

JUMBOECO

BEST ENERGY SAVING SYSTEM SOLUTION

T100/T200/T300

T35/T50/T65

S35/S50/S65



About JumboEco



JumboEco is leading and reliable intelligent energy saving system, electricity optimization system manufacturer in Shenzhen, China. Our company is founded in 2011, and the member of the China Energy Conservation Association.

JumboEco Energy had gained many patents for the energy saving system, electricity optimizer. Quality at first as our conception of producing energy saving system to satisfy our clients around the world.

With the mission of providing the higher quality & more stable products, JumboEco make great effort to produce the Innovation and Intelligent products, we had been in field of electricity saving products years, and we have partners France, Spain, Italy, Germany, Sweden, Netherland, UK, USA, Brazil, Mexico, Malaysia, PHilippines, Thailand, Australia, Korea., etc. You're most welcome to be JumboEco' partner and to build long-term business relationship with us.



Situation of Electricity: Over-Voltage+Harmonics

In many countries, the current voltage was

230 V to 240 V (single-phase)

390 V to 420 V (three-phase) +/- 10% increased

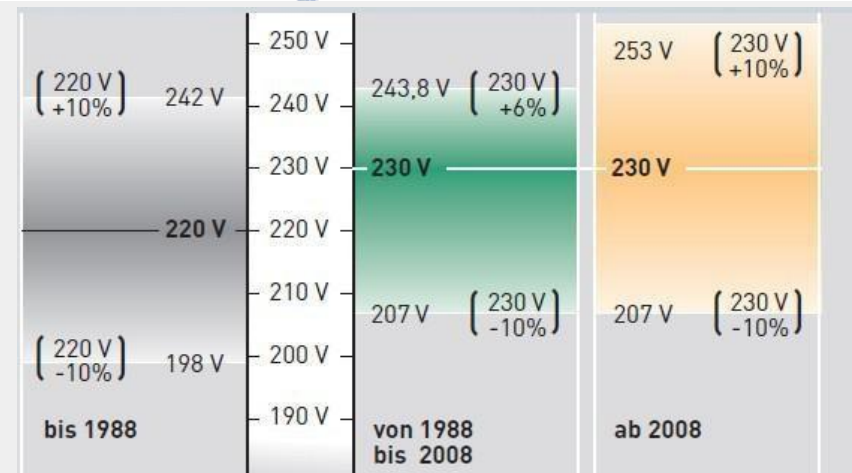
(In some country, the voltage is more than 240V {single phase}, 400V{three phase} at most of the time!)

Meaning, the suitable voltage improved by JumboEco

Is good for system and also good for energy saving.

As long as the harmonics is reduced, the current and voltage will be improved immediately.

Every electrician should know, when the voltage increased by 10% the longevity and the wastage of the loads has negative effects about 30% to 50%.



HOW DO I PROTECT MY DEVICES AND EQUIPMENT?

Protection against overvoltage from the supplier or from the harmonics is becoming more and more important in companies as the electronic helpers are increasing: ballasts, mortors, frequency converters, LED's , machines, TV's, telephone systems, air conditioners, computurs, heaters, photovoltaics, etc.... There is almost no room in which is not at least one electrical or electronic system. If dangerous voltage fluctuations on the grid can occur, this can quickly cause huge financial damage.

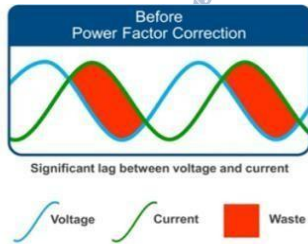
It's not like it used to be. Outstanding by unwanted voltage increases in the power supply. Increasing the voltage above 230 volts can occur when a three-phase network is asymmetrical, not evenly charged on all conductors. Often an overloaded neutral conductor or even the accidental absence of the N-conductor ist the coause of the voltage boost, which makes the power supply network always more „unclean“ in the company.

Situation of Electricity: Over-Current

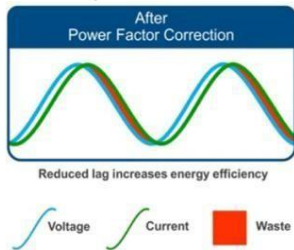
What caused the over-current or current losing?

