222 North Center Street
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(903) 583-8097

ACT 350 Line Reactor Filters

ACT 350-RL Harmonic Compensated Line/Load Reactor Filters are part of a full facility solution that focus is cleaning up the harmonic and high frequency noise generated by your invertors, variable frequency drives (VFD), UPS's and other electronic equipment. These filters are normally installed in Hospitals near elevators, HVAC and X-Ray rooms; At industrial facilities where motors are used on the production lines and Waste Water Treatment Facilities where multiple pumps are needed to move the water.

For more technical information including mechanical drawings, please see ACT350 Application Document.

PRODUCT SPECIFICATIONS

Standard impedance values	1-1/2%, 2, 3%, 4%, 5% available
Impedance basis	Reactor fundamental current rating
Service Factor *(Continuous)* Reactors rated 1 to 750 Amps Reactors rated above 750 Amps *Note: Select reactor based on fundamental current rating*	 150% of fundamental rating 125% of fundamental rating minimum
Overload Rating	200% of fundamental for 30 minutes 300% of fundamental for 1 minute
Maximum system voltage	600 Volts (units with terminal blocks) 690 Volts (units with box lugs or tab terminals)
Maximum switching frequency	20 KHz
Insulation system	Class N (200° C)
Temperature rise Open or enclosed reactors	 135° C (average)
Ambient temperature Open or enclosed reactors	 45" C (maximum)
Altitude (maximum)	1000 meters
Fundamental frequency Line or Load	 50/60 Hz
Approvals:	CE, UL-508, CSA C22.2
Inductance curve (typical)	100% at 100% current 100% at 150% current 50% at 350% current (minimum)
Inductance tolerance	+/- 10%
Impregnation:	High Bond Strength "Solvent-less" Epoxy, 200° C UL94HB recognized
Dielectric Strength	3000 volts rms (4243 volts peak)
dv/dt Protection	Meets NEMA MG-1, part 31 (same as inverter duty motors)
Protection: meet IP20	 Open reactors with terminal blocks through 45 amps

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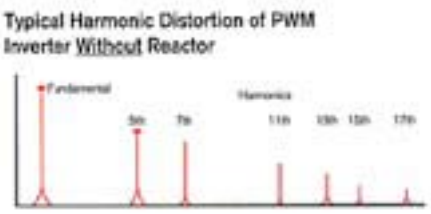
These robust filters are designed with a MTE RL reactor component as its backbone, the complete ACT filter system provides a power quality solution for any six pulse rectifiers or power conversion units (like used by computer servers). Unlike the competition there is no need to derate the ACT reactors as they are harmonic compensated and IGBT protected to assure optimum performance, and are used specifically to reduce harmful harmonics produced by inverters and VFD drives. ACT are conservatively designed to have higher continuous and overload ratings that offers Reactor / Filters up to 690 VAC with compatible impedance ratings.

TECHNICAL INFORMATION

Percent Harmonics vs Total Line Impedance Total Input Impedance								
Harmonic	3%	4%	5%	6%	7%	8%	9%	10%
5th	40	34	32	30	28	26	24	23
7th	16	13	12	11	10	9	8.3	7.5
11th	7.3	6.3	5.8	5.2	5	4.3	4.2	4
13th	4.9	4.2	3.9	3.6	3.3	3.15	3	2.8
17th	3	2.4	2.2	2.1	0.9	0.7	0.5	0.4
19th	2.2	2	0.8	0.7	0.4	0.3	0.25	0.2
%THID	44.13	37.31	34.96	32.65	30.35	28.04	25.92	24.68
TRMS	1.09	1.07	1.06	1.05	1.05	1.04	1.03	1.03



HARMONIC PROTECTION

The Reactor Filter provides a multi-level of protection to the facility.

- Protects the motor itself from harmful damage of harmonic frequencies.
- Protects the motor and drive controller from harmful voltage surges coming into the drive
- Protects the rest of the facility from harmful harmonics generated by each Variable Speed Drive