

VALIADIS S.A.

ELECTRIC MOTOR TEST REPORT - THREE PHASE INDUCTION MOTOR

NAMEPLATE DATA	IEC	TYPE	0.37	KW	700	RPM
AK90S - 8 FRAME	3	PHASE	400	VOLTS	50	HZ/CYCLES
63.0 EFFICIENCY	1.44	AMPS	55	IP	IC01	IC
8 POLE	S1	DUTY	0.59	PF	N/A	EFF2
VALIADIS MANUFACTURER		SERIAL NO.	F	INS. CLASS	Y	CONNECTION

MAJOR CONTENTS	UNIT	TEST VALUE
STATOR RESISTANCE OF PHASE TO PHASE	75 DEG.C	OHM 40.1366
NO LOAD CURRENT		AMP 1.24
NO LOAD INPUT		kW 0.1483
CORE LOSS (Pfe)		kW 0.056
WINDAGE FRICTION LOSS (Pfw)		kW 0.008
STATOR WINDING LOSS(Pcu1)		kW 0.1248
ROTOR WINDING LOSS(Pcu2)		kW 0.0254
STRAY LOAD LOSS (Ps)		kW 0.0029
FULL LOAD CURRENT		AMP 1.44
LOCKED ROTOR CURRENT		AMP 4.92
LOCKED ROTOR CURRENT/FULL LOAD CURRENT		P.U. 3.4
LOCKED ROTOR INPUT @ 100% VOLT		kW 2.219
FULL LOAD TORQUE		N.m. 5.01
LOCKED ROTOR TORQUE		N.m. 11.40
LOCKED ROTOR TORQUE/FULL LOAD TORQUE		P.U. 2.28
PULL OUT TORQUE		N.m. 15.84
PULL OUT TORQUE/FULL LOAD TORQUE		P.U. 3.16
PULL UP TORQUE		N.m. 8.23
PULL UP TORQUE/FULL LOAD TORQUE		P.U. 1.64
EFFICIENCY @ FULL LOAD		% 62.94
POWER FACTOR @ FULL LOAD		0.587
FULL LOAD SLIP		6.27%
FULL LOAD SPEED		r/min 703
STATOR WINDING TEMPERATURE RISE	30 SECS	K 27.0
DE BEARING TEMPERATURE BY PT100		Deg. C 28.0
NDE BEARING TEMPERATURE BY PT100		Deg. C 28.0
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) 44.6
VIBRATION		mm/s 0.7
MOMENT OF INERTIA		kgm ² 0.0029
WEIGHT		kg 13

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

VALIADIS S.A.				SCALE	N/A		
				DATE		REV	
AK90S - 8 0.37 kW 400 VOLTS 50 Hz				DRAWN		DOCUMENT NO.	
				APPRVD			
				CHECKED			

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TEST DATA	NO LOAD	25% LOAD	50% LOAD	75% LOAD	100% LOAD	125% LOAD	LOCKED ROTOR
EFFICIENCY	0	36.4	50.7	59.6	62.9	63.5	
PF	0.173	0.292	0.389	0.502	0.587	0.658	0.651
RPM	750	740	728	716	703	685	0
SLIP	0.00%	1.33%	2.93%	4.53%	6.27%	8.67%	100.00%
AMPS	1.24	1.26	1.29	1.34	1.44	1.59	4.92
VOLTS	400	400	400	400	400	400	400
TORQUE NM	0	1.20	2.31	3.70	5.01	6.42	11.40
KW INPUT	0.1483	0.255	0.3478	0.4658	0.586	0.7253	2.219
KW OUTPUT	0	0.093	0.176	0.278	0.369	0.461	