1. low power factor
2. high reactive power
3. over heating in the wire system

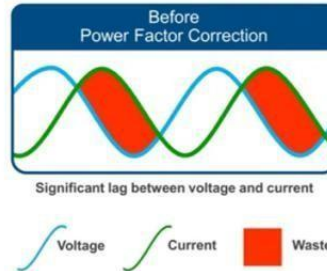
As we know, if the power factor is low, it will bring more reactive power to the whole system. Meanwhile, more current will be transferred to the wires which brings to over heating to the loads and wires. Also, more power will be wasted.



Loads that rely on magnetising currents for transfer of electrical energy increase the need for Reactive Power.



Connection of capacitors to the load reduces the lag and improves the efficiency of the electrical system. This is power factor correction.



Reactive power results from magnetic flux in an electrical system. Magnetic flux causes the current to lag the voltage.



The liquid represents Real Power - that part of the power that actually does the work. Real Power is measured in kilowatts (kW).

$$\text{Power Factor} = \frac{\text{Real Power (kW)}}{\text{Apparent Power (kVA)}}$$



Power factor is a measure of the efficiency of an electrical network. It is the ratio of Real Power to Apparent Power.

What is JumboEco?

JumboEco is an Energy Saving System to reduce the **POWER BILL** for
 DOMESTIC, SHOP, SMALL FACTORY
 SUPERMARKET, RESTAURANT,
 HOTEL, OFFICE...



Poor power quality (more voltage, low power factor, more harmonics) leads to the additional noise, heat and vibration of the loads, causing stress on internal parts - especially to motors which are vulnerable to overheating and wear out more quickly, so it's not only leads to the higher cost, but also make damage to the electricity appliances.

JumboEco optimise the income voltage, current and harmonics to the level required of the loads, ensures that a building only receives and pays for the reasonable power bill, thus to reduce the electricity consumption, electricity bill, and protect the loads from the overvoltage or overcurrent.

How do we save 10%--30% of electricity bill?



High electricity price, KW peak with allocations, Voltage increase, More current, Wire losses Now we help you on energy saving!

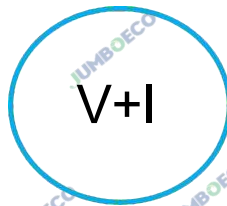
With JumboEco

Power quality will be improved

Power supplied with good quality

Prevents wear and tear on appliances

Reduced electricity bills & protects loads



Incoming power from the National Power Grid

More voltage & Low power factor & More harmonics

Poor power quality causes loads' overpowered and shortens its lifespan

Poor power quality results in a greater power demand, increasing the electricity bill

Without JumboEco

Technical explanation

The increase of the voltage in 2008 from 220 V to 230 V has forced 5 % more power. Thus, the entrepreneur/consumer creates an unnecessary power increase of 9%. Important to know, power increases with the square of the difference of both voltages.

More and more solar systems or inverter systems are used for the house or industry, thus, the harmonics will be increased, then, more voltage and current will be wasted. Also, the stability of the loads will be reduced.

A trick which brings more revenue to the electricity supplier, as more power can be supplied as needed. Especially no one has a benefit of the “more power”, neither equipment nor engines nor humans.

Fact is: you consume more power than before even the loads are the same

Example/ ohmic consumers:

220 V x 10 A x 1h = 2,2 kwh (R = 22 Ohm – for the same equipment)

237 V x 10,77 A x 1h = 2,55 kwh (R = 22 Ohm – for the same equipment)

Technical explanation:

Assumed that a voltage of 220 V and a resistor of 22 ohm -
Used in the power formula $P = U \times U / R$, results an electric power of 2.200 W.

If the voltage increased by approx 8 % of 237 V, results an electric power of ~ 2.553 W.

Thus, an increase in the power consumption of about 16 % gives an saving of **2.553 W – 2.200 W = 353 Watt**.

Right formula:

For normal consumers
with an $\cos(\phi)$ from 0,9 – 0,99

$$I = U \div R$$

Attention:

P grows proportionally to the square

$$P = U^2 \div R$$

Resume: power P increases in proportion to the square of the voltage U and current I.

This means: if the voltage and current difference will be doubled, the power will quadrupled.

Power loss in the line!

An electrician should have attention to the resistance of the connection cable, The supply cable(line) and at the optimized voltage adjustment, during installation. Our recommendation:

With a decentralized solution of JumboEco Electricity Optimizer, an electrician is well advised to save his customer between 10% to 30% of his electricity costs.

