

# VALIADIS S.A.

## ELECTRIC MOTOR TEST REPORT - THREE PHASE INDUCTION MOTOR

<b>NAMEPLATE DATA</b>	IEC	<b>TYPE</b>	5.5	<b>KW</b>	970	<b>RPM</b>
AK132M-6 <b>FRAME</b>	3	<b>PHASE</b>	400	<b>VOLTS</b>	50	<b>HZ/CYCLES</b>
86.5 <b>EFFICIENCY</b>	11.9	<b>AMPS</b>	55	<b>IP</b>	IC01	<b>IC</b>
6 <b>POLE</b>	S1	<b>DUTY</b>	0.77	<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>

<b>MAJOR CONTENTS</b>		<b>UNIT</b>	<b>TEST VALUE</b>	
STATOR RESISTANCE OF PHASE TO PHASE	75	DEG.C	OHM	2.0029
NO LOAD CURRENT			AMP	7.32
NO LOAD INPUT			kW	0.4487
CORE LOSS (Pfe)			kW	0.194
WINDAGE FRICTION LOSS (Pfw)			kW	0.017
STATOR WINDING LOSS(Pcu1)			kW	0.4254
ROTOR WINDING LOSS(Pcu2)			kW	0.1599
STRAY LOAD LOSS (Ps)			kW	0.0317
FULL LOAD CURRENT			AMP	11.9
LOCKED ROTOR CURRENT			AMP	89.94
LOCKED ROTOR CURRENT/FULL LOAD CURRENT			P.U.	7.6
LOCKED ROTOR INPUT @ 100% VOLT			kW	39.164
FULL LOAD TORQUE			N.m.	54.06
LOCKED ROTOR TORQUE			N.m.	110.99
LOCKED ROTOR TORQUE/FULL LOAD TORQUE			P.U.	2.05
PULL OUT TORQUE			N.m.	216.69
PULL OUT TORQUE/FULL LOAD TORQUE			P.U.	4.01
PULL UP TORQUE			N.m.	92.65
PULL UP TORQUE/FULL LOAD TORQUE			P.U.	1.71
EFFICIENCY @ FULL LOAD			%	86.92
POWER FACTOR @ FULL LOAD				0.768
FULL LOAD SLIP				2.80%
FULL LOAD SPEED			r/min	972
STATOR WINDING TEMPERATURE RISE	30	SECS	K	69.2
DE BEARING TEMPERATURE BY PT100			Deg. C	53.0
NDE BEARING TEMPERATURE BY PT100			Deg. C	50.0
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)	56.4
VIBRATION			mm/s	1.2
MOMENT OF INERTIA			kgm <sup>2</sup>	0.0449
WEIGHT			kg	55

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>	
<b>AK132M-6</b> <b>5.5 kW</b> <b>400 VOLTS 50 Hz</b>				<b>DRAWN</b>		<b>DOCUMENT NO.</b>	
				<b>APPRVD</b>			
				<b>CHECKED</b>			

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AK132M-6	FRAME	3	PHASE	400	VOLTS	50
86.5	EFFICIENCY	11.9	AMPS	55	IP	IC01
6	POLE	S1	DUTY	0.77	PF	N/A
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	77.4	84.9	86.8	86.9	85.9	
PF	0.088	0.331	0.535	0.678	0.768	0.820	0.629
RPM	1000	999	988	980	972	961	0
SLIP	0.00%	0.10%	1.20%	2.00%	2.80%	3.90%	100.00%
AMPS	7.32	7.68	8.73	10.11	11.9	14.14	89.94
VOLTS	400	400	400	400	400	400	400
TORQUE NM	0	13.05	26.54	40.14	54.06	68.52	110.99
KW INPUT	0.4487	1.7634	3.2359	4.7455	6.3305	8.0291	39.164
KW OUTPUT	0	1.365	2.746	4.119	5.502	6.895	

