

# VALIADIS S.A.

## ELECTRIC MOTOR TEST REPORT - THREE PHASE INDUCTION MOTOR

<b>NAMEPLATE DATA</b>	IEC	<b>TYPE</b>	0.25	<b>KW</b>	890	<b>RPM</b>
AK71 - 6 <b>FRAME</b>	3	<b>PHASE</b>	400	<b>VOLTS</b>	50	<b>HZ/CYCLES</b>
59.5 <b>EFFICIENCY</b>	0.89	<b>AMPS</b>	55	<b>IP</b>	IC01	<b>IC</b>
6 <b>POLE</b>	S1	<b>DUTY</b>	0.68	<b>PF</b>	N/A	<b>EFF2</b>
VALIADIS <b>MANUFACTURER</b>		<b>SERIAL NO.</b>	F	<b>INS. CLASS</b>	Y	<b>CONNECTION</b>

<b>MAJOR CONTENTS</b>		<b>UNIT</b>	<b>TESE VALUE</b>	
STATOR RESISTANCE OF PHASE TO PHASE	75	DEG.C	OHM	81.4342
NO LOAD CURRENT			AMP	0.77
NO LOAD INPUT			kW	0.1097
CORE LOSS (Pfe)			kW	0.034
WINDAGE FRICTION LOSS (Pfw)			kW	0.008
STATOR WINDING LOSS(Pcu1)			kW	0.0946
ROTOR WINDING LOSS(Pcu2)			kW	0.0308
STRAY LOAD LOSS (Ps)			kW	0.0021
FULL LOAD CURRENT			AMP	0.88
LOCKED ROTOR CURRENT			AMP	3.15
LOCKED ROTOR CURRENT/FULL LOAD CURRENT			P.U.	3.6
LOCKED ROTOR INPUT @ 100% VOLT			kW	1.728
FULL LOAD TORQUE			N.m.	2.67
LOCKED ROTOR TORQUE			N.m.	6.15
LOCKED ROTOR TORQUE/FULL LOAD TORQUE			P.U.	2.31
PULL OUT TORQUE			N.m.	8.26
PULL OUT TORQUE/FULL LOAD TORQUE			P.U.	3.10
PULL UP TORQUE			N.m.	4.28
PULL UP TORQUE/FULL LOAD TORQUE			P.U.	1.61
EFFICIENCY @ FULL LOAD			%	59.55
POWER FACTOR @ FULL LOAD				0.687
FULL LOAD SLIP				10.60%
FULL LOAD SPEED			r/min	894
STATOR WINDING TEMPERATURE RISE	30	SECS	K	69.3
DE BEARING TEMPERATURE BY PT100			Deg. C	47.0
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)	40.6
VIBRATION			mm/s	0.4
MOMENT OF INERTIA			kgm <sup>2</sup>	0.00074
WEIGHT			kg	6.3

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

<b>VALIADIS S.A.</b>				<b>SCALE</b>	<b>N/A</b>		
				<b>DATE</b>		<b>REV</b>	
0.25 kW 400 VOLTS 50 Hz				<b>DRAWN</b>		<b>DOCUMENT NO.</b>	
				<b>APPRVD</b>			
				<b>CHECKED</b>			

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6	POLE	S1	DUTY	0.68	PF	N/A
VALIADIS	MANUFACTURER		SERIAL NO.	F	INS. CLASS	Y
						CONNECTION

TEST DATA	NO LOAD	25% LOAD	50% LOAD	75% LOAD	100% LOAD	125% LOAD	LOCKED ROTOR
EFFICIENCY	0	35.8	50.0	57.2	59.6	55.9	
PF	0.206	0.345	0.469	0.582	0.687	0.764	0.792
RPM	1000	965	943	925	894	836	0
SLIP	0.00%	3.50%	5.70%	7.50%	10.60%	16.40%	100.00%
AMPS	0.77	0.77	0.8	0.81	0.88	1.08	3.15
VOLTS	400	400	400	400	400	400	400
TORQUE NM	0	0.65	1.32	1.93	2.67	3.65	6.15
KW INPUT	0.1097	0.1838	0.2599	0.3267	0.419	0.5719	1.728
KW OUTPUT	0	0.066	0.130	0.187	0.250	0.320	

