



Power Management Instruments

Online UPS

Industrial UPS

DC Battery Charger

Electronic pf Corrector Systems

Microprocessor Controlled Voltage Stabilizers

Inverter

GESS LINE MICROPROCESSOR CONTROLLED SERVO VOLTAGE REGULATOR



FULL PROTECTION WITH
MICROPROCESSOR CONTROLLED ARCHITECTURE

LONGTERM OPERATIONAL EFFICIENCY

GESS Servo Voltage Regulators are RISC microprocessor controlled devices. The microprocessor controlled PWM technology prevents the unnecessary movements of servo motor and the toroidal transformer. Due to its mechanical architecture

there are no tap changes providing perfect instant current reaction and output voltage sensitivity. This brings low risk of break downs, long lasting operation and low maintenance



LOW OUTPUT VOLTAGE TOLERANCE

GESS Servo Voltage Regulators operate mechanically at 100V/sec correction speed with low output voltage tolerance as low as $\pm 1\%$. Thus they are ideal solutions for protecting electronic loads. In general applications they are highly recommended for no critical loads such as lighting, and for stabilizing input voltage in buildings and factories.

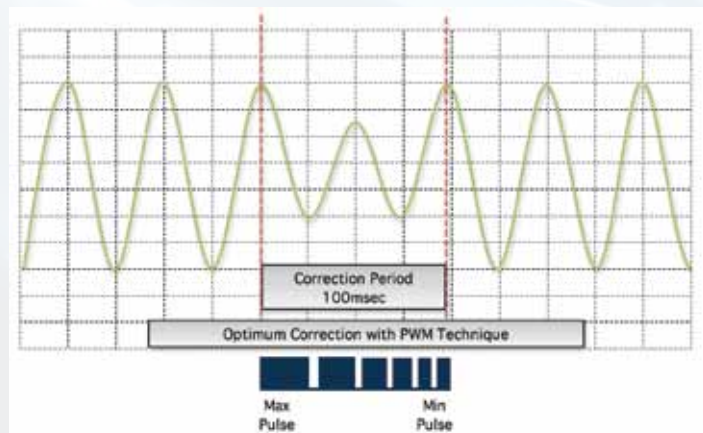
ENERGY SAVING SOLUTION

The Servo Voltage Stabilizers are also ideal to be used in connection with generators where the network voltage is too low and fluctuation is high. Normally, a standalone generator starts operating below 200V, however a generator coupled with a Servo or Static Voltage Stabilizer kicks in below 165V since the Servo Voltage Regulator corrects the network voltage down to 165V level. Regulator's correction capability within this margin would prevent unnecessary operation of generators and increase system's efficiency.

FEATURES AT A GLANCE

- Measuring true RMS
- Controlling with RISC Microprocessor
- Perfect static and dynamic regulation
- Wide input operating voltage range 130-270 VAC
- Electronic protection against over-load and short circuit
- 220V $\pm 1\%$ static regulation 100V/Sec regulation speed
- Programmable upper and lower limit for protecting over voltage
- Load level, input and output voltage display

SAFER LOAD



Since Servo Motor is set in motion with PWM technique, Servo Regulator responds to voltage spikes at optimum pulses to prevent overshoot & undershoot type corrections. As a result, the load is safer against voltage surges and short circuit current. In addition optimum corrections extend the life of the coroidal transformer and the regulator itself.





MICROPROCESSOR CONTROLLED SERVO VOLTAGE REGULATOR

INPUT	
Input Voltage Regulation Range	285 - 440 VAC (3 phase), 165-255 VAC (1 phase)
Input Voltage Operating Range	230 - 470 VAC (3 phase), 130-270 VAC (1 phase)
Operating Frequency	50 Hz ± %5
System Input Protection	Over Current Thermic Fuse, Instant Over Voltage Protection
Instant Voltage and Pulse Protection	IEEE 587 (4500 A, 110 Joules)
OUTPUT	
Output Voltage	380 VAC RMS ± %1 (3 Phase), 220 VAC RMS ± %1 (1 Phase)
Overloading	10 Seconds at % 200 Load
Regulation Speed	100 V/sec
Output THD	Equal to Input THD
Recovery Time	500 ms (165-225 VAC)
Operating Technique	RISC Microcontrolled Full Automatic Servo Controlling
Output Protection	Short Circuit, Over Current Electronic Protection, Over and Lower Voltage Protection
DIGITAL CONTROLLING PANEL (0-45kVA)	
Indicator and Buttons	True RMS Digital Voltmeter, Alarm Reset Button
Warning Messages	Input High/Low, Output High/Low, Overload Warning
Viewing Measured Values	Output, Input and Load
Setting Output Tolerance	% 1,5 - 2,5 - 3,5 – 5 Selectable by DIP Switch
Setting Lower Output Voltage Limit	180 – 190 – 200 – 210 V Selectable by DIP Switch
Setting Upper Output Voltage Limit	230 – 240 - 250 – 260 V Selectable by DIP Switch
DIGITAL CONTROLLING PANEL (60-600kVA)	
Indicator and Buttons	2x16 LCD, Menu Scanning Button, Selecting Button,
Warning Messages	I/O Low/High, Load > %100, Motor Error, Over Temperature
Viewing Measured Values	Mains Power and Output Voltage, Load Level
Setting Output Tolerance	% 1-5 Selectable Front LCD Panel
Stand-By Duration	1 – 10 Sec. Selectable Front LCD Panel
Output Upper Protection Voltage	230 - 250 VAC Selectable Front LCD Panel
Output Lower Protection Voltage	180 - 210 VAC Selectable Front LCD Panel
Regulation Voltage	220 – 240 VAC Selectable Front LCD Panel
Sound Alarm	On Warning Messages 2 Short 'beep' per 2 seconds Selectable Front LCD Panel, You can cancel this property on this panel.
GENERAL	
Total Efficiency	>% 98 (At Full Load)
Mechanical By-pass	Manuel "Mains – Line Stabilizer" Selector
Electrical Noise Reduction	FCC Part 15 Class B
Protection Level / Color	IP20 / RAL 7035
COMMUNICATION	
RS232 Communication (option)	Compatible with Windows NT, XP, Vista; Remote ON-OFF; Key parameters can be monitored over Local Area Network & Internet
ENVIRONMENT	
Operating Temperature	-10 / +50 °C
Relative Humidity	90%
Operating Attitude	Max. 3000 Mt.
Noise Level	Max. 60 db
Electrical Standards	EN 50091-1 (Security) / EN 50091-2 (EMC)

* Custom production available up to 1000KVA



Power Management Instruments

GROUP COMPANIES

Ortadođu Elektronik Sanayi Ltd. Őti.
Karmet Makina Elektronik Tasarım A.S.
PMI Elektrik Sistemleri Dis Tic. Ltd. Sti

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PMI/OES reserves the right to make alterations on technical specifications.



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