SERIES SMG

POWER CONDITIONER

The **Series SMG** Synchronous Motor Generator provides total electrical isolation from spikes, brownouts, voltage fluctuations and electrical disturbances on the commercial utility network. This is accomplished via a coupling between the motor and generator. The ride-thru of the **Series SMG** provides power outage protection for short outages such as utility re-closure operations.

- Brushless synchronous motor
- Brushless synchronous generator
- PLC control and internal fault monitors
- Precision solid-state voltage regulator
- Cycle on/off with no load interruption
- Electrically operated input & output circuit breakers

Standard Equipment Features

- NEMA-1 control cabinet, steel construction
- Output under voltage detector
- Output under frequency detector
- Auto bypass
- Motor over temperature detector
- Reduced current starting
- Rigid steel base, welded construction
- Bearing over temperature protection
- 100% Electrical isolation across MG set
- Output overvoltage detector
- Anti-friction bearings throughout
- A touch screen interface simplifies all operator controls
- PLC technology will control and monitor all SMG functions
- Power factor correction

Optional Features

- Remote monitor (status & alarm)
- Remote touch screen
- Simple relay logic controls
- 4 bearing system utilizing 2 bearing motor and 2 bearing generator
- Special voltages
- NEMA-3R enclosure
- "Turn Key" installation services
- Vibration isolation

Benefits of Rotary Conditioners

- Single feeder or dual feeder applications
- Little disruption to the existing service
- Blocks all line disturbances
- Desired system flexibility
- Motor sized for real power
- Low cost of installation
- Can match size of electrical service
- Blocks customer generated problems from reflecting back on the utility
- Durability of the equipment
- Long or short term power conditioning
- Rides-thru "most" common utility power disturbances
- Effectively isolates harmonics and disturbances from supply side loads
- Limiting the inrush or starting current to no more than the MG's full load current

POWER SYSTEMS
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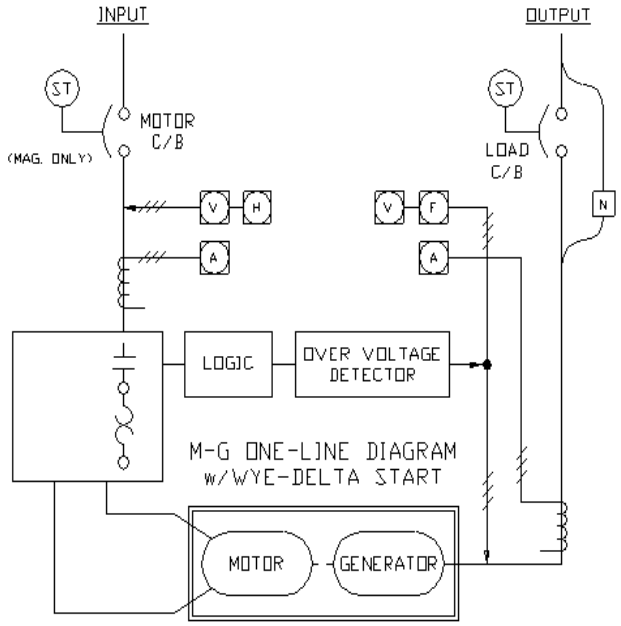
www.pscpower.com

System Specifications

*Note: System performance shown is typical and is dependent upon M-G sizing, options desired, and loading of the system.

INPUT	
Nominal Voltage Available	
➢ @ 60 Hz	208, 240, 480, 600
➢ @ 50 Hz	380, 415
➢ Phase	3 Phase 4 Wire + Ground
➢ Frequency Tolerance	47 to 63
➢ Magnitude Tolerance	
➢ Continuous	+10%, -20%
➢ Transient	1500v for 10 ms 0 for 100 ms
Power Factor	
➢ Starting inrush	<1.5 x FLA

OUTPUT	
Nominal Voltage Available	
➢ @ 60 Hz	208, 240, 480, 600
➢ @ 50 Hz	380, 415
➢ Phase	3 Phase 4 Wire + Ground
➢ Frequency Regulation	Input Dependent
➢ Voltage Adjustment	± 10%
Voltage Regulation	
➢ Transients	50% Block Load +/-8% 100% Block Load +/-12%
➢ Recovery Time	0.5 within 0.5 Seconds
➢ Steady State	± 0.5% Δ 90° F
THD (Total Harmonic Distortion	
➢ Single	3% Max
➢ Total	5% Max
Phase Separation	
➢ Balanced Load	120° ± 1°
➢ 25% Unbalance	120° ± 3°
Overload Capacity	
➢ 100% Rating	Continuous
➢ 110%	2 Hours
➢ 125%	10 Minutes
➢ 150%	1 Minute
➢ Power Factor	0.8
ENVIRONMENT	
➢ Temperature	32° -104° F (0° - 40° C)
➢ Altitude	0 ï 1000 meters (0 ï 3300 ft)
➢ Humidity	0 ï 95% non-condensing
➢ Noise Level	@ 1.5 meters (5 ft)
➢ Open	90 dBa
➢ Enclosed	75 dBa
➢ Silenced	65 dBa



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