

50 Hz

Voltage			Continuous								Standby							
			F - 105/40°C				H - 125 /40°C				H - 150 /40°C				H - 163 /27°C			
C	Y	Δ	kWm	%	kWe	kVA	kWm	%	kWe	kVA	kWm	%	kWe	kVA	kWm	%	kWe	kVA
380	190	220	86.2	90.9	78.4	98.0	99.2	90.3	89.6	112.0	105.8	90.0	95.2	119.0	109.6	89.8	98.4	123.0
400	200	230	85.9	91.3	78.4	98.0	98.9	90.6	89.6	112.0	105.4	90.3	95.2	119.0	109.1	90.2	98.4	123.0
415	208	240	85.7	91.5	78.4	98.0	98.4	91.1	89.6	112.0	104.8	90.8	95.2	119.0	108.5	90.7	98.4	123.0
440	220	254	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

60 Hz

Voltage			Continuous								Standby							
			F - 105/40°C				H - 125 /40°C				H - 150 /40°C				H - 163 /27°C			
C	Y	Δ	kWm	%	kWe	kVA	kWm	%	kWe	kVA	kWm	%	kWe	kVA	kWm	%	kWe	kVA
416	208	240	103.7	90.9	94.2	117.8	114.0	90.5	103.2	129.0	119.7	90.2	108.0	135.0	124.3	90.1	112.0	140.0
440	220	254	107.9	91.2	98.4	123.0	118.9	90.8	108.0	135.0	125.4	90.6	113.6	142.0	128.3	90.4	116.0	145.0
460	230	265	107.5	91.5	98.4	123.0	118.4	91.2	108.0	135.0	124.8	91.0	113.6	142.0	127.8	90.8	116.0	145.0
480	240	277	107.4	91.6	98.4	123.0	120.0	91.3	109.6	137.0	128.4	91.0	116.8	146.0	131.0	91.0	119.2	149.0

	50 Hz	60 Hz
Telephone Interference	THF<2%	TIF<50
Cooling Air	0.514 m ³ /sec 1090 cfm	0.617m ³ /sec 1308 cfm
Voltage Series Star	380/220 400/231 415/240 440/254	416/240 440/254 460/266 480/277
kVA Base Rating	112 112 112 N/A	129.0 135 135.0 137
Xd Dir. Axis Synchronous	2.132 1.923 1.788 -	2.476 2.317 2.121 1.976
X'd Dir. Axis Transient	0.177 0.168 0.157 -	0.206 0.196 0.177 0.159
X''d Dir. Axis Subtransient	0.118 0.103 0.098 -	0.147 0.137 0.128 0.112
Xq Quad. Axis Reactance	1.366 1.232 1.149 -	1.464 1.365 1.257 1.171
X''d Quad. Axis Subtransient	0.157 0.149 0.138 -	0.206 0.196 0.177 0.159
XL Leakage Reactance	0.069 0.056 0.059 -	0.069 0.069 0.059 0.056
X2 Negative Sequence	0.138 0.121 0.118 -	0.167 0.157 0.147 0.131
X0 Zero Sequence	0.088 0.075 0.069 -	0.098 0.088 0.088 0.075
Reactances Are Saturated	Values are per unit at rating and voltage indicated	
T'd Transient Time Const.	0.031s	
T''d Sub-Transtime Const.	0.01s	
T'do O.C. Field Time Const.	0.85s	
Ta Armature Time Const.	0.0073s	
Short Circuit Ratio	1/Xd	
A.V.R. (Voltage Regulation)	Self Excited AUX Excited	R4/4 (± 1.0 %) - Standard R6/4G2 (± 0.5 %) - Optional
Substained Short Circuit Enclosure	SELF EXCITED MACHINES DO NOT SUSTAIN A SHORT CIRCUIT CURRENT IP23	
Stator WDG. Resistance	0.038 Ohms PER PHASE AT 22°C SERIES STAR CONNECTED	
Rotor WDG. Resistance	1.26 Ohms at 22°C	
Exciter Stator Resistance	20 Ohms at 22°C	
Exciter Rotor Resistance	0.091 Ohms PER PHASE AT 22°C	
Waveform Distortion	NO LOAD < 1.5% NON-DISTORTING BALANCED LINEAR LOAD < 5.0%	
Maximum Overspeed	2250 rpm	
Bearing Drive End	BALL. 6315-2RS. (ISO)	
Bearing Non-drive End	BALL. 6310-2RS. (ISO)	

COMPLIANCE WITH STANDARDS

- MBH industrial generators meet the requirements of IEC 60034, GB755, BS 5000, NEMA MG 1.22, VDE 0530 & CSA. These are manufactured in an ISO 9001 environment 2000 version & can be integrated in a "CE" marked machine.

ELECTRICAL PERFORMANCE

- The Main Stator is wound to 2/3 pitch. This eliminates triplen (3rd, 9th, 15th ...) harmonics on the voltage waveform, which is an optimum design for trouble-free supply of non-linear loads.

