The Technology Consortium, Ltd.
Information Alert

Why You Need the H.E.L.P. (High Efficiency Local Processor) System:

- **Reduced Power Costs**
- **Reduced Equipment Wear**
- **Reduced Maintenance Costs**
- **Better Equipment Performance**
- **Increased Equipment Life**
- **LEEDS Certified**
- **Federal & State Energy Savings Incentives Apply**
- **UL & CE Approved for International Installations**

Inside this issue:

H.E.L.P. SYSTEM

(HIGH EFFICIENCY LOCAL PROCESSOR)

ENERGY EFFICIENCY & SAVINGS…

Volume I, Issue 4 October 10, 2010

The H.E.L.P. System will Reduce Your Electrical Costs!

* **Motors consume ~70% of all industrial energy…**
* **Motors are either on or off; this wastes energy during operation at decreased loads…**
* **Motors operate at 50-60% of rated capacity (Decreased Load) most of the time…**

*The **H.E.L.P.** System utilizes a patented Smart Controller to "Throttle", and protect, standard (Both VFD & Non-VFD) motor systems.*

***Operation:** The **H.E.L.P.** System is an augmentation to existing motor control equipment; it monitors and evaluates the motors operational needs, and adjusts the motor electrical input accordingly. By supplying the optimum amount of power to the motor, we achieve drastically lower energy consumption and costs. The **H.E.L.P.** System works on all types of motorized equipment.*

The patented H.E.L.P. System motor control.

H.E.L.P. System Performance Testing:

***Testing:** The **H.E.L.P.** System was used to control the compressor motor of a standard 10-Ton HVAC system. Return air temperature was used to adjust the operation of the Smart Controller. Electrical consumption data was recorded on a certified energy analyzer.*

***Results:** Testing resulted in a reduction of 36.8% of operating Amperage, and a 57.1% reduction of kW consumption.*

Contact The Technology Consortium, Ltd., for additional information, or to schedule a free site/equipment evaluation.

The Technology Consortium, Ltd.

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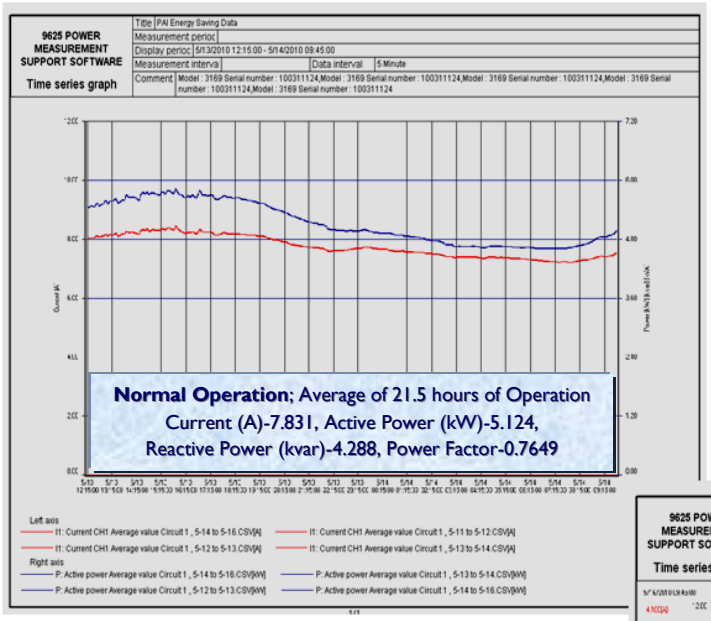
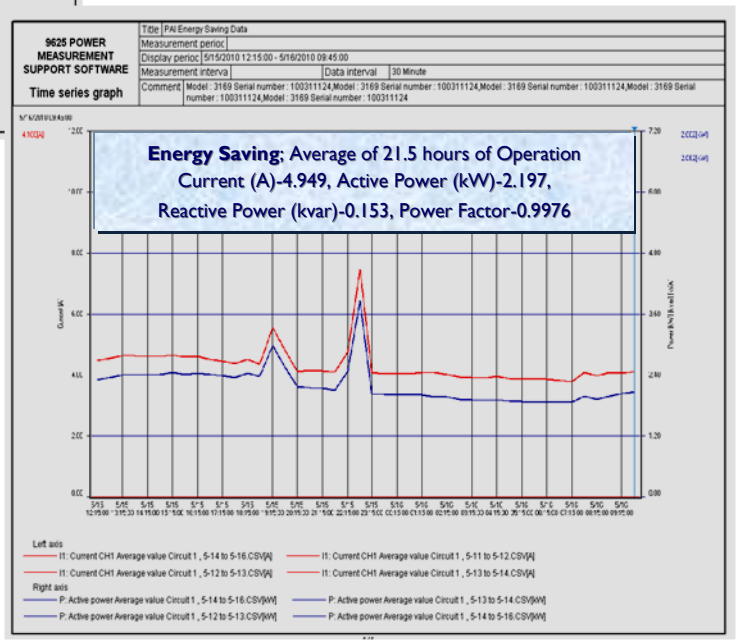
Equipment Testing Verifies and Validates H.E.L.P. System Performance…



*These are **Actual Energy Analyzer Charts** gathered from HVAC equipment testing*
(Actual Test Data is Available for your Review)

Normal Equipment Operation:

Average of 7.831 Amps,
5.124 kW of Electrical Consumption,
and motor efficiency of 76.49%.



