



VR Series Variable Frequency Smart Controllers

The SES Smart Controller has been installed in over 250 locations worldwide. Applications include HVAC systems to anything driven by electric motors from factories, office buildings, and retail stores, to restaurants and hospitals. With energy costs increasing, and all sectors of society striving to reduce energy consumption, expenses, and carbon footprint, smart consumers are seeking ways to cut costs while at the same time, extend the life of existing equipment. With Solarienne Energy Solutions' range of smart controllers, it is possible for companies to extend existing equipment life and still achieve energy saving by up to 33%!

SES Smart Controllers continuously monitor operation of your existing equipment. At the same time they provide a more stable and comfortable working environment as well as prolong the life of existing equipment by reducing wear and tear from excessive stop/start cycles.

The Solarienne Energy Solutions' series of Smart Controllers uses patented microprocessor technology to provide continuous control of output frequencies on equipment at the most optimum operating speeds. This reduces electricity consumption, reduces equipment wear from frequent start-up and shutdown cycles, and reduces output variation thereby providing for a more constant temperature control for consumers, which saves our customers money.

SES Smart Controllers also go a long way in helping make a significant contribution to the nation's energy conservation efforts and can help gain LEEDS points for your building.

Added bonus:

Your SES Smart Controller system may also qualify you for significant Federal and State tax credits and incentives, lowering your total cost of ownership significantly reducing the ROI payback period.



"The smart controller HVAC system dynamically matches the loading of HVAC per real life environmental requirements. After installing the SES-VR system for over one year, it has been saving electricity for the whole building. We give high marks for service and product".
Yi-Sheng Kon
Principle - Zen Kon Hospital

"By using the smart controller HVAC system, we have dramatically lowered our electricity costs. It also saves us by allowing us to reuse original equipment by simply adding these energy saving units with great benefits making our company more competitive. After one year of installing the SES-smart controller system, we've been very satisfied with the efficiency, savings, and service".
Steven Lu
General Manager - Microtip Technology Co. Ltd.

SES-VR smart controller installed on our compressors, freezers and refrigerating systems have offered a stable, quiet, and efficient operating model while the chilling ability is as before. The power saving ability is outstanding. These power saving devices improve the use and quality of the overall freezing system, delivering power savings right away.
Jing-Han Xu
Deputy Director - Wha Seng Frozen Food Co.

Our systems reduce energy consumption on:

- *HVAC Systems*
- *Air Compressors*
- *Pumps*
- *Chillers*

Plus electric motors driving:

- *Conveyors,*
- *Escalators and elevators,*
- *and any equipment driven by and electric motor*

All traditional air conditioners perform 15% or less of the time at peak load. The rest of the time, they are inefficient in their operation. SES Smart Controllers use our patented microprocessor technology to continuously monitor and control the power supply to the compressors. This allows the SES Smart Controller to control and operate the equipment in the most efficient manner while providing improved comfort and operations for building equipment with a significant reduction in energy cost.



Each Smart Controller is custom matched to your equipment.
 Input Voltages: 208 VAC to 480 VAC 3- Phase
 HP Range: 5~40 HP
 UL and CE approved.
 1 Yr Limited Warranty

Capacity	Enclosure Size (H x W x D in Inches)
5 – 10 HP	27.6 x 16.5 x 9.8
15 – 25 HP	31.5 x 16.5 x 11.8
30 – 40 HP	39.4 x 16.5 x 11.8

Recent Case Studies:

Hui Sheng Postpartum Center - Taipei, Taiwan.
 Installed equipment: Air-cooled HVAC Chiller (220V, 10HP compressor).
 Energy Saving Solution employed: Smart Controllers (4 sets)
 Hours of operation: 20 hrs/day, 7 days per week

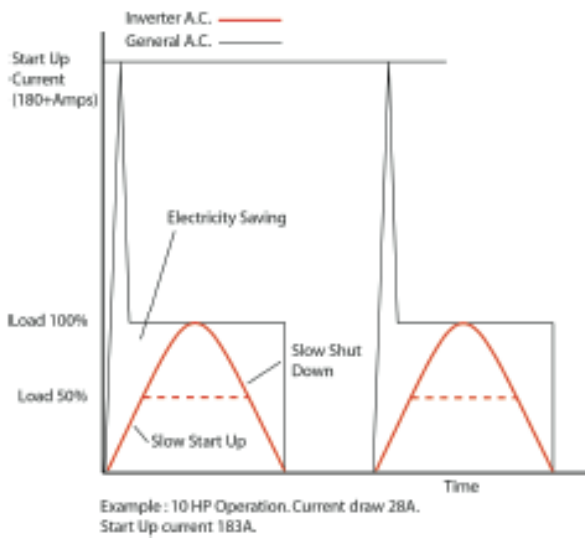
Test Mode	Power Consumption	Energy Savings
Normal	17.08KWh/h	
Energy Savings On	10.00KWh/h	7.08 KWh/h (41.5% Savings)

China Trust YuGi Building
 Existing equipment: Carrier Chiller (380V, 25HP compressor)
 Energy Saving Solution employed: Smart Controller (1 set)
 Hours of operation: 14 hrs/day, 5 days per week

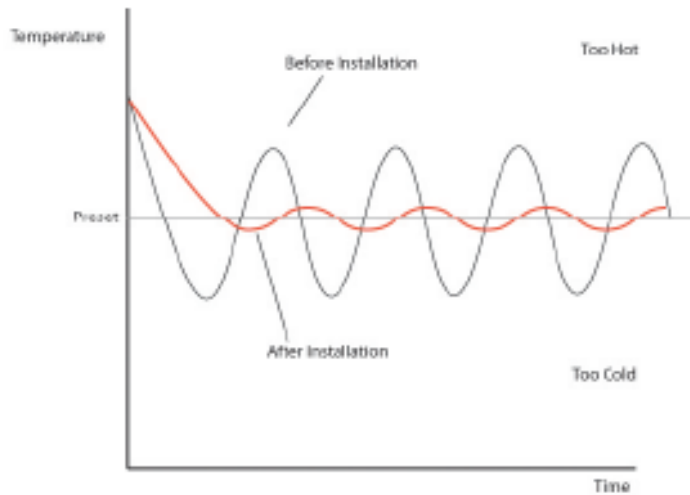
Test Mode	Power Consumption	Energy Savings
Normal	16.88 KWh/h	
Energy Savings On	12.12 KWh/h	4.76 KWh/h (28.2% Saving)

Chunghwa Telecom.
 Existing equipment: Tatung Chiller (220V, Twin 20HP compressors)
 Energy Saving Solution employed: Smart Controller (2 sets)
 Hours of operation: 8 hrs/day, 5 days per week

Test Mode	Power Consumption	Energy Savings
Normal	16.51 KWh/h	
Energy Savings On	10.62 KWh/h	5.89 KWh/h (35.7% Saving)



Soft Start Technology saving wear and tear on existing equipment, with reduced energy consumption



Optimal equipment control provides more comfort control, reducing stress on equipment operations.