LOSSES (kW)	25% LOAD	50% LOAD	75% LOAD	100% LOAD	125% LOAD
STATOR LOSS Pcu1	0.177	0.229	0.307	0.425	0.601
STATOR LOSS %	10.05%	7.08%	6.47%	6.72%	1.53%
ROTOR LOSS Pcu2	0.001	0.034	0.085	0.160	0.282
ROTOR LOSS %	0.08%	1.04%	1.79%	2.53%	0.72%
CORE LOSS Pfe	0.194	0.194	0.194	0.194	0.194
CORE LOSS %	11.00%	6.00%	4.09%	3.06%	0.50%
WINDGE/FRICTION Pfw	0.017	0.017	0.017	0.017	0.017
WINDGE/FRICTION %	0.96%	0.53%	0.36%	0.27%	0.04%
STRAY LOAD LOSS Ps	0.009	0.016	0.024	0.032	0.040
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	1.60876 OHMS @	14.0	DEG.C.	BETWEEN STATOR LEADS
STATOR RESISTANCE ADJUSTED	2.0029 OHMS @	75	DEG.C.	BETWEEN STATOR LEADS
STATOR RESISTANCE HOT	2.06851 OHMS	after test of temp rise		BETWEEN STATOR LEADS
WINDING TEMPERATURE RISE	69.2 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	53.0 DEG.C.	at full load steady state at ambient		16.0 DEG.C.
PT100 TEMPERATURE OF NDE BEARING	50.0 DEG.C.	at full load steady state at ambient		16.0 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)	56.4	dB(A) 1meter	INSULATION RESISTANCE	500	MEG.OHMS
VIBRATION LEVEL	1.2	mm/sec on no load	D.E. BEARING		
WEIGHT	55	kg	N.D.E. BEARING		
H-POT TEST VOLTS	1800	VOLTS			

<b>VALIADIS S.A.</b>				SCALE	N/A		
				DATE		REV	
AK132M-6				DRAWN		DOCUMENT NO.	
5.5	kW			APPRVD			
400	VOLTS	50	Hz	CHECKED			

