

ACE Passive Broad Band Harmonic Filter

Most of the mentioned filtering techniques have common draw back of higher cost compared to passive filtering techniques. Consequently, the passive harmonic filtering techniques to a large extent are still the most commonly used techniques for current harmonics mitigation of 6-pulse front-end diode rectifier application.

Here in ACE we have developed an efficient passive broadband filter, which can suit many similar of loads. Since all filter components are passive they are rugged, maintenance free, reliable and low cost. Moreover, the filter implementation procedure is relatively easy.

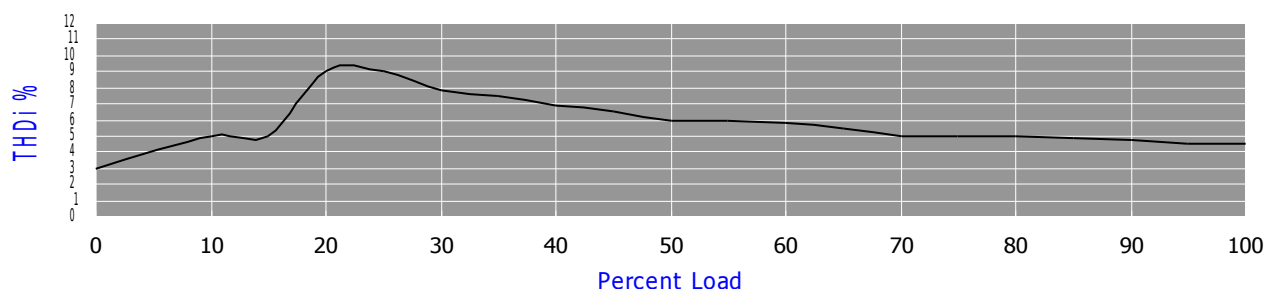
With simple structure, our passive filters have been extensively used for VFD mitigation techniques. No involvement of electronic circuits, hard wears and complicated control algorithms. Hence, our passive harmonic filters are relatively inexpensive means for eliminating current harmonics distortion & improving the system power factor. Because of these two in one improvements our passive filters usually have edge over the other effective filtering methods.



Specifications:

Technology	Passive Broad Resonant	Benefits: <ul style="list-style-type: none"> ● Helps meet IEEE-519 Requirements. ● Guarantees THDi performance of 8% Max at 50% load, 5% MAX at full load. ● Meets the voltage and current distortion limits of IEEE-519. ● Saves energy by eliminating the wasted energy associated with harmonics, therefore reducing the true RMS KVA demanded from your power source. ● Suitable for Speed Controllers or Inverters. ● Reduces energy costs. ● Increases equipment reliability by absorbing transients and voltage surges. ● Increases equipment life by reducing heat associated with harmonic currents. ● Improves Power Factor. ● Reduces THDv to meet Power Quality Standards.
Type	3P3W	
Output Load Type	6 Pulse Variable Rectified	
Supply Voltage	415 VAC \pm 10%, 3 Phase	
Frequency	50Hz \pm 1Hz	
I/p Voltage Unbalance	1% Max	
Max Source Impedance	6%	
Min Source Impedance	1.5%	
Duty	Continuous	
Operating Ambient Temperature	-20°C to +50°C	
Overload	150% for 1-minute duration with 10% output voltage reduction of nominal voltage.	
Total Current Harmonic Distortion	<9% at 30% Load <8% at 50-60% Load <8% at 60-90% Load <5% at 90-100% Load	
Protection	IP 20	

Total Current Harmonic Distortion



Design Features:

- Uses fewer capacitors while maintaining 98% efficiency.
- More consistent power factor across the load range.
- Improves C/L ratio, which decreases potential resonance.
- Lowers capacitance resulting in less voltage rise at no load, at PCC (Point of Common Coupling) and on the DC Bus.