

**SCR-DUTY
MAGNAMAX[®]**



Your Generator for Drill Rig Applications



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**MARATHON[®]
ELECTRIC**

**RUNS.
AND RUNS.
AND RUNS.
AND RUNS.**



SCR-DUTY MAGNA MAX[®]

MagnaMAX SCR

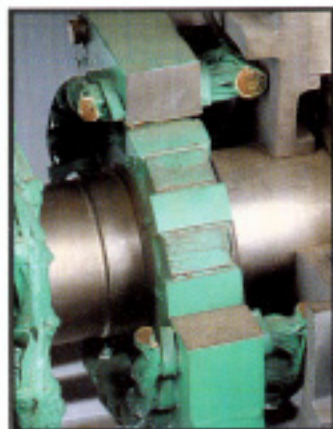
Features that will make it

Patented Regulator

The digital voltage regulator is PMG powered and completely encapsulated for reliable operation in all environments. Includes 1/2% regulation, adjustable volts/hertz underspeed protection, 3 phase RMS sensing, paralleling, loss of sensing protection (senses continuity) and over excitation protection as standard. The regulator is conveniently mounted on a hinged panel for ease of inspection, maintenance and safety.

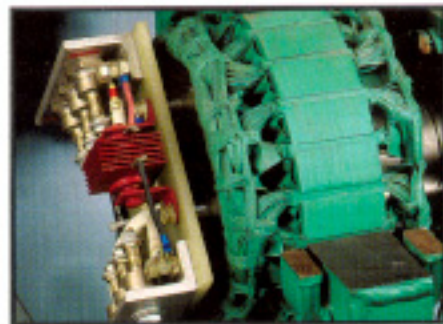
PMG Excitation

The permanent magnet generator (PMG) excitation system provides 300% short circuit excitation support for a minimum of 10 seconds and isolates the regulator power circuit from non-linear loads. The PMG is mounted outboard of the bearing for ease of inspection and maintenance.



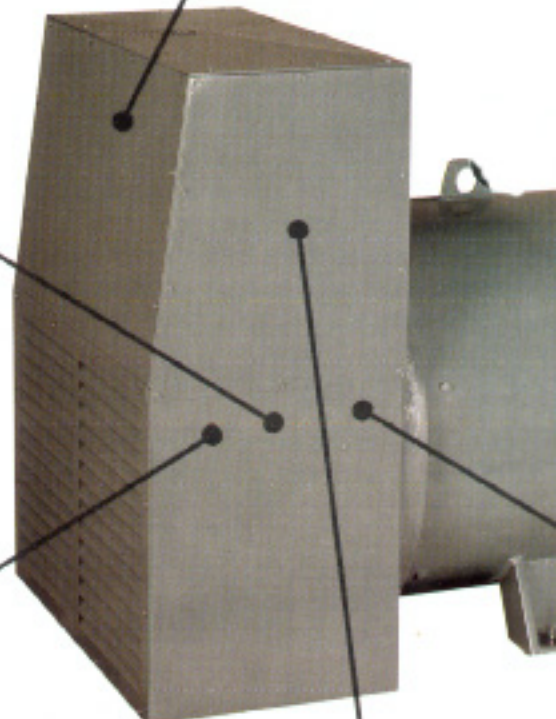
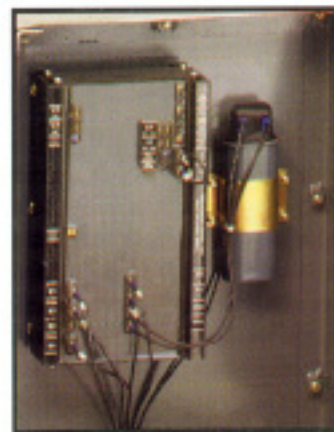
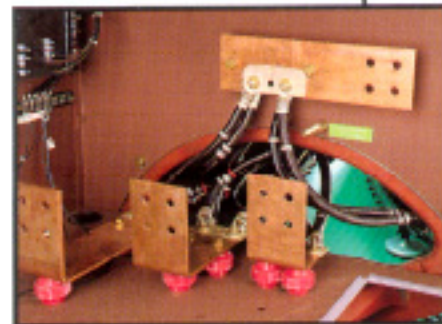
Brushless Exciter

