VALIADIS S.A.

ELECTRIC MOTOR TEST REPORT - THREE PHASE INDUCTION MOTOR

NAMEPLATE DATA		IEC	**TYPE**	4	**KW**	1440	**RPM**
AK112M-2	**FRAME**	3	**PHASE**	400	**VOLTS**	50	**HZ/CYCLES**
84.5	**EFFICIENCY**	8.23	**AMPS**	55	**IP**	IC01	**IC**
4	**POLE**	S1	**DUTY**	0.83	**PF**	N/A	**EFF2**
VALIADIS	**MANUFACTURER**		**SERIAL NO.**	F	**INS. CLASS**	DELTA	**CONNECTION**

MAJOR CONTENTS			**UNIT**	**TESE VALUE**
STATOR RESISTANCE OF PHASE TO PHASE	75	DEG.C	**OHM**	3.3295
NO LOAD CURRENT			**AMP**	4.21
NO LOAD INPUT			**kW**	0.2554
CORE LOSS (Pfe)			**kW**	0.162
WINDAGE FRICTION LOSS (Pfw)			**kW**	0.018
STATOR WINDING LOSS(Pcu1)			**kW**	0.3358
ROTOR WINDING LOSS(Pcu2)			**kW**	0.1683
STRAY LOAD LOSS (Ps)			**kW**	0.0235
FULL LOAD CURRENT			**AMP**	8.2
LOCKED ROTOR CURRENT			**AMP**	57.69
LOCKED ROTOR CURRENT/FULL LOAD CURRENT			**P.U.**	7.0
LOCKED ROTOR INPUT @ 100% VOLT			**kW**	23.993
FULL LOAD TORQUE			**N.m.**	26.51
LOCKED ROTOR TORQUE			**N.m.**	60.56
LOCKED ROTOR TORQUE/FULL LOAD TORQUE			**P.U.**	2.28
PULL OUT TORQUE			**N.m.**	89.3
PULL OUT TORQUE/FULL LOAD TORQUE			**P.U.**	3.37
PULL UP TORQUE			**N.m.**	44.76
PULL UP TORQUE/FULL LOAD TORQUE			**P.U.**	1.69
EFFICIENCY @ FULL LOAD			**%**	84.96
POWER FACTOR @ FULL LOAD				0.828
FULL LOAD SLIP				4.00%
FULL LOAD SPEED			**r/min**	1440
STATOR WINDING TEMPERATURE RISE	30	SECS	**K**	60.4
DE BEARING TEMPERATURE BY PT100			**Deg. C**	46.0
NDE BEARING TEMPERATURE BY PT100			**Deg. C**	46.0
TEMPERATURE ON LEADS BY PT100			**Deg. C**	
TEMPERATURE IN TERMINAL BOX BY PT100			**Deg. C**	
AMBIENT TEMPERATURE BY PT100			**Deg. C**	
SOUND PRESSURE LEVEL			**dB (A)**	55.5
VIBRATION			**mm/s**	0.9
MOMENT OF INERTIA			**kgm^2**	0.0095
WEIGHT			**kg**	29

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

VALIADIS S.A.	**SCALE**	**N/A**	
	DATE		**REV**
AK112M-4	**DRAWN**		**DOCUMENT NO.**
4 kW	**APPRVD**		
400 VOLTS 50 Hz	**CHECKED**		

VALIADIS S.A.

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84.5	**EFFICIENCY**	8.23	**AMPS**	55	**IP**	IC01	**IC**
4	**POLE**	S1	**DUTY**	0.83	**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	125% LOAD	LOCKED ROTOR
EFFICIENCY	0	77.1	84.3	85.6	85.0	83.2	
PF	0.088	0.413	0.641	0.767	0.828	0.857	0.600
RPM	1500	1487	1472	1457	1440	1419	0
SLIP	0.00%	0.87%	1.87%	2.87%	4.00%	5.40%	100.00%
AMPS	4.21	4.57	5.35	6.59	8.2	10.11	57.69
VOLTS	400	400	400	400	400	400	400
TORQUE NM	0	6.47	13.00	19.66	26.51	33.62	60.56
KW INPUT	0.2554	1.3075	2.3767	3.503	4.7057	6.0038	23.993
KW OUTPUT	0	1.008	2.003	2.999	3.998	4.995	

