

# VALIADIS S.A.

## ELECTRIC MOTOR TEST REPORT - THREE PHASE INDUCTION MOTOR

<b>NAMEPLATE DATA</b>	IEC	<b>TYPE</b>	0.75	<b>KW</b>	2820	<b>RPM</b>
AK80 - 2 <b>FRAME</b>	3	<b>PHASE</b>	400	<b>VOLTS</b>	50	<b>HZ/CYCLES</b>
75.5 <b>EFFICIENCY</b>	1.75	<b>AMPS</b>	55	<b>IP</b>	IC01	<b>IC</b>
2 <b>POLE</b>	S1	<b>DUTY</b>	0.82	<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>TEST VALUE</b>
STATOR RESISTANCE OF PHASE TO PHASE	75 DEG.C	OHM 20.6193
NO LOAD CURRENT		AMP 1.05
NO LOAD INPUT		kW 0.1207
CORE LOSS (Pfe)		kW 0.059
WINDAGE FRICTION LOSS (Pfw)		kW 0.028
STATOR WINDING LOSS(Pcu1)		kW 0.0958
ROTOR WINDING LOSS(Pcu2)		kW 0.0510
STRAY LOAD LOSS (Ps)		kW 0.0050
FULL LOAD CURRENT		AMP 1.76
LOCKED ROTOR CURRENT		AMP 10.14
LOCKED ROTOR CURRENT/FULL LOAD CURRENT		P.U. 5.8
LOCKED ROTOR INPUT @ 100% VOLT		kW 5.443
FULL LOAD TORQUE		N.m. 2.55
LOCKED ROTOR TORQUE		N.m. 8.00
LOCKED ROTOR TORQUE/FULL LOAD TORQUE		P.U. 3.14
PULL OUT TORQUE		N.m. 7.68
PULL OUT TORQUE/FULL LOAD TORQUE		P.U. 3.01
PULL UP TORQUE		N.m. 4.1
PULL UP TORQUE/FULL LOAD TORQUE		P.U. 1.61
EFFICIENCY @ FULL LOAD		% 75.89
POWER FACTOR @ FULL LOAD		0.812
FULL LOAD SLIP		6.10%
FULL LOAD SPEED		r/min 2817
STATOR WINDING TEMPERATURE RISE	30 SECS	K 59.9
DE BEARING TEMPERATURE BY PT100		Deg. C 41.5
NDE BEARING TEMPERATURE BY PT100		Deg. C 39.0
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) 52.4
VIBRATION		mm/s 0.9
MOMENT OF INERTIA		kgm <sup>2</sup> 0.00075
WEIGHT		kg 9.5

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>AK80 - 2</b> <b>0.75 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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75.5	<b>EFFICIENCY</b>	1.75	<b>AMPS</b>	55	<b>IP</b>	IC01
2	<b>POLE</b>	S1	<b>DUTY</b>	0.82	<b>PF</b>	N/A
VALIADIS	<b>MANUFACTURER</b>	<b>SERIAL NO.</b>	F	<b>INS. CLASS</b>	Y	<b>CONNECTION</b>

<b>TEST DATA</b>	NO LOAD	25% LOAD	50% LOAD	75% LOAD	100% LOAD	125% LOAD	LOCKED ROTOR
EFFICIENCY	0	59.1	71.5	75.4	75.9	73.7	
PF	0.166	0.412	0.603	0.738	0.812	0.830	0.775
RPM	3000	2958	2915	2870	2817	2748	0
SLIP	0.00%	1.40%	2.83%	4.33%	6.10%	8.40%	100.00%
AMPS	1.05	1.11	1.27	1.46	1.76	2.24	10.14
VOLTS	400	400	400	400	400	400	400
TORQUE NM	0	0.60	1.24	1.87	2.55	3.30	8.00
KW INPUT	0.1207	0.3171	0.5307	0.7465	0.9903	1.2877	5.443
KW OUTPUT	0	0.187	0.379	0.563	0.752	0.949	