LOSSES (kW)	25% LOAD	50% LOAD	75% LOAD	100% LOAD	125% LOAD
STATOR LOSS Pcu1	0.072	0.078	0.080	0.095	0.142
STATOR LOSS %	39.40%	30.08%	24.53%	22.58%	8.25%
ROTOR LOSS Pcu2	0.003	0.008	0.016	0.031	0.065
ROTOR LOSS %	1.47%	3.24%	4.88%	7.35%	3.75%
CORE LOSS Pfe	0.034	0.034	0.034	0.034	0.034
CORE LOSS %	18.50%	13.08%	10.41%	8.11%	1.97%
WINDGE/FRICTION Pfw	0.008	0.008	0.008	0.008	0.008
WINDGE/FRICTION %	4.35%	3.08%	2.45%	1.91%	0.46%
STRAY LOAD LOSS Ps	0.001	0.001	0.002	0.002	0.003
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	64.75333 OHMS @	11.5	DEG.C.	BETWEEN STATOR LEADS
STATOR RESISTANCE ADJUSTED	81.4342 OHMS @	75	DEG.C.	BETWEEN STATOR LEADS
STATOR RESISTANCE HOT	82.96 OHMS	after test of temp rise		BETWEEN STATOR LEADS
WINDING TEMPERATURE RISE	69.3 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	47.0 DEG.C.	at full load steady state at ambient		11.5 DEG.C.
PT100 TEMPERATURE OF NDE BEARING	46.0 DEG.C.	at full load steady state at ambient		11.5 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)	40.6	dB(A) 1meter	INSULATION RESISTANCE	500	MEG.OHMS
VIBRATION LEVEL	0.4	mm/sec on no load	D.E. BEARING		
WEIGHT	6.3	kg	N.D.E. BEARING		
H-POT TEST VOLTS	1800	VOLTS			

<b>VALIADIS S.A.</b>				SCALE	N/A		
				DATE		REV	
AK71 - 6				DRAWN		DOCUMENT NO.	
0.25	kW			APPRVD			
400	VOLTS	50	Hz	CHECKED			

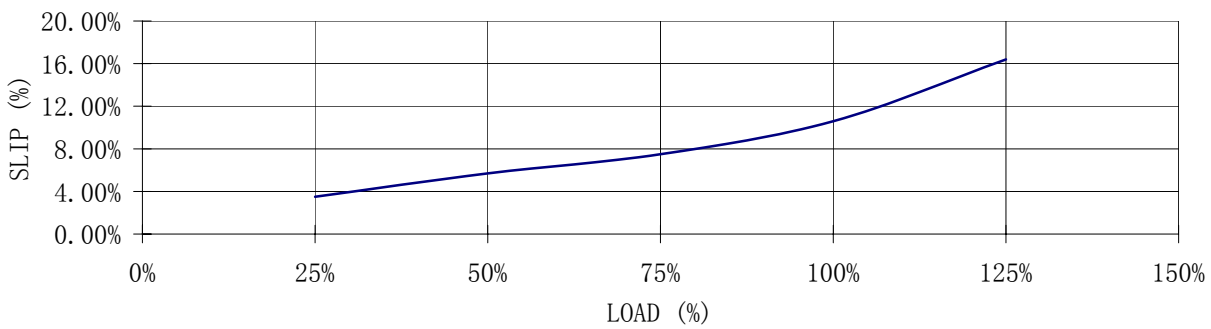
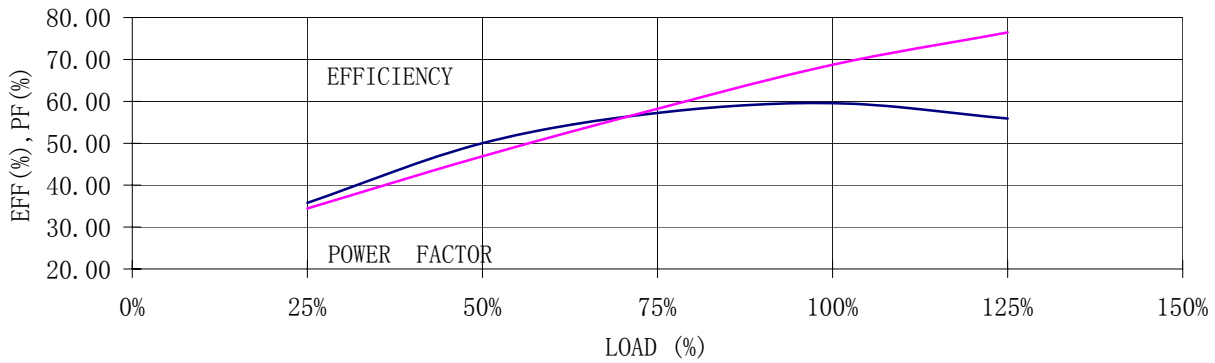
RESULT SUMMARY