LOSSES (kW)	25% LOAD	50% LOAD	75% LOAD	100% LOAD	125% LOAD
STATOR LOSS Pcu1	0.096	0.100	0.108	0.125	0.152
STATOR LOSS %	37.48%	28.81%	23.21%	21.30%	6.86%
ROTOR LOSS Pcu2	0.001	0.006	0.014	0.025	0.045
ROTOR LOSS %	0.54%	1.62%	2.94%	4.33%	2.02%
CORE LOSS Pfe	0.056	0.056	0.056	0.056	0.056
CORE LOSS %	21.96%	16.10%	12.02%	9.56%	2.52%
WINDGE/FRICTION Pfw	0.008	0.008	0.008	0.008	0.008
WINDGE/FRICTION %	3.14%	2.30%	1.72%	1.37%	0.36%
STRAY LOAD LOSS Ps	0.001	0.002	0.002	0.003	0.004
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	31.52667 OHMS @	8.5	DEG.C.	BETWEEN STATOR LEADS
STATOR RESISTANCE ADJUSTED	40.1366 OHMS @	75	DEG.C.	BETWEEN STATOR LEADS
STATOR RESISTANCE HOT	35.2836 OHMS	after test of temp rise		BETWEEN STATOR LEADS
WINDING TEMPERATURE RISE	27.0 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	28.0 DEG.C.	at full load steady state at ambient		10.5 DEG.C.
PT100 TEMPERATURE OF NDE BEARING	28.0 DEG.C.	at full load steady state at ambient		10.5 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)	44.6	dB(A) 1meter	INSULATION RESISTANCE	500	MEG.OHMS
VIBRATION LEVEL	0.7	mm/sec on no load	D.E. BEARING		
WEIGHT	13	kg	N.D.E. BEARING		
H-POT TEST VOLTS	1800	VOLTS			

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				DATE		REV	
AK90S - 8				DRAWN		DOCUMENT NO.	
0.37	kW		APPRVD				
400	VOLTS	50	CHECKED				
		Hz					

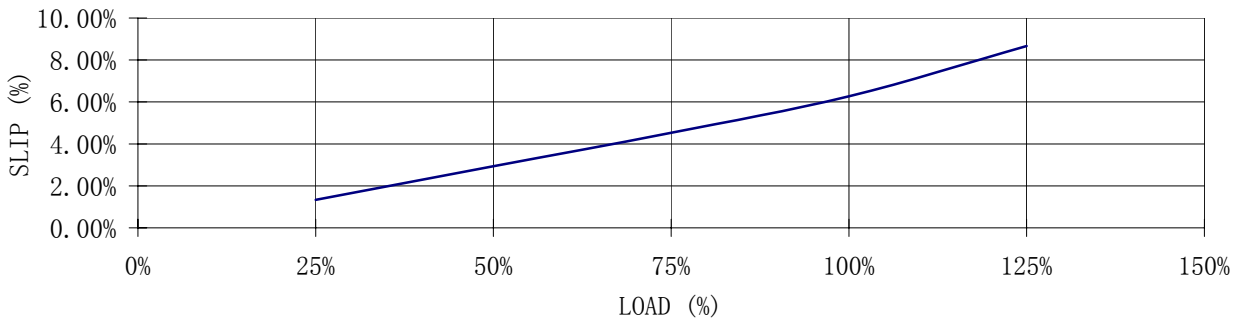
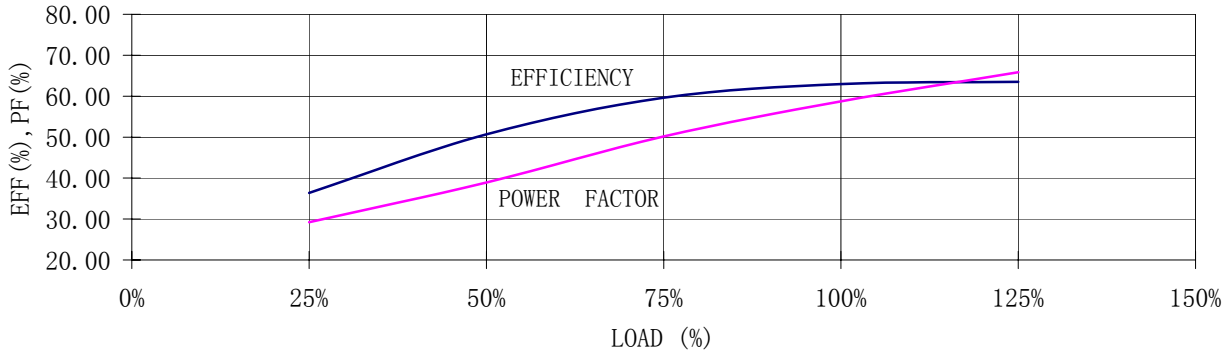
RESULT SUMMARY

VALIADIS S.A.

