



## Optimized Motor Drive Control

IMPROVED ENERGY  
EFFICIENCY

OPTIMIZED PERFORMANCE

LOWER MOTOR OPERATING  
TEMPERATURES

AUTO-TUNE SETUP

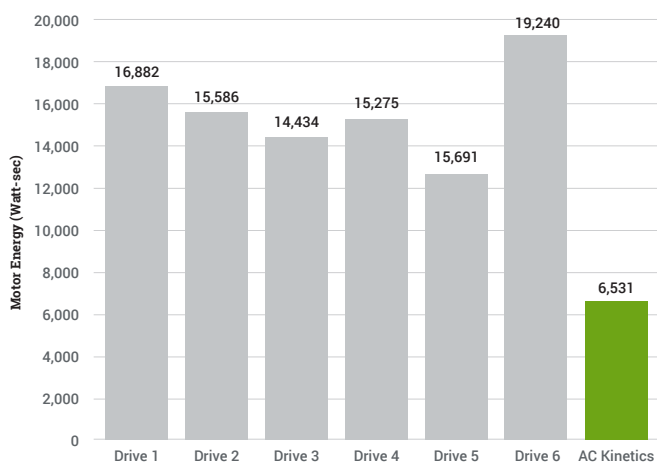
### Real savings, from the drive to the bottom line.

In a competitive manufacturing environment, every dollar matters. And nothing adds up quicker than wasted energy associated with operation of inefficient AC induction motors, which consume billions of dollars' worth of power each year and which require countless man-hours to set up and tune. What if your company could eliminate these unneeded expenses, improve your operations' energy profile, and see cost savings passed right to your bottom line? With AC Kinetics' proprietary VFD-control software, now you can.

### Groundbreaking technology based on non-linear optimization.

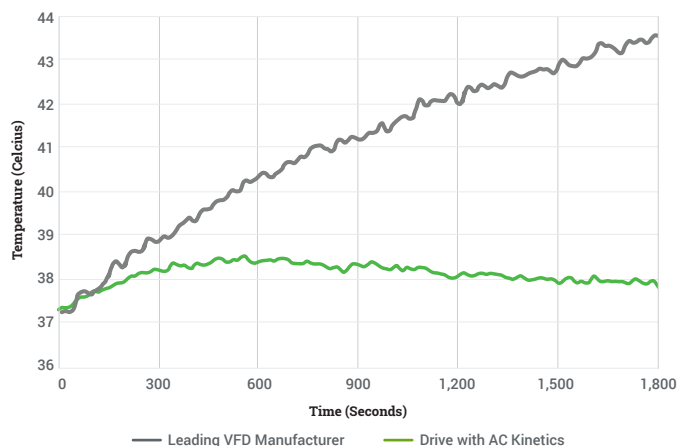
AC Kinetics' technology represents a breakthrough in non-linear optimization (NLO) technology. VFDs equipped with AC Kinetics software enable your motors to operate more efficiently, consume less energy, and produce less heat—regardless of whether the motor is operating under a highly variable load or in steady-state, regardless of the size of the motor, and regardless of motor application. AC Kinetics technology improves the performance of motors controlled by any VFD manufacturer, and the proprietary software comes packaged as an application program interface (API) compatible with a range of existing VFD hardware. And when you purchase a VFD equipped with AC Kinetics, the drive tunes automatically and efficiently, eliminating the hours currently wasted tuning drives.

### Energy Consumed



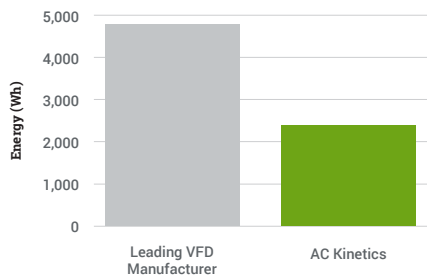
Above: Total motor energy consumed under dynamic load

### Temperature Comparison



Above: Temperature comparison of 60-horsepower motor operating in a dynamic manufacturing profile

Energy Consumption



Above: Estimated savings based on 60-horsepower motor operating in a dynamic manufacturing profile

Annual motor energy cost	\$6,500 (\$0.08/kWh)
Reduction in energy consumption	49%
Annual savings	\$3,200

Invented. Perfected. Competitively tested.

We worked with Advanced Energy, the only independent National Institute of Standards and Technology laboratory in North America certified for motor efficiency testing, to put our technology through its paces. In tests performed against VFDs from leading manufacturers, the AC Kinetics-controlled drive enabled motors to achieve significant energy savings on 5-, 50-, 60- and 200-horsepower motors, while also decreasing heat from the motor. Energy savings ranged from 4 percent (in steady-state operation) to over 60 percent, depending on motor speed, load, and operating mode. And AC Kinetics’ motor control algorithm performed better in terms of energy consumption than commercially available drives set in “energy saver” mode, without risk of tripping out in response to sudden loads.



For more information on AC Kinetics, including independent test results and a video interview of Dr. Singer from IHS CERAWeek, please visit [ACKinetics.com](http://ACKinetics.com).



**Dr. Neil Singer** Founder and CTO

Dr. Singer received his B.S., M.S., and Ph.D. in mechanical engineering from MIT. He holds 16 U.S. patents, has been published more than 30 times in peer-reviewed journals, and has developed technology licensed to many major companies including NASA, Seagate, the Department of Energy, Danaher, Disney and Magnetek.



**Dr. Kenneth Pasch, P.E.** Engineer and software developer

Dr. Pasch also received his B.S., M.S., and Ph.D. in mechanical engineering from MIT. A former assistant professor at the University of Illinois and research scientist at MIT, he holds a dozen U.S. patents and has been published numerous times in peer-reviewed journals.



**Stuart Landow** CEO & CMO

As CEO of AC Kinetics, Mr. Landow brings extensive business experience to the team, previously serving as CEO of Top Source Technologies and as senior vice president of Purolator Products. Additionally, he has served as a marketing consultant to companies like Mobil, P&G, Borden and General Battery.