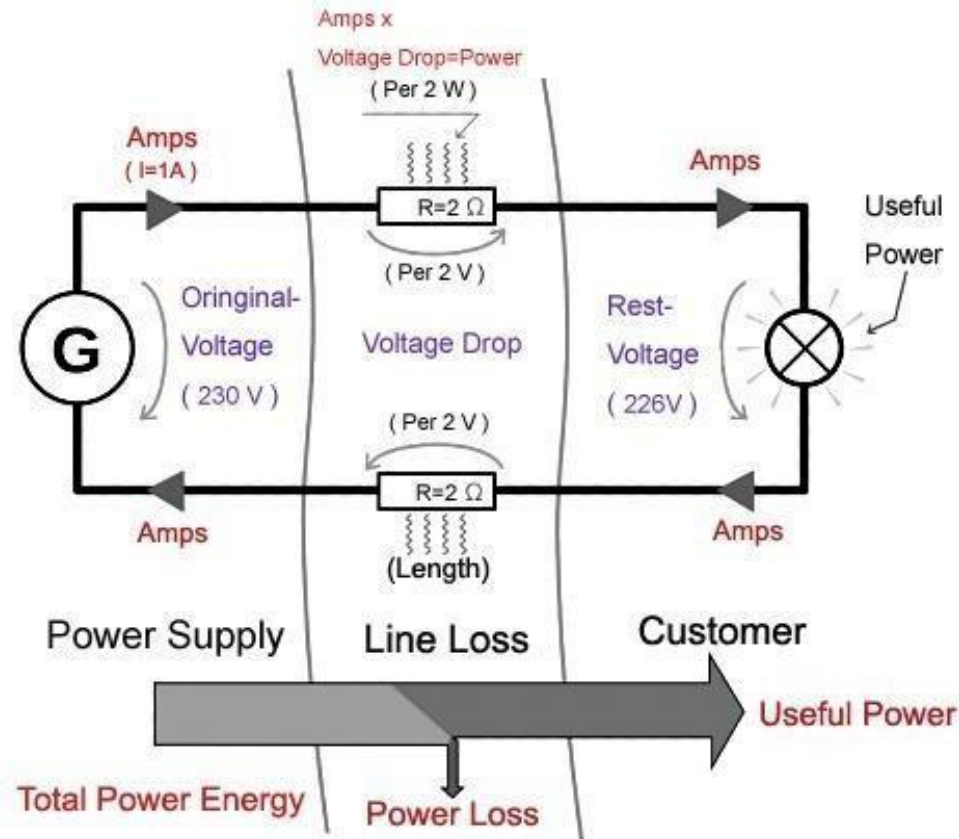
- The shorter the conduction paths, the smaller the line resistance
- The smaller the voltage drop, the lower the power
- (power loss of the lines). A proper line is absolutely necessary > VDE
- Attention on switching behavior between the current $P = I^2 \times R$ with sinking current decreases the power loss!
Expressed in a simple way:
 $P = U \times I$ or $I = U : R$ oder $U = R \times I$

Voltage dependence in the square $P = U^2 : R$.

With this formula the power of Watt can be calculated. Current

dependency $P = R \times I^2$ square

Thus, the resistance on the line leads to the voltage drop, the power of the line (cable) is calculated, this is to be minimized with the JumboEco Voltage Optimizer.



