

# VALIADIS S.A.

## ELECTRIC MOTOR TEST REPORT - THREE PHASE INDUCTION MOTOR

<b>NAMEPLATE DATA</b>	IEC	TYPE	5.5	KW	1440	RPM
AK132S-4 <b>FRAME</b>	3	<b>PHASE</b>	400	<b>VOLTS</b>	50	<b>HZ/CYCLES</b>
86.0 <b>EFFICIENCY</b>	10.9	<b>AMPS</b>	55	<b>IP</b>	IC01	<b>IC</b>
4 <b>POLE</b>	S1	<b>DUTY</b>	0.85	<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>

MAJOR CONTENTS	UNIT	TESE VALUE
STATOR RESISTANCE OF PHASE TO PHASE	75 DEG.C	OHM 2.2885
NO LOAD CURRENT		AMP 4.11
NO LOAD INPUT		kW 0.2624
CORE LOSS (Pfe)		kW 0.162
WINDAGE FRICTION LOSS (Pfw)		kW 0.044
STATOR WINDING LOSS(Pcu1)		kW 0.3996
ROTOR WINDING LOSS(Pcu2)		kW 0.2445
STRAY LOAD LOSS (Ps)		kW 0.0319
FULL LOAD CURRENT		AMP 10.79
LOCKED ROTOR CURRENT		AMP 68.87
LOCKED ROTOR CURRENT/FULL LOAD CURRENT		P.U. 6.4
LOCKED ROTOR INPUT @ 100% VOLT		kW 26.51
FULL LOAD TORQUE		N.m. 36.56
LOCKED ROTOR TORQUE		N.m. 65.66
LOCKED ROTOR TORQUE/FULL LOAD TORQUE		P.U. 1.80
PULL OUT TORQUE		N.m. 102.07
PULL OUT TORQUE/FULL LOAD TORQUE		P.U. 2.79
PULL UP TORQUE		N.m. 49.85
PULL UP TORQUE/FULL LOAD TORQUE		P.U. 1.36
EFFICIENCY @ FULL LOAD		% 86.18
POWER FACTOR @ FULL LOAD		0.854
FULL LOAD SLIP		4.20%
FULL LOAD SPEED		r/min 1437
STATOR WINDING TEMPERATURE RISE	30 SECS	K 63.2
DE BEARING TEMPERATURE BY PT100		Deg. C 22.2
NDE BEARING TEMPERATURE BY PT100		Deg. C 20.5
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) 57.3
VIBRATION		mm/s 1.1
MOMENT OF INERTIA		kgm <sup>2</sup> 0.0214
WEIGHT		kg 40

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

<b>VALIADIS S.A.</b>	SCALE	N/A		
	DATE		REV	
AK132S-4	DRAWN		DOCUMENT NO.	
5.5 kW	APPRVD			
400 VOLTS 50 Hz	CHECKED			

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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	81.9	87.2	87.6	86.2	84.1
PF	0.092	0.517	0.735	0.825	0.854	0.862	0.556
RPM	1500	1486	1474	1457	1437	1417	0
SLIP	0.00%	0.93%	1.73%	2.87%	4.20%	5.53%	100.00%
AMPS	4.11	4.69	6.19	8.26	10.79	13.69	68.87
VOLTS	400	400	400	400	400	400	400
TORQUE NM	0	8.85	17.81	27.10	36.56	46.35	65.66
KW INPUT	0.2624	1.6803	3.1524	4.7225	6.3834	8.1752	26.51
KW OUTPUT	0	1.377	2.750	4.135	5.501	6.877	

