	1	20				•				•
	EPVP Style	250 VAC	3	20								•
	HT Style	250 VAC	3	15								•
	VSK_ESK Style	250 VAC	3	40		•	•	•				•
	W_VW Style	250 VAC	3	20		•						•
	MV Style	250 VAC	3	20		•						

### Schaffner - 3 phase Filters

EMC/EMI filter solutions for industrial applications like motor drives, machine tools and robotics. Furthermore, these types of filters are also suitable for renewable energy, energy storage, EV-charging stations, and a vast array of other 3-phase power electronics. Many types are available in low leakage current versions and are well suited for HVAC applications such as heat pumps.





			Rated Current [A]				Attenuation Performance							Features						
			7	50	180	250	380	2500	standard	high	very high	Multi-stage filter circuit	Safety connector blocks	Low leakage current	Versions for IT networks	Busbar connection	Optional protective covers	DIN-rail mounting option		
Image	Family	Max. Voltage	Rated Current [A]				Attenuation Performance				Features									
	FN3025	520 VAC	10	50								•	•							
	FN3026	520 VAC	10	50								•	•				•			
	FN3030 FN3040	530/300 VAC	10	30								•	•				•			
	FN3100	520 VAC		35			300					•								
	FN3120	520 VAC		25			230					•								
	FN3258H	520 VAC	7		180							•								
	FN3268	520 VAC	7		180							•	•							
	FN3270 FN3271	520 VAC	10				1000					•			•	•				
	FN3287	530 VAC	10		230							•	•							
	FN3288 FN3288IT	530 VAC	10		230							•	•	•	•					
	FN3288HV FN3288HVIT	760 VAC	10		230							•	•	•						
	FN3310 FN3311	520 VAC					250		2300						•	•	•			
	FN3310HV FN3311HV	760 VAC					250		2300						•	•	•			
	FN3359 FN3359HV	520 VAC 760 VAC			150			2500				•			•	•	•			
	FN3840	530 VAC		25			380					•				•				
	FN351H	520 VAC	8		180							•								




Corcom - 3 phase Filters

		Rated Current [A]			Features									
		7	50	180	250	380	2500	Multi stage circuit	Safety connector blocks	Low leakage current	Versions for IT networks	Busbar connection	Optional protective covers	Din-rail mount
Family	Max. Voltage	Attenuation performance												
		standard	high	very high										
	KEB style	440V/520V AC	1	150										••
	KEM style	440V/520V AC	6	250					•					••
	KEH style	440V/520V AC	10	250				•	•					
	AHV style	760/750V AC	7	180					•	•				
	AHV style	760/750V AC	7	1000				•		•		•		
	APS/APH style	520V/690V AC		250	1500			•				•		

### 3-phase with Neutral Line filters – Schaffner and Corcom

3-phase with neutral line filters are a compact solution for 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 installations typically involve several 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 increase 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.



















			Rated Current [A]				Attenuation Performance						Features								
Family	Max. Voltage		3	20	25	150	160	600	standard		high		very high		1-stage filter circuit	2-stage filter circuit	Safety connector blocks	Optional screw bolt terminals	Faston connection	Very low leakage current	
 <u>FN3256H</u>	3× 520/300 VAC		8				160			standard		high		very high		•	•				
 <u>FN3280H</u>	3× 520/300 VAC		8				600			standard		high		very high		•	•				
 <u>FN354</u>	3× 440/250 VAC		4			25			standard		high		very high				•		•		
 <u>FN355</u>	3× 440/250 VAC		3				30			standard		high		very high		•			•	•	

			Rated Current [A]						Attenuation performance						Features							
Family	Max. Voltage		7	50	180	250	380	2500	standard		high		very high		Multi stage circuit	Safety connector blocks	Low leakage current	Versions for IT networks	Busbar connection	Optional protective covers	Din-rail mount	
 <u>KES style</u>	440V/520V AC									standard		high		very high								••
 <u>KEP style</u>	440V/520V AC									standard		high		very high			•					••
 <u>KEV style</u>	440V/520V AC									standard		high		very high		•	•					

\* Din rail mount version  
 KES style current rating 1 to 60 A  
 KEP style current rating 6 to 50A












### Schaffner - IEC Inlet filters and Power Entry Modules

A powerful and compact combination of IEC connector, EMC/EMI filter, fuses, switch and voltage selector in one package.