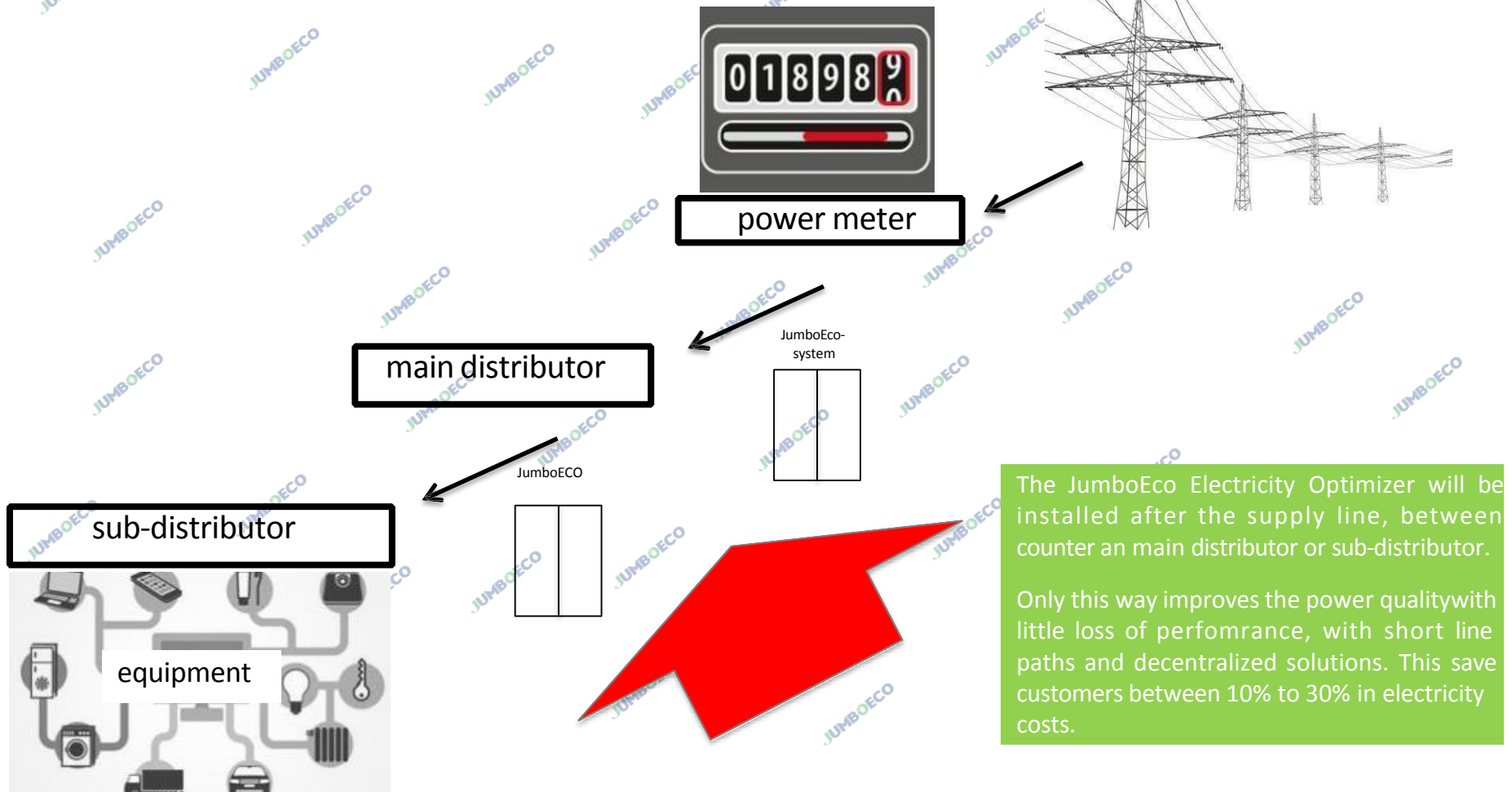
Simply explained: Optimized power quality and short cables (lines) = no losses and no harmonic waves through decentralized supply. That means: big savings and more durability of your terminaldevice.

Solution / peripheral

JumboEco



Electricity supplier

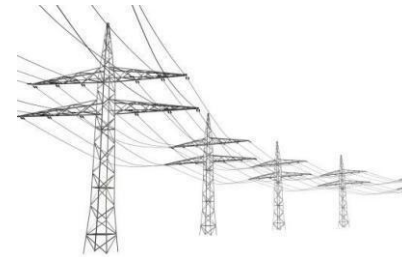


The JumboEco Electricity Optimizer will be installed after the supply line, between counter an main distributor or sub-distributor.

Only this way improves the power quality with little loss of performance, with short line paths and decentralized solutions. This save customers between 10% to 30% in electricity costs.

Peripheral solution

means....



Electricity supplier

Lines / harmonics / efficiency

LED – Lighting / savings till 5 %

Frequency converter / savings till 6 %

Electronic ballast / savings till 4 %

Power factor correction / savings till 10 %

Under this consideration, a large part of the performance doesn't arrive at the object at all, but remains on the line. The line itself has only one efficiency η (Greek letter `eta`). An additional complicating factor is that the power loss decreases quadratically with the voltage at same with effective power.

With JumboEco Saving System and short cable routes, there are few losses and harmonic waves. This provides an optimum efficiency and gives the customer more profitable savings.