LOSSES (kW)	25% LOAD	50% LOAD	75% LOAD	100% LOAD	125% LOAD
STATOR LOSS Pcu1	0.104	0.143	0.217	0.336	0.510
STATOR LOSS %	7.98%	6.01%	6.19%	7.14%	2.13%
ROTOR LOSS Pcu2	0.009	0.039	0.090	0.168	0.288
ROTOR LOSS %	0.69%	1.63%	2.56%	3.58%	1.20%
CORE LOSS Pfe	0.162	0.162	0.162	0.162	0.162
CORE LOSS %	12.39%	6.82%	4.62%	3.44%	0.68%
WINDGE/FRICTION Pfw	0.018	0.018	0.018	0.018	0.018
WINDGE/FRICTION %	1.38%	0.76%	0.51%	0.38%	0.08%
STRAY LOAD LOSS Ps	0.007	0.012	0.018	0.024	0.030
STRAY LOAD LOSS %	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	2.62067	OHMS @	9.0	DEG.C.	BETWEEN STATOR LEADS	
STATOR RESISTANCE ADJUSTED	3.3295	OHMS @	75	DEG.C.	BETWEEN STATOR LEADS	
STATOR RESISTANCE HOT	3.28	OHMS	after test of temp rise		BETWEEN STATOR LEADS	
WINDING TEMPERATURE RISE	60.4	DEG.C.	at full load steady state at		30	SECS
WINDING TEMPERATURE RISE		DEG.C.	at full load steady state at		0	SECS
PT100 TEMPERATURE OF DE WINDING		DEG.C.	at full load steady state at ambient			DEG.C.
PT100 TEMPERATURE OF NDE WINDING		DEG.C.	at full load steady state at ambient			DEG.C.
PT100 TEMPERATURE OF DE BEARING	46.0	DEG.C.	at full load steady state at ambient		10.0	DEG.C.
PT100 TEMPERATURE OF NDE BEARING	46.0	DEG.C.	at full load steady state at ambient		10.0	DEG.C.
PT100 TEMPERATURE OF IN TERMINAL BOX		DEG.C.	at full load steady state at ambient			DEG.C.
PT100 TEMPERATURE OF ON STATOR LEAD		DEG.C.	at full load steady state at ambient			DEG.C.

OTHER

NOISE LEVEL (Lp)	55.5	dB(A) 1meter	INSULATION RESISTANCE	500	MEG.OHMS
VIBRATION LEVEL	0.9	mm/sec on no load	D.E. BEARING		
WEIGHT	29	kg	N.D.E. BEARING		
H-POT TEST VOLTS	1800	VOLTS			

VALIADIS S.A.	**SCALE**	**N/A**		
	DATE		**REV**	
AK112M-4	**DRAWN**		**DOCUMENT NO.**	
4 kW	**APPRVD**			
400 VOLTS 50 Hz	**CHECKED**			

RESULT SUMMARY

VALIADIS S.A.

