Clever Solutions For Energy Saving

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Company Profile

E.H.S TECH is exclusive representative and manufacture of several patents for energy saving which are marketed in Israel, USA and Europe.

- **The company is specialized in giving clever solutions in energy saving.**

- **All the products are certified by a standard and are manufactured by the best quality process.**

Company Customers:

תעשיות רדימיקס (ישראל) בע"מ

Gan-Shmuel Foods Ltd
The leading israeli plant in modern citrus processing technology and packaging systems

EHS-Tech Ltd

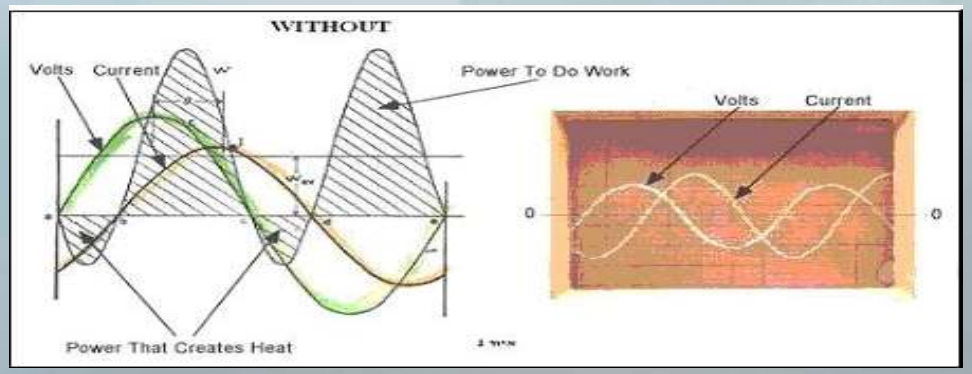
Company Products:

Three Phases Controller

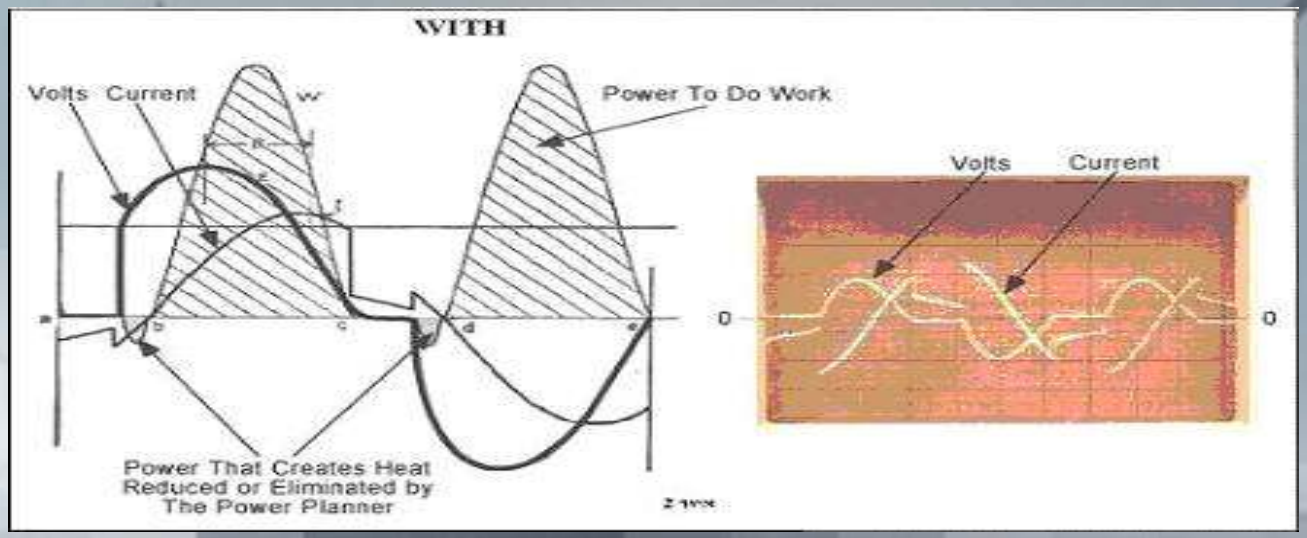
- 220V-3000V
- 10A-1000A
- Energy saving in systems in partial load
- A soft start and many other safeguards such as phase reduction, temperature protection and more
- UL/CSA
- Installation in series to the motor line
- ROI of 12-24 months