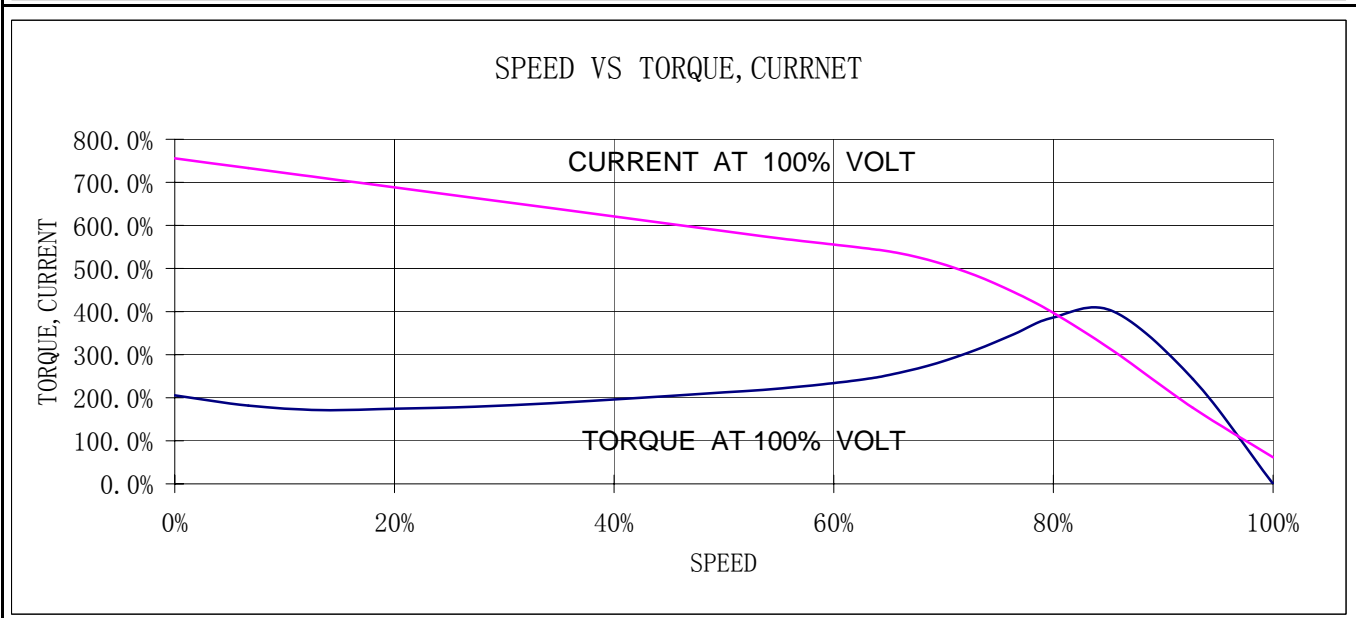
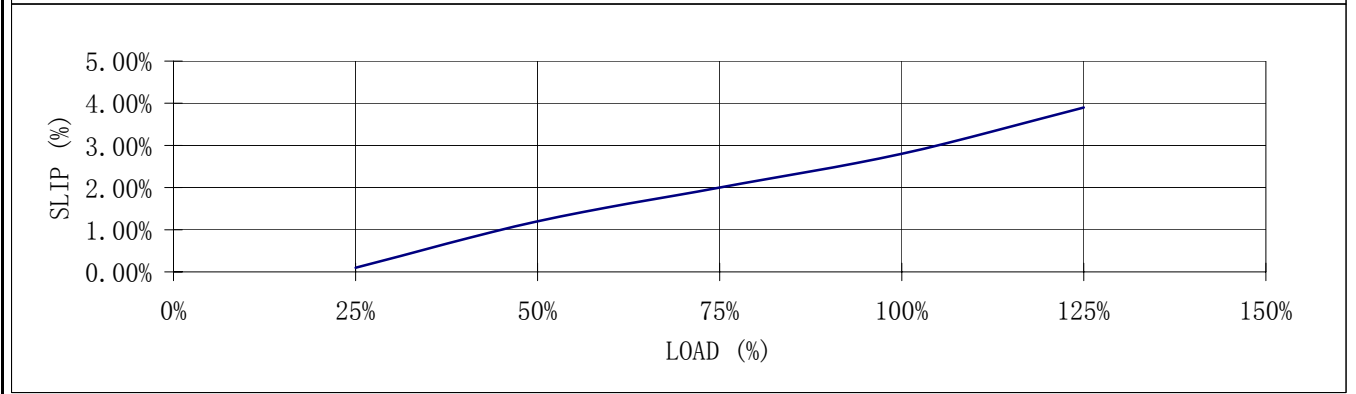
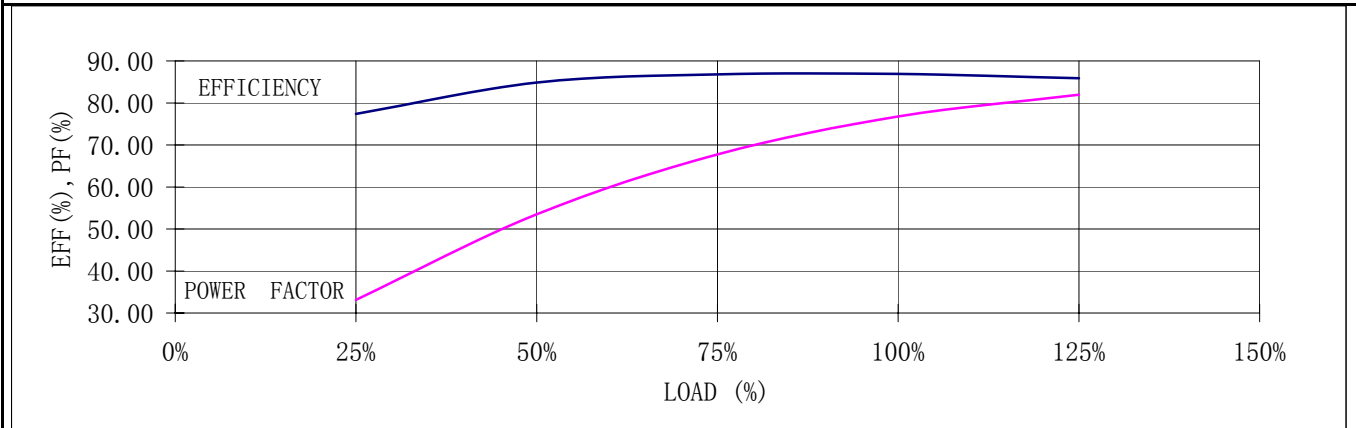
RESULT SUMMARY

