



Lima Energy Products

The Lima Electric Co., Inc.
A Condec Company
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LIMA SER GENERATOR PERFORMANCE DATA

DATE: JAN. 1983

Winding Card No: 816 Frame Size: 580 Voltage: 240/480
Phase: 3 RPM: 1800 Hertz: 60 No. of Leads: 12
Insulation Class: F Stator; H Rotor Armourtisseur Winding: Full

Ratings at 0.8 Power Factor [PF], 40°C Ambient Temperature

80°C RISE: 200 KW 250 KVA
105°C RISE: 285 KW 356 KVA
130°C RISE: 300 KW 375 KVA

Efficiencies

LOAD	VOLTAGE	200 KW	285 KW	300 KW
FULL LOAD	240/480	93.7	93.0	92.6
3/4 LOAD	240/480	93.5	93.5	93.2

Load Acceptance/Rejection Data

	KW	VOLTAGE	LOAD	%VOLTAGE DIP (L.B.O.)	RECOVERY TIME (Sec.)
ACCEPTANCE W/ STANDARD VOLTAGE REGULATOR	200	240/480	Full	12.4	.5
	285	240/480	Full	16.7	.5
	300	240/480	Full	17.5	.6
REJECTION W/ STANDARD VOLTAGE REGULATOR	200	240/480	Full	13.5	.5
	285	240/480	Full	18.0	.5
	300	240/480	Full	18.5	.6

L.B.O. -Light Beam Oscillograph Measurement.

Exciter Data

Type: ROTATING BRUSHLESS

Rectifier: : 3 PHASE-FULL WAVE BRIDGE

NUMBER OF POLES: 6

EXCITATION@	VDC N.L.	VDC F.L.	AMPS N.L.	AMPS F.L.
200 KW	29.9	103.8	.77	2.07
285 KW	29.9	133.2	.77	2.66
300 KW	29.9	142.8	.77	2.85

Resistances: (OHMS 20°C)

Main Stator: .013
Main Stator: .574

Exciter Stator: 38
Exciter Rotor: .101

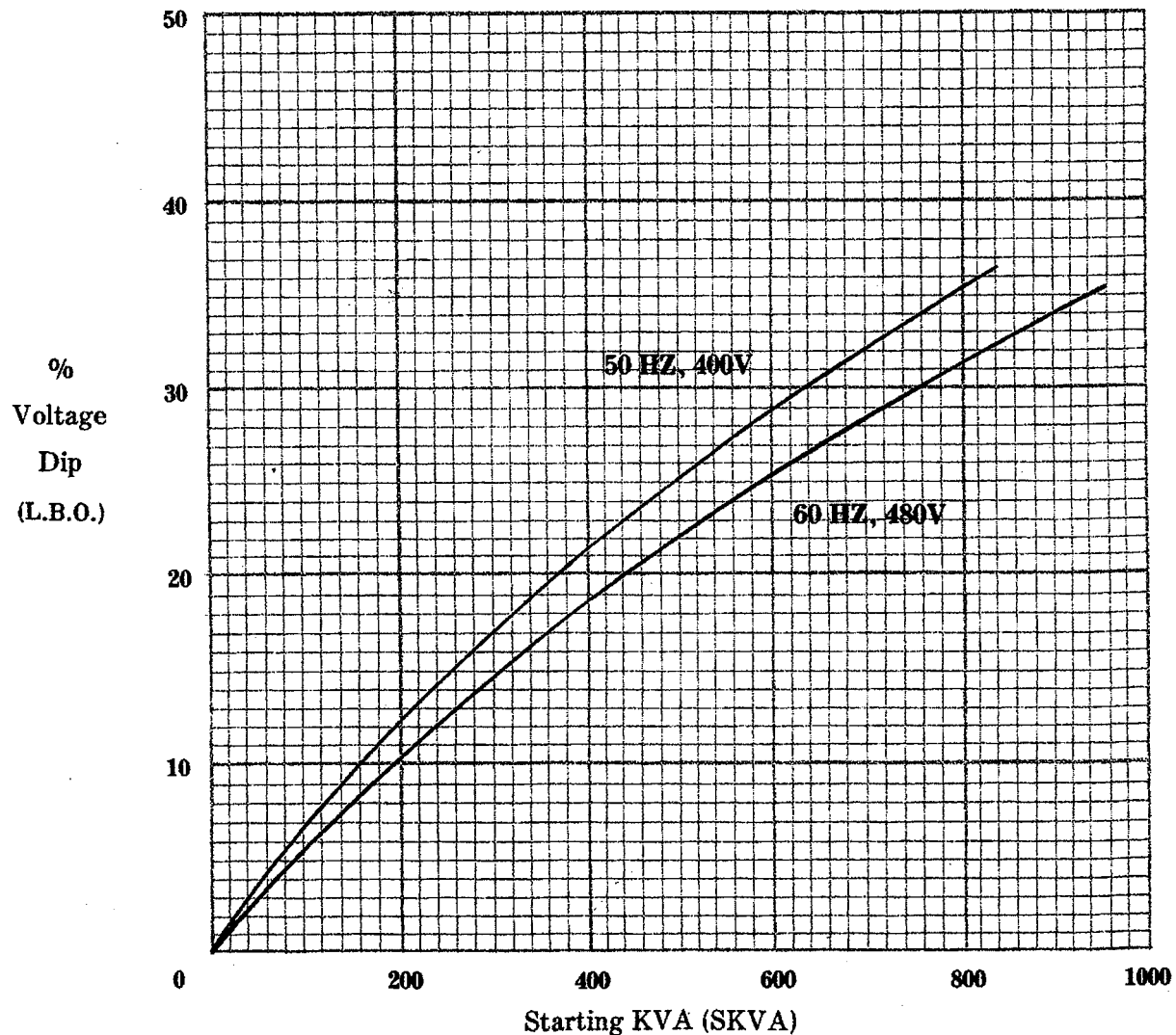
Usable Voltage Regulators: KR7F, KR7FF, SR8 or H9000

