

SERIES GSR

VOLTAGE REGULATION

The **SERIES GSR** is the strongest AVR built in the industry with a wide input range and harsh environment standard design. The versatile design allows for multiple foot print options. The **Series GSR** provides voltage sensitive load equipment with conditioned power that has been filtered for noise and adjusted for voltage. On a 480 volt system a 240 volt swing on the input (+20% -30%) will show up as less than a 50 volt (+5%, -6%) change at the load. The **Series GSR** uses solid state switches to select between 7 possible taps on the triple shielded Delta - Wye isolation transformer. This switching takes place in less than a cycle. The system also provides protection from transient voltage spikes. The **Series GSR** comes complete wrap-around bypass switch (units with same voltage on input and output) for maintenance work. Units with different input/output keep transformer in circuit. This design has been installed in over 175 countries since 2001.



Standard Equipment Features

- Transformer:
 - Fully Isolated
 - 100% Copper windings
 - Triple shielded
 - K-13 Rated (100% Non Linear Load)
 - Low output impedance
 - Grain orientated, M-6 grade silicon steel
 - Class (N) 200 insulation
- Main input breaker with shunt trip
- High Common mode noise attenuation
- Output transient suppression
- Timed automatic restart - programmable
- Programmable Limits for:
 - Input Voltage
 - Input Frequency
- Over/Under frequency protection
- Over/Under output voltage protection
- Fuse failure indicator lights
- Digital Input & output meters
- Overload protection
- Highly Efficiency design
- Quiet Operation
- Extremely high surge capability

Optional Features

- Remote Monitoring
- Communications capability
 - RS232 or RS485
 - Ethernet TCP / IP
 - Modbus Plus
 - Modbus RTU / ASCII
 - DNP 3.0
- K-Factor and %THD
- Maintenance bypass
- Remote power off (REPO)
- Various Cabling and Distribution combination on some models
- Pre-coordinated input SPD
- "Turn Key" Installation

POWER SYSTEMS
& CONTROLS
THE POWER IS ON!

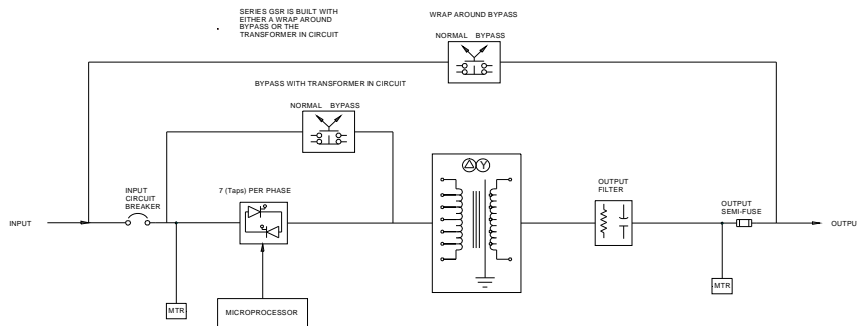
System Specifications

INPUT		OUTPUT	
Nominal Voltage Available		Nominal Voltage Available	
> @ 60 Hz	*208, *240, 480, 600	> @ 60 Hz	208, 240, 480, 600
> @ 50 Hz	380, 400, 415	> @ 50 Hz	380, 400, 415
> Phase	3 Phase ** 3 Wire + G	> Phase	3 Phase 4 Wire + G
> Frequency Tolerance	+/-3 Hz	> Frequency Regulation	Input Dependent
> Voltage regulation range	+20%, -30% from nominal	> Output Impedance	3% to 5%
		> Line Voltage Reg.	+ 5%, -6% from nominal
		> NL to FL	3%
		> Combined Line & Load Regulation	+ 7% to -8% max. from nominal
		> Response Time	½ Cycle
		> Correction Time	1 Cycle Typical
		> Over Shoot	Less Than 7% for 1 Cycle
		> Efficiency	97% Typical

* Input Voltage of 208 & 240 available up to 300 kVa
 ** WYE - WYE available when input matches output

SERIES GSR RATINGS, DIMENSIONS & WEIGHTS				
KVA RATING	W (IN)	L (IN)	H (IN)	W (LBS)
10	21.5	29	30	440
15	21.5	29	30	595
25	45	29	44	840
30	45	29	44	900
** 45	45	29	44	1140
** 50	45	29	44	1165
** 75	45	29	44	1320
** 100	45	29	44	1992
** 125	56	41.5	77	2376
** 150	56	41.5	77	2640
** 175	56	41.5	77	2750
225	56	41.5	77	3300
250	56	41.5	77	4000
300	56	41.5	77	4800
350	56	41.5	77	5520
400	72.5	48.5	77	5900
500	72.5	48.5	77	6200
625	110	48	87	8000
750	134	48	87	9000
1000	134	48	87	10,000
** FA Option	46	36	76	Same

> Noise Attenuation	
> Common Mode	140 dB or greater
> Transverse Mode	3db @ 1000 Hz 40dB/decade 50dB with resistive load
THD (Total Harmonic Distortion)	
> Total	<1% added for Linear Loads
Phase Separation	
> Balanced Load	120° +/- 1°
> 25% Unbalance	120° +/- 3°
Overload Capacity	
> 100% Rating	Continuous
> 200%	10 Seconds
> 500%	5 Seconds
> 1000%	1 Cycle
> Load Power Factor	0.6 to 1.0
ENVIRONMENT	
> Temperature	32° to 104° F (0° -40° C)
> Altitude	5000 FT ASL (0 to 5000 FT)
> Humidity	0 to 95% non-condensing
> Noise Level	150 kVA < 50 dBa 225-500 < 60 dBa 625-1000 < 65 dBa



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