

# Three Phase AC Line Reactor

## Description

These series range of AC line reactors are designed to be used in Power distribution (Line side of Drive) provide input impedance which helps reduce harmonic distortion and increase VFD component lifetime.

## Features

- ▶ Reduction of main harmonics
- ▶ Impedance at 4%
- ▶ Protection of motor drive electronics
- ▶ Limitations of inrush Currents
- ▶ Prevention from nuisance tripping caused by power line voltage spikes
- ▶ Improvement of true power factor
- ▶ Reduce Power Distortion and Low Ripple
- ▶ Comply with Industry standards



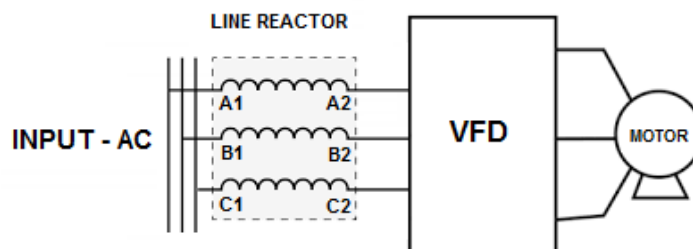
## Applications

- ▶ Power Quality Applications
- ▶ Motor Drives and Various adjustable speed drive systems such as: Elevators, Robotics, Machinery
- ▶ Harmonics Reduction
- ▶ Process Automation Equipment

## Technical Specifications

Maximum Continuous Operating Voltage	: 400VAC
Operating Frequency	: 50/60Hz
Current ratings	: 6A to 500A
Impedance	: 4% of rated voltage at rated current
High Potential test voltage	: 2000 VAC
Overload Capability	: 1.6 times of rated current for 1 Min/hr
Design Corresponding to	: EN 61558-2-20, EN 60076-6, UL61800-5-1
Temperature range	: -45°C to +100°C
Climatic Category	: 45/100/21
Type of Cooling	: Natural Cooling AN
Protection Category	: IP 00
Insulation Class	: Class F
Voltage Drop	: 9.2 Vac at each Line

## Connection Diagram

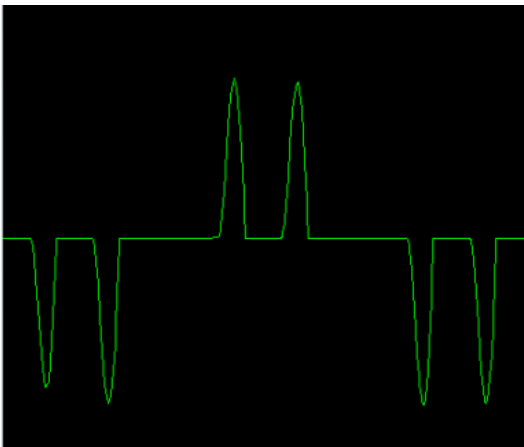


## Technical Data

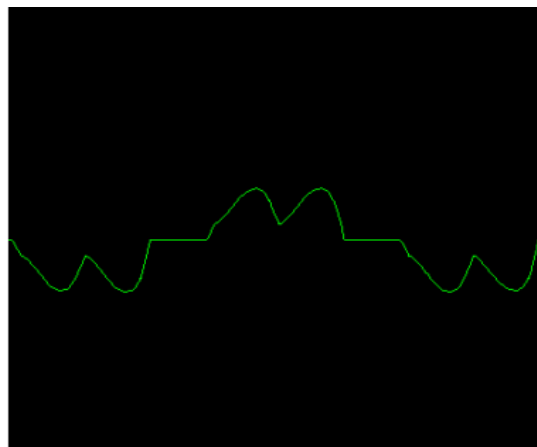
Part Number	Rated Current (Amps)	Rated Power @400V (KW)	Inductance (mH)	Termination
3000644900	6	3.7	4.9	Connectors
3001042900	10	6.2	2.9	Connectors
3001641830	16	10	1.83	Connectors
3002041470	20	12.4	1.47	Connectors
3002541170	25	16	1.17	Connectors
3003040980	30	18.7	0.98	Cable Lugs
3004040730	40	25	0.73	Cable Lugs
3005040580	50	31	0.58	Cable Lugs
3006040490	60	37	0.49	Cable Lugs
3007540390	75	47	0.39	Cable Lugs
3010040290	100	62	0.29	Cable Lugs
3021040140	210	75.6	0.14	Bus bar
3032040092	320	115.2	0.092	Bus Bar
3040040073	400	144	0.0735	Bus Bar
3050040058	500	180	0.0588	Bus Bar

**\*Note :** Rated Power is calculated for rated current , 400VAC and Cos phi = 0.9

## Advantages of having Line Reactor

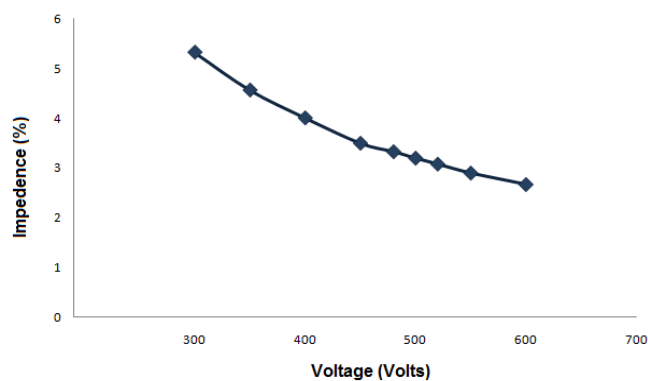


Without Line Reactor



With Line Reactor

## Impedance versus Voltage Plot



# Mechanical Drawing

6A to 25A	30A to 100A
<p>6A to 25A</p>	<p>30A to 100A</p>
<p>210 to 500A</p>	

## Mechanical Dimensions

Part Number	A(±2)	B(±5)	C(±5)	D(±2)	E(±5)	F(±0.25)
3000644900	140	80	130	124	60	6
3001042900	140	80	130	124	60	6
3001641830	145	75	125	129	55	6
3002041470	145	75	125	129	55	6
3002541170	140	105	130	124	85	6
3003040980	207	80	127	192	80	8.5
3004040730	207	120	127	192	97	8.5
3005040580	200	132	150	186	110	6
3006040490	200	132	150	186	110	6
3007540390	290	136	200	265	85	6
3010040290	290	136	200	265	85	6
3021040140	360	156.2	305	320	126.2	12
3032040092	360	200	350	320	152	15
3040040073	400	200	410	380	150	15
3050040058	400	260	450	380	205	15

*\*All dimensions are in mm*