

# Matrix Drives vs. Active Front End Systems

Making the complicated simple.



U1000 Industrial Matrix Drive

The U1000 is a compact, total all-in-one solution for low harmonics and/or full regeneration. It is the ultimate choice for power quality and energy savings. Additionally, the U1000 delivers high flexibility and motor control performance to meet a wide variety of application requirements.

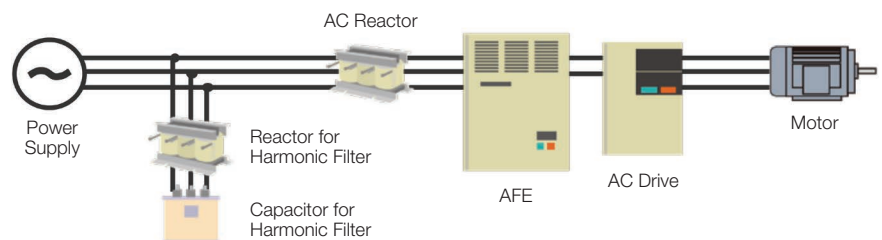
## Eliminate Components:

- Regenerative Drive
- AC Reactors
- Capacitors
- Additional Fusing

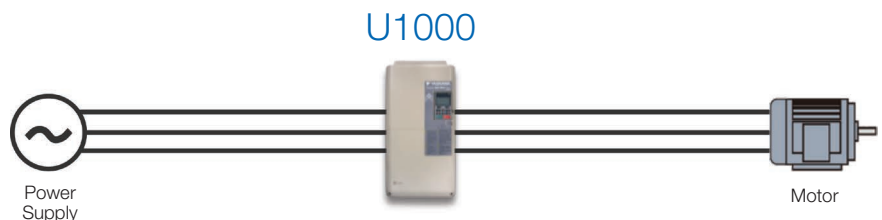
Reduce wiring by: <b>70%</b>	Reduce size by: <b>65%</b>
Reduce weight by: <b>81%</b>	Reduce power by: <b>19%</b>

Example: 480V 40HP

## Active Front End (AFE)



## U1000 Matrix Drive

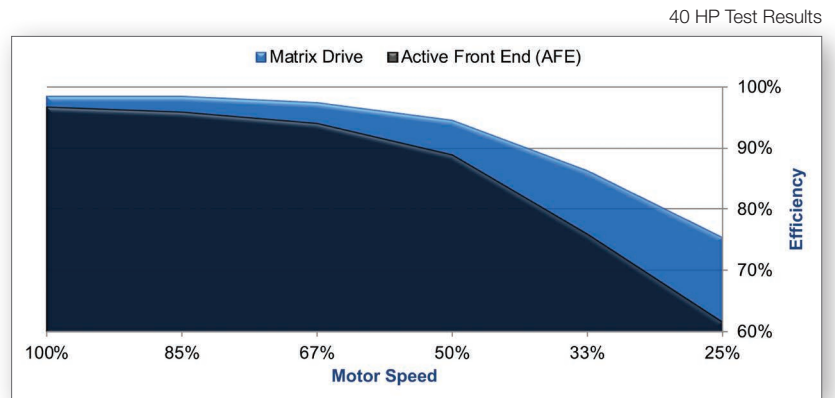


3 in ↔ 3 out

All-in-one compact unit!

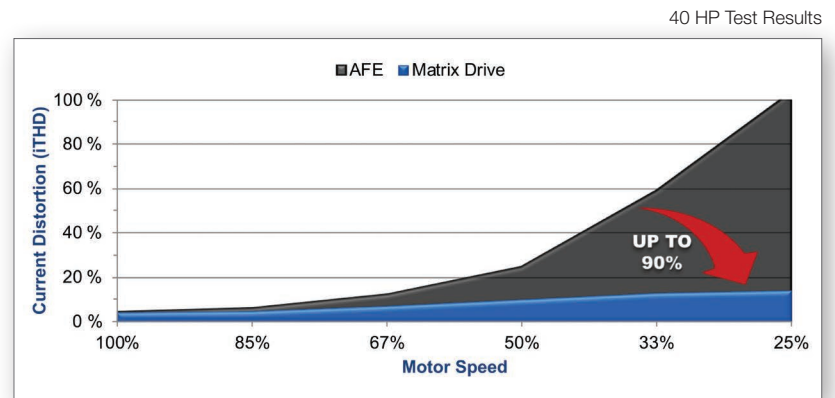
## More Efficient

The U1000 Industrial Matrix Drive is more efficient at rated power than an AFE configuration and maintains that highly efficient operation throughout the load profile.

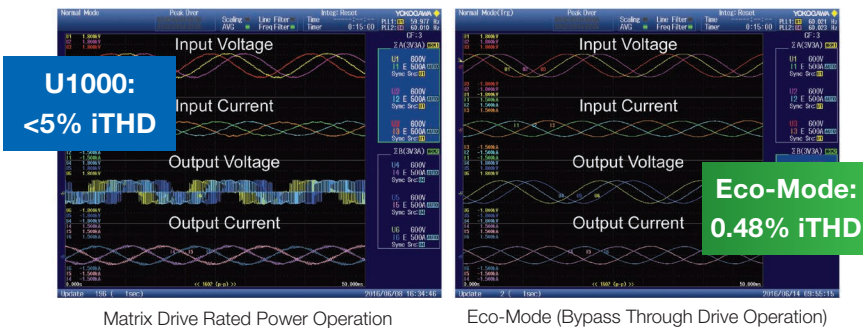


## Lower Harmonics

The U1000 Industrial Matrix Drive offers low input current harmonics that facilitate IEEE 519 compliance. Not only does the U1000 have low harmonics at rated load, but it's an overall green solution. The U1000's harmonics remain low throughout the entire load range of the motor, far exceeding an Active Front End's harmonic capabilities.



75 HP Test Results



## Eco-Mode

Across the line operation through the drive.

### Benefits

- 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