The rotating rectifier assembly utilizes 1000 volt rectifiers and surge protection for induced spike protection. The exciter is mounted outboard of the bearing for ease of inspection and maintenance. The exciter is also compatible with SR8 regulators or comparable regulators as an option by removing the PMG and DVR2000 voltage regulator.



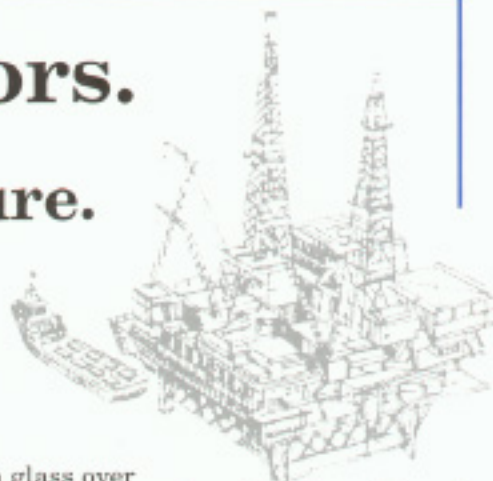
4 Bus Bars

The oversize conduit box provides ample room for lead connections to the 4 bus bars that are provided as standard for simplified load lead terminations. The load leads can access the conduit box from the top, bottom, or either side. The load lead connections are isolated from all rotating components.



2-Drill Rig Duty Generators.

the industry standard of the future.



Form Wound Coils

Coils are precision formed using double dacron glass over Amide-Imide overcoated polyester insulated copper rectangular wire. The coils are then wrapped with multiple layers of glass tape and mica tape to provide a superior insulation system. The coils are lashed to steel surge rings located at both ends of the winding.

VPI Treatment

The wound stator assembly is vacuum pressure impregnated in 100% solids epoxy for maximum system integrity and environmental protection. The completed assembly is then treated with an epoxy overcoat for added humidity and salt spray protection.



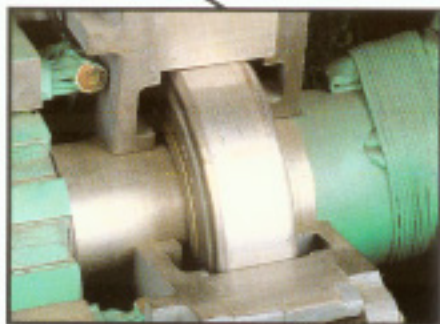
Unirotor Construction

This Marathon Electric exclusive features a single piece rotor lamination, coupled with a die-cast rotor core and amortisseur winding. The copper field winding is layer wound with thermo setting epoxy for high mechanical and electrical integrity and has an epoxy overcoat for salt spray protection.



Rugged Construction

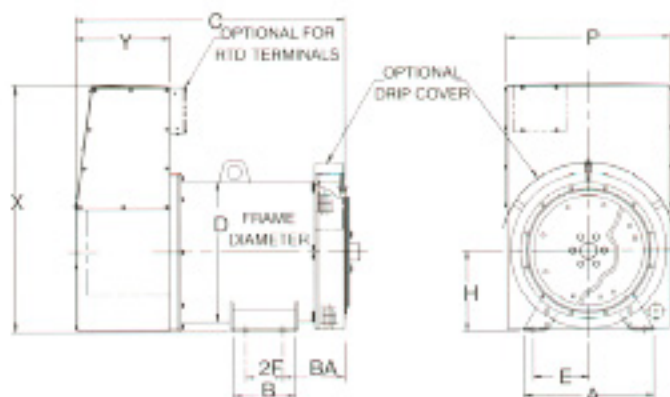
This heavy-duty frame construction assures low vibration and long life. Internal frame supports, along with the external girth rings and the rigid mounting feet, are welded to the rolled steel plate to form a strong, unitized frame. A raised dripcover and space heaters are standard.



