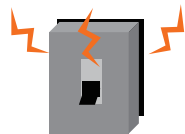


# Let Us Solve Your Power Supply Problems

Harmonic current causes power supply problems.

## Problems Caused By Harmonic Current



**Malfunction of Electrical Equipment**



**TV Flickering: Radio Noise**

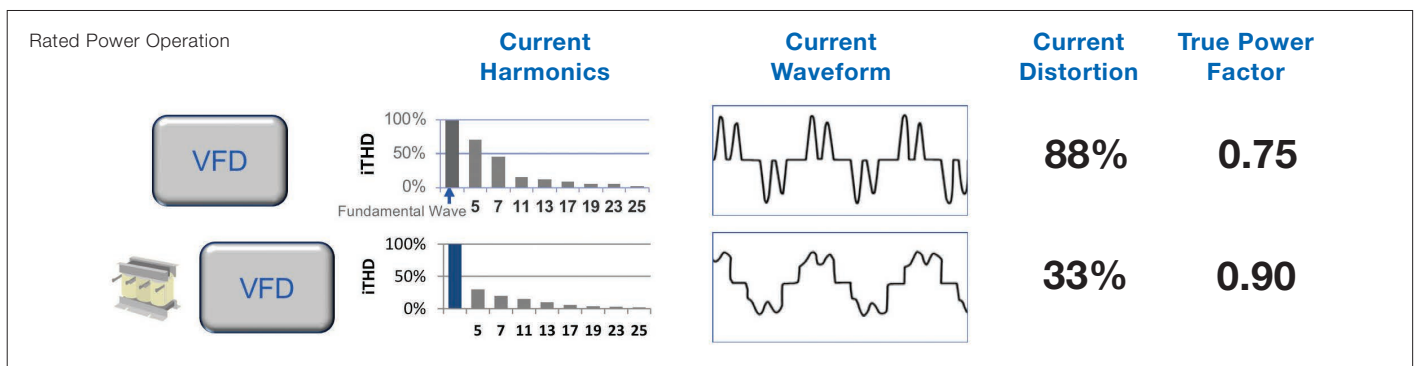


**Overheating of Upstream Equipment Such as Transformers and Conductors**

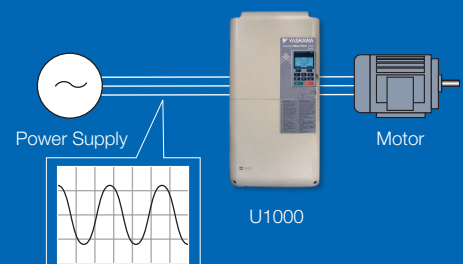
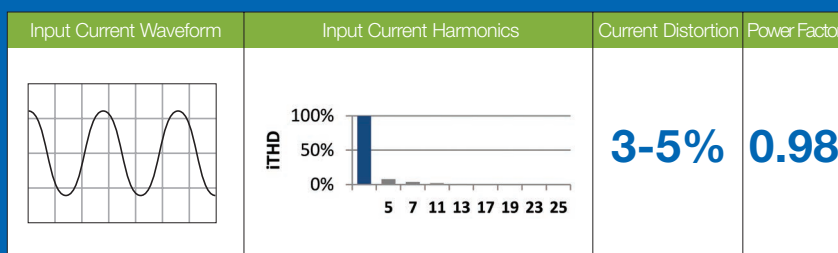


**Equipment Failure**

## When standard solutions are not enough...



## One U1000 Can Solve Your Harmonic Problems!



# Reducing VFD Harmonics

## Harmonic Mitigation Options

### DC Reactor (DC Link Choke)

- Impedance maintains current draw

### Multi-pulse Rectifiers

- Multiple rectifiers draw current more often

### Active Front End

- Forces current draw by boosting DC bus

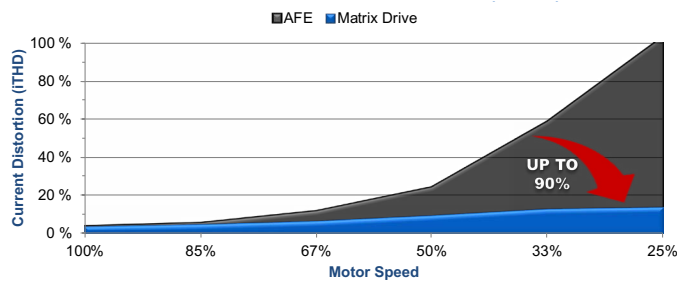
All of these options cost money and reduce efficiency.



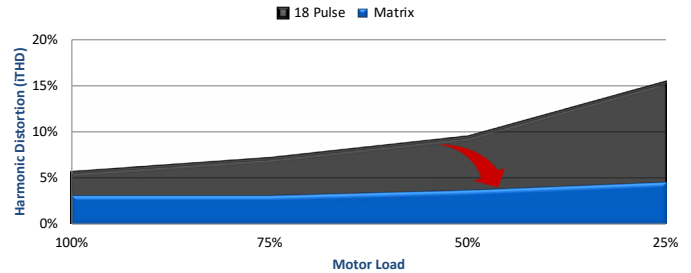
## U1000 Industrial Matrix Drive

- AC-to-AC Design Draws Sinusoidal Current Naturally
- No Extra Equipment Required
- Facilitates IEEE 519 Compliance

## Excellent Low Harmonic Performance Over Entire Load Range



40 HP Test Results



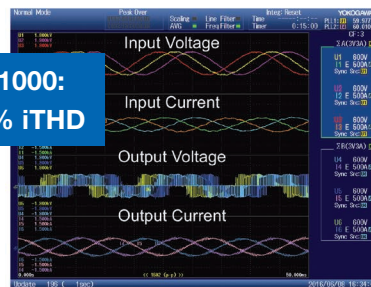
75 HP Test Results

## Eco-Mode

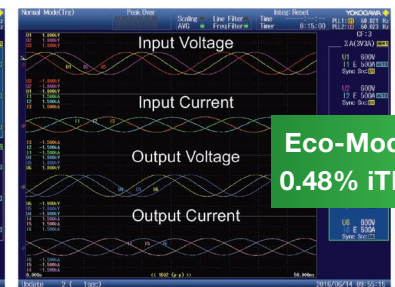
Across the line operation through the drive.

- Eliminates high frequency harmonics
- Eliminates electrical noise
- Easier on motor and drive
- Reduces maintenance to belts, pulleys, gearboxes
- Maintains drive protection (overcurrent, motor overload)
- Eliminates audible noise

U1000:  
<5% iTHD



Matrix Drive Rated Power Operation



Eco-Mode (Bypass Thru Drive Operation)

Eco-Mode:  
0.48% iTHD