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### LOAD TEST



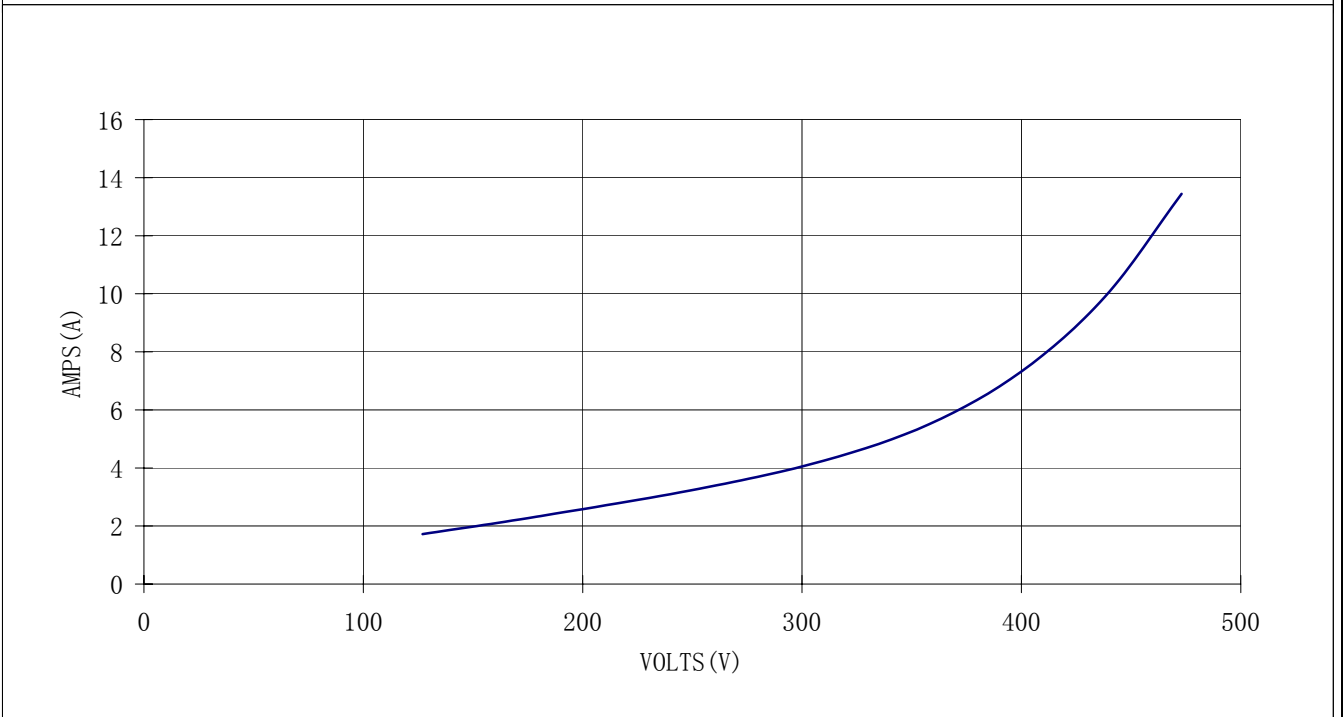
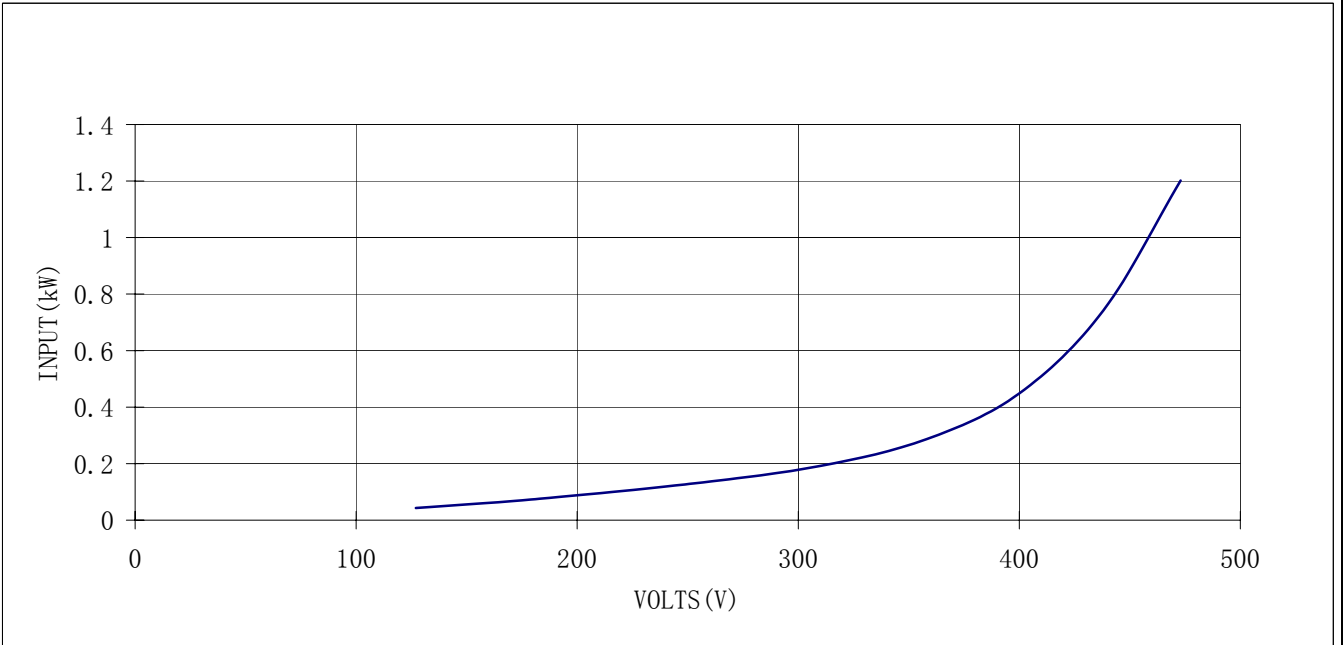
	<b>VALIADIS S.A.</b>	<b>SCALE</b>	N/A	
		<b>DATE</b>		<b>REV</b>
	<b>AK132M-6</b>	<b>DRAWN</b>		<b>DOCUMENT NO.</b>
	<b>5.5 kW</b>	<b>APPRVD</b>		
<b>400 VOLTS 50 Hz</b>	<b>CHECKED</b>			

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VALIADIS	<b>MANUFACTURER</b>	<b>SERIAL NO.</b>	F	<b>INS. CLASS</b>	DELTA	<b>CONNECTION</b>

**NO LOAD TEST**



	<b>VALIADIS S.A.</b>	<b>SCALE</b>	N/A	
		<b>DATE</b>		REV
	AK132M-6	<b>DRAWN</b>		<b>DOCUMENT NO.</b>
	5.5 kW	<b>APPRVD</b>		
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CURVE