<b>LOSSES (kW)</b>	25% LOAD	50% LOAD	75% LOAD	100% LOAD	125% LOAD
STATOR LOSS Pcu1	0.038	0.050	0.066	0.096	0.155
STATOR LOSS %	12.02%	9.40%	8.83%	9.67%	2.85%
ROTOR LOSS Pcu2	0.003	0.012	0.027	0.051	0.090
ROTOR LOSS %	0.97%	2.25%	3.61%	5.15%	1.66%
CORE LOSS Pfe	0.059	0.059	0.059	0.059	0.059
CORE LOSS %	18.61%	11.12%	7.90%	5.96%	1.08%
WINDGE/FRICTION Pfw	0.028	0.028	0.028	0.028	0.028
WINDGE/FRICTION %	8.83%	5.28%	3.75%	2.83%	0.51%
STRAY LOAD LOSS Ps	0.002	0.003	0.004	0.005	0.006
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	17.42667 OHMS @	27.0	DEG.C.	BETWEEN STATOR LEADS
STATOR RESISTANCE ADJUSTED	20.6193 OHMS @	75	DEG.C.	BETWEEN STATOR LEADS
STATOR RESISTANCE HOT	21.48 OHMS	after test of temp rise		BETWEEN STATOR LEADS
WINDING TEMPERATURE RISE	59.9 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	41.5 DEG.C.	at full load steady state at ambient		28.0 DEG.C.
PT100 TEMPERATURE OF NDE BEARING	39.0 DEG.C.	at full load steady state at ambient		28.0 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)	52.4	dB(A) 1meter	INSULATION RESISTANCE	500	MEG.OHMS
VIBRATION LEVEL	0.9	mm/sec on no load	D.E. BEARING		
WEIGHT	9.5	kg	N.D.E. BEARING		
H-POT TEST VOLTS	1800	VOLTS			

<b>VALIADIS S.A.</b>				<b>SCALE</b>	<b>N/A</b>		
				<b>DATE</b>		<b>REV</b>	
<b>AK80 - 2</b>				<b>DRAWN</b>		<b>DOCUMENT NO.</b>	
				<b>APPRVD</b>			
				<b>CHECKED</b>			
<b>400</b>	<b>0.75</b>	<b>50</b>	<b>kW</b>	<b>Hz</b>			

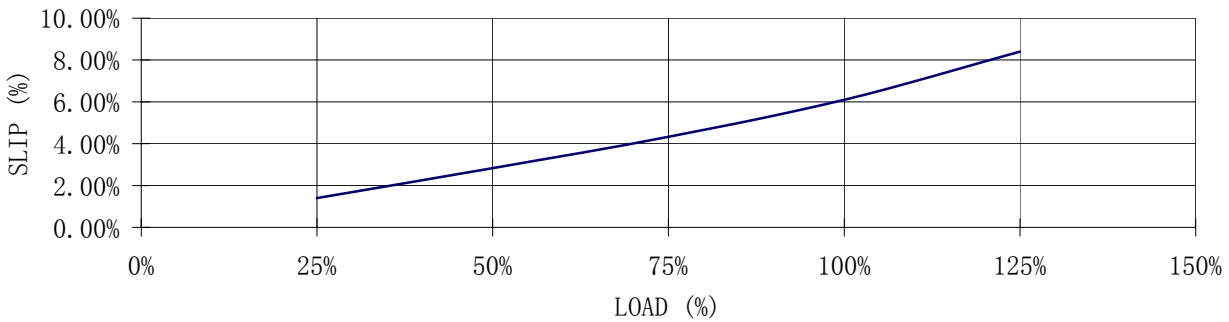
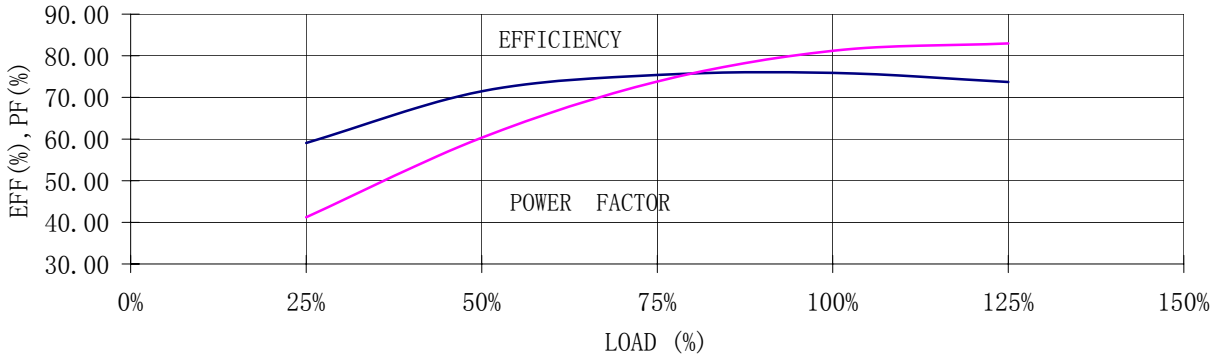
RESULT SUMMARY

