



# OPTIMIZED LINE REACTORS



KDR line reactors are electrical components that help to protect 6-pulse rectifiers and power conversion devices such as variable frequency drives (VFDs). When used in conjunction with a VFD, a KDR line reactor can help reduce harmonics and protect the drive from harmful voltage spikes. KDR line reactors are recommended on the input of each VFD in multiple drive applications.

## Output of a VFD

KDR reactors are constructed with durability in mind and can be used on both the input and output of a VFD. When used on the output of a drive, KDR reactors reduce voltage distortion at the motor terminals extending the service life and minimizing insulation stress of any motor.

## Benefits of KDR Line Reactors:

- Helps to meet IEEE 519-2014 requirements
- 208 V-690 V; 0.25HP-1250HP
- Available in Ultra Low, Low and High Impedance
- Strong durable design specifically for VFD applications
- Drive Lifetime Warranty
- UL Listed
- Made in the USA
- Same Day Shipping

## Typical Applications with VFDs

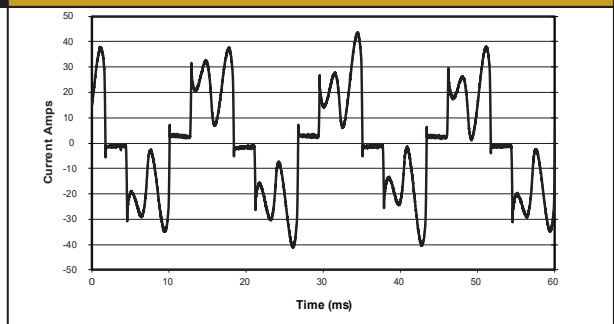
- HVAC Chillers
- Pumps
- Oil rigs
- Conveyors
- Sprinkler irrigation systems



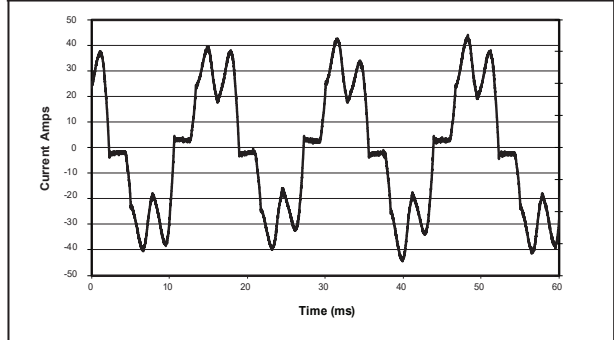
## Technical Specifications

Voltage	208 - 690 VAC
Frequency	50/60 Hz
Power Rating*	0.25 - 1250 HP
Impedance	Ultra Low, Low, High Impedance
Short Term Overload Rating	Tolerate 200% rated I for a maximum of 3 minutes
Inductance Characteristics	Minimum 95% L at 110% Load
	Minimum 80% L at 150% Load
Environmental Conditions	
Ambient Temperature	-40°C to 40°C enclosed
	Enclosed: 40° C (104° F)
Operating Altitude	Up to 2,000 m (6,000 ft) without derating
Reference Technical Standards	
Agency Approvals	cULus
Warranty	For the life of the drive with which the reactor is installed

## Input Harmonic Current Distortion- No Reactor



## Input Harmonic Current Distortion- with KDR



## Part Numbering

**KDR AA 3 L 2 E01**

KDR Series: \_\_\_\_\_

Design Frame: \_\_\_\_\_

Sequence Code: \_\_\_\_\_

Impedance Rating: \_\_\_\_\_

P - Ultra Low Impedance  
L - Low Impedance  
H - High Impedance

Foot: \_\_\_\_\_

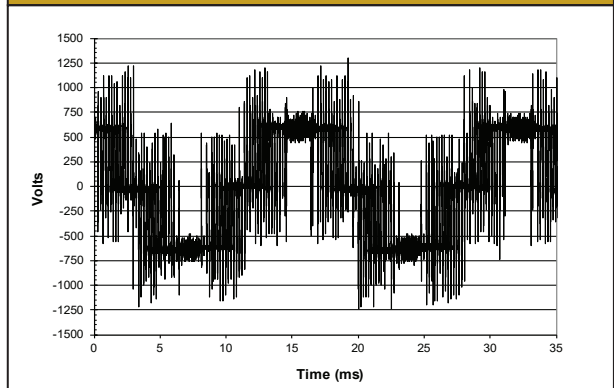
(Blank if not MA/AA)  
1 - Side  
2 - Thin

Enclosure: \_\_\_\_\_

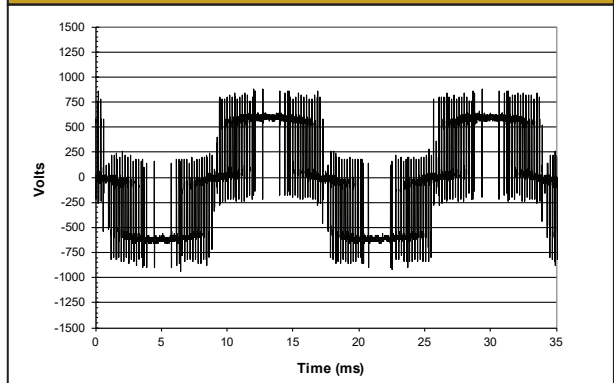
E01 - UL Type 1  
E3R - UL Type 3R  
E3R1 - UL Type 3R (MA/AA)  
C1 - NEMA 1 (MA/AA)

\*May vary based on voltage

## Output Motor Terminal Voltage- No Reactor



## Output Motor Terminal Voltage- with KDR



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Part #23320  
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