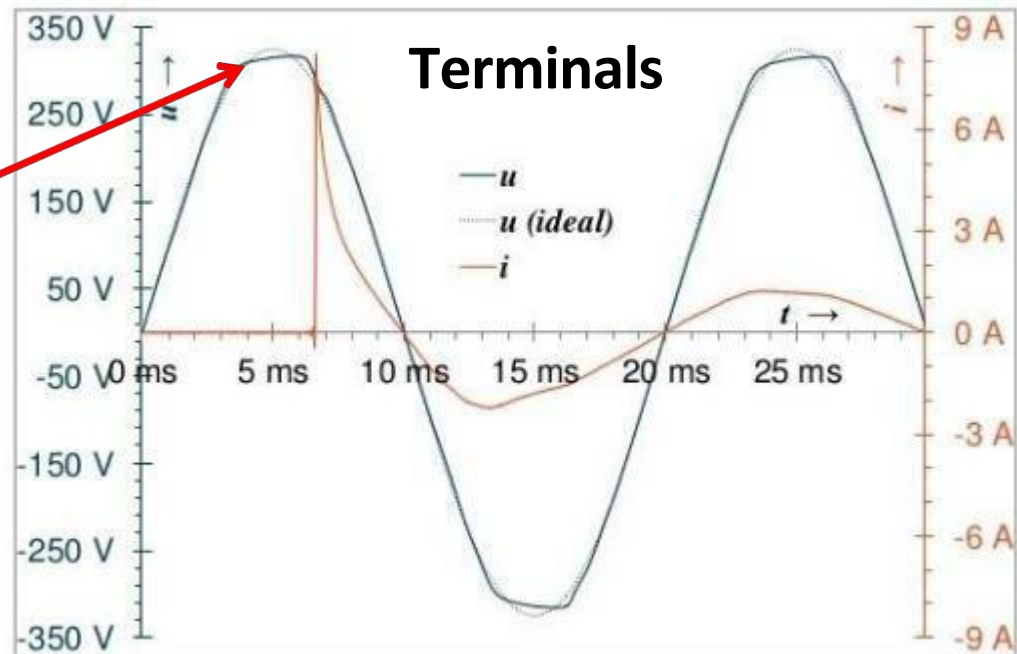
KW – Peak Compensation

Save up to 30 % at the power supplier

With the JumboEco Saving system, we achieve a symmetrical phase distribution and reduction the smoothing capacities and harmonics!

The performance of machines, ventilation or cooling systems is much higher in the commercial and industrial sector, but the same principle applies:

To calculate the consumption in kWh, the wattage or kilowatt (KW) of all consumers is added and multiplied by the operating time.



Result: down with the kw-peak load!

JumboEco Energy Saving System



- Available in different sizes, depending on the main ampere and kw-peak load.
- The electric cabinet/ autotransformer will be installed in series on the power line. Electrical supplier have no reason for reclamation.
- JumboEco Saving System demonstrably saves 10% to 30% electricity cost (monitoring-system)?
- Uninterruptible switchover
- 2 years warranty and a lifetime of 30 years and more.
- Payback period, depends on the systems size, is between 1 to 2 years.
- Delivery time is 10 working days to max 40 working days.



Parameters

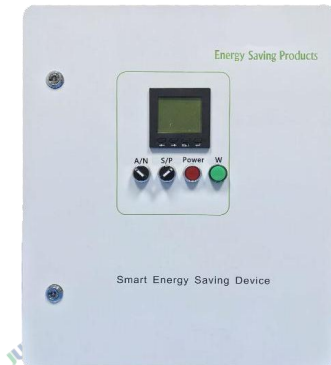
Single Phase JumboECO-S15-S65 Power Saver Model

MaxWorking Range	≤65AmpPer Phase	Input	Single Phase
Voltage	90V-265V/Phase	Frequency	50HZ/60HZ
Working Temp(°C)	-20~75	Size (W*L*H mm)	400x260x180mm
Weight (KG)	13-18KG	Saving Percent	10%-30%
Warranty	2Years	Life Time	10 Years
IP Level	IP43	Controlling	Intelligent



Three Phase JumboECO-T35-T65 Power Saver Model

MaxWorking Range	≤65AmpPer Phase	Input	Three Phase (3P4W)
Voltage	155V-450V/Phase	Frequency	50HZ/60HZ
Working Temp(°C)	-20~75	Size (W*L*H mm)	533x533x780mm
Weight (KG)	125KG	Saving Percent	10%-30%
Warranty	2Years	Life Time	10 Years
IP Level	IP43	Controlling	Intelligent



Introduce:

Single Phase JumboECO-S15-S65 Power Saver Model user manual

After the goods, pay attention to check whether the supplier has consumables or product abnormalities. If it is abnormal, please contact for handling in time.