Controller Graph- Before and After

Before



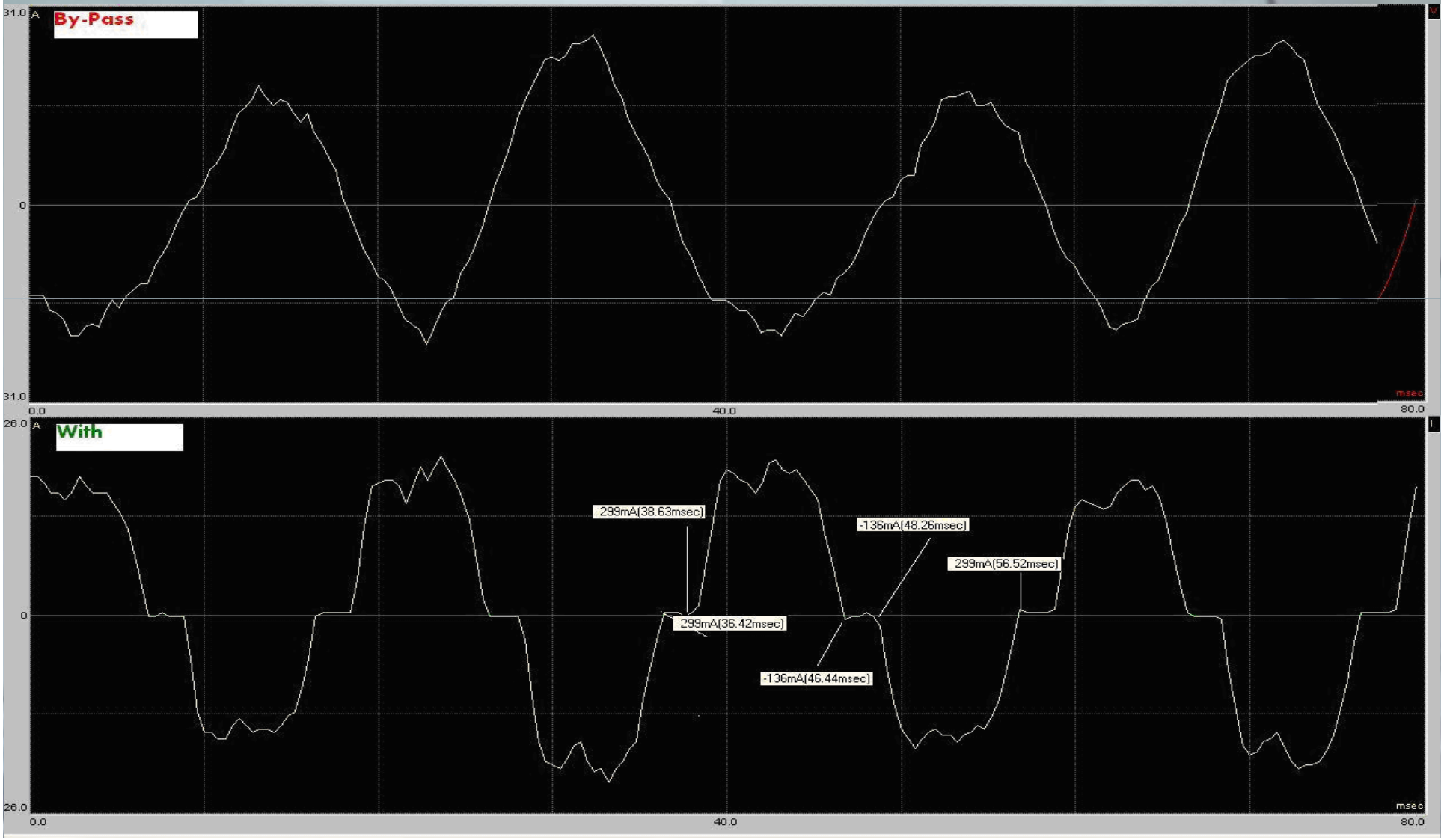
After



Controllers Applications:

- Pumps
- Refrigerator
- Chillers
- Air Condition Systems
- Air Condensers
- Cold Condensers
- Bellows
- Elevators
- Escalators

Cold Condenser:



Vorlon-Saving Energy Air Condition Systems:

Vorlon-General Background:

- The Vorlon device is a certified patent. The product was built by American knowledge and development process of more than 10 years.