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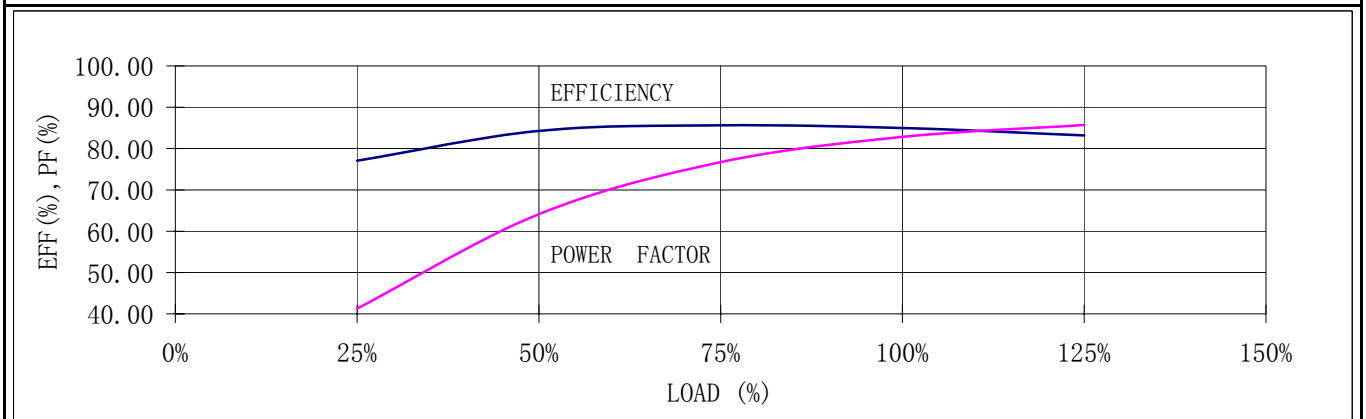
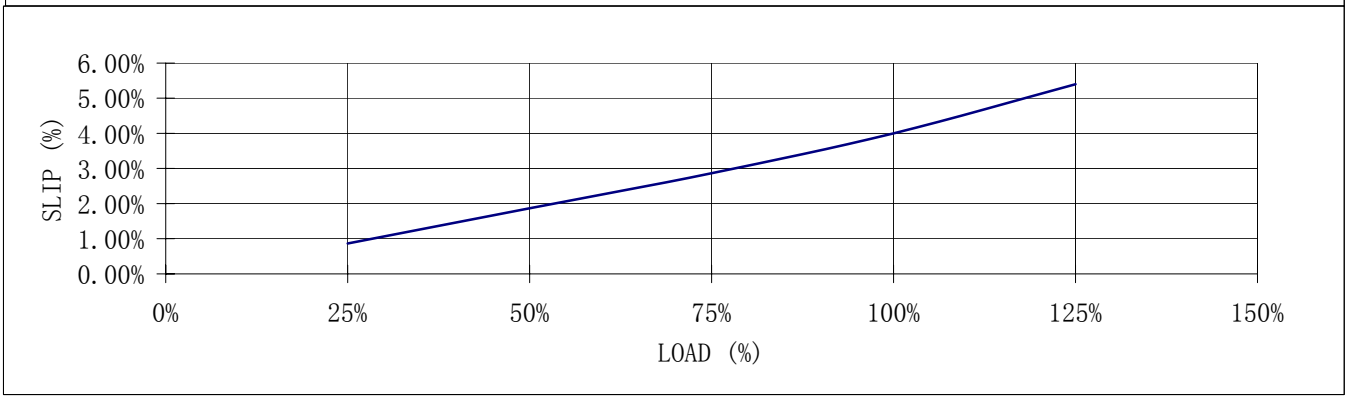
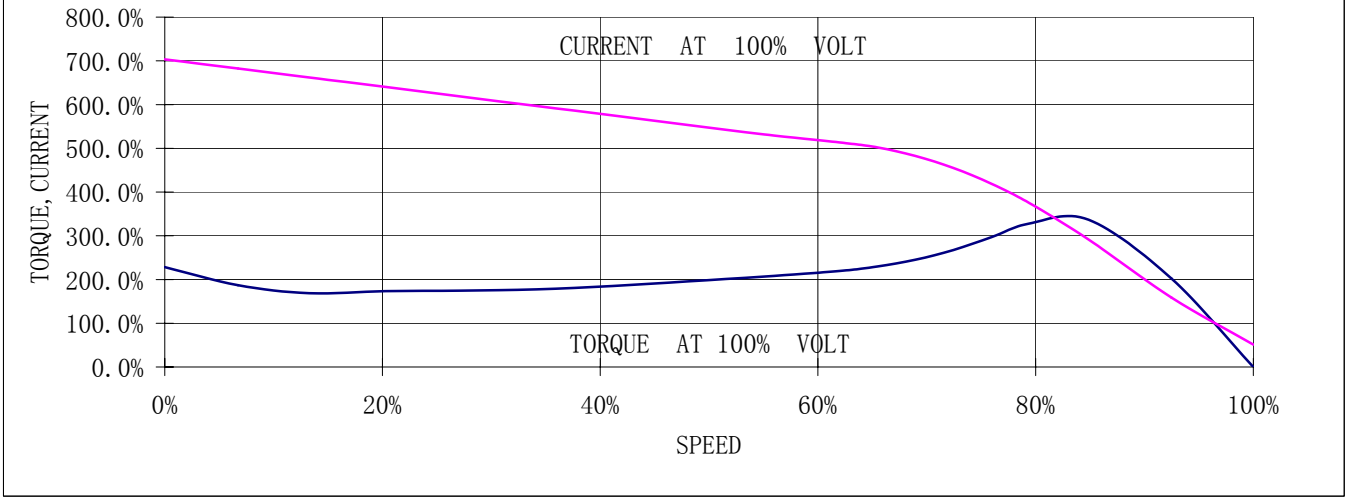
4	**POLE**	S1	**DUTY**	0.83	**PF**	N/A	**EFF2**
VALIADIS	**MANUFACTURER**		**SERIAL NO.**	F	**INS. CLASS**	DELTA	**CONNECTION**

LOAD TEST





SPEED VS TORQUE, CURRNET



	VALIADIS S.A.	**SCALE**	**N/A**		
		DATE		**REV**	
	AK112M-4	**DRAWN**		**DOCUMENT NO.**	
	4 kW	**APPRVD**			
	400 VOLTS 50 Hz	**CHECKED**			

CURVE

VALIADIS S.A.

