VALIADIS S.A.

ELECTRIC MOTOR TEST REPORT - THREE PHASE INDUCTION MOTOR

NAMEPLATE DATA		IEC	**TYPE**	90	**KW**	989	**RPM**
K315M-6	**FRAME**	3	**PHASE**	400	**VOLTS**	50	**HZ / CYCLES**
94.6	**EFFICIENCY**	159.7	**AMPS**	55	**IP**	IC411	**IC**
6	**POLE**	S1	**DUTY**	0.860	**PF**	N/A	**EFF2**
VALIADIS	**MANUFACTURER**		**SERIAL NO.**	F	**INS.CLASS**	DELTA	**CONNECTION**

TEST DATA	NO LOAD	25% LOAD	50% LOAD	75% LOAD	100% LOAD	110% LOAD	125% LOAD	LOCKED ROTOR
EFFICIENCY	0	89.74	93.60	94.46	94.62	94.55	94.39	
PF	0.060	0.555	0.766	0.831	0.860	0.867	0.874	0.340
RPM	1000	998	995	992	989	988	985	0
SLIP	0.00%	0.20%	0.47%	0.76%	1.08%	1.23%	1.47%	100.00%
AMPS	55.54	65.21	90.56	124.14	159.70	174.31	196.81	1104.5
VOLTS	400	400	400	400	400	400	400	400
TORQUE NM	0	215.4	432.0	649.8	869.3	957.6	1090.8	1685.4
KW INPUT	2.292	25.07	48.08	71.46	95.11	104.70	119.18	260.16
KW OUTPUT	0	22.50	45.00	67.50	90.00	99.00	112.50	

LOSSES(kW)	25% LOAD	50% LOAD	75% LOAD	100% LOAD	110% LOAD	125%LOAD
STATOR LOSS Pcu1	0.247	0.477	0.896	1.483	1.77	2.25
STATOR LOSS %	0.99%	0.99%	1.25%	1.56%	1.69%	1.89%
ROTOR LOSS Pcu2	0.047	0.216	0.522	0.994	1.24	1.69
ROTOR LOSS %	0.19%	0.45%	0.73%	1.05%	1.19%	1.42%
CORE LOSS Pfe	1.705	1.705	1.705	1.705	1.705	1.705
CORE LOSS %	6.80%	3.55%	2.39%	1.79%	1.63%	1.43%
WINDAGE/FRICTION Pfw	0.434	0.434	0.434	0.434	0.434	0.434
WINDAGE/FRICTION %	1.73%	0.90%	0.61%	0.46%	0.41%	0.36%
STRAY LOAD LOSS Ps	0.125	0.240	0.357	0.476	0.524	0.596
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	0.0300333	OHMS @	16.8	DEG.C.	BETWEEN STATOR LEADS
STATOR RESISTANCE ADJUSTED	0.039	OHMS @	90	DEG.C.	BETWEEN STATOR LEADS
STATOR RESISTANCE HOT	0.039	OHMS	after test of	temp rise	BETWEEN STATOR LEADS
WINDING TEMPERATURE RISE	68.8	DEG.C.	at full load steady state at	90	SECS
WINDING TEMPERATURE RISE	69.9	DEG.C.	at full load steady state at	0	SECS
PT100 TEMPERATURE OF DE WINDING	88.2	DEG.C.	at full load steady state at ambient	17.8	DEG.C.
PT100 TEMPERATURE OF NDE WINDING	NO	DEG.C.	at full load steady state at ambient	17.8	DEG.C.
PT100 TEMPERATURE DE BEARING	70.1	DEG.C.	at full load steady state at ambient	17.8	DEG.C.
PT100 TEMPERATURE NDE BEARING	N/A	DEG.C.	at full load steady state at ambient	17.8	DEG.C.
PT100 TEMPERATURE IN TERMINAL BOX	49	DEG.C.	at full load steady state at ambient	17.8	DEG.C.
PT100 TEMPERATURE ON STATOR LEADS	52.8	DEG.C.	at full load steady state at ambient	17.8	DEG.C.