LOSSES (kW)	25% LOAD	50% LOAD	75% LOAD	100% LOAD	125% LOAD
STATOR LOSS Pcu1	0.076	0.132	0.234	0.400	0.643
STATOR LOSS %	4.49%	4.17%	4.96%	6.26%	2.43%
ROTOR LOSS Pcu2	0.013	0.050	0.124	0.245	0.408
ROTOR LOSS %	0.80%	1.57%	2.63%	3.83%	1.54%
CORE LOSS Pfe	0.162	0.162	0.162	0.162	0.162
CORE LOSS %	9.64%	5.14%	3.43%	2.54%	0.61%
WINDGE/FRICTION Pfw	0.044	0.044	0.044	0.044	0.044
WINDGE/FRICTION %	2.62%	1.40%	0.93%	0.69%	0.17%
STRAY LOAD LOSS Ps	0.008	0.016	0.024	0.032	0.041
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	1.816 OHMS @	11.0	DEG.C.	BETWEEN STATOR LEADS
STATOR RESISTANCE ADJUSTED	2.2885 OHMS @	75	DEG.C.	BETWEEN STATOR LEADS
STATOR RESISTANCE HOT	2.286 OHMS	after test of temp rise		BETWEEN STATOR LEADS
WINDING TEMPERATURE RISE	63.2 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	22.2 DEG.C.	at full load steady state at ambient		11.5 DEG.C.
PT100 TEMPERATURE OF NDE BEARING	20.5 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)	57.3	dB(A) 1meter	INSULATION RESISTANCE	500	MEG.OHMS
VIBRATION LEVEL	1.1	mm/sec on no load	D.E. BEARING		
WEIGHT	40	kg	N.D.E. BEARING		
H-POT TEST VOLTS	1800	VOLTS			

<b>VALIADIS S.A.</b>				SCALE	N/A		
				DATE		REV	
AK132S - 4				DRAWN		DOCUMENT NO.	
5.5	kW			APPRVD			
400	VOLTS	50	Hz	CHECKED			

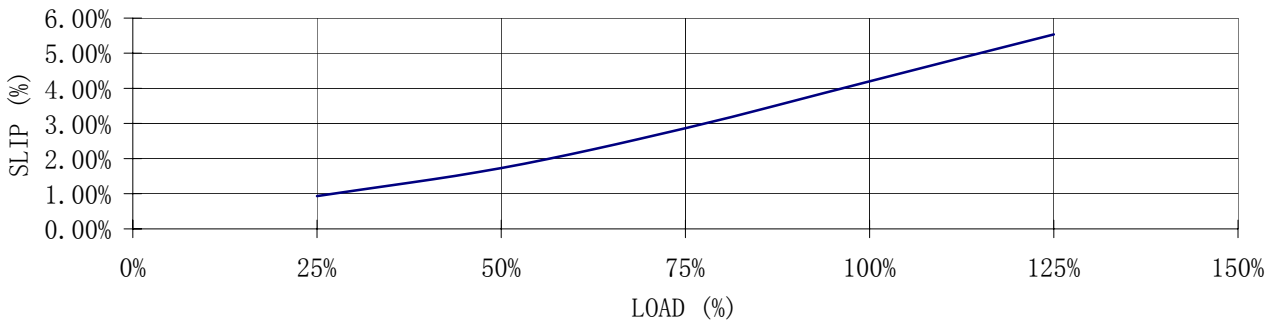
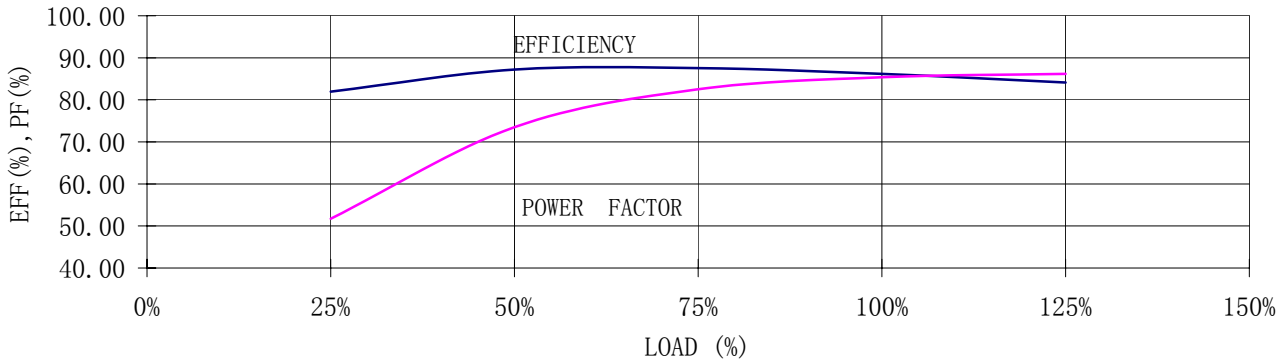
RESULT SUMMARY