ELECTRIC MOTOR TEST REPORT - THREE PHASE INDUCTION MOTOR

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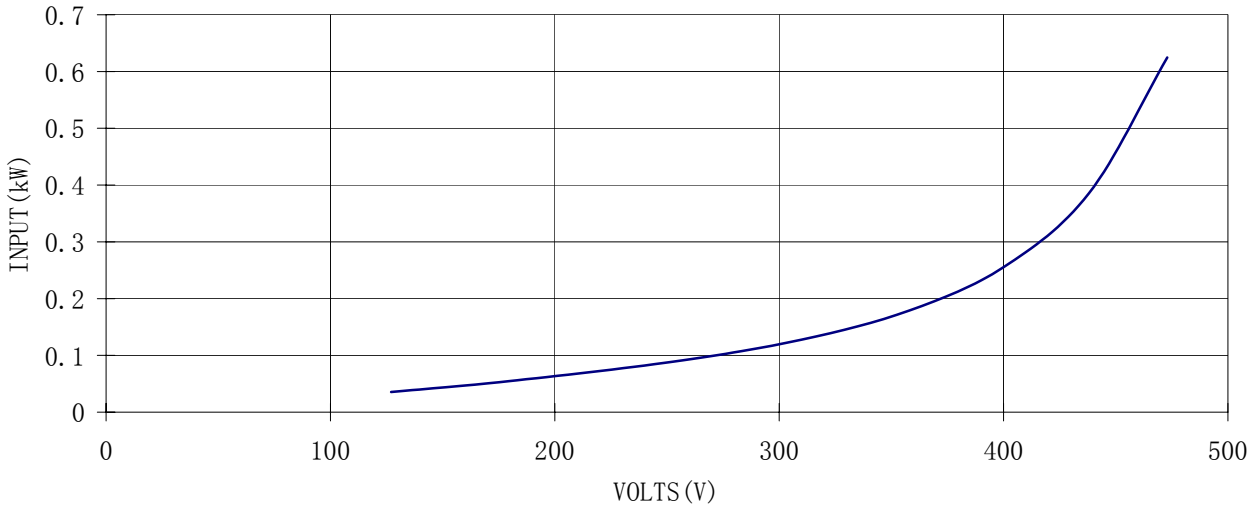
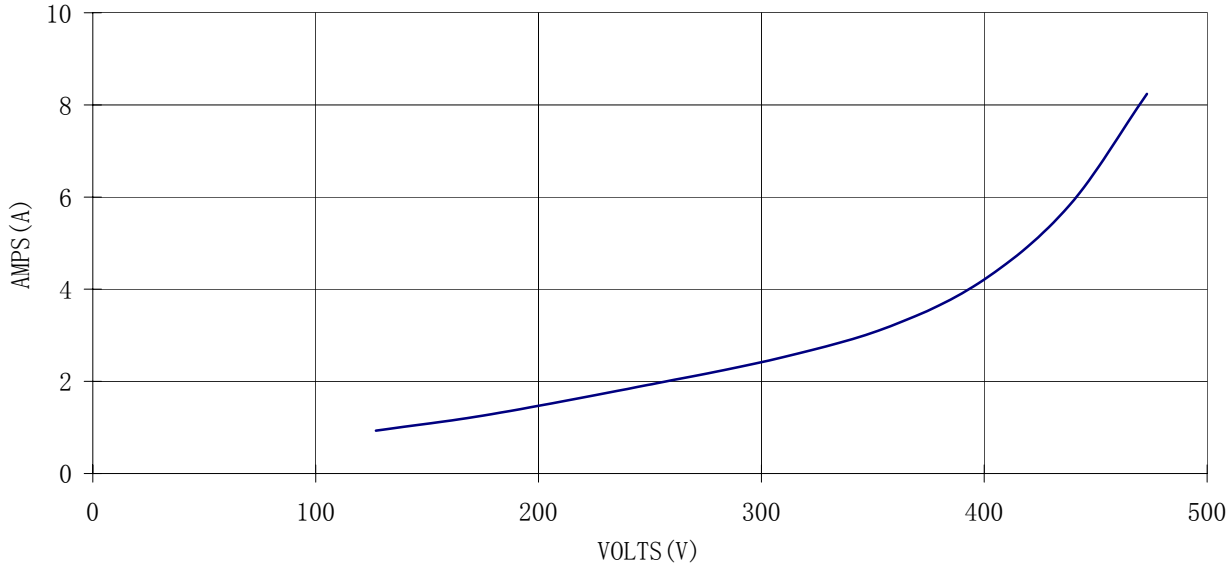
VALIADIS	**MANUFACTURER**		**SERIAL NO.**	F	**INS. CLASS**	DELTA	**CONNECTION**

NO LOAD TEST





	VALIADIS S.A.	**SCALE**	**N/A**		
		DATE		**REV**	
	AK112M - 4	**DRAWN**		**DOCUMENT NO.**	
	4 kW	**APPRVD**			
	400 VOLTS 50 Hz	**CHECKED**			

CURVE