Machine Constants @ 240/480 Volts

W.C. 816

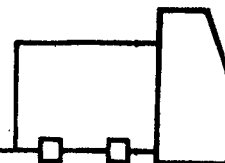
	200 KW 80°C RISE	285 KW 105°C RISE	300 KW 130°C RISE
SHORT CIRCUIT RATIO	.933	.654	.622
TELEPHONE INFLUENCE FACTOR OPEN CIRCUIT (1960 WEIGHTINGS)	LESS THAN 50	LESS THAN 50	LESS THAN 50
MAXIMUM TOTAL RMS HARMONIC DISTORTION WYE CONNECTED, LINE TO LINE, FULL LOAD, 0.8 PF	5%	5%	5%
MAXIMUM SINGLE HARMONIC, WYE CONNECTED LINE TO LINE, FULL LOAD, 0.8 PF	3%	3%	3%
DIRECT AXIS REACTANCES: Per Unit (PU)			
SYNCHRONOUS (Xd)	1.602	2.282	2.402
TRANSIENT (X'd)	.141	.201	.212
SUBTRANSIENT (X''d)	.090	.128	.135
NEGATIVE SEQUENCE (X ₂)	.089	.128	.134
ZERO SEQUENCE (X ₀)	.005	.007	.007

Note: This data is "typical" and may vary slightly for a specific unit.