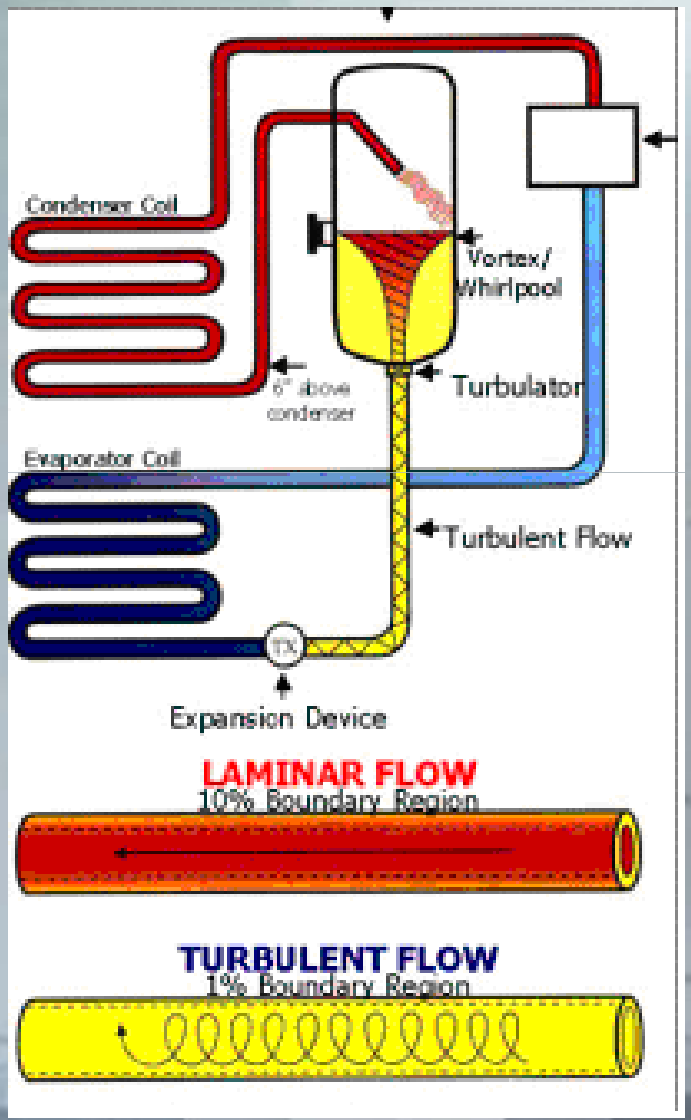
- The device gives solution for energy saving on cold and air condition systems in different sizes, especially for SCROLL units and pistons condensers according to the cold liquid sort.

- Thousands of customers around the world already have installed the device and earnings electricity costs each year.

Vorlon-Applications:

- Households air condition systems.
- Commercial cold and air condition systems.
- Central cold and air condition systems for industrial processes
- Colding for process for food, chemistry enterprises

Vorlon-Technology:



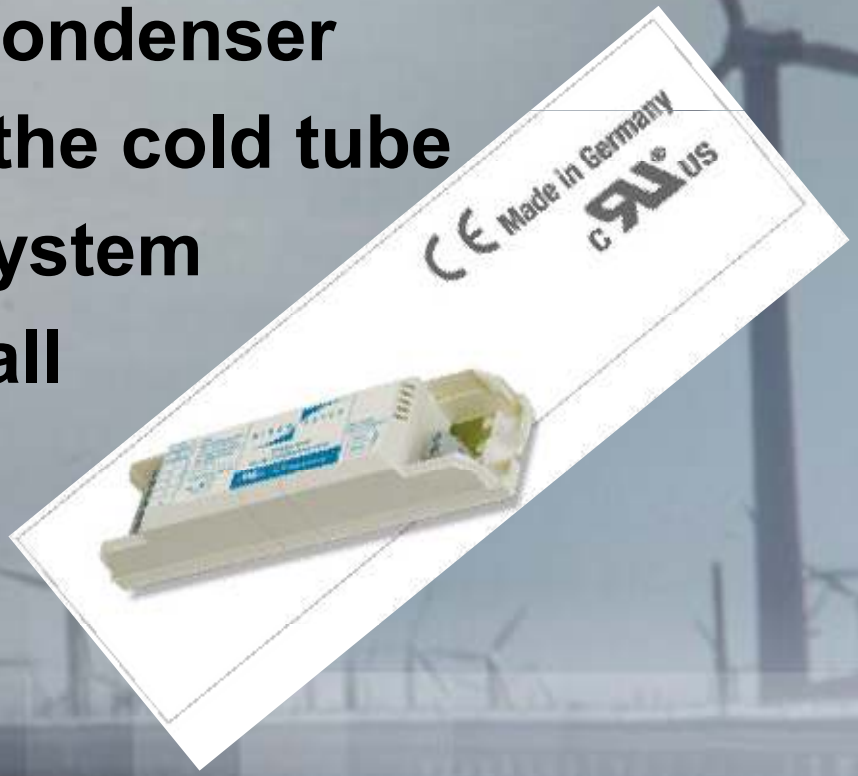
- Minimal saving of 8.5%
- Passive device which does not involve in the system core
- Increasing the condensation volume
- The system operate in lower loads
- Manufacturer guarantee for 5 years