# VALIADIS S.A.

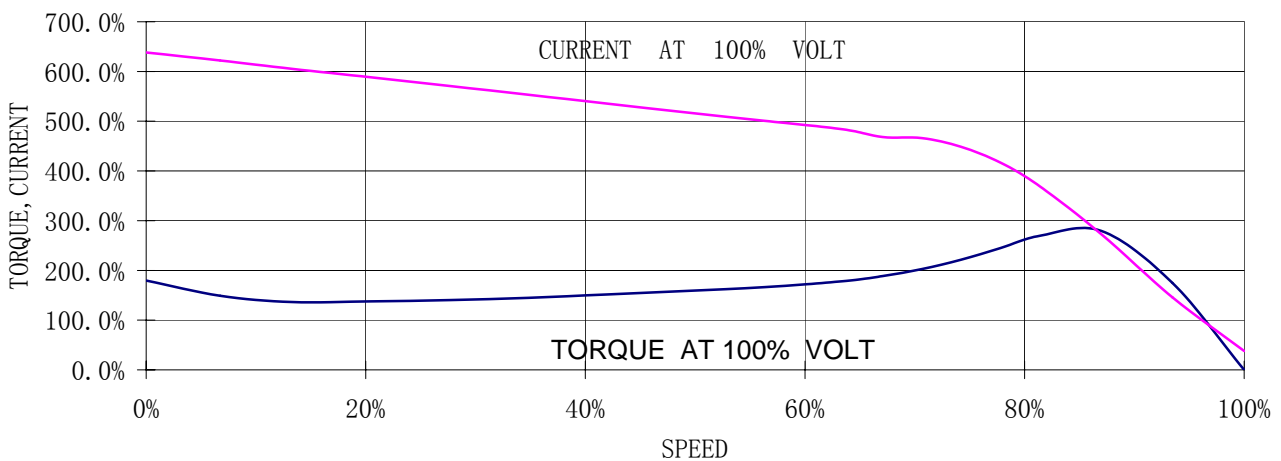
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### LOAD TEST



### SPEED VS TORQUE, CURRENT



	<b>VALIADIS S.A.</b>				<b>SCALE</b>	<b>N/A</b>	
					<b>DATE</b>		<b>REV</b>
	<b>AK132S-4</b>				<b>DRAWN</b>		<b>DOCUMENT NO.</b>
	<b>5.5</b>		<b>kW</b>		<b>APPRVD</b>		
	<b>400</b>	<b>VOLTS</b>	<b>50</b>	<b>Hz</b>	<b>CHECKED</b>		