1. Please choose a suitable model and a professional electrician for installation.

2. The intelligent energy-saving phase control protection device can be installed on the entire power system, and a suitable plastic enclosure protection device is required to be installed in front of the power-saving system.

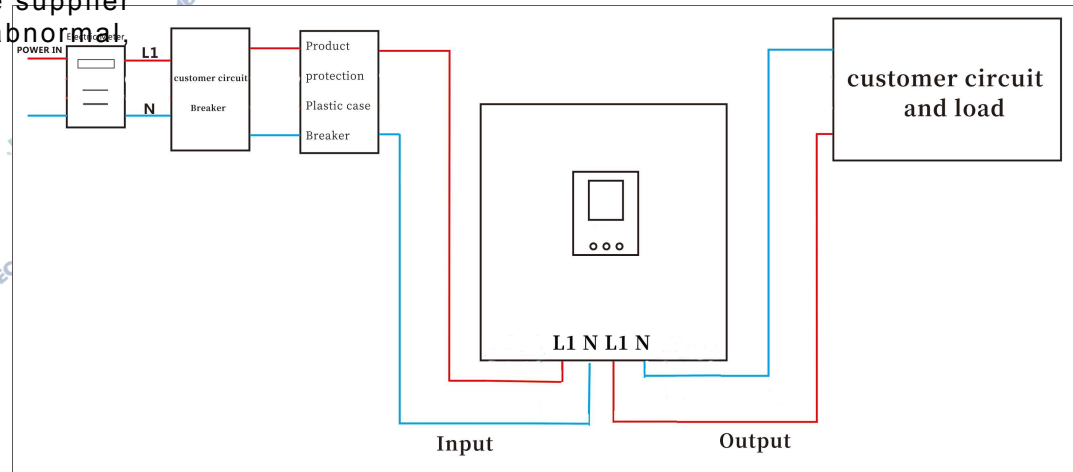
3. The wiring diagram is shown in the figure above:
Indicates "power indicator light"; two indicator lights of the power-saving system.

4. The wiring diagram is shown above:
Indicates "power indicator light"; two indicator lights of the power-saving system.

5. Before installing the intelligent power-saving phase-controlled protection device, please turn off all loads and the main protection of the power system, open the iron box cover for the incoming wires "L1-Fire Wire" and "N-Neutral Wire", and connect them to the input terminals from the iron box, then connect the "L1-Fire Wire" and "N-Neutral Wire" from the output terminals to the customer circuit or load, and mark the "G-Ground" ground point.

6. After careful inspection, please turn on the "mainly connected to the correct enclosure air switch and product internal control switch"; the intelligent energy-saving phase-controlled protection device is activated to save energy for the entire power system.

7. If there is any abnormality, please contact the supplier for help.



Parameters

Three Phase JumboECO-T100 Power Saver Model

MaxWorking Range	≤100AmpPer Phase	Input	Three Phase (3P4W)
Voltage	155V-450V/Phase	Frequency	50HZ/60HZ
Working Temp(°C)	-20~75	Size (W*L*H mm)	600x600x780mm
Weight (KG)	150-175KG	Saving Percent	10%-30%
Warranty	2Years	Life Time	10 Years
IP Level	IP43	Controlling	Intelligent

Three Phase JumboECO-T200 Power Saver Model:

MaxWorking Range	≤200AmpPer Phase	Input	Three Phase (3P4W)
Voltage	155V-450V/Phase	Frequency	50HZ/60HZ
Working Temp(°C)	-20~75	Size (W*L*H mm)	650x650x1100mm
Weight (KG)	150-200KG	Saving Percent	10%-30%
Warranty	2Years	Life Time	10 Years
IP Level	IP43	Controlling	Intelligent

Three Phase JumboECO-T300 Power Saver Model:

MaxWorking Range	≤300AmpPer Phase	Input	Three Phase (3P4W)
Voltage	155V-450V/Phase	Frequency	50HZ/60HZ
Working Temp(°C)	-20~75	Size (W*L*H mm)	650x650x1100mm
Weight (KG)	150-200KG	Saving Percent	10%-30%
Warranty	2Years	Life Time	10 Years
IP Level	IP43	Controlling	Intelligent



Introduce:

Three Phase JumboECO-T35-T65-T100-T200-T300 Power Saver Model user manual

After the goods, pay attention to check whether the supplier has consumables or product abnormalities. If it is abnormal, please contact for handling in time.

