

# VALIADIS S.A.

## ELECTRIC MOTOR TEST REPORT - THREE PHASE INDUCTION MOTOR

<b>NAMEPLATE DATA</b>	<b>IEC TYPE</b>	<b>110 KW</b>	<b>989 RPM</b>
K315L-6 <b>FRAME</b>	3 <b>PHASE</b>	400 <b>VOLTS</b>	50 <b>HZ / CYCLES</b>
94.3 <b>EFFICIENCY</b>	196.7 <b>AMPS</b>	55 <b>IP</b>	IC411 <b>IC</b>
6 <b>POLE</b>	S1 <b>DUTY</b>	0.856 <b>PF</b>	N/A <b>EFF2</b>
VALIADIS <b>MANUFACTURER</b>	<b>SERIAL NO.</b>	F <b>INS.CLASS</b>	DELTA <b>CONNECTION</b>

TEST DATA	NO LOAD	25% LOAD	50% LOAD	75% LOAD	100% LOAD	110% LOAD	125% LOAD	LOCKED ROTOR
	EFFICIENCY	0	88.39	92.78	93.99	94.30	94.26	94.18
PF	0.066	0.567	0.770	0.838	0.856	0.854	0.853	0.342
RPM	1000	997	994	992	989	988	986	0
SLIP	0.00%	0.29%	0.57%	0.83%	1.10%	1.23%	1.42%	100.00%
AMPS	72.04	79.24	111.11	151.17	196.71	216.85	247.17	1273.5
VOLTS	400	400	400	400	400	400	400	400
TORQUE NM	0	263.5	528.5	794.8	1062.7	1170.4	1332.6	2298.1
KW INPUT	3.290	31.11	59.28	87.77	116.65	128.37	146.00	301.99
KW OUTPUT	0	27.50	55.00	82.50	110.00	121.00	137.50	

LOSSES(kW)	25% LOAD	50% LOAD	75% LOAD	100% LOAD	110% LOAD	125%LOAD
STATOR LOSS Pcu1	0.278	0.546	1.010	1.710	2.08	2.70
STATOR LOSS %	0.89%	0.92%	1.15%	1.47%	1.62%	1.85%
ROTOR LOSS Pcu2	0.083	0.324	0.702	1.248	1.53	2.01
ROTOR LOSS %	0.27%	0.55%	0.80%	1.07%	1.19%	1.38%
CORE LOSS Pfe	1.893	1.893	1.893	1.893	1.893	1.893
CORE LOSS %	6.08%	3.19%	2.16%	1.62%	1.47%	1.30%
WINDAGE/FRICTION Pfw	1.195	1.195	1.195	1.195	1.195	1.195
WINDAGE/FRICTION %	3.84%	2.02%	1.36%	1.02%	0.93%	0.82%
STRAY LOAD LOSS Ps	0.156	0.296	0.439	0.583	0.642	0.730
STRAY LOAD LOSS %	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%

Losses are measured/calculated as per IEC 34-2 - The Summation of Losses Method

All data is measured at Nominal Volts

### TEMPERATURES

STATOR RESISTANCE COLD	0.024019 OHMS @	29.9 DEG.C.	BETWEEN STATOR LEADS
STATOR RESISTANCE ADJUSTED	0.029 OHMS @	90 DEG.C.	BETWEEN STATOR LEADS
STATOR RESISTANCE HOT	0.029 OHMS	after test of temp rise	BETWEEN STATOR LEADS
WINDING TEMPERATURE RISE	58.5 DEG.C.	at full load steady state at	90 SECS
WINDING TEMPERATURE RISE	61.9 DEG.C.	at full load steady state at	0 SECS
PT100 TEMPERATURE OF DE WINDING	88.5 DEG.C.	at full load steady state at ambient	26.8 DEG.C.
PT100 TEMPERATURE OF NDE WINDING	N/A DEG.C.	at full load steady state at ambient	26.8 DEG.C.
PT100 TEMPERATURE DE BEARING	56.1 DEG.C.	at full load steady state at ambient	26.8 DEG.C.
PT100 TEMPERATURE NDE BEARING	N/A DEG.C.	at full load steady state at ambient	26.8 DEG.C.
PT100 TEMPERATURE IN TERMINAL BOX	40.7 DEG.C.	at full load steady state at ambient	26.8 DEG.C.
PT100 TEMPERATURE ON STATOR LEADS	51.8 DEG.C.	at full load steady state at ambient	26.8 DEG.C.

