

3rd Harmonic Filters

- Single Phase
- 120 & 240 Volts AC
- 50 & 60 Hz Versions

3rd Harmonic Filters by MTE Corporation will substantially reduce harmonic currents caused by:

- Personal Computers
- Electronic Ballasts
- Lighting Dimmer Controls
- Uninterruptible Power Supplies
- 1-Phase Motor Drives/Inverters

Use 3rd Harmonic Filters to:

- Reduce Neutral Currents
- Reduce Transformer Loading
- Protect Electrical Systems
- Reduce Fire Hazard
- Improve Power Factor

HARMONIC REDUCTION

The 3rd Harmonic Filter reduces each of the individual harmonics from 3rd through 9th. Typical reduction of the 3rd harmonic is often as much as 80%-90%. Triplen harmonics, which add together in the neutral conductor, are minimized with this filter.

REDUCE SYSTEM RE-WIRING COSTS

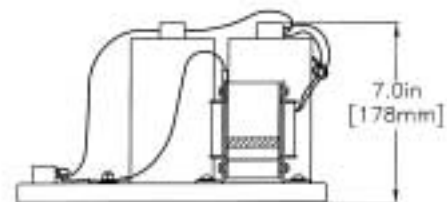
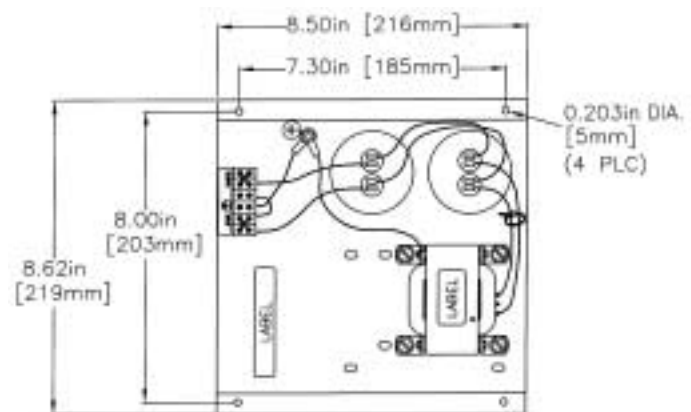
The presence of triplen harmonics may require that you increase the neutral conductor size on your electrical system or to replace standard transformers with K-factor rated transformers. The use of our 3rd Harmonic Filter may allow you to save these costs because the triplen harmonic can be reduced significantly.

PACKAGING OPTIONS

The 3rd Harmonic Filter is available as an open chassis type Hard Wire version. Use the Hard Wire version for industrial panel wiring applications where the load is directly wired to the filter.

THE BENEFITS OF USING MTE'S 3RD HARMONIC FILTERS:

- Reduce Triplen Harmonics
- Reduce Neutral Current
- Minimize Dangerous Third Harmonics



Application Engineering Assistance:

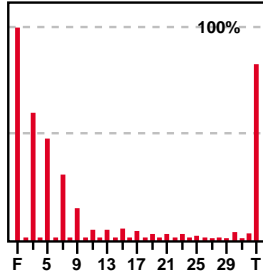
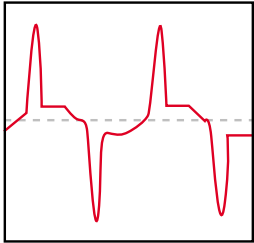
**1-800-455-4MTE, or
262-253-8200**

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e-mail: appengrg@mtecorp.com

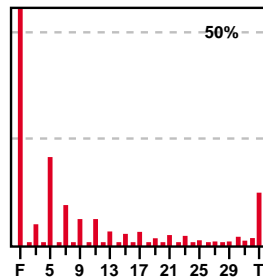
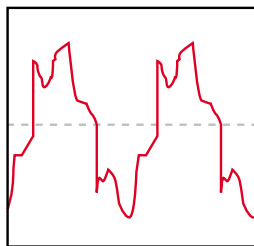


Input Current: 4- Personal Computers with No Filter



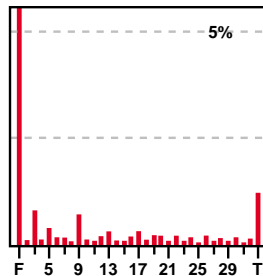
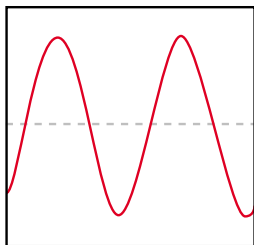
Circuit	H	%	H	%	THD thru the 31st
Total 5.9 Amps rms	3	59.2	19	2.1	% THD 82.8
Fund 4.5 Amps rms	5	46.7	21	2.4	
Har 3.7 Amps rms	7	29.3	23	2.1	% Odd 82.8
	9	14.5	25	0.8	% Even 2.5
	11	4.0	27	0.7	% Triplen 61.2
	13	4.6	29	0.6	
	15	5.5	31	0.6	K factor 10.7
	17	4.2			

Input Current: 4- Personal Computers with 5PHF Filter



Circuit	H	%	H	%	THD thru the 31st
Total 4.35 Amps rms	3	5.1	19	2.1	% THD 26.4
Fund 4.28 Amps rms	5	20.7	21	2.9	
Har 1.11 Amps rms	7	9.7	23	2.6	% Odd 82.8
	9	6.7	25	1.3	% Even 2.5
	11	6.3	27	1.2	% Triplen 9.4
	13	3.7	29	2.0	
	15	2.7	31	2.0	K factor 5.7
	17	3.4			

Input Voltage: 4- Personal Computers with 5PHF Filter



Circuit	H	%	H	%	THD thru the 31st
Total 111.5 Volts rms	3	0.8	19	0.1	% THD 1.3
Fund 111.5 Volts rms	5	0.4	21	0.1	
Har 1.4 Volts rms	7	0.1	23	0.1	% Odd 1.2
	9	0.7	25	0.2	% Even 0.4
	11	0.0	27	0.1	% Triplen 1.1
	13	0.3	29	0.2	
	15	0.1	31	0.1	K factor 1.0
	17	0.1			

60 Hz

Model	Amps	Volts	VA	Width (in./mm)	Depth (in./mm)	Height (in./mm)
5PHF	5	120	600	8.63/220	8.5/216	7/178
10PHF	10	120	1200	8.63/220	8.5/216	7/178
15PHF	15	120	1800	8.63/220	8.5/216	7/178
5PHF2	5	240	1200	8.63/220	8.5/216	7/178
10PHF2	10	240	2400	8.63/220	8.5/216	7/178
15PHF2	15	240	3600	8.63/220	8.5/216	7/178

50 Hz

Model	Amps	Volts	VA	Width (in./mm)	Depth (in./mm)	Height (in./mm)
5PHFX	5	120	600	8.63/220	8.5/216	7/178
10PHFX	10	120	1200	8.63/220	8.5/216	7/178
15PHFX	15	120	1800	8.63/220	8.5/216	7/178
5PHF2X	5	240	1200	8.63/220	8.5/216	7/178
10PHF2X	10	240	2400	8.63/220	8.5/216	7/178
15PHF2X	15	240	3600	8.63/220	8.5/216	7/178

3rd Harmonic Filters, by MTE Corporation, utilize passive blocking filter technology to attenuate the unwanted harmonics associated with single phase, non-linear loads (3rd, 5th, 7th, and 9th). Because we utilize an in-line filter concept, there is no concern about system resonance or filter overloading problems that may exist when using parallel or shunt type filters.

WORLD HEADQUARTERS

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