			Rated Current [A]				Features									
			1	2	6	10	15	20	Fuse(s)	Switch (2-pole)	Voltage selector	Snap-In version	Extra wide mounting	Earth line choke	PCB mounting	Multiple terminal choice
Family	Max. Voltage		standard			high	very high									
 FN9222	250 VAC		1			20										
FN9222E	250 VAC		1			15										
 FN9226	250 VAC		1			10										
FN9233	250 VAC		1			15										
FN9233E	250 VAC		1			15										
 FN9244	250 VAC		1			15										
FN9244E	250 VAC		1			15										
 FN9246	250 VAC		1			20										
 FN9255	250 VAC		2			20										
FN9255E	250 VAC		2			15										
 FN9260 FN261	250 VAC		1			10										
 FN9262	250 VAC		1			10										
FN9266	250 VAC		1			10										
 FN9264	250 VAC		1			10										
 FN9274	250 VAC		1			15										
 FN9280	250 VAC		1			10										
FN9280E	250 VAC		1			10										
 FN9290 FN9299	250 VAC		1			10										
 FN2640	250 VAC		1			10		20								
 FN2660	250 VAC		1			10		20								
 FN280, FN281, FN282, FN283 FN284, FN285, FN286	250 VAC		1			10										
 FN370, FN372, FN378, FN379	250 VAC		2			6										
 FN380, FN382, FN385B FN388, FN389	250 VAC		2			6										
 FN390 (6 A) FN1390 (10 A)	250 VAC		1			10										
 IF13	250 VAC		1			10										

### Corcom – IEC Inlet filters and Power Entry Modules

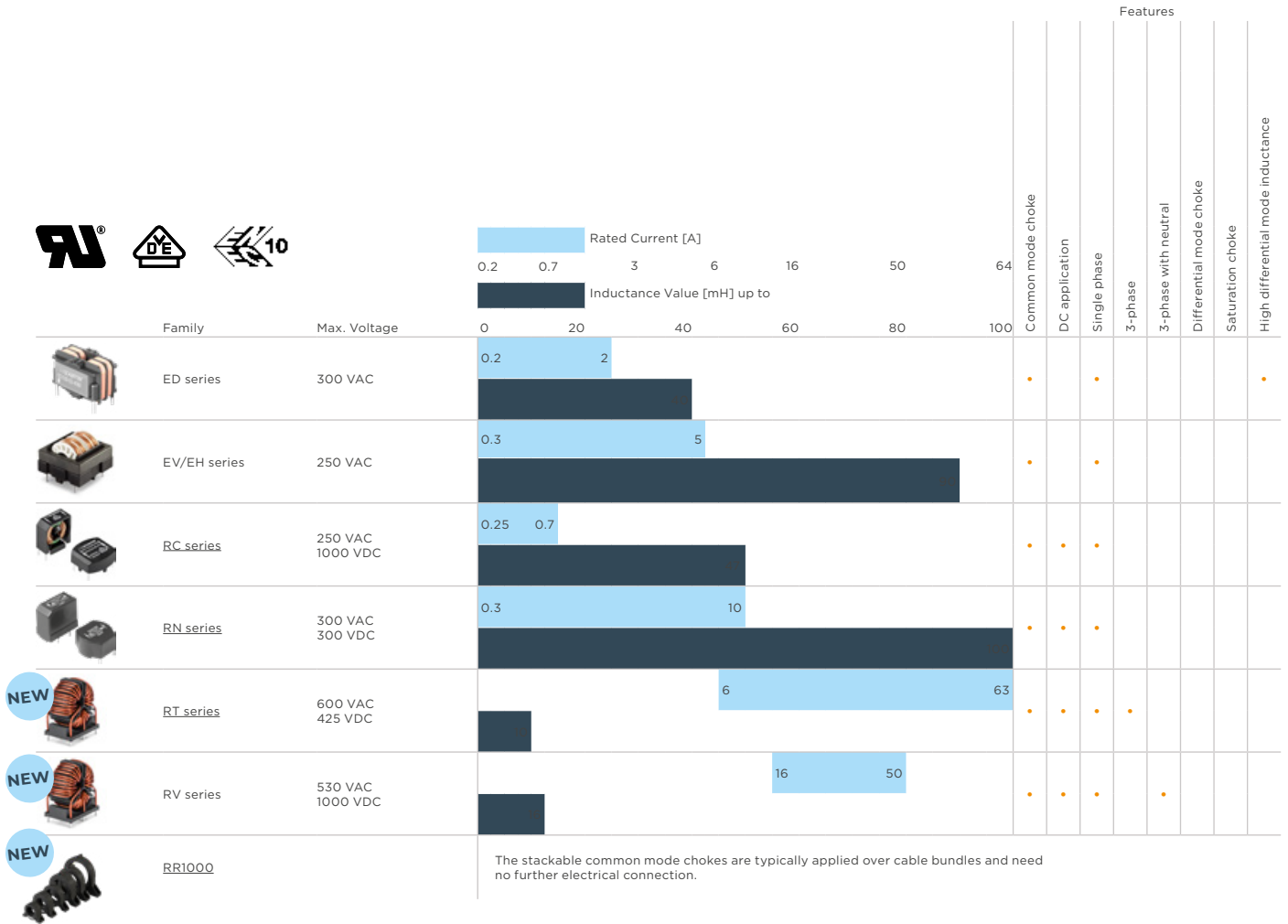
A powerful and compact combination of IEC connector, EMC/EMI filter, fuses, switch and voltage selector in one package.