### OTHER

NOISE LEVEL(Lp)	79	dB(A) @ 1meter	INSULATION RESISTANCE	500	MEG.OHMS
VIBRATION LEVEL	1.1	mm/sec on no load	D.E. BEARING	N319C3	
WEIGHT	1150	kg	N.D.E.BEARING	6319C3	
H-POT TEST VOLTS	1800	VOLTS			

VALIADIS S.A.		SCALE	N/A	
		DATE	2003.08.01	REV
K315L-6 110 kW 400 VOLTS 50 Hz		DRAWN		DOCUMENT NO.
		APPRVD		
		CHECKED		

RESULT SUMMARY

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<b>6 POLE</b>	<b>S1 DUTY</b>	<b>0.856 PF</b>	<b>N/A EFF2</b>
<b>VALIADIS MANUFACTURER</b>	<b>SERIAL NO.</b>	<b>F INS.CLASS</b>	<b>DELTA CONNECTION</b>

MAJOR CONTENTS	UNIT	TEST VALUE
STATOR RESISTANCE OF PHASE TO PHASE	90 DEG.C	<b>0.02947</b>
NO LOAD CURRENT	AMP	72.04
NO LOAD INPUT	kW	3.290
CORE LOSS(Pfe)	kW	1.893
WINDAGE FRICTION LOSS(Pfw)	kW	1.195
STATOR WINDING LOSS(Pcu1)	kW	1.710
ROTOR WINDING LOSS(Pcu2)	kW	1.248
STRAY LOAD LOSS(Ps)	kW	0.583
FULL LOAD CURRENT	AMP	196.71
LOCKED ROTOR CURRENT	AMP	1273.47
LOCKED ROTOR CURRENT/FULL LOAD CURRENT	P.U.	6.5
LOCKED ROTOR INPUT @ FULL LOAD	kW	301.99
FULL LOAD TORQUE	N.m	1062.69
LOCKED ROTOR TORQUE	N.m	2298.12
LOCKED ROTOR TORQUE/FULL LOAD TORQUE	P.U.	2.2
PULL OUT TORQUE	N.m	3009.4
PULL OUT TORQUE/FULL LOAD TORQUE	P.U.	2.8
PULL UP TORQUE	N.m	1975.60
PULL UP TORQUE/FULL LOAD TORQUE	P.U.	1.86
EFFICIENCY @ FULL LOAD	%	94.3
POWER FACTOR @ FULL LOAD		0.86
FULL LOAD SLIP	%	1.104
FULL LOAD SPEED	r/min	989
STATOR WINDING TEMPERATURE RISE	90 SECS	K
D.E. BEARINGS TEMPERATURE BY PT100		Deg. C
TEMPERATURE ON LEADS BY PT100		Deg. C
TEMPERATURE IN TERMINAL BOX BY PT100		Deg. C
AMBIENT TEMPERATURE OF TESTING		Deg. C
SOUND PRESSURE LEVEL		dB(A)
VIBRATION		mm/s
MOMENT OF INERTIA		kgm2
WEIGHT		kg