Heavy-Duty Bearings

Heavy-duty, shielded ball bearings are designed for a minimum B-10 life of 40,000 hours. The bearings are protected on each side by cast-iron bearing caps to prevent contamination from entering the bearing. Extended grease and relief fittings make bearing regreasing easy.

ALL DIMENSIONS ARE APPROXIMATE.
Refer to Dimension Section of the
Generator Catalog for full dimensional
data.



DIMENSIONS

OVERALL DIMENSION: U.S. CUSTOMARY (METRIC)

Frame Size	A in (cm)	B in (cm)	BA in (cm)	C in (cm)	D in (cm)	E in (cm)	2F in (cm)	H in (cm)	P in (cm)	X in (cm)	Y in (cm)
574	22.50 (57.15)	24.00 (60.96)	11.50 (29.21)	64.88 (164.80)	27.64 (70.21)	10.00 (25.40)	20.00 (50.80)	15.50 (39.37)	30.50 (77.47)	42.91 (108.99)	17.06 (43.33)
742	33.00 (83.82)	27.00 (68.58)	12.00 (30.48)	72.77 (184.84)	34.21 (86.89)	15.00 (38.10)	23.00 (58.42)	19.00 (48.26)	37.75 (95.89)	51.31 (130.33)	21.21 (53.87)
743	33.00 (83.82)	41.00 (104.14)	12.00 (30.48)	79.27 (201.35)	34.21 (86.89)	15.00 (38.10)	37.00 (93.98)	19.00 (48.26)	37.75 (95.89)	51.31 (130.33)	21.21 (53.87)
744	33.00 (83.82)	41.00 (104.14)	12.00 (30.48)	85.77 (217.86)	34.21 (86.89)	15.00 (38.10)	37.00 (93.98)	19.00 (48.26)	37.75 (95.89)	51.31 (130.33)	21.21 (53.87)

RATINGS @600 VOLTS, 80°C RISE, 60 HERTZ, 4 POLE (1800 RPM) ①

Model Number	Net Weight (lbs)	Frame Size	Number of Leads	Standard Voltage Regulator	kW Rating	
					Class B Cont. 80°C R/R 0.7 P.F.	Class B Cont. 80°C R/R 0.8 P.F.
574FSS4226	3950	574	4 Bar	DVR2000	500	570
742FSS4230	5900	742	4 Bar	DVR2000	700	800
743FSS4232	6500	743	4 Bar	DVR2000	800	900
743FSS4234	6900	743	4 Bar	DVR2000	900	1025
744FSS4236	7300	744	4 Bar	DVR2000	1000	1140
744FSS4238	8300	744	4 Bar	DVR2000	1200	1375

RATINGS @480 VOLTS, 80°C RISE, 60 HERTZ, 4 POLE (1800 RPM) ①

Model Number	Net Weight (lbs)	Frame Size	Number of Leads	Standard Voltage Regulator	kW Rating	
					Class B Cont. 80°C R/R 0.7 P.F.	Class B Cont. 80°C R/R 0.8 P.F.
574FSS4204	3650	574	4 Bar	DVR2000	500	570
742FSS4208	5900	742	4 Bar	DVR2000	700	800
743FSS4210	6500	743	4 Bar	DVR2000	800	900
743FSS4212	6900	743	4 Bar	DVR2000	900	1025
744FSS4214	7300	744	4 Bar	DVR2000	1000	1140
744FSS4216	8300	744	4 Bar	DVR2000	1200	1375

① Ratings based upon NEMA, 80°C Rise by Resistance, @ 40°C Ambient.
480 Volt designs are also available upon request.

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