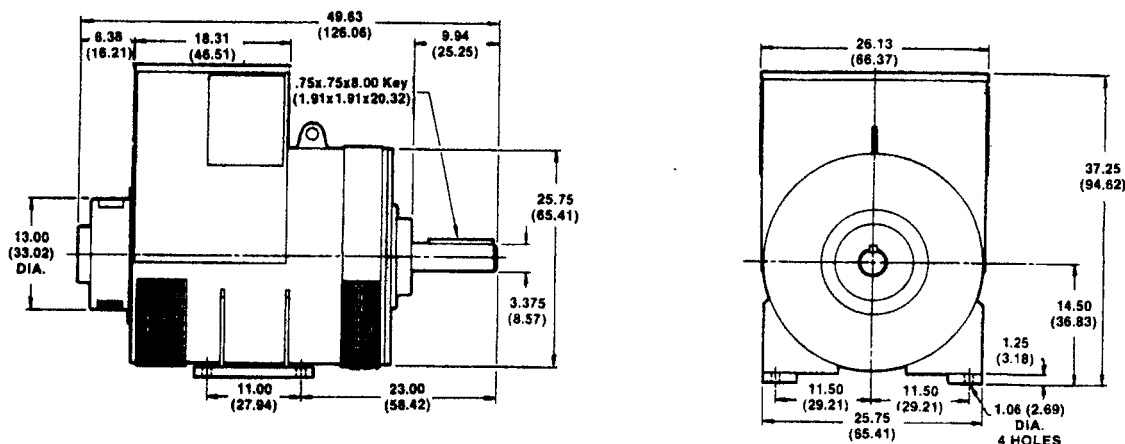
LIMA GENERATORS

DIMENSIONS

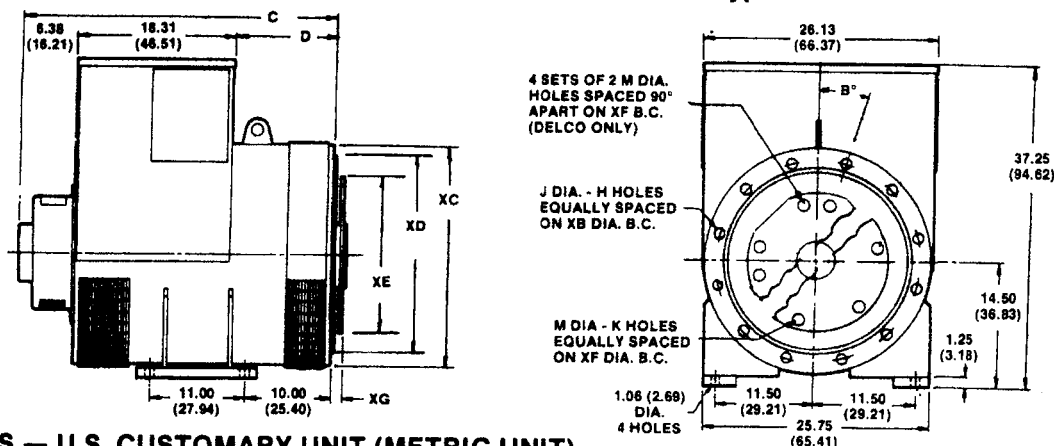


580 FRAME ONE AND TWO BEARING GENERATORS

Two Bearing Generator With Standard Saddle Type Conduit Box



Single Bearing Generator With Standard Saddle Type Conduit Box



DIMENSIONS — U.S. CUSTOMARY UNIT (METRIC UNIT)

Mounting Code	SAE	Fly Wheel	XE In (cm)	XD In (cm)	XC In (cm)	C In (cm)	D In (cm)	F In (cm)
E	1	11.5	13.874 (35.24)	20.125 (51.12)	25.75 (65.41)	37.38 (94.95)	12.69 (32.23)	10.75 (27.31)
F	1	14	18.374 (46.67)	20.125 (51.12)	25.75 (65.41)	37.38 (94.95)	12.69 (32.23)	10.75 (27.31)
H	1	DDA	17.749 (45.08)	20.125 (51.12)	25.75 (65.41)	37.38 (94.95)	12.69 (32.23)	10.75 (27.31)
L	1/2	DDA	17.749 (45.08)	23.000 (58.42)	25.75 (65.41)	36.62 (93.01)	11.94 (30.33)	10.00 (25.40)
J	1/2	14	18.374 (46.67)	23.000 (58.42)	25.75 (65.41)	36.62 (93.01)	11.94 (30.33)	10.00 (25.40)
AB	1/2	18	22.499 (57.15)	23.000 (58.42)	25.75 (65.41)	36.62 (93.01)	11.94 (30.33)	10.00 (25.40)
M	0	14	18.374 (46.67)	25.000 (63.50)	28.00 (71.12)	37.38 (94.95)	12.69 (32.23)	10.75 (27.31)
P	0	18	22.499 (57.15)	25.000 (63.50)	28.00 (71.12)	37.38 (94.95)	12.69 (32.23)	10.75 (27.31)
S	0	DDA	17.749 (45.08)	25.000 (63.50)	28.00 (71.12)	37.38 (94.95)	12.69 (32.23)	10.75 (27.31)

Mounting Code	XG In (cm)	J In (cm)	H	XB In (cm)	M In (cm)	K	XF In (cm)	B
E	1.562 (3.97)	.48 (1.22)	12	20.875 (53.02)	.4062 (1.03)	8	13.12 (33.32)	15.00
F	1.000 (2.54)	.48 (1.22)	12	20.875 (53.02)	.4062 (1.03)	8	17.25 (43.82)	15.00
H	.7188 (1.83)	.48 (1.22)	12	20.875 (53.02)	.6562 (1.67)	8	15.50 (39.37)	15.00
L	.7188 (1.83)	.55 (1.40)	12	24.375 (61.91)	.6562 (1.67)	8	15.50 (39.37)	15.00
J	1.000 (2.54)	.55 (1.40)	12	24.375 (61.91)	.4062 (1.03)	8	17.25 (43.82)	15.00
AB	.6250 (1.59)	.55 (1.40)	12	24.375 (61.91)	.6562 (1.67)	6	21.38 (54.31)	15.00
M	1.000 (2.54)	.55 (1.40)	16	26.750 (67.95)	.4062 (1.03)	8	17.25 (43.82)	11.25
P	.6250 (1.59)	.55 (1.40)	16	26.750 (67.95)	.6562 (1.67)	6	21.38 (54.31)	11.25
S	.7188 (1.83)	.55 (1.40)	16	26.750 (67.95)	.6562 (1.67)	8	15.50 (39.37)	11.25