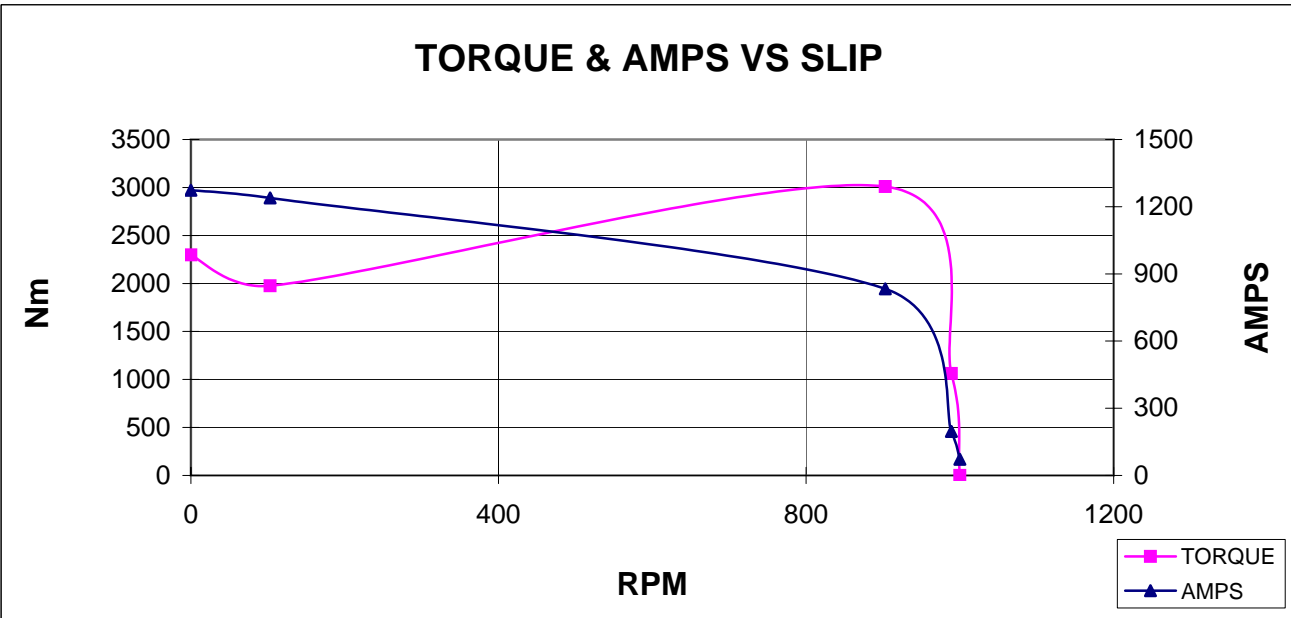
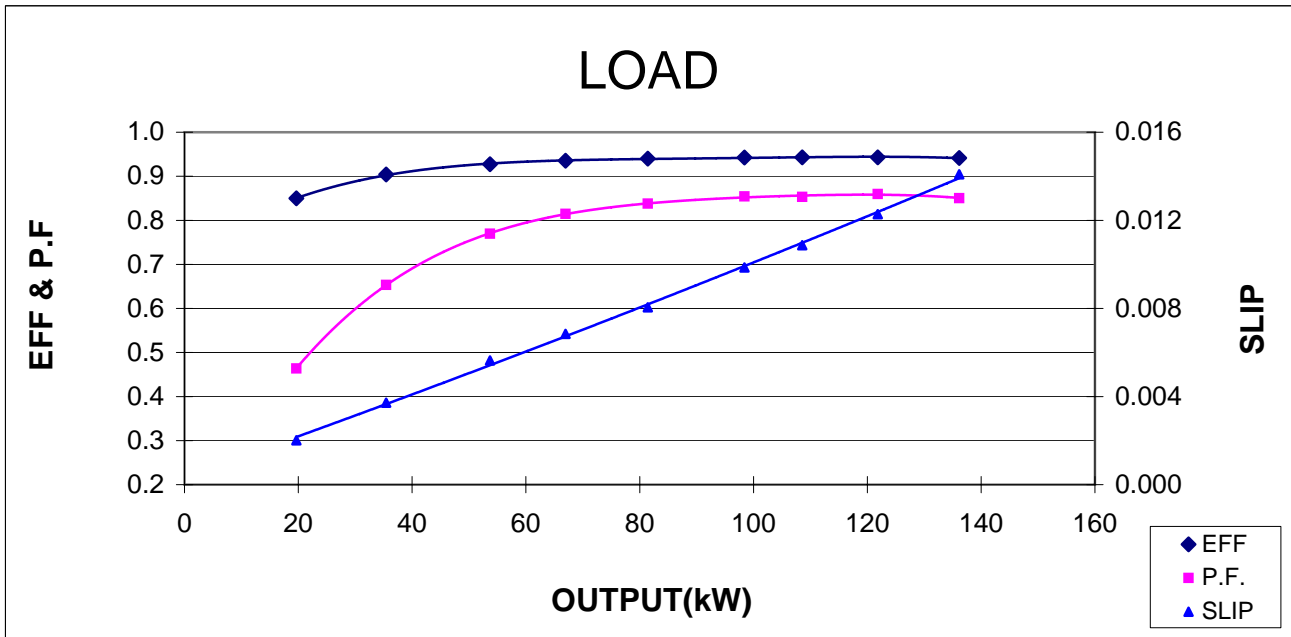
The data above is calculated as per IEC 34-2, all data at nominal Volts