OTHER

NOISE LEVEL(Lp)	81	dB(A) @ 1meter	INSULATION RESISTANCE	500	MEG.OHMS
VIBRATION LEVEL	2.2	mm/sec on no load	D.E. BEARING	NU319C3	
WEIGHT	1080	kg	N.D.E.BEARING	6319C3	
H-POT TEST VOLTS	1800	VOLTS			

VALIADIS S.A.	**SCALE**	N/A		
	DATE		**REV**	
K315M-6	**DRAWN**		**DOCUMENT NO.**	
90 kW	**APPRVD**			
400 VOLTS 50 Hz	**CHECKED**			

RESULT SUMMARY

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VALIADIS	**MANUFACTURER**		**SERIAL NO.**	F	**INS.CLASS**	DELTA	**CONNECTION**

MAJOR CONTENTS			**UNIT**	**TEST VALUE**
STATOR RESISTANCE OF PHASE TO PHASE	90	DEG.C	OHM	0.038764
NO LOAD CURRENT			AMP	55.54
NO LOAD INPUT			kW	2.292
CORE LOSS(Pfe)			kW	1.705
WINDAGE FRICTION LOSS(Pfw)			kW	0.434
STATOR WINDING LOSS(Pcu1)			kW	1.483
ROTOR WINDING LOSS(Pcu2)			kW	0.994
STRAY LOAD LOSS(Ps)			kW	0.476
FULL LOAD CURRENT			AMP	159.70
LOCKED ROTOR CURRENT			AMP	1104.49
LOCKED ROTOR CURRENT/FULL LOAD CURRENT			P.U.	6.9
LOCKED ROTOR INPUT @ FULL LOAD			kW	260.16
FULL LOAD TORQUE			N.m	869.27
LOCKED ROTOR TORQUE			N.m	1685.43
LOCKED ROTOR TORQUE/FULL LOAD TORQUE			P.U.	1.94
PULL OUT TORQUE			N.m	2468.9
PULL OUT TORQUE/FULL LOAD TORQUE			P.U.	2.84
PULL UP TORQUE			N.m	1503.08
PULL UP TORQUE/FULL LOAD TORQUE			P.U.	1.73
EFFICIENCY @ FULL LOAD			%	94.62
POWER FACTOR @ FULL LOAD				0.860
FULL LOAD SLIP			%	1.081
FULL LOAD SPEED			r/min	989
STATOR WINDING TEMPERATURE RISE	90	SECS	K	68.8
D.E. BEARINGS TEMPERATURE BY PT100			Deg. C	70.1
TEMPERATURE ON LEADS BY PT100			Deg. C	52.8
TEMPERATURE IN TERMINAL BOX BY PT100			Deg. C	49.0
AMBIENT TEMPERATURE OF TESTING			Deg. C	17.8
SOUND PRESSURE LEVEL			dB(A)	81
VIBRATION			mm/s	2.2
MOMENT OF INERTIA			kgm2	4.2800
WEIGHT			kg	1080

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

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	DATE		**REV**	
K315M-6	**DRAWN**		**DOCUMENT NO.**	
90 kW	**APPRVD**			
400 VOLTS 50 Hz	**CHECKED**			