Family	Max. Voltage	Attenuation performance			Features							
		standard	high	very high	Fuse	Switch (2 pole)	Voltage Selector	Snap-in version	Extra wide mounting	Earth line choke	PCB mounting	Multiple terminal choice
		1	10	20								
 <u>P style filtered</u>	250 VAC	0	10		•	•	•	•	•			
 <u>GG,HG style</u>	250 VAC	1	10		•			•				•
 <u>EEJ Style</u>	250 VAC	1	15							•		•
 <u>M Style</u>	250 VAC	3	6		•		•	•				•
 <u>SRB Style</u>	250 VAC		15					•				•
 <u>EJT Style</u>	250 VAC	1	20									•
 <u>HP Style</u>	250 VAC	3	12		•	•		•	•			
 <u>EJH Style</u>	250 VAC	1	20					•				•
 <u>EBE Style</u>	250 VAC	1	10									•
 <u>P style unfiltered</u>	250 VAC	1	10		•	•	•	•	•			
 <u>C style unfiltered</u>	250 VAC	1	15			•		•				








## EMC/EMI Chokes

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












PCB Filters





Very compact EMI suppression components can directly be mounted on printed circuit boards of low-power office, medical, telecom and IT equipment, DC/DC converters and power supplies etc. reliable low cost solution for manufacturers who already planned for EMC compliance throughout the equipment design process.

			Rated Current [A]					Features				
			0.5	3	6.5	8.4	10	13	For DC applications	With metal case	Low profile	Small footprint
Family	Max. Voltage	Attenuation Performance	standard		high	very high						
	EN402	250 VAC	0.5	6.5								
	EN405	250 VAC	0.5	10								
	EN406	250 VAC	0.5	8.4								
	EN409	75 VDC	3		13							
	EN410	250 VAC	0.5	6								

## Feedthrough Components

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



		Rated Current [A]						Capacitance [nF]						Features					
		0	10	50	63	100	200	2.2	100	220	470	1000	4700	AC capacitors	DC capacitors	AC filters	DC filters	Y2 capacitor class	Y4 capacitor class
Feedthrough Capacitors	Max. Voltage																		
 FN7510	300 VAC 250 VAC (UL)	10 100						47						.					
 FN7511	300 VAC 250 VAC (UL)	10 200												.					
 FN7512	300 VAC 250 VAC (UL)	16 63												.					
 FN7513	300 VAC 250 VAC (UL)	16												.					
 FN7514	300 VAC 250 VAC (UL)	32												.					
 FN7560	130 VDC 130 VAC	10 200												.					
 FN7561	130 VDC 130 VAC	63 200												.					
 FN7562	130 VDC 130 VAC	16 200												.					
 FN7563	130 VDC 130 VAC	16 200												.					

		Rated Current [A]						Attenuation Performance						Features					
		0	10	50	63	100	200	standard	high	very high									
Feedthrough Filters	Max. Voltage																		
 FN7611	300 VAC 250 VAC (UL)	10 63												.					
 FN7612	300 VAC 250 VAC (UL)	10 63												.					
 FN7660	130 VDC 130 VAC	10 200												.					
 FN7661	130 VDC 130 VAC	10 200												.					


### Power Cords with Locking Systems

Guarding against accidental disconnection of all electrical appliances with an IEC inlet, no exchange or modification of the IEC inlet or IEC inlet filter is needed. An easy retrofit for all electronic equipment and devices is possible.