<b>VALIADIS S.A.</b>  <b>K315L-6</b>  <b>110 kW</b> <b>400 VOLTS 50 Hz</b>	<b>SCALE</b>	N/A	
	<b>DATE</b>	2003.08.01	<b>REV</b>
	<b>DRAWN</b>		<b>DOCUMENT NO.</b>
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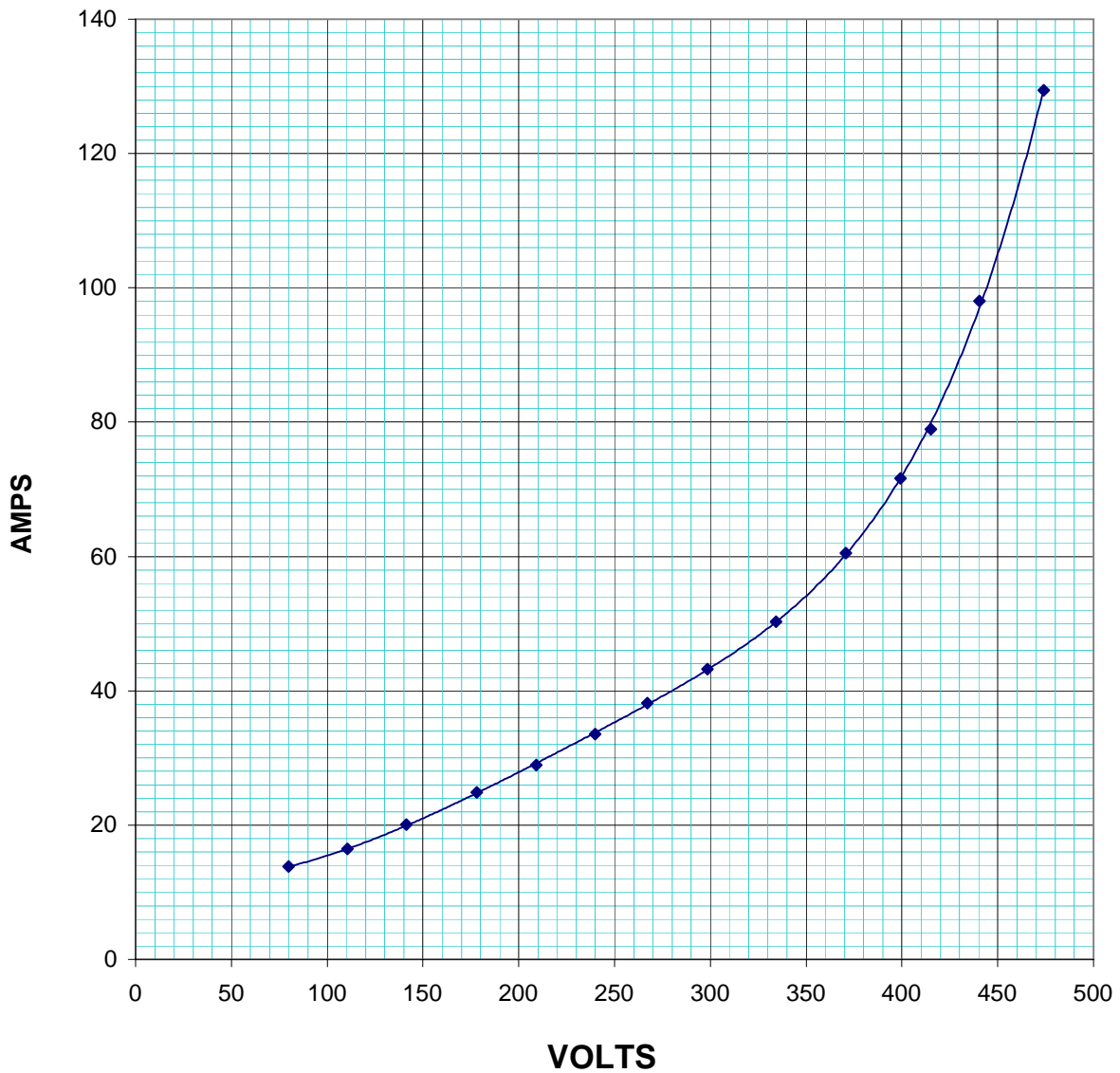
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### MAGNETIZATION CURVE - NO LOAD



<b>VALIADIS S.A.</b>	<b>SCALE</b>	N/A	<b>REV</b>	
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K315L-6 110 kW 400 VOLTS 50 Hz	<b>DRAWN</b>		<b>DOCUMENT NO.</b>	
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