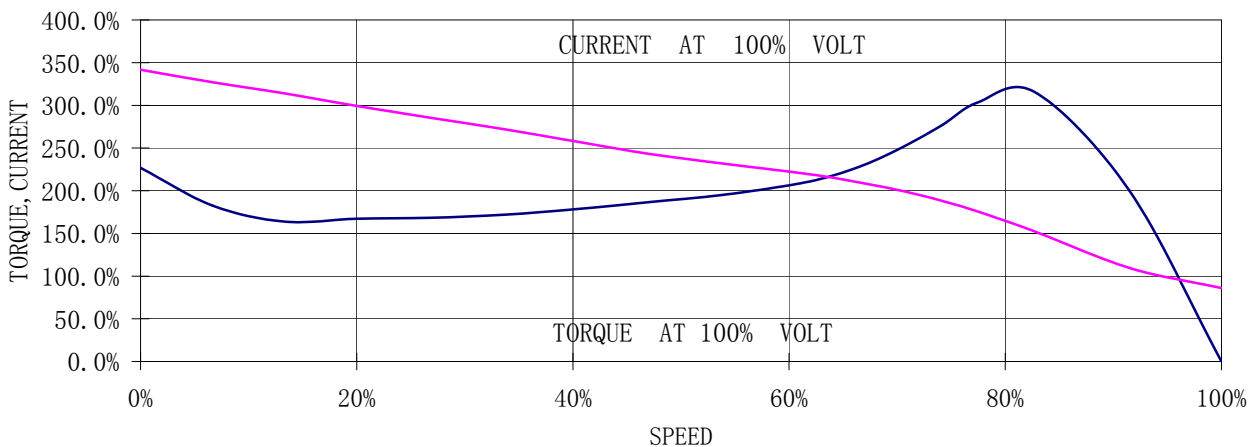
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LOAD TEST