# VALIADIS S.A.

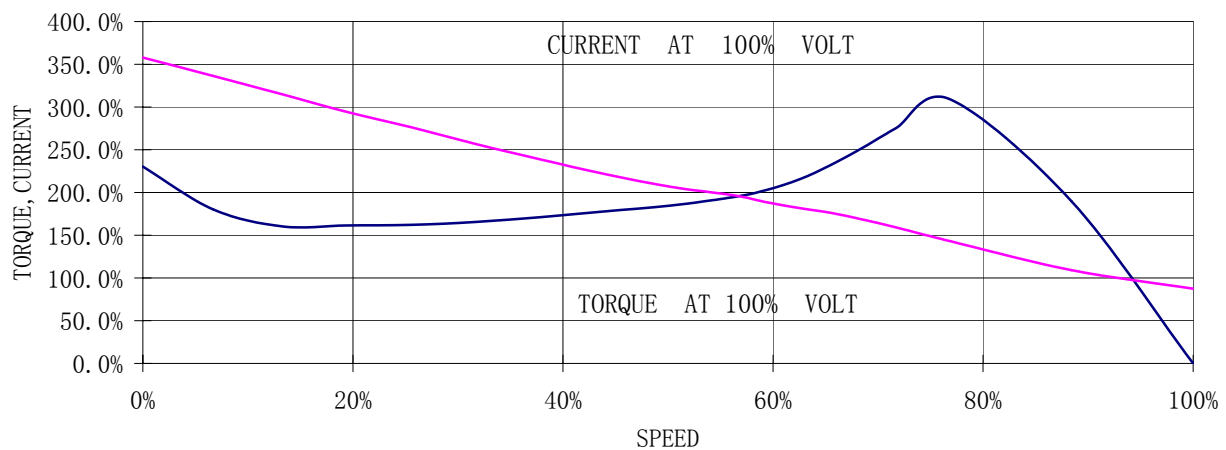
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### LOAD TEST