Family	Max. Voltage	Standard Length							10 m	Features*						
		6 ft	2 m	9 ft	3 m	12 ft	5 m	On Request		C14 line side plug IEC C14 male, straight	C20 line side plug IEC C20 male, straight	EU1 line side plug CEE7/VII right angled	UK1 line side plug BS1363, right angled, fused 5 A, for IL13 and 13A for IL19	US2 line side plug NEMAS-15 straight hospital grade	UK1 line side plug BS1363, right angled, fused 5 A	CH1 line side plug SEVI011 straight
 IL13	250 VAC	•	•	•	•	•	•	×	•		•	•	•	•	•	•
 IL13P	250 VAC	Rewireable Connectors with Locking System														

\* Other features on request

Family	Max. Voltage	Standard Length								other length	Features*						
		1 m	6 ft	2 m	3 m	5 m	6 m	On Request	C14 line side plug IEC C14 male, straight		C20 line side plug IEC C20 male, straight	EU1 line side plug CEE7/VII right angled	UK1 line side plug BS1363, right angled, fused 5 A, for IL13 and 13A for IL19	US2 line side plug NEMAS-15 straight hospital grade	UK1 line side plug BS1363, right angled, fused 5 A	CH1 line side plug SEVI011 straight	JP1 line side plug JIS8303 straight
 IL19	250 VAC	•	•	•	•	•	•	•	×		•	•	•			•	•

### Active Harmonic Filters





















Active harmonic filters are suitable for mixed load installations and applications with dynamic load. Commonly used as a central solution at Point of Common Coupling (PCC). ECOSine Active Sync harmonic filters provide a reliable solution for harmonic mitigation, power factor correction and load balancing in real time. The modular concept offers one of the highest flexibility for customization, redundancy, retrofitting and combination with passive harmonic mitigation components.

			Rated Mitigation Current [A]								Features										
Family	Nom. Voltage*		60	120	180	240	300	600	900	1200	For 50 Hz grids	For 60 Hz grids	For 6 pulse diode rectifiers without L <sub>dc</sub>	For 6 pulse diode rectifiers with L <sub>dc</sub>	For 6-pulse SCR rectifiers	THDI <5%	Power factor correction	Load balancing	3-phase/3-wire	3-phase/4-wire	
 <a href="#">FN3530</a> <a href="#">FN3531</a>	200 VAC to 480 VAC	<b>NEW</b>	60 A								•	•	•	•	•	•	•	•	•		
 <a href="#">FN3540</a> <a href="#">FN3541</a>	200VAC to 415 VAC		60 A								•	•	•	•	•	•	•	•			•
 <a href="#">FN3532</a> High speed Bus	200 VAC to 480 VAC		120 A								•	•	•	•	•	•	•	•	•		
 <a href="#">FN3542</a> High speed Bus	200 VAC to 415 VAC		120 A								•	•	•	•	•	•	•	•			•
 <a href="#">FN3545</a>	200 VAC to 480/415 VAC		60	1200 A**																	

\* New: Nom. Voltage range starting from 200 VAC  
 \*\* Up to 1200 A by combining multiple cabinets










### Passive Harmonic Filters

Passive 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, significantly reduces the risk of harmonics-related reliability problems, and support long-term energy efficiency and cost savings. Ecosine passive harmonic filters are the industry standard for 6-pulse rectifiers and non-regenerative motor drives to achieve the often specified level of THDi <5%.