“Air-saver”-Small and intermediate air condition systems:

- Product for energy saving on air condition systems that are based on air.
- Air condition- big consumer- enormous energy waste.
- Air condition systems nowadays are controlled by thermostat is located in the “return air” which goes back to the system.
- When reaching to the Set-Point the condenser is stopped.

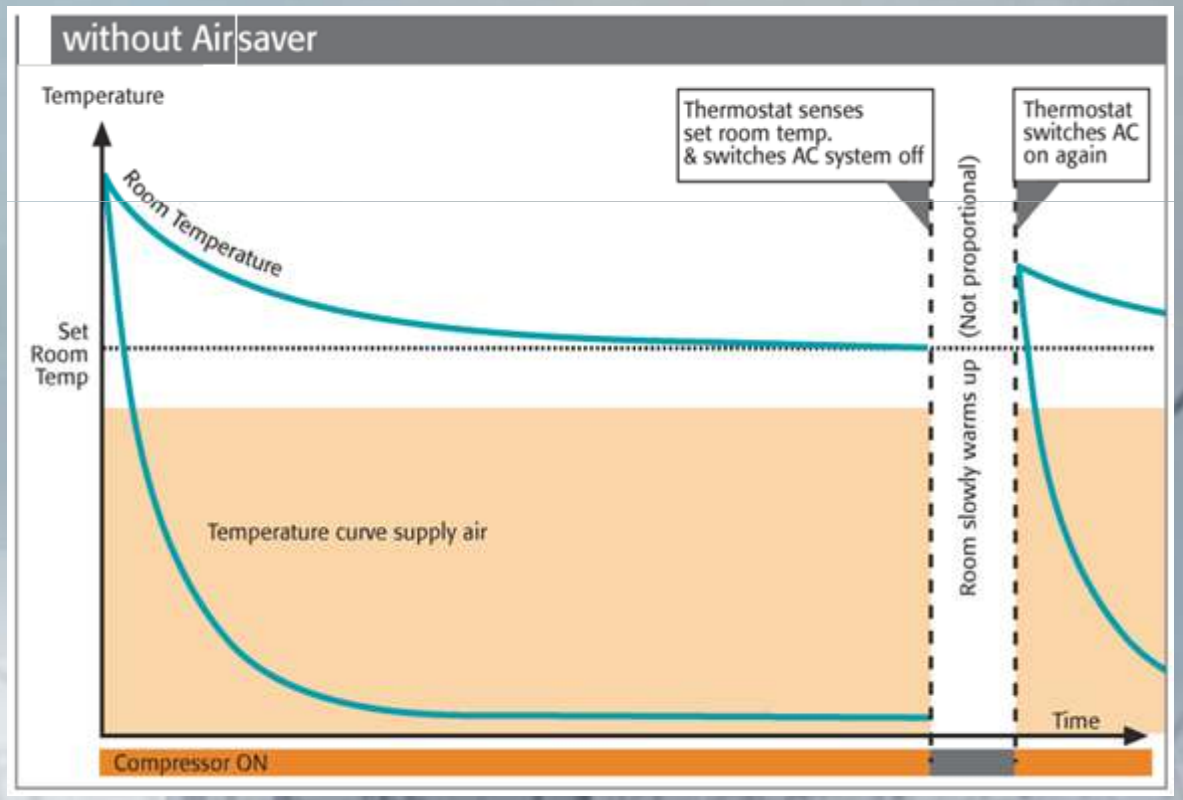
Air-saver- Advantages:

- The unit improves the efficiency of the cold condenser
- Increasing the life of the condenser
- Prevent creation of ice in the cold tube
- Prevent over load in the system
- The device is easy to install

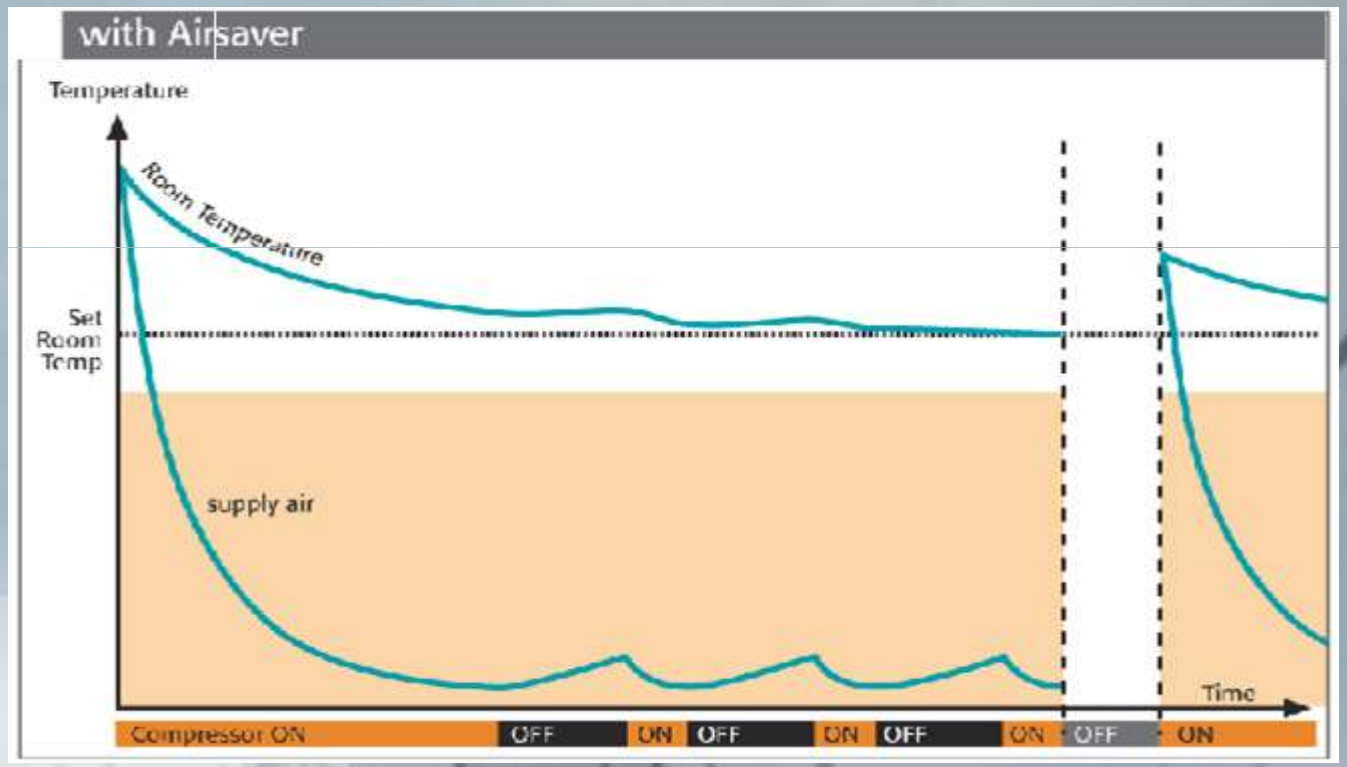


Air-saver- Operation Graph:

- **Before Air-saver Installation**



- **After Air-saver Installation**



Manaray-Light Systems:

Manaray-Light Systems:

❋❋❋❋ BASIC COMPARISON CHART ❋❋❋❋

If you are presently using	May we suggest		Savings *** of
60- 100 watt incandescent (wall mount)	W13PL	(13 watts)	78%
150-200 watt incandescent (wall mount)	W18PL	(18 watts)	90%
150 watt incandescent	W1PL13	(13 watts)	91%
100 watt mercury vapor	W1PL13#	(12 watts)	88%
300 watt quartz/incandescent	W1PL18	(18 watts)	94%
250 watt mercury vapor	W1C15C#	(30 watts)	88%
2/150 PAR floods	W2C15C	(30 watts)	90%
500 watt quartz	W1PL36	(36 watts)	90%
100 watt metal halide	W1PL36	(36 watts)	94%
80 watt fluorescent (2 L 4' strip)	**W1PL40	(40 watts)	50%
100 watt high pressure sodium	**W1PL40	(40 watts)	60%
150 watt metal halide	**W1PL40	(40 watts)	73%
250 watt mercury vapor	**W1PL50	(50 watts)	84%
750 watt quartz/incandescent	**W1PL50	(50 watts)	94%
150 watt strip fluorescent (2 L 8' strip)	W2C32EB	(75 watts)	50%
150 watt strip fluorescent (2 L 8' strip)	W2C3296EB	(75 watts)	50%
150 watt high pressure sodium	W2C32EB	(75 watts)	52%
150 watt high pressure sodium	W2PL40	(80 watts)	47%
250 watt metal halide	**W2PL50	(100 watts)	58%
400 watt mercury vapor	**W2PL50	(100 watts)	74%
250 watt fluorescent (2 L 8' HO)	W4C3296EB	(150 watts)	40%
250 watt metal halide	W4C3296EB	(150 watts)	40%
250 watt high pressure sodium	W4C3296EB	(150 watts)	40%
440 watt fluorescent (2 L 8' VHO)	W4C3296EB	(150 watts)	66%
400 watt metal halide	**W4PL5096EB	(216 watts)	46%
400 watt metal halide	W2C96/VHO	(440 watts)	10%^^
1000 watt mercury vapor / 400 Watt HPS	**W4PL5096EB	(216 watts)	80%

Adopt T5 ® Technology:

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Traditional Fluorescent Lamp with Electromagnetic Ballast vs EHS "T5" Electronic Ballast		
	Fluorescent Lamp with Electromagnetic Ballast	T5 Fluorescent Tube with EHS T5 Electronic Ballast
Power Consumption	**Waste energy**	**Saving energy**
	- High power consumption - Low in lumen	**- Save up to 50% of energy - Higher lumen**
Efficiency	**Low**	**High**
	- Low power factor (p.f.>0.45)	**- High power factor (p.f.>0.93)**
Replacement	**Electronic ballast**	**T5 Electronic ballast**
	- Long installation time - High installation cost - For replacement of high efficiency T5 FL fixtures, wiring and complete set of lighting fixture should be replaced.	**- With "Plug & Save" concept, installation time is short (approx. 30 seconds) - No wiring work and no qualified person required for replacement - No need to replace the original lighting fixture**
Flickering and Noise	**Serious**	**No**
	- Visible flicker causes damage to our eyes - With annoying noise	**- No flicker (over 35000 $H_{z)}$ lets eye protection - Silent operation**
Quality of Light	**Worse**	**Better**
	- Lower lux level - Lower rendering index (R_a>65) causes sight images far away from actual colours - Lower lumen	**- Higher lux level (lux level 10% more) - Higher rendering index (R_a>80) causes sight images close to natural colours - Higher lumen**

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Temperature	**More**	**Less**
	- More heat generated by electromagnetic ballast - More energy consumes on air-conditioning	**- Less heat generated by T5 - Less energy consumes on air-conditioning**
Life Span of Fluorescent Lamp	**Shorter**	**Longer**
	- Higher starting and inrush current influenced by electrical fluctuation	**- Extremely low starting and inrush current due to less influenced by electrical fluctuation**
Environmental Protection	**Non environmental friendly**	**Environmental friendly**
	- Waste energy causes more carbon dioxide (CO_2) generated - More materials used and need higher mercury content on manufacturing traditional fluorescent tube	**- Save up to 50% of energy then less carbon dioxide (CO_2) generated - Less materials used and lower mercury content on manufacturing T5 fluorescent tube**
Investment	**Costly**	**Economical**
	- High installation cost - For using T5, needs investment of new T5 fluorescent fixtures	**- No wiring work and no qualified person required for replacement - No need to replace the original lighting fixture**
Investment Return	**Long in payback period**	**Short in payback period**
	- Waste energy and high in electricity charges - High in kVA charges due to low power factor (p.f.>0.45)	**- Save up to 50% of energy and then low in electricity charges - Save over 50% of kVA charges to high power factor (p.f.>0.93)**