1. Please choose a suitable model and a professional electrician for installation.
2. The intelligent energy-saving phase control protection device can be installed on the entire power system, and a suitable plastic enclosure protection device is required to be installed in front of the power-saving system.

3. The wiring diagram is shown in the figure above:

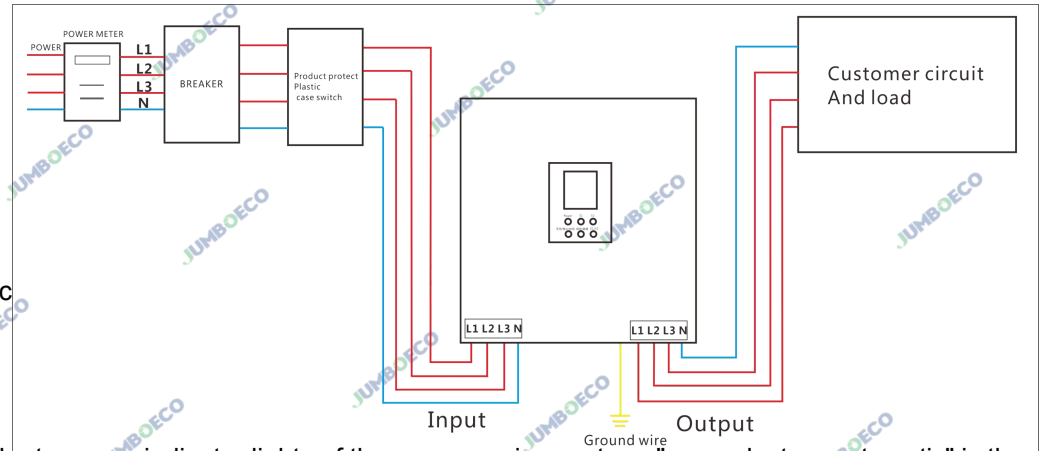
"" means "power indicator light"; "S1 indicator, S2 indicator" are the two gear indicator lights of the power-saving system; "manual, stop, automatic" is the control mode selection power supply of the intelligent energy-saving phase control device, respectively representing manual Control, and automatic control; "Phase control, automatic" refers to the selection of power saving and problem selection start in manual mode; "S1|S2" is the intelligent energy-saving phase protection device with two gears to stop selection and pause, and adjust according to the actual power parameters of the customer.

4. The intelligent energy-saving phase control protection device has 5 wires. Red wire-live wire "L1&L2&L3"; blue wire-neutral wire "N"; green and yellow wire-wire "G".

5. Please turn off the main protection of all loads and the power system before installing the intelligent energy-saving phase control protection device, and switch the intelligent intelligent energy-saving phase control device to "stop mode". Connect "L1&L2&L3-Fire Wire" and "N-Neutral Wire" from the plastic case to the input terminal, and then connect "L1&L2&L3-Fire Wire" and "N-Neutral Wire" from the output terminal to the customer circuit or load, and mark "G- Ground wire" ground point.

6. After careful inspection, please turn on the "mainly connected to the correct shell trigger and product internal air control and then trigger"; switch the intelligent energy-saving phase protection device to "manual" or "automatic", if you select "manual", you need to select " In the phase control mode, if it is "automatic", the "phase control|possible" position operation is not required, and then select the appropriate gear position "S1" or "S2" and the corresponding light will be lit. For 10 seconds, if the indicator light works normally, the intelligent energy-saving phase-controlled protection device is activated, saving energy for the entire power system.

7. If there is any abnormality, please contact the supplier for help.



Inspection Report

- Once the authorized electrical engineer has installed the system, a measurement will be performed after installation.
- Current saving is immediately confirmed and documented on the log.
- Only authorized electrician.
- Specialist and customer must confirm that the system has been properly put into operation.