### SPEED VS TORQUE, CURRENT



	<b>VALIADIS S.A.</b>	SCALE	N/A	
		DATE		REV
	AK71 - 6	DRAWN		DOCUMENT NO.
	0.25 kW	APPRVD		
400 VOLTS 50 Hz	CHECKED			

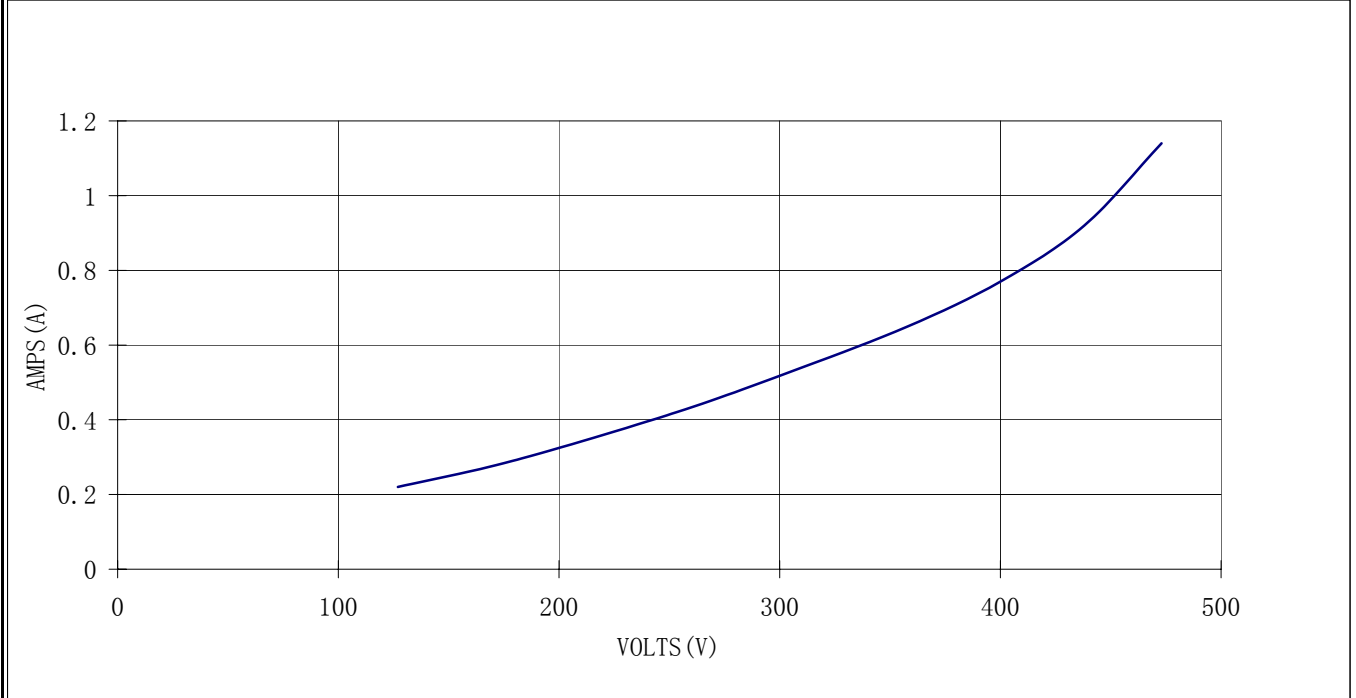
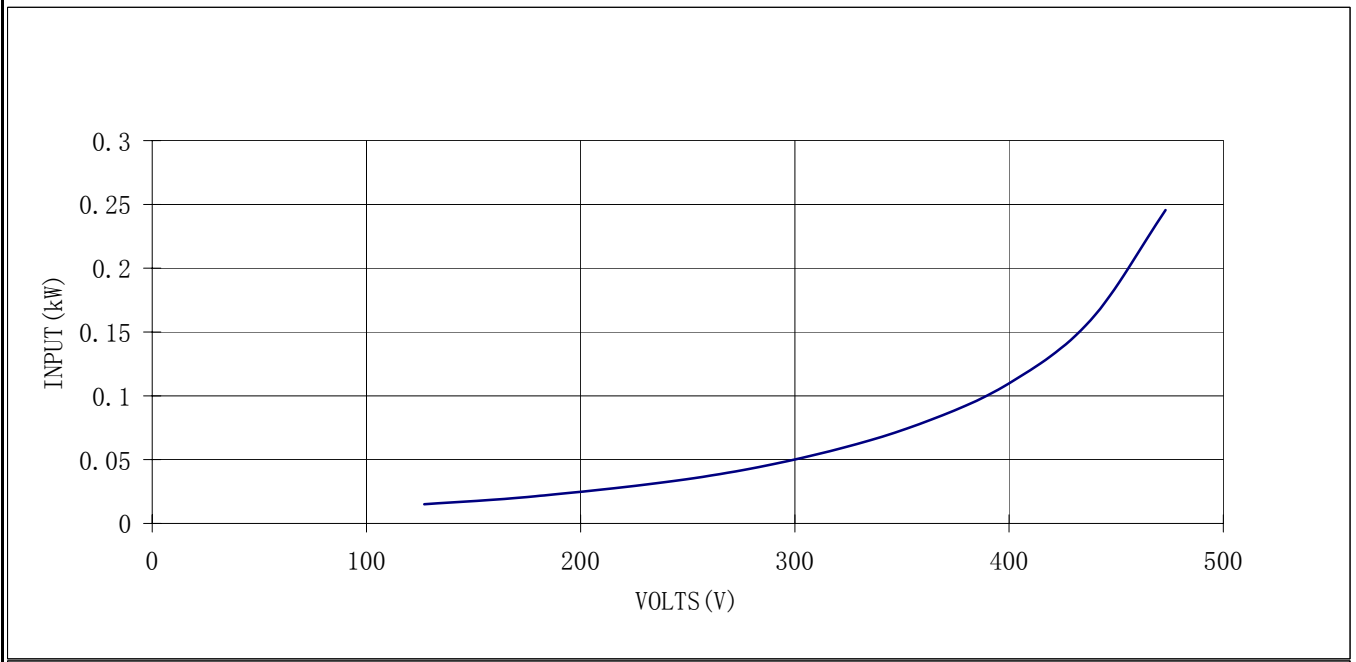
CURVE

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### NO LOAD TEST



<b>VALIADIS S.A.</b>  <b>AK71- 6</b>  <b>0.25</b> <b>kw</b> <b>400</b> <b>VOLTS</b> <b>50</b> <b>Hz</b>	<b>SCALE</b>	N/A	
	<b>DATE</b>		<b>REV</b>
	<b>DRAWN</b>		<b>DOCUMENT NO.</b>
	<b>APPRVD</b>		
<b>CHECKED</b>			

CURVE