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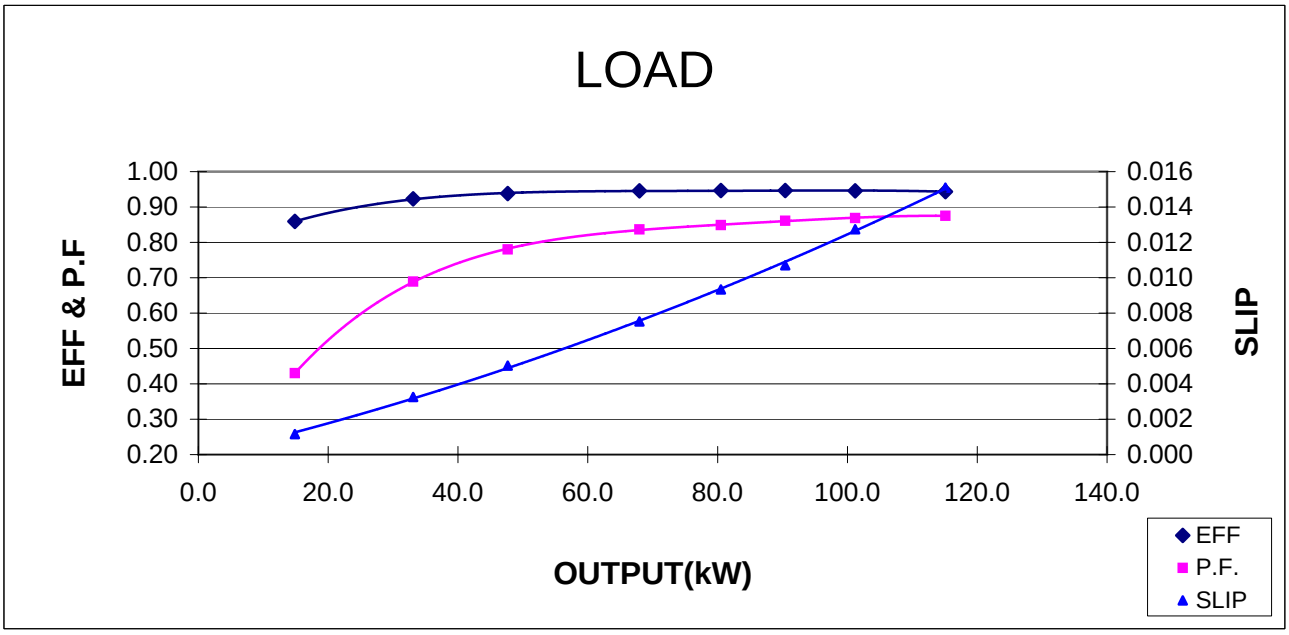