# VALIADIS S.A.

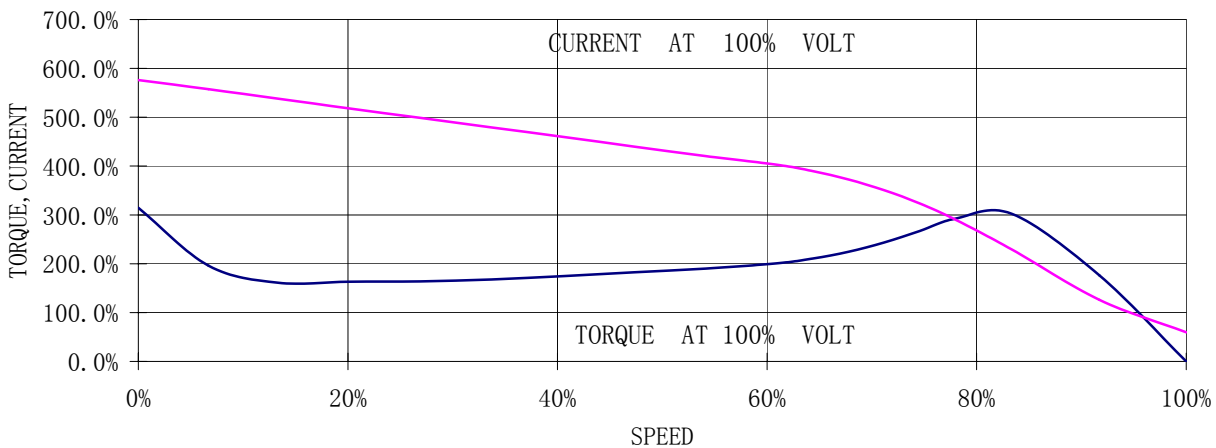
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VALIADIS	<b>MANUFACTURER</b>	<b>SERIAL NO.</b>	F	<b>INS. CLASS</b>	Y	<b>CONNECTION</b>

### LOAD TEST



### SPEED VS TORQUE, CURRENT



	<b>VALIADIS S.A.</b>	<b>SCALE</b>	N/A	
		<b>DATE</b>		<b>REV</b>
	<b>AK80 - 2</b>	<b>DRAWN</b>		<b>DOCUMENT NO.</b>
	<b>0.75 kW</b>	<b>APPRVD</b>		
	<b>400 VOLTS 50 Hz</b>	<b>CHECKED</b>		