H.E.L.P. System Energy Savings Mode:

Average of 4.949 Amps,
2.197 kW of Electrical Consumption,
and motor efficiency of 99.76%!

This Data Translates into a Reduction of 36.8% of Amperage, as well as a 57.1% Reduction of kW Consumed!

*Installation of the **H.E.L.P.** System onto a standard (Unmodified) "Carrier" HVAC System*

Domestic HVAC Installation

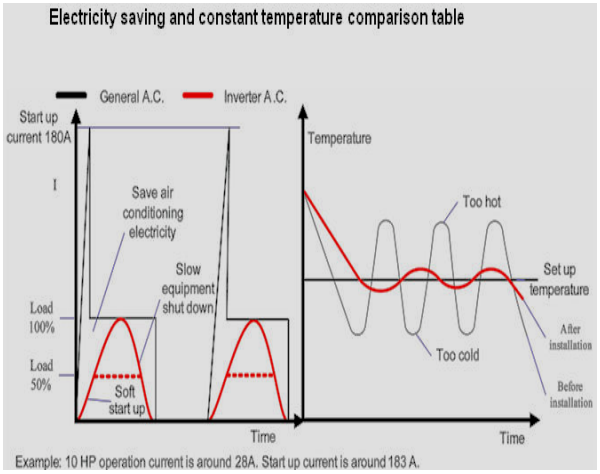
*Our **H.E.L.P.** System was installed onto a standard "Carrier" HVAC unit. The operation was monitored with a energy data logger as well as other process monitoring devices. In addition to the Energy Savings observed and documented, installation data also showed a reduction in compressor temperature as well as an elimination of equipment "Start-up" energy spikes. Eliminating these conditions contribute to reduced mechanical wear.*

Mercedes Benz Success

*The **H.E.L.P.** System was installed on a secondary chilled water pump in the Nan-Gang office of Mercedes Benz.*

*None of the existing controls or settings were changed during the installation. We simply added our **H.E.L.P.** system to the original circuit and attached the electric monitoring device for measuring energy consumption.*

*We accurately monitored and recorded the data in real time. As the numbers shown in chart below indicate, the power consumption is significantly lower after installing the **H.E.L.P.** System energy saving equipment.*



*This chart shows the comparison between Normal and **H.E.L.P.** System (Energy Savings) Operation.*

*The **H.E.L.P.** System also maintains a closer temperature set-point profile as shown in the Temperature Chart.*

H.E.L.P. System Energy Savings: Mercedes Benz Office Complex

Energy consumption before and after H.E.L.P. System installation

The total power consumption of these two pumps in Normal Operation for the week was 1922.66 kWH. Average is 274.67 kWH/day and 20.38 kWH/ hour.

*The total power consumption of these two pumps following our **H.E.L.P.** System installation for the week was 901 kWH. Average is 128.71 kWH/day and 10.02 kWH/hour.*

Even with the drastic reduction of energy consumed, pump operation and system performance remained unchanged!!!

Normal Operation kWH:	H.E.L.P. System kWH:	Reduction of kWH:	Savings Percentage:
20.38	10.13	10.25	50.27%
20.40	10.00	10.39	50.98%
20.34	9.98	10.36	50.93%
20.33	10.02	10.31	50.71%
20.42	10.03	10.39	50.88%
20.41	9.99	10.42	51.05%
20.36	9.99	10.37	50.93%

Motor Efficiency & Consumption after H.E.L.P. System Installation

Horse Power:	Normal kWH:	Electricity Cost:	kWH Saving (50%):	Cost Saving per year (50%):
Two 15 HP Secondary Chilled Water Pumps	100,254.0 kWH / Year	$7,522.44 USD/Yr.	50,127.0 kWH / Year	$3,761.22 USD/Yr.

*In Normal Operation the two secondary chilled water pumps consumed 20.38 kWH/ hour. Following our **H.E.L.P.** System installation, these same two secondary chilled water pumps consumed only 10.02 kWH/hour!*

We slashed the Electrical Consumption of these Motors by HALF!

*Our initial estimate of energy saving for this project was ~25%, or approximately 25,064.0 KWH/Year. However, following the **H.E.L.P.** System installation and testing, the actual energy saving is over 50%!*

The actual ROI of the energy saving system is 1.7 years!

*The **H.E.L.P.** Systems qualifies for Government, Utility, and other Energy Savings incentives. We are also accredited for LEEDS (Carbon Reduction) credits! When you factor in these equipment cost reductions, actual equipments costs are further reduced by about half!*