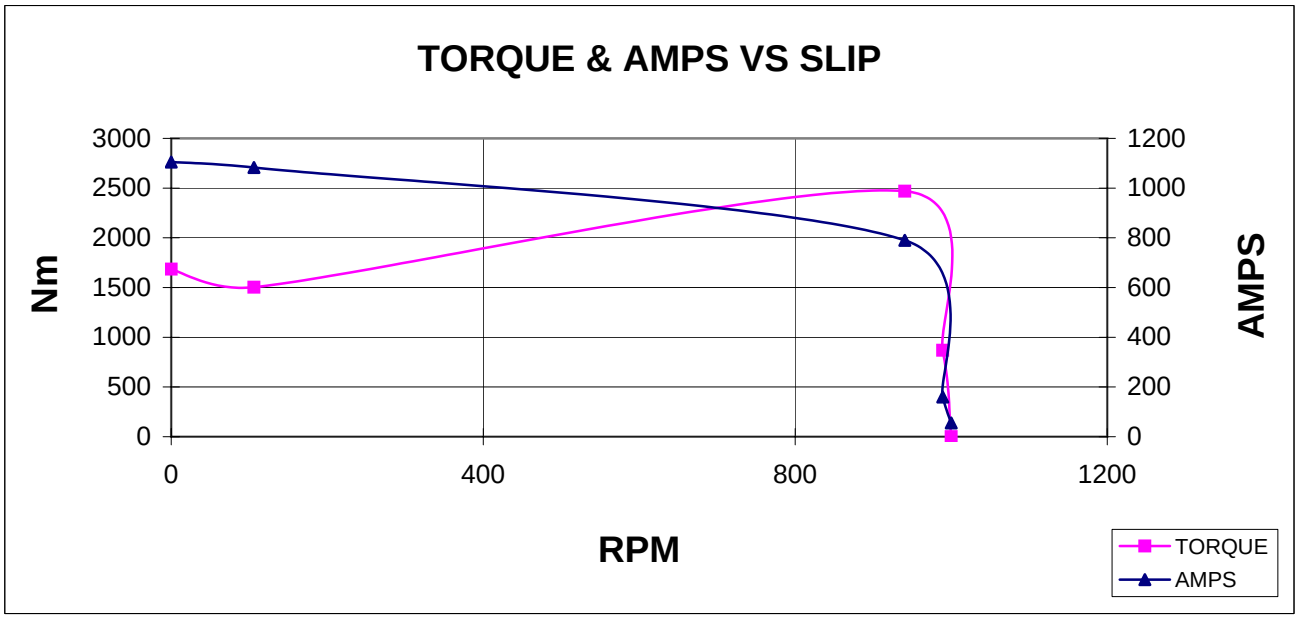

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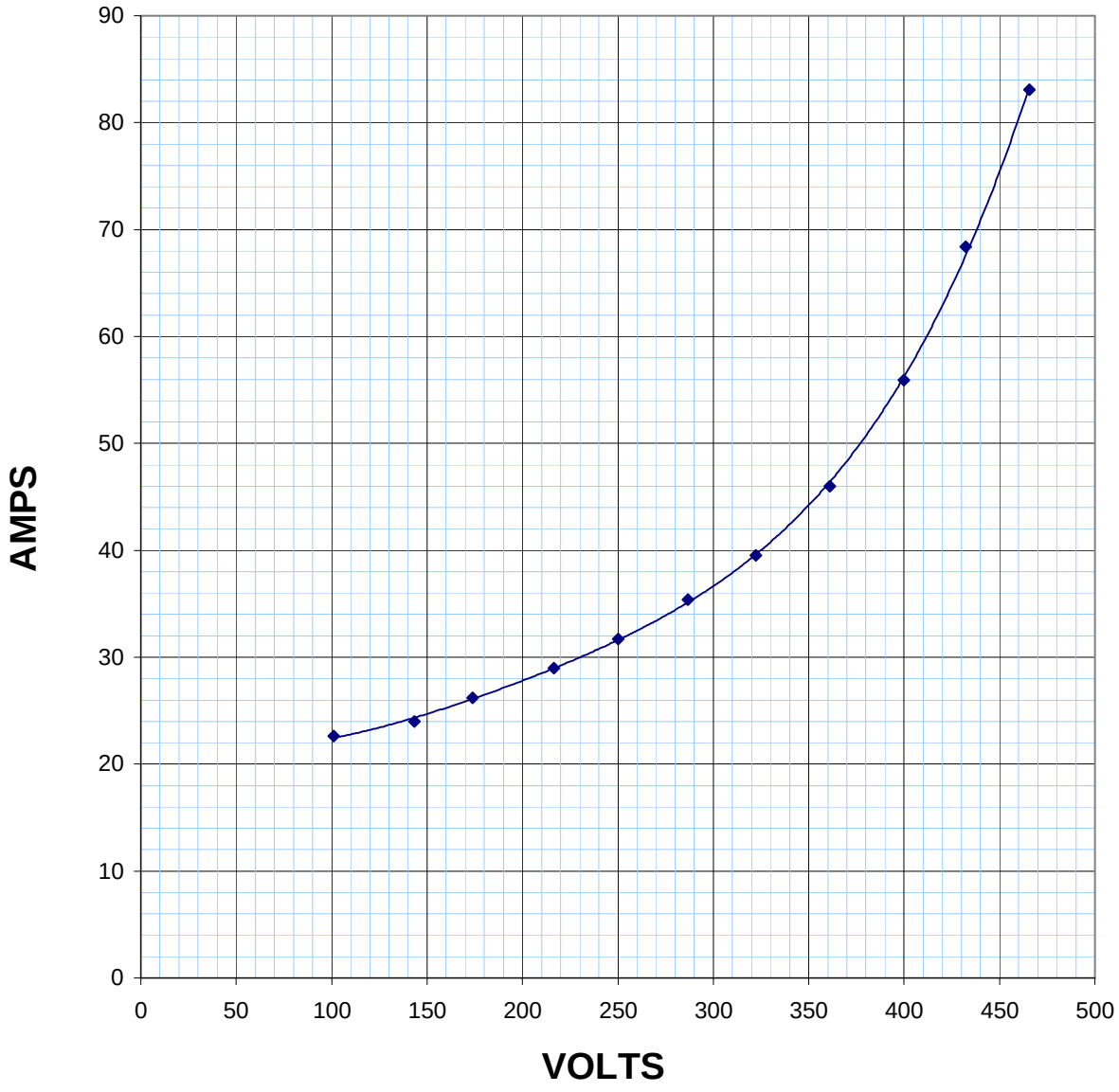
MAGNETIZATION CURVE - NO LOAD



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