



SAVEoptima

100KVA, 3Ø

APLAB's innovative Energy saver



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INTELLIGENT ENERGY SAVING LINE POWER SYSTEMS for Factories and Offices

Save Energy, Save Money and get OPTIMISED POWER

Description

SAVEOPTIMA series of Power Optimized Line Energy Controllers from **APLAB** Limited deliver predesigned line power to electrical loads in industrial or business premises to save energy and increase the life of the equipment and lighting loads by optimizing and regulating line voltage. **SAVEOPTIMA** line energy optimizing systems are connected after the electrical meter and master circuit breaker at the site but before the distribution board and fuse links. All the incoming line power to the establishment goes through **SAVEOPTIMA** power system.

Purpose and Use

- The purpose of **SAVEOPTIMA** is to automatically optimize the delivered power by providing a well regulated voltage to the load at predefined optimum line voltage to save energy and increase the life of the connected load.
- **SAVEOPTIMA** power optimization systems are used in virtually all types of industries and commercial establishments that need to save power, energy cost and protect equipment from premature failure.
- Whatever value of fluctuating mains voltage entering the site/building, **SAVEOPTIMA** computer controlled system will always tightly control it within +1.5% and the actual level is set to save the waste of energy and reduce the cost of power consumed.

User Benefits

- Reduces electrical energy cost
- Minimizes the electrical equipment downtime, saving maintenance costs
- Prevents premature failure of electrical equipment, lights, saving replacement cost
- Reduced CO² and carbon footprint; reduced power consumption means less CO² emission.
- High efficiency; **SAVEOPTIMA** system efficiency is close to 99% generating little self heating leading to long service life.

Power Ratings

SAVEOPTIMA power optimization systems are

available both in single phase and three phase configuration and in power ratings from 15KVA to 60KVA for single phase, 45, and 200KVA for three phase installations, 3Ø.
Single Phase Models: 15, 20, 30, 40 and 60KVA max continuous
Three Phase Models: 45, 60, 90, 100, 150 and 200KVA max continuous

About APLAB

SAVEOPTIMA intelligent energy saving line power systems designed for commercial and industrial loads as well as for by local governments for street lighting power optimization. It is brought to you by **APLAB** Limited, 50 year old industrial electronics company group. It is reputed source of Line Power Conditioning and Control Equipment for clients all over the world. To offer you most competitive solutions, **APLAB** produces these power savers in the special economic zone in Mumbai. **APLAB** is exporting its products to Western Europe since 1974. It has long Hi-tech engineering experience of almost 50 years in designing, manufacturing electrical power equipment for industrial and government customers including the Armed Forces and the Space Agency in India.

APLAB is committed to developing products that save natural resources and reduce carbon emissions for our equipment users

All **APLAB** manufacturing facilities undergo periodic stringent examination by reputed outside quality approval agencies. We possess trained management of quality manufacturing and follow international norms for security and safety. All our manufacturing facilities carry ISO9001 certification besides complying to various safety and emission standards set by VDE and IEC.

All our product designs are life tested in order to ensure long trouble-free operation in field. All our products, components and manufacturing processes are monitored to ensure that they do not use any chemicals disallowed by EEC regulations known as REACH (Registration, Evaluation, Authorization and Restriction of Chemicals)

SAVEOPTIMA ELECTRICAL SPECIFICATIONS

Single phase line power-save systems

Regulating technology	High efficiency micro-computer controlled high speed servo controller
Output KVA rating	15, 20, 30, 40 and 60KVA max continuous
Phase	Single phase
Mounting	Suitable for 19" standard Euro rack mounting (floor mounting with casters optional)
Input voltage	195V AC to 264V AC 48Hz – 63Hz
Output voltage	Automatically adjusted for power optimization for energy saving
Output voltage stabilization	Within $\pm 1.5\%$ of the programmed voltage
Overall efficiency	Typically 99%/min 98%
Waveform distortion inserted	Nil
Remote voltage setting	Via RS232 or USB port on the front display panel
Intelligent cyclic display: Input, output with operational status and cumulative energy saved	Display: 2 line 16 character back-lit LCD/VFD Display mode cyclic: <ul style="list-style-type: none"> ■ Input V, A and KW/Op status ■ Output V, A and KW/Op status ■ Cumulative saving in KWH ■ Equipment details
Status indicators	Mains power ON & bypass activated
Protection	<ul style="list-style-type: none"> ● Input surge protection ● Overload protection (120% for 10 secs) ● Over voltage protection (over 250V for over 3 sec) ● Under voltage protection (beyond 5% below the preset program voltage) ● Manual bypass switch ● Automatic switch over to bypass under abnormal condition
Remote voltage setting	Via RS232 or USB port on the front display panel
Equipment guarantee	Two year normal and ten year optional
Cooling	Natural
Working ambient temp	50°C max (-20°C to +50°C)
Humidity	0 – 95% non-condensing
Construction	19" Euro rack systems meeting IEC standards

Three phase line power-save systems

Regulating technology	High efficiency high speed voltage optimiser
Output KVA rating	45, 60, 100, 120, 150 and 200KVA max continuous
Phase	Three phase: independent optimization of each phase
Mounting	Suitable for floor mounting
Input voltage acceptance range	285V AC to 467V AC 3ph 48Hz – 63Hz
Output voltage	Automatically adjusted for power optimization for energy saving
Output voltage stabilization	Within $\pm 1.5\%$ of the programmed voltage
Efficiency	Typically 99%/min 98%
Waveform distortion caused	Nil
Response time	15mS/line to line voltage
Intelligent cyclic display: Input, output with operational status and cumulative energy saved	4 line x 20 character back-lit LCD display Display mode cyclic: <ul style="list-style-type: none"> ● Input V, A, KW of phase I, II and III/Op status ● Output V, A, KW of phase I, II and III/Op status ● Cumulative saving in KWH on each phase ● Equipment details
Remote voltage setting	Via RS232 or USB port on the front display panel
Status indicators	Mains power ON & bypass activated
Protection	<ul style="list-style-type: none"> ■ Input surge protection ■ Overload protection (120% for 10 secs) ■ Over voltage protection (over 250V for over 3 sec) ■ Under voltage protection (beyond 5% below the preset program voltage) ■ Manual bypass switch (external cubicle) ■ Automatic switch over to bypass under abnormal condition
Remote voltage setting	Via RS232 or USB port on the front display panel
Equipment guarantee	Two year normal Ten year optional
Cooling	Natural
Working ambient temp	50°C max (-15°C to +50°C)
Humidity	0 – 95% non-condensing
Construction	19" Euro rack systems or floor mounting cabinets



POWER ELECTRONICS DIVISION

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