



UNITED POWER

Series RPM: Rotary Power Module

Features

General

- Universal Application
 - Medical Imaging
 - Industrial Process
 - Data Processing
 - Laboratories
 - Tempest/Military
- Internal Diagnostic Capability
- Full System Tested
- One Year Warranty
- Quality Design and Construction
- UL Listed

Electrical

- 18-500 kVA Systems
- Total Line to Load Isolation
- Superior Voltage Regulation
- Blackout Protection
- Uninterrupted Bypass
- 3% Maximum THD
- Single Phasing Capability

Physical

- Precision Balanced
- Small Footprint
- Front Access Only
- Four Swivel Casters
- Four Isolation/Stabilizing Feet
- 1/4 Turn Fasteners Throughout
- Natural Convection Cooled
- High-tech Aesthetics
- Quiet Operation

United Power's RPM rotary power module is a state-of-the-art, patented power conditioning system. Series RPM uses a motor driven flywheel inertial system coupled to a generator to electrically isolate the load from the utility source and develop computer grade power. The RPM regulates voltage to $\pm 0.5\%$ of nominal, absorbs reflected harmonics, and eliminates harmful transients. By providing total isolation from the utility source, the RPM also eliminates all impulses and common mode noise. Additionally, the generation of new, high-grade power protects the load from virtually all voltage fluctuations while its mechanical energy provides ride-through of short-term power failures or momentary blackouts of up to 5 seconds.

Series RPM is a cost-effective solution for most power quality issues. The RPM eliminates voltage sags, or low voltage conditions, continuous up to 32% below nominal line voltage. It eliminates transients, surges, and high voltage conditions, and rides-through up to 5 seconds of complete power failure. These conditions comprise up to 96% of all power quality issues, as reported by Bell Laboratories in "The Quality of U.S. Commercial AC Power".

Only more expensive uninterruptible power supplies with batteries and diesel generation or equivalent can provide longer term power protection. For industrial process control, medical and laboratory equipment, data processing, and other critical power applications, Series RPM provides the industry's highest level of reliability of any equivalent power conditioning technology.



Protection of critical equipment such as medical imaging, industrial process equipment, data processing and laboratories is a must with today's sensitive load environments. Reliable

design, comprehensive power conditioning and application flexibility make United Power Series RPMs an excellent investment for these and other critical power applications.

Series RPM Specifications

Brownout Protection

up to -32% from nominal

Voltage Regulation

±0.5% of nominal

Blackout Protection

Up to 5 seconds with optional "MRT" Maximum Ride-Through Flywheel

Uninterrupted Bypass

Synchronized @ 3% maximum

Single Phase Protection

Up to 65% rated load

Common Mode Noise Attenuation

Total Isolation

Transverse Mode Noise Attenuation

Total Isolation

Overload Protection

115% for 2 hours
200% for 1 minute

Harmonic Distortion

less than 3%

Power Factor

0.8 or greater

Frequency Ratings

60/60, 50/50, 60/50, 50/60, 60/400 and 60/415

Quiet Operation

as low as 62 dB

Temperature

10°C to 40°C

Humidity

10% to 95% RH

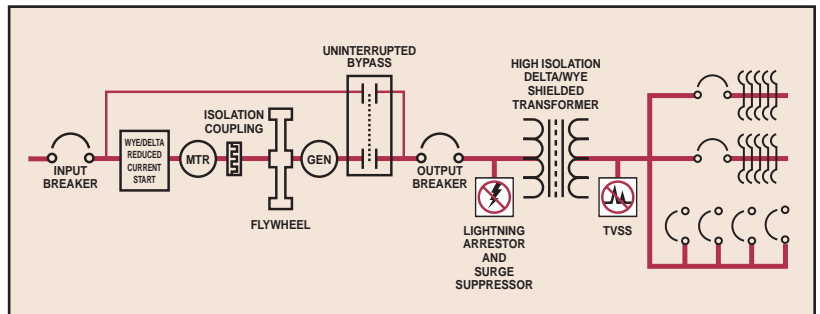
Altitude

0-8500 feet

Physical Specifications: Series RPM Rotary Power Module

Cabinet	kVA	Width		Depth		Height		Unit Weight	
		In	Cm	In	Cm	In	Cm	Lb	Kg
RPM1	18.7	27	68	27	68	62	157	1,800	814
	25	27	68	27	68	62	157	1,950	882
	30	27	68	27	68	62	157	1,990	900
RPM2	50	34	86	34	86	72	182	2,400	1,086
	75	34	86	34	86	72	182	2,850	1,290
	100	34	86	38	97	80	203	3,050	1,380
	125	34	86	38	97	80	203	3,310	1,498
	164	43.5	110	34	86	84	213	3,520	1,593
RPM3	200	43.5	110	34	86	84	213	3,910	1,769
	313	*104	264	34	86	74	188	6,800	3,077
	500	130	330	43.5	110	78	198	9,640	4,373

*313 kVA RPM3 cabinets can be shipped in two 52" W x 34" D x 72" H sections.



The above one-line diagram displays Series RPM theory of operation with distribution capabilities.

Bypass Keeps You Up!

Every Series RPM rotary power module can be equipped with our exclusive solid state controlled uninterrupted bypass circuit. This circuit enables the critical load to remain up and operating during any system fault condition and preventive maintenance period.



United Power has carefully designed the bypass circuit to provide the user two different modes of uninterrupted, synchronized operation. First, the user may manually elect to bypass utility power "around" the motor generator system. Second, the circuit is programmed to continuously search for any abnormal condition within the system itself. Upon an overload or abnormal condition, the system automatically initiates its synchronized, uninterrupted bypass capability to keep the load up thus avoiding disastrous computer downtime.

Quiet and Small

Series RPM rotary power modules are fitting for computer room raised floor applications as well as industrial grade environments. Rotary power modules are among the quietest and smallest in the motor generator industry, while requiring front access only for routine service purposes.

Series RDM: Rotary Protection and Flexible Distribution

Series RDM rotary distribution modules combine all of the power conditioning features of our rotary power modules with the distribution and monitoring features of our power distribution modules into one complete system. Rotary distribution modules are available from 18.7-200 kVA.



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