

SERIES SMG

Power Conditioner

The **Series SMG** 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

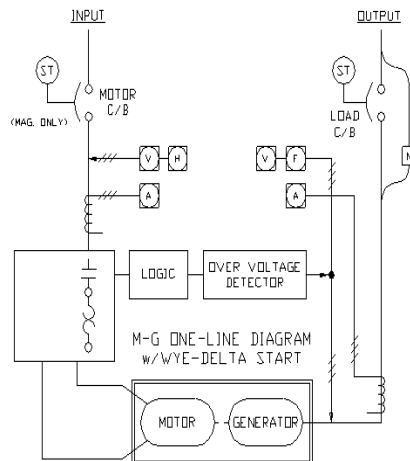
- Single feeder or dual feeder applications
- Little disruption to the existing service
- Blocks all line disturbances
- Desired system flexibility
- Motor sized for real power
- Low cost of installation
- Can match size of electrical service
- Blocks customer generated problems from reflecting back 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

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System Specifications

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

INPUT					OUTPUT		
Nominal Voltage Available					Nominal Voltage Available		
➤ @ 60 Hz					208, 240, 480, 600	➤ @ 60 Hz	208, 240, 480, 600
➤ @ 50 Hz					380, 415	➤ @ 50 Hz	380, 415
➤ Phase					3 Phase 4 Wire + Ground	➤ Phase	3 Phase 4 Wire + Ground
➤ Frequency Tolerance					47 to 63	➤ Frequency Regulation	Input Dependent
➤ Magnitude Tolerance						➤ Voltage Adjustment	+ 10%
➤ Continuous					+10%, -20%	Voltage Regulation	
➤ Transient					1500v for 10 ms 0 for 100 ms	➤ Transients	50% Block Load +/-8% 100% Block Load +/-12%
Power Factor						➤ Recovery Time	0.5 within 0.5 Seconds
➤ Starting inrush					<1.5 x FLA	➤ Steady State	+ 0.5% Δ 90° F
SERIES SMG RATINGS, DIMENSIONS & WEIGHT					THD (Total Harmonic Distortion)		
KVA/KW	DIMENSIONS IN INCHES			W (KGS)	➤ Single		3% Max
	LENGTH	WIDTH	HEIGHT		➤ Total		5% Max
UNDER 125	CONSULT FACTORY				Phase Separation		
125/100	113	32	68	4900	➤ Balanced Load		120° + 1°
156/125	113	32	68	4900	➤ 25% Unbalance		120° + 3°
188/150	113	32	68	4900	Overload Capacity		
250/200	119	32	68	5800	➤ 100% Rating		Continuous
313/250	126	32	68	6500	➤ 110%		2 Hours
375/300	126	32	68	6800	➤ 125%		10 Minutes
438/350	135	32	76	8300	➤ 150%		1 Minute
500/400	135	36	76	8300	➤ Power Factor		0.8
625/500	148	36	76	9700	ENVIRONMENT		
750/600	148	36	76	10300	➤ Temperature		32° -104° F (0° - 40° C)
875/700	158	36	96	13000	➤ Altitude		0 – 1000 meters (0 – 3300 ft)
1000/800	180	44	96	16000	➤ Humidity		0 – 95% non-condensing
1250/1000	186	44	96	19400	➤ Noise Level		@ 1.5 meters (5 ft)
1500/1200	186	44	96	19400	➤ Open		90 dBa
1800/1440	186	44	96	21500	➤ Enclosed		75 dBa
2000/1600	199	44	96	23400	➤ Silenced		65 dBa



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