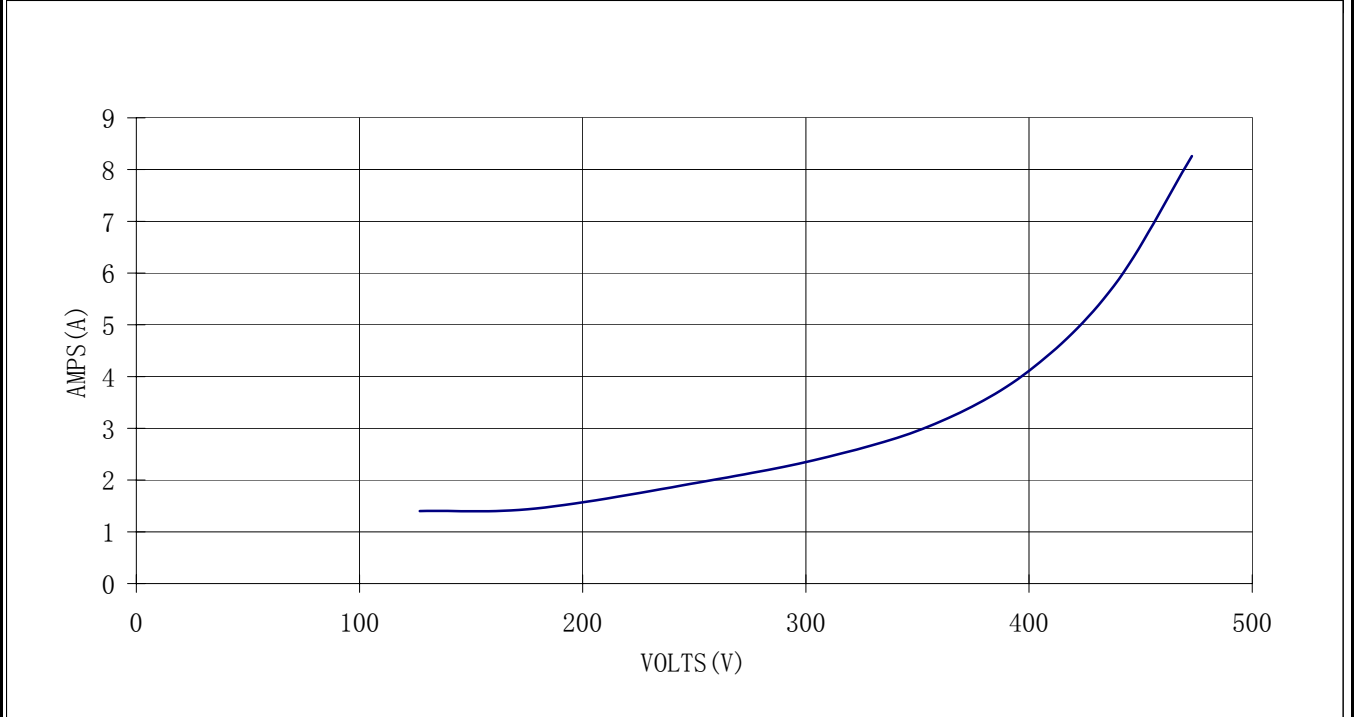
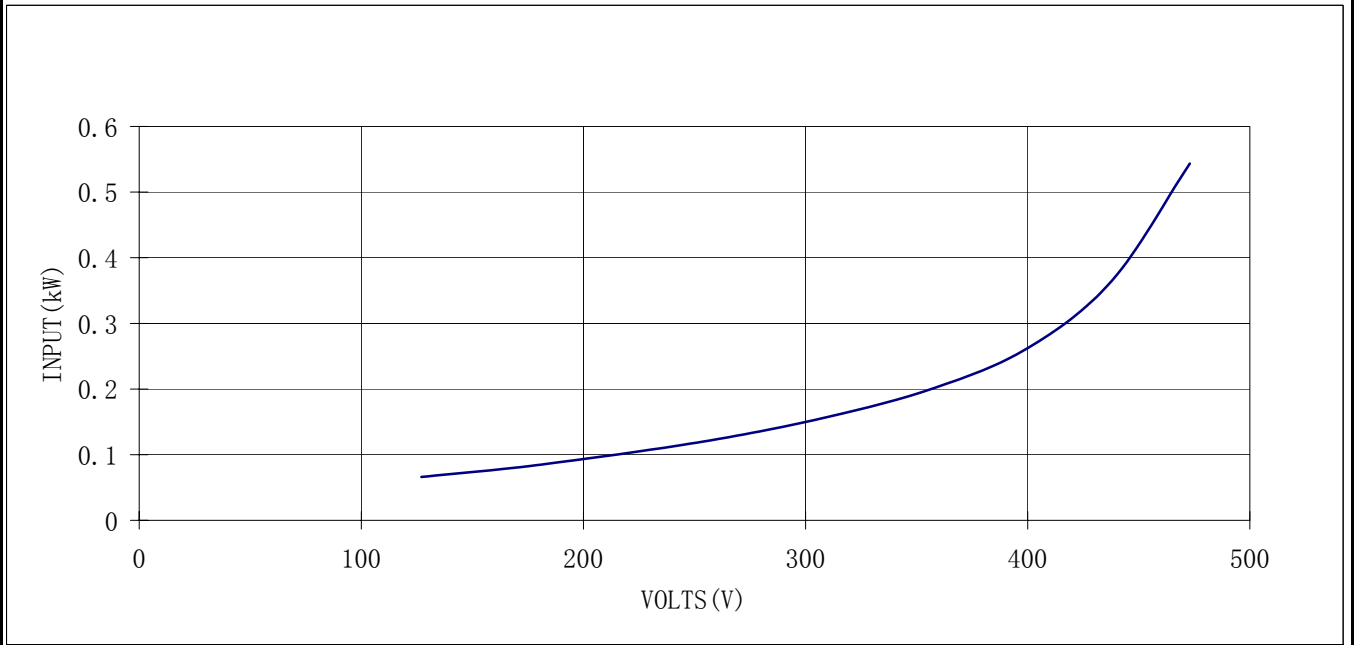
CURVE

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**NO LOAD TEST**



	<b>VALIADIS S.A.</b>			<b>SCALE</b>	<b>N/A</b>	
				<b>DATE</b>		<b>REV</b>
	<b>AK132S-4</b>			<b>DRAWN</b>		<b>DOCUMENT NO.</b>
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**CURVE**