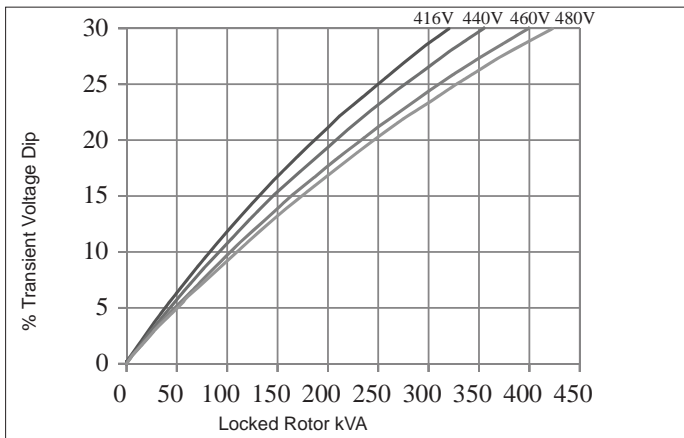
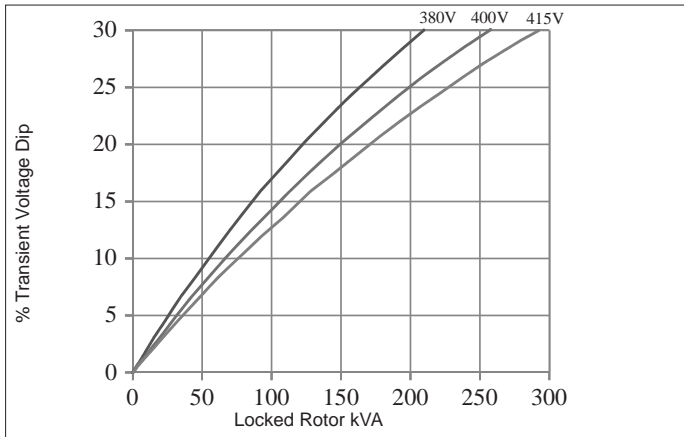
INSULATION / IMPREGNATION

- The insulation system is class 'H'.

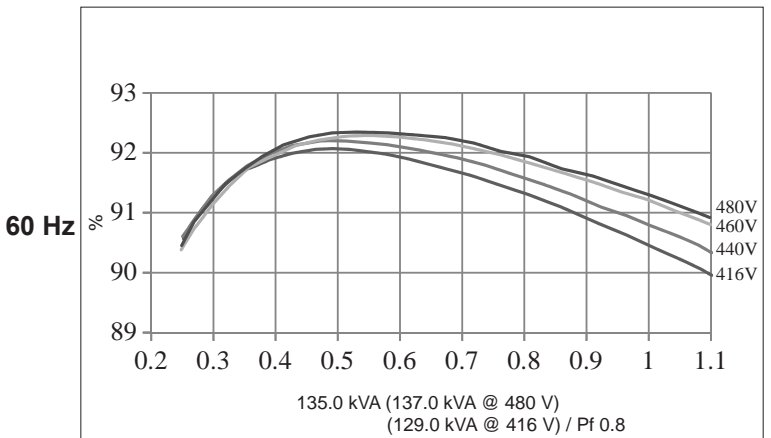
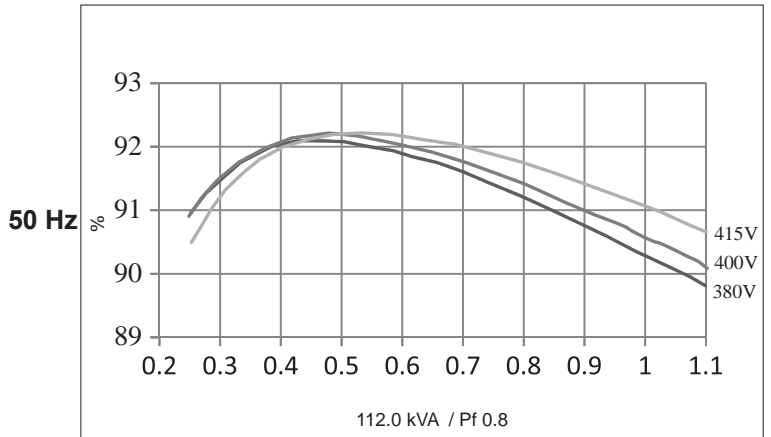
VOLTAGE REGULATORS

- R4/4 AVR - STANDARD: With this self excited control system the main stator supplies power via the Automatic Voltage Regulator (AVR) to the exciter stator. The exciter rotor output is fed to the main rotor through a three phase full wave bridge rectifier.
- R6/4G2 AVR - OPTION: This AVR is incorporated into AUX winding control system. The AUX winding provides power via the AVR to the main exciter, giving a source of constant excitation power independent of generator output. Additional feature of permitting parallel operation with other ac generators, using a 'droop kit'.

LOCKED ROTOR MOTOR STARTING CURVE



THREE PHASE EFFICIENCY CURVES



	Weight Comp. Generator	WR ² Inertia	Shipping Weights in a crate	Packing Crate Size
1 BEARING	405 kg	1.1962 kgm ²	435 kg	84 x 62 x 96 (cm)
2 BEARING	420 kg	1.1455 kgm ²	460 kg	92 x 52 x 96 (cm)

Specifications may change without notice. Check with your distributor for more information. Ref. DS-D1XI4-01-B