NAFISA SWEET SHOPE SAVING ENERGY REPORT						
S.N	day	date	time	electric meter reading KW	KW /24H	Remark
1	Sunday	19-11-2017	10.22 AM	149740	0	without device
2	Monday	20-11-2017		149839	99	without device
3	Tuesday	21-11-2017		149938	99	without device
4	Wednesday	22-11-2017		150037	99	without device
5	Thursday	23-11-2017		150136	99	without device
6	Friday	24-11-2017		150235	99	without device
7	Saturday	25-11-2017	6.38 PM	150334.3	99.3	when installing the device
8	Sunday	26/11/2017	6.38 PM	150412.3	78	
9	Monday	27/11/2017	6.38 PM	150490.6	78.3	
10	Tuesday	28/11/2017	6.38 PM	150577.6	87	
11	Wednesday	29/11/2017	6.38 PM	150666.7	89.1	Device off and turn off tow fan 1 hour
12	Thursday	30/11/2017	6.38 PM	150746.3	79.6	
13	Friday	1/12/17	6.38 PM	150794.6	48.3	holiday
14	Saturday	2/12/17	7.38 PM	150843	48.4	
15	Sunday	3/12/17	6.38 PM	150923.4	80.4	
16	Monday	4/12/17	6.38 PM	150997.4	74	
17	Tuesday	5/12/17	6.38 PM	151076.4	79	
18	Wednesday	6/12/17	6.38 PM	151162.3	85.9	
19	Thursday	7/12/17	6.38 PM	151254.3	92	Device off
20	Friday	8/12/17	6.38 PM	151327.2	72.9	
21	Saturday	9/12/17	6.38 PM	151405.5	78.3	
22	Sunday	10/12/17	6.38 PM	151479.6	74.1	
23	Monday	11/12/17	6.38 PM	151554.7	75.1	
24	Tuesday	12/12/17	6.38 PM	151652.9	98.2	Device off and additional fridge work 10 hour
25	Wednesday	13/12/2017	6.38 PM	151739.8	86.9	
26	Thursday	14/12/2017	6.38 PM	151813	73.2	
27	Friday	15/12/2017	6.38 PM	151863.1	50.1	holiday
28	Saturday	16/12/2017	6.38 PM	151913.2	50.1	start work 10 pm (not reading kw we put average)
29	Sunday	17/12/2017	6.38 PM	151963.3	50.1	
30	Monday	18/12/2017	6.38 PM	152027.7	64.4	electric meter reading KW at 10.27AM (152007 KW)
31	Tuesday	19/12/2017	6.38 PM	152105	77.3	
32	Wednesday	20/12/2017	6.38 PM	152177.9	72.9	
33	Thursday	21/12/2017	6.38 PM	152256.2	78.3	work off 11.30 pm
34	Friday	22/12/2017	6.38 PM	152301.55	45.35	start work at 11.30 pm
35	Saturday	23/12/2017	6.38 PM	152346.9	45.35	
36	Sunday	24/12/2017	6.38 PM	152429.4	82.5	
37	Monday	25/12/2017	6.38 PM	0	0	
38	Tuesday	26/12/2017		0	0	
39	Wednesday	27/12/2017		0	0	
40	Thursday	28/12/2017		0	0	
41	Friday	29/12/2017		0	0	
					2095.1	total KW

18.9%

Power Bill Saving

KW for last 6 Mont		
Month	total KW	value
2017-06	2837	608.502
2017-07	2527	552.642
2017-08	2557	534.022
2017-09	2672	564.612
2017-10	2467	510.082
2017-11	2585	541.47
2017-12	2095.1	411.302

Application:

JumboEco Energy Saving System is suggested to use for home, commercial and industrial places, such as

- residential
- restaurant;
- super market;
- hotel;
- cafe;
- shop;
- small factory;
- ...



With JumboEco Saving System,
you can see the wattage reducing directly,
and you power bill will be cut 10-30% every month!



FAQ Of JumboEco

How does the system work?

Why JumboEco Saver can save 10% -30 % and more on your electricity bill?

Is the product approved/certified?

What is the delivery time of the product?

What's the warranty and lifespan?

How long can I payback with JumboEco Saving System?

How can I be your exclusive distributor in our country?

We're looking for few sole agents!

You're welcome to contact JumboEco Energy for more Product&Industry info!

THANK YOU!