Specifications of EHS T5 Electronic Ballast :

Model no.	Length (feet)	Operating Power	Input Voltage	Input Frequency	Input Current	Power Factor	Retrofit from	Ambient Temperature	Life Span
EHS-14W	**2**	**14W**	**220-240V**	**50Hz**	**65 mA**	**> 0.93**	**24W**	**-15 – 50°C**	**> 30,000 hrs**
EHS-21W	**3**	**21W**	**220-240V**	**50 Hz**	**95 MA**	**> 0.93**	**33W**	**-15 – 50°C**	**> 30,000 hrs**
EHS-28W	**4**	**28W**	**220-240V**	**50 Hz**	**125 mA**	**> 0.93**	**40W**	**-15 – 50°C**	**> 30,000 hrs**
EHS-35W	**5**	**35W**	**220-240V**	**50 Hz**	**155 mA**	**> 0.93**	**60W**	**-15 – 50°C**	**> 30,000 hrs**

4ft	Continued usage of existing T12-CCG-tubes and fittings	Continued usage of existing T8-CCG-tubes and fittings	Use of the **adapT5** adapter in conjunction with T5 HE tubes
Power Factor	0.43	0.44	0.93
Current (A)	0.41	0.41	0.12
Apparent Power Consumption (VA)	97	94	28
Actual Power Consumption (W)	49	40	24

Key Benefits & Features of EHS - T5 :

- **Energy savings up to 73%**
- **Higher power factor, p.f.>0.93**
- **Increased lamp life**
- **Instant startup without flickering**
- **Quiet operation**
- **No visible flicker during operation (Operation Frequency > 20kHz)**
- **Enhance sight vision closer to actual natural colors (Ra > 80)**
- **Easy to install, no wiring works and no need to renew the fittings.**
- **Comply with standard T8, T10 and T12 fixtures**
- **Reversible retrofit**
- **Short payback period**

EHS-Light Sensors:

- EPV company which is manufacturing light sensors is also considered to be one of the large light company around the world.
- The company is manufacturing all its products in Germany and this with keeping the most severe standards.
- All the products are examined in inventory samples of 100% this testifies the quality of the products.
- The company products basket includes all the light solutions such as: volume sensors, dimming sensors, electronic ballasts, Leds, Emergency light and some more variant products for saving energy.

EHS–Light Sensors:

Sensor 180- This sensor is for ceilings up to 10 meters and light intensity and light duration can be adjusted

Sensor 360- This sensor changes the light intensity according to the light intensity outside that is lighting the room. Moreover the sensor is used as a regular volume sensor and the light intensity and delays can be adjusted.

- 3 years guarantee
- Life cycle of >50K hours
- 3 hours of operation in emergency

Renewable energy-Wind/Solar energy systems:

- EHS-TECH LTD. has the capability to provide horizontal and vertical wind/solar hybrid lighting power supply systems between 250W~5KW.

- Obviously these application can be suit to other uses beside street lighting.

- The basic off-grid horizontal series to produce electricity with wind which EHS-TECH provides needs only starting wind speed of 6.5 KPH.

Renewable Energy-Continuing:

- The off-grid horizontal series to produce electricity with wind which EHS-TECH provides is shown in the pictures below:

300W Full Permanent Magnetic Suspension Horizontal Wind Driven Generator.

300W General Upgrade-type Wind Driven Horizontal Generator

350W New-type Horizontal Wind Driven Generator

Renewable energy-Continuing:

Small Wind Turbines Specifications:

	FD1.5-0.3/10C	FD1.5-0.3/12	FD1.5-0.35/12
Rated Power	300W	300W	350W
Starting Wind Speed (m/s)	1.8m/s	2.5m/s	2.0m/s
Cut in Wind Speed (m/s)	2.5m/s	3.0m/s	2.8m/s
Rated Wind Speed (m/s)	10m/s	11m/s	12m/s
Safe Wind Speed limited (m/s)	50m/s	50m/s	50m/s
Rated DC Output	12V/(24V/48V)	12V/(24V/48V)	12V/(24V/48V)
inverter Rated AC Output	380V/220V/110V	380V/220V/110V	380V/220V/110V
	50HZ/55HZ/60Hz	50HZ/55HZ/60Hz	50HZ/55HZ/60Hz


We Will Be Happy to Help
You Anytime!