Family	Nom. Voltage	Rated Power [kW/HP]						Features									
		0	100	200	300	400	500	600	For 50 Hz grids	For 60 Hz grids	For 6 pulse diode rectifiers without L <sub>dc</sub>	For 6 pulse diode rectifiers with L <sub>dc</sub>	For 6-pulse SCR rectifiers	Full performance THDi <5%	Economy THDi 5-15%	3-phase/3-wire	
 FN3440	380 VAC to 415 VAC			1.1		250 kW				•		•	•	•	•		•
 FN3441	380 VAC to 415 VAC			1.1		250 kW				•			•				•
 FN3442	380 VAC to 415 VAC			1.2		240 HP					•	•	•	•	•		•
 FN3443	380 VAC to 415 VAC			1.2		240 HP					•		•				•
 FN3450	440 VAC to 500 VAC			1.1		315 kW				•		•	•	•	•		•
 FN3451	440 VAC to 500 VAC			1.1		315 kW				•			•				•
 FN3452	440 VAC to 480 VAC			1.5		300 HP					•	•	•	•	•		•
 FN3453	440 VAC to 480 VAC			1.5		300 HP					•		•				•
 FN3470	380 VAC to 415 VAC				250		500 kW			•		•	•	•	•		•
 FN3471	380 VAC to 415 VAC				250		500 kW			•		•	•	•			•
 FN3472	380 VAC to 415 VAC				280		480 HP				•	•	•	•	•		•
 FN3473	380 VAC to 415 VAC				280		480 HP				•	•	•	•			•
 FN3480	440 VAC to 480 VAC				315		560 kW			•		•	•	•	•		•
 FN3481	440 VAC to 480 VAC				315		560 kW			•		•	•	•			•
 FN3482	440 VAC to 480 VAC				350		600 HP				•	•	•	•	•		•
 FN3483	440 VAC to 480 VAC				350		600 HP				•	•	•	•			•
 LATEST FN3446	380 VAC to 500 VAC			4		200 kW				•		•	•	•			•
 FN3458	380 VAC to 480 VAC			5		300 HP					•	•	•	•			•
 FN3416LV	200 VAC to 240 VAC			2.5		90kW				•		•	•	•			•
 FN3418LV	200 VAC to 240 VAC			2.5		125HP					•	•	•	•			•




### Output Filters and 3-Phase Load Reactors

Schaffner offers a wide range of power quality motor protection devices. Enhancing the system reliability, availability and functionality to help avoid expensive downtimes of installations, manufacturing plants, machinery and other applications caused by premature motor damage. Dv/dt reactors reduce the voltage rise induced by the pulse wide modulation generated by the variable frequency drive, dv/dt filters reduce the voltage rise even further and the voltage peaks at the motor terminals. Sine wave filters are differential mode low-pass filters providing a sinusoidal phase-to-phase output voltage and allow the use of cables up to 2'000 m long, helps eliminate the bearing currents and reduce acoustic noises.

			Rated Current [A]		Motor Frequency [Hz]		Features															
Family	Nom. Voltage		0	200	400	600	800	1000	1200	Maximum cable length [m]	dv/dt reduction	Overvoltage reduction	Motor temperature reduction	Acoustic motor noise reduction	Sym. sinusoidal output signal	Asym. sinusoidal output signal	Significant reduction of bearing damage	Replaces cable shields	Connection to DC link required	Helps improve overall EMC	Reduces equipment downtime	
  <b>FN5420</b>	480 VAC	2.3	0 200 400 600 800 1000 1200						1000 A	2000	•	•	•	•	•						•	•
 <b>FN5040HV</b>	690 VAC	13	0 200 400 600 800 1000 1200						1320 A	2000	•	•	•	•	•						•	•
 <b>FN530</b>	500 VAC	0	0 200 400 600 800 1000 1200						16 A	1000	•	•	•	•		•	•	•	•	•	•	•
 <b>FN5060</b>	500 VAC	12	0 200 400 600 800 1000 1200						1100 A	500	•	•	•							•	•	
 <b>FN5060HV</b>	690 VAC	30	0 200 400 600 800 1000 1200						1100 A	500	•	•	•							•	•	
  <b>RWK5420</b>	480 VAC	2.3	0 200 400 600 800 1000 1200						1000 A	100	•		•							•	•	
 <b>RWK305</b>	500 VAC	0	0 200 400 600 800 1000 1200						1100 A	30	•		•							•	•	

### 3-Phase Line Reactors and LCL Filters

Line side harmonic mitigation solutions for industrial applications like motor drives and active front end/active infeed converters. 3-phase line reactors offer a first stage of mitigation with possibility to combine with other filtering solutions like an active harmonic filter. LCL filters protect the grid from disturbances induced during energy regeneration from the active front end.

			Rated Mitigation Current [A]							Features											
Family	Nom. Voltage		0	200	400	600	800	1000	<1000	For 50 Hz grids	For 60 Hz grids	For 6-pulse diode rectifiers	For 6-pulse SCR rectifiers	For Active Front End	Less commutation notches	Inrush current limitation	Harmonics reduction	Reduces the current and voltage ripples	4% impedance	2% impedance	
 <u>RWK3044</u>	380-480 VAC		2						1000		•	•	•	•		•	•	•		•	
 <u>RWK3062</u>	500-690 VAC		1.5						870		•	•	•	•		•	•	•			•
 <u>FN6840</u>	380-480 VAC		50								•				•	•	•	•			



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