

Passive harmonic filters

ECOsine FN 3416 series represent a very compact economical harmonic filter with a THID performance of ≤10% in conjunction with VSD's built-in DC-link choke. Ideal for non-linear three-phase equipment with 6-pulse front-end rectifier circuits.

Performance complies with EN 61000-3-12 or with IEEE-519 for I_{sc}/I_L <50. and other power standards. Schaffner ECOSine filters help to unburden the electrical infrastructure from excess loading and heat caused by current harmonics, and therefore support a better utilization of electric system capacity. Lower harmonics also reduce the risk of system resonances and potential downtime of sensitive electronic equipment.

FN 3416 filters upgrade standard motor drives to "low-harmonic drives" quickly and easily.

- Ideal for motor drives with 6-pulse rectifier front-end
- Suitable for diode and thyristor (SCR) rectifier applications

Nominal operating voltage: 3x 380 to 500 VAC ±10%
 THID current distortion: <10% @ rated power (with DC-Link choke)
 Efficiency: >98% @ nominal line voltage and power
 Conformity to: UL 508, EN 61558-2-20, CE (LVD2006/95/EC)



FN3416-45-33

type	current	rated load power		power loss (W)	dimensions (mm)			kg
	400V	400V	500V		(H)	(W)	(D)	

ECOsine passive harmonic filters

FN3416-10-44	10A	4kW	5.5kW	63	390	185	190	10
FN3416-13-44	13A	5.5kW	7.5kW	82	390	185	190	10
FN3416-16-44	16A	7.5kW	11kW	105	390	185	190	15
FN3416-24-33	24A	11kW	15kW	153	455	250	230	20
FN3416-32-33	32A	15kW	18.5kW	294	455	250	230	22
FN3416-38-33	38A	18.5kW	22kW	256	455	250	230	25
FN3416-45-33	45A	22kW	30kW	306	455	280	230	29
FN3416-60-34	60A	30kW	37kW	408	520	280	248	37
FN3416-75-34	75A	37kW	45kW	410	520	280	248	43
FN3416-90-35	90A	45kW	55kW	493	580	280	248	47
FN3416-110-35	110A	55kW	75kW	546	580	280	248	50
FN3416-150-40	150A	75kW	90kW	784	700	450	385	86
FN3416-180-40	180A	90kW	110kW	817	700	450	385	92
FN3416-210-40	210A	110kW	132kW	887	700	450	385	100
FN3416-260-99	260A	132kW	160kW	947	700	450	385	125
FN3416-320-99	320A	160kW	200kW	988	700	450	385	135

EMC/RFI - Three phase filters

Electro Magnetic Interference (EMI) unwanted high frequencies which ride on AC waveform. Many products such as variable frequency drives generate EMI, which may interrupt, obstruct, degrade or limit the effective performance of electronic equipment.

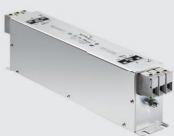
FN 3258 filters ensure compliance with Class A limits according to EN 55011 up to 50 m cable length and beyond, and contribute significantly to meet emission limits to Class B

Applications:

Three-phase variable speed motor drives, servo drives, inverters and converters
 HVAC equipment, elevators, power supplies, UPS and further three-phase applications

- Exceptional attenuation performance from 150 kHz to 30 MHz
- Excellent saturation resistance up to 50 m cable length
- Most compact and slim filter design in its class

Max. continuous operating voltage: 3x 480/277 VAC (FN 3258)
 Conformity to: UL 1283, CSA 22.2 No. 8 1986, IEC/EN 60939



FN3258-16-44

type	current	typical drive	leakage current	power loss (W)	dimensions (mm)			kg
	at 50°C				(H)	(W)	(D)	

FN3258-16-44	16A	7.5kW	4.3 mA	6.1	250	45	70	0.8
FN3258-30-33	30A	15kW	4.3 mA	11.8	270	50	85	1.2
FN3258-42-33	42A	22kW	4.3 mA	15.7	310	50	85	1.4
FN3258-55-34	55A	30kW	4.3 mA	25.9	250	85	90	2
FN3258-75-34	75A	37kW	4.3 mA	32.2	270	80	135	2.7
FN3258-100-35	100A	55kW	4.3 mA	34.5	270	90	150	4.3
FN3258-130-35	130A	75kW	4.3 mA	43.1	270	90	150	4.5
FN3258-180-40	180A	90kW	4.3 mA	58.3	380	120	170	6