



PULSETECH

empowering the power

The advertisement features a large-scale photograph of a sumo wrestler in a crouching position on the right side of a white seesaw. On the left side of the seesaw is a large blue industrial power supply unit. The seesaw is tilted, with the sumo wrestler's side being lower, suggesting the unit is heavy and powerful. In the top left corner of the ad, the PULSETECH logo and tagline are visible. At the bottom of the ad, there are two smaller images: a blue power supply unit on the left and three white power supply units of varying sizes on the right. The text 'More powerful....than you expect !' is written across the bottom of the main image area.

More powerful....than you expect !

SERVO VOLTAGE STABILIZER

Introduction

Voltage fluctuation is common phenomenon in every part of the country. Automatic voltage controller is an equipment to obtain constant voltage supply system. The industrial units running round the clock usually face the problem of low & high voltage. 90% of industrial load is of motors. Electric motors draw considerable high current at low & high voltage. This higher current affects the electric motors in these ways :

- High current produces higher losses in electric motors which cause premature failure of winding.
- These higher current of electric motors also increases losses of cables, switches & other associated equipment's.
- This higher current require 15-20% higher setting of over load relay to avoid frequent ripping of motors starter. Higher setting of over load relays have very little safety margin against single phasing & over loading conditions.

The installation of servo voltage stabilizer & maintaining 390/400 volts the motor will operate smoothly drawing 15-20% lesser current and corresponding the relay setting can be reduce by 15-20% In case single phase occurs, the relay will trip in 40-50 sec. The motor can withstand the high current for this period & will be safe. Also the contactors, relays, switch gears etc incorporated with the motor will be safe.

Suggestion :

Check your voltage variation. Install one digital voltage meters at your factory gate & ask your security person to note down hourly voltage reading of few days. In case you find that your input voltage is higher even for hours a day then you can reduce failure rate of electrical equipment's by installing servo stabilizer.

Principle of Operation :

The control circuit continuously monitors the output voltage and looks for any error in the output. Any deviation in the output is immediately corrected by switching on the transformer increases/decreases the voltage to primary of buck / boost transformer. The buck / boost transformer adds / subtracts the voltage to mains so that the output voltage remains within the set limits. For balance, (3 phase) type, three varies are mechanically coupled & driven by a single motors. This employs a single motors. This employs a single control circuit. For unbalanced (3

phase) type three voices are driven by three motors & also uses three control circuits. These stabilizers are used for three phase load / single phase load both at a time.

Field Of Application

Information technology and Call centers, Computer and Micro-processor control systems, Sophisticated research instruments used in Scientific, Medical, Agriculture, Educational and other Research Institutions, Offset Printing presses, Color scanners, Processors, Photo-typesetters, Photographic equipment, Photo copiers and Packaging Industries, Medical equipment, X-Ray machines, E.C.G., machines / monitors, Refrigerated system, Centrifuge, NMR,MRI,CT scans etc. Define installations, PLTs, HPTs, Broadcasting and Tele-communications, Lifts, Escalators and Elevators. Central Air-conditioning plants, Processing plants, Chemical Industries, Textile Industries. CNC machines, Laser machines and Maudling machines, Commercial Buildings and Complexes etc.

TECHNICAL SPECIFICATION

Module	2*37 Wp or 1**74 wp Based on the configuration
Battery	12v 75 AH-100 AH lead acid Tubular Type
Charge Controller unit	3 to 10 A with Efficiency>85%
Lamp	4pin 11 W CFL
Luminaries Housing	weather proof with high illuminative acrylic reflector
Pole	Galvanized MS with 4-5 meter in height
Battery Box	Polycarbonate/MS with Module Mounting Structure (MS)
Hardware & accessories	As per the configuration Mode

Advantage of PulseTech Stabilizers :

- Uniform Quality of end product.
- Current voltage automatically and continuously.
- Induction motors operate at high efficiency and improved power factor when supplied constant voltage
- Protects costly manufacturing equipment from menace of high/low voltages, thus cutting on the maintenance cost.
- Better efficiency in plant.
- 80% depreciation from Income Tax.
- Reduction in MDI.
- Reduction in electricity bills up to the level of approx. 5-15%(This also depends on the input variation, loading and the number of working hours)
- Save on diesel cost, as generator is not required to run at high/low input voltages.
- The average pay back period of servo controlled voltage stabilizer owing to its high energy saving capability is approx.12-18 months depends upon the number of working hours and duration of high voltage.

Outstanding Features of PulsTech Stabilizers :

- Higher overload capability for high inrush and regenerating currents of induction motors.
- Machine wound variable auto transformer.
- Specially designed transformers to minimize losses.
- Prime grade GRGO laminations and electrolytic conductors of 99.9% purity used of transformers. Plug-in
- Type glass-epoxy control cards designed for easy on line serviceability.
- Efficiency better than 95%, resulting in large energy conservations.
- Burn proof/less A.C. synchronous motor for greater reliability and longer life.
- Synchronous motor is controlled by thermistors' which are itself controlled by CMOS integrated circuit thus the whole system is quite solid state.
- Copper wound buck boost transformers duly vacuum impregnated.

TECHNICAL SPECIFICATION

Type	Single Phase	3Phase Balance / Unbalanced Load
Input Voltage Range	160V-260V AC 120V-290V AC	300V-470V Ac 260-470Ac
Capacity	1,2,3,15,5,8,10,16,20,25,31, 35,40,50,100,125,150,200, 300 & 350 KVA	3,5,10,15,20,25,30,40,50,80,100, 125,150,200,300,400,500,600, 2000 KVA
Output Voltage	230V-240(adjustable)	400V-415V AC(adjustable)
Rated Operating Freq.	50Hz	50Hz
Regulation	+ -1%	+ -1%
Efficiency	More than 95%	More than 95%
Rate of Conversion	20V / sec	35V / sec
Duty Cycle	100 percent	100 percent
COOLING		
Air Cooling/Oil Cooling	1-10KVA/15 KVA-KVA	2.5-30KVA/40 KVA-2000 KVA
Input/output Connections	15amp plug & socket Terminal for input / output	15 amp, plug & socket terminal for input/output
Up to 2 KVA		
Above 2 KVA		

Metering

72 mm to 100 mm(dial accuracy 1-5V) Voltmeter with selector switch to indicate Input and output voltage

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with

