

APS Voltage Optimiser

15 – 3000 kVA. Energy savings through voltage control



ABOUT PRODUCT

APS automatic voltage optimisers are one of the solutions offered by new technologies to users and supply an operating voltage which minimises consumption without impairing performance or reducing reliability. They allow businesses to obtain significant saving of energy, extend the working life of electric equipment, and secure a significant reduction of carbon dioxide emissions.

PRODUCT PERFORMANCE

Standard single-phase models can deliver a variable voltage from 230V to 207V with input voltage comprised in the 207-253V range.

Standard three-phase models can deliver a variable voltage from 360/270V to 400/230V with input voltage comprised between 360/207V and 440/253V.

Models capable of broader input voltage variations may be built on demand. These may be needed because voltage may sometimes exceed the 10% tolerance specified in the supply contract.

Load capability from 15KAV to 3000kVA meets a vast range of load requirements.

MAIN FEATURES

- Save up to 40% of energy
- Offers automatic voltage stabilisation which guarantee certain savings and still deliver stabilised voltage.
- Significant savings for applications: Asynchronous motors, filament/fluorescent and discharge lamps, and production lines
- Secure the true RMS voltage value with an accuracy ranging from $\pm 0.5\%$ to $\pm 1.5\%$.
- Extremely fast regulation speed from 11 to 33 ms/V
- Withstand overloads up to ten times the rated power for ten milliseconds, five times the rated power for six seconds or twice the rated power for one minute without damage.
- Power factor and load variation insensitivity: Ensures that the accuracy and regulation speed features of the optimisers remain unaltered under any load condition
- Frequency variation insensitivity: The control circuit works correctly also with mains frequency variations up to $\pm 5\%$.
- Harmonic distortions: The high quality and correct use of materials ensure that the harmonic distortion is always maintained within 0.2% in any operating condition
- Designed to work correctly at a maximum ambient temperature of 40°C in the most demanding conditions. Models suitable for operation at temperatures higher than 40°C are manufactured on request.



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APS Voltage Optimiser

Single Phase 100-277V and Three Phase 208-500V



TECHNICAL SPECIFICATIONS

Model		Single-phase	Three-phase
Power Range		100 – 110 – 115 – 120 – 127 – 200 – 220 – 230 – 240 – 265 – 277V	208 – 220 – 230 – 240 – 380 – 400 – 415 – 440 – 460 – 480 – 500V
Input			
Input	Voltage	240V	
	Frequency	50/60Hz	
Output			
Output	Voltage	230V	
	Frequency	50/60 Hz	
Accuracy		±0.5% to ±1.5%	
Regulation Speed		11 – 33 ms/V	
Overload Capacity		Ten times the rated power for 10 milliseconds; five times the rated power for 6 seconds; twice the rated power for 1 minute	
Efficiency		96% - 98% at full load	
Frequency Variation Insensitivity		±5%	
Harmonic distortions		±0.2%	
Impedance		0.52 – 0.015 Ohm	
Operating Temperature		0° - 40°C	
Degree of Protection		IP00 / IP21 / IP54 INDOOR / IP54 OUTDOOR	
Cooling System		Natural convection, fans, air conditioning	
Standard Fittings		Digital network analyser / energy meter, pilot lamps, potentiometer; alarm indication and dry contacts for connection to an external device for protection against; overload, over/under voltage, phase failure/reversed phase sequence	
Special Versions		Can be equipped on demand with special fittings in separate cabinet. E.g. maintenance by-pass thermal magnetic circuit breakers, insulating transformer, surge suppressors, lightning arresters, harmonic filters	
Remote Control (Optional)		Ethernet, Internet, GSM / GPRS	
Compliance with Standards		2004/18/EC and 2006/95/EC	

IP00 model



IP21 model



IP54 INDOOR



IP54 OUTDOOR