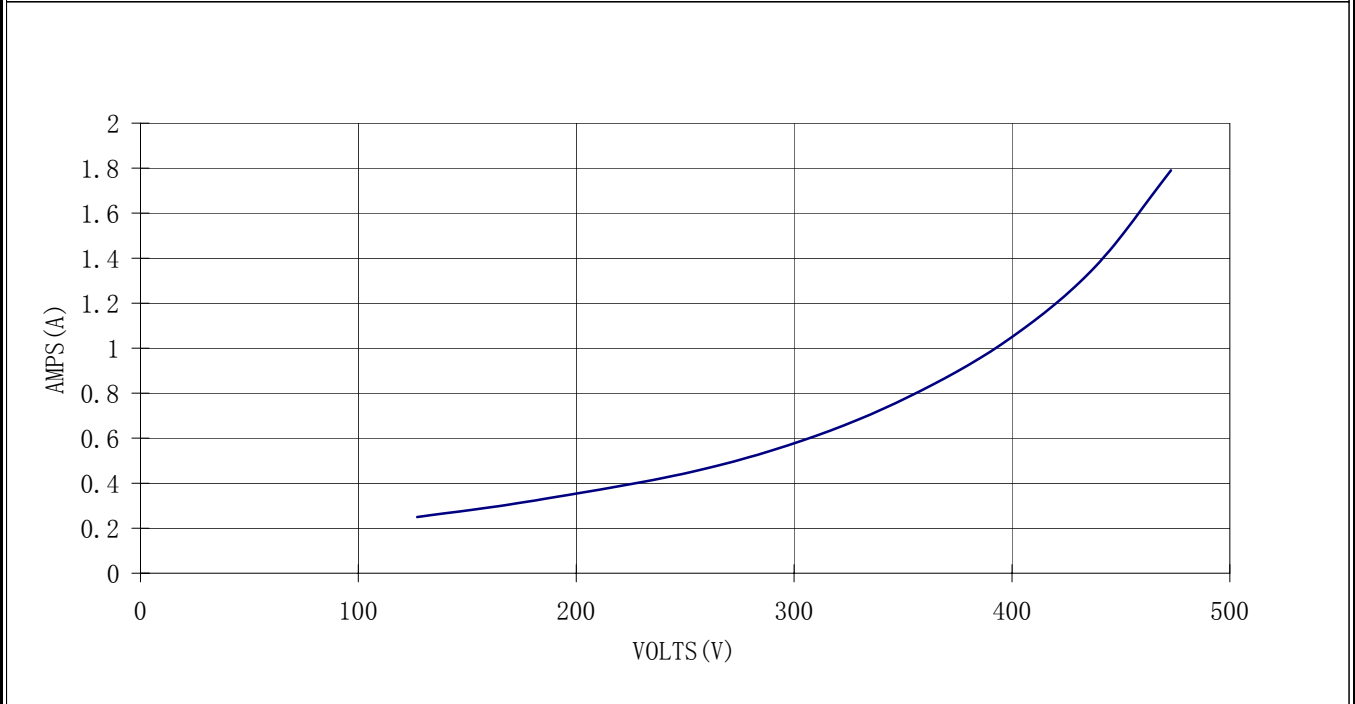
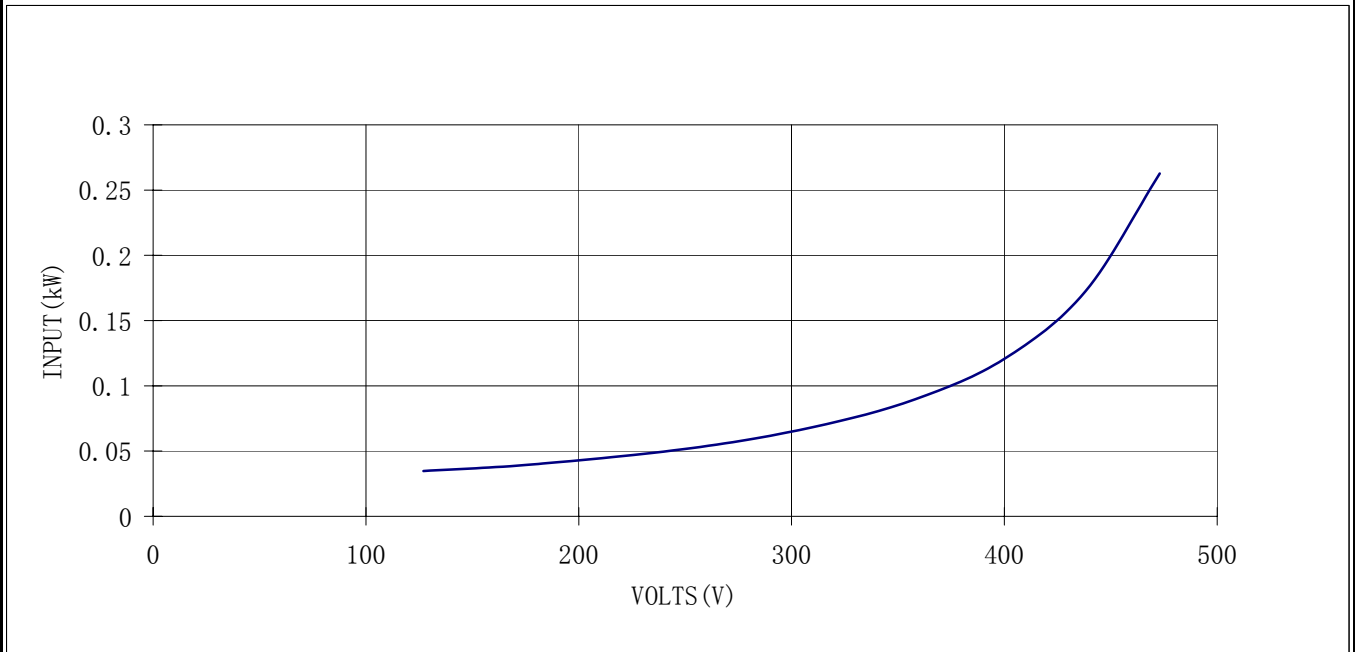
CURVE

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

**NO LOAD TEST**



	<b>VALIADIS S.A.</b>			<b>SCALE</b>	N/A	
				<b>DATE</b>		<b>REV</b>
	AK80 - 2			<b>DRAWN</b>		<b>DOCUMENT NO.</b>
	0.75	kW		<b>APPRVD</b>		
400	VOLTS	50	<b>CHECKED</b>			

CURVE