SPEED VS TORQUE, CURRENT



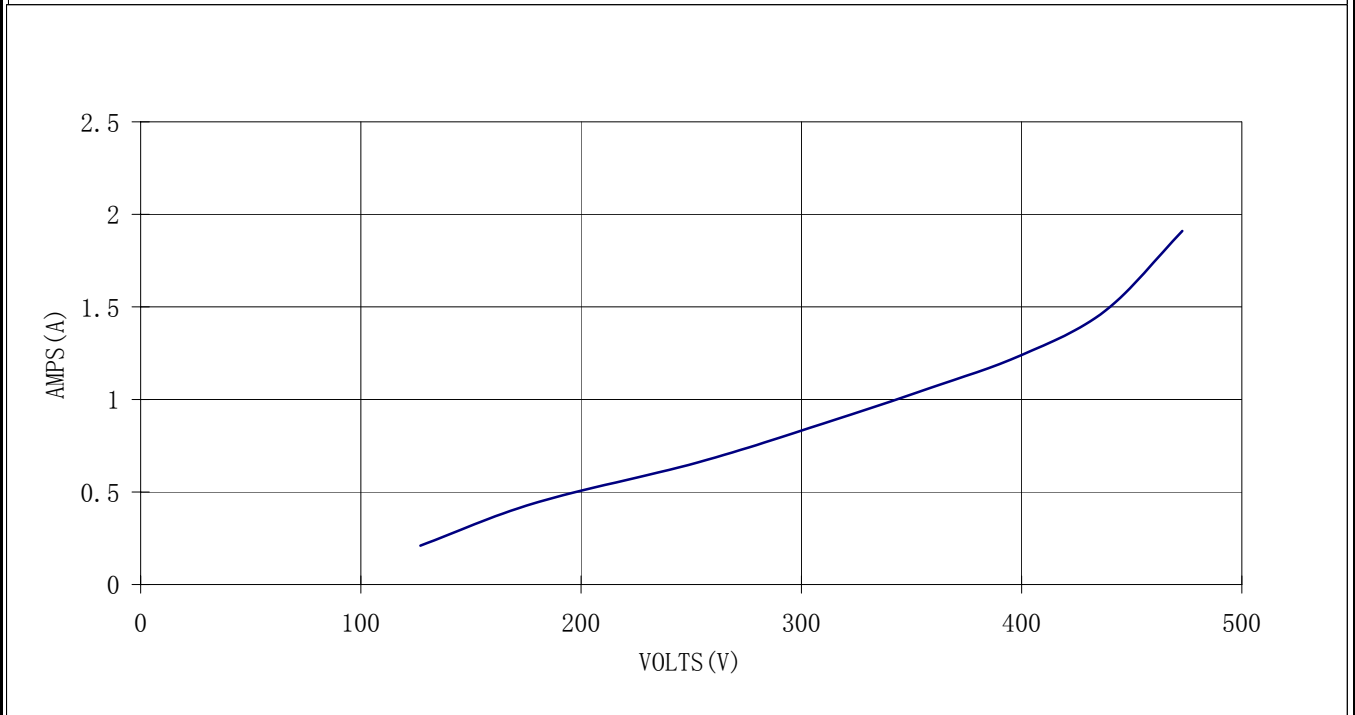
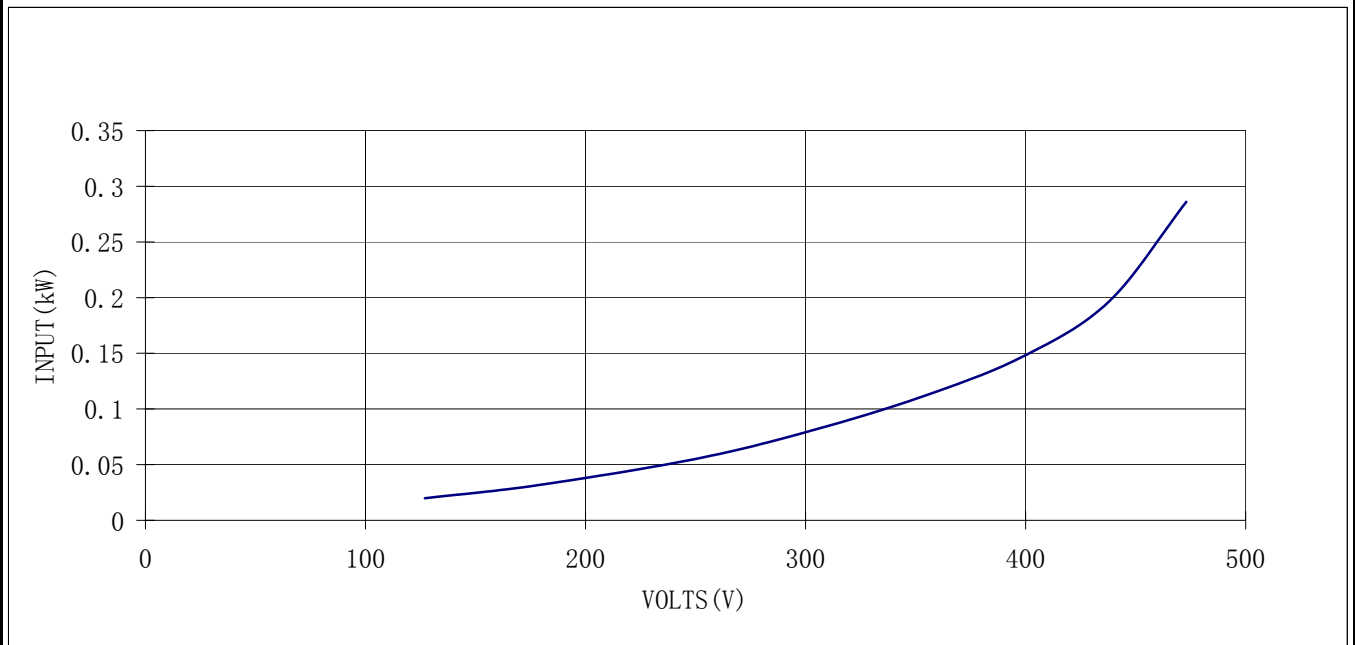
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400 VOLTS 50 Hz	CHECKED			

CURVE