

VALIADIS S.A.

ELECTRIC MOTOR TEST REPORT - THREE PHASE INDUCTION MOTOR

NAMEPLATE DATA	IEC	TYPE	1.1	KW	1375	RPM
AK90S - 4 FRAME	3	PHASE	400	VOLTS	50	HZ/CYCLES
77.0 EFFICIENCY	2.71	AMPS	55	IP	IC01	IC
4 POLE	S1	DUTY	0.76	PF	N/A	EFF2
VALIADIS MANUFACTURER		SERIAL NO.	F	INS. CLASS	Y	CONNECTION

MAJOR CONTENTS	UNIT	TESE VALUE
STATOR RESISTANCE OF PHASE TO PHASE	75 DEG.C	OHM 15.1378
NO LOAD CURRENT		AMP 1.57
NO LOAD INPUT		kW 0.1169
CORE LOSS (Pfe)		kW 0.051
WINDAGE FRICTION LOSS (Pfw)		kW 0.013
STATOR WINDING LOSS(Pcu1)		kW 0.1643
ROTOR WINDING LOSS(Pcu2)		kW 0.0914
STRAY LOAD LOSS (Ps)		kW 0.0071
FULL LOAD CURRENT		AMP 2.69
LOCKED ROTOR CURRENT		AMP 13.08
LOCKED ROTOR CURRENT/FULL LOAD CURRENT		P.U. 4.9
LOCKED ROTOR INPUT @ 100% VOLT		kW 6.105
FULL LOAD TORQUE		N.m. 7.58
LOCKED ROTOR TORQUE		N.m. 19.26
LOCKED ROTOR TORQUE/FULL LOAD TORQUE		P.U. 2.54
PULL OUT TORQUE		N.m. 19.9
PULL OUT TORQUE/FULL LOAD TORQUE		P.U. 2.62
PULL UP TORQUE		N.m. 10.59
PULL UP TORQUE/FULL LOAD TORQUE		P.U. 1.40
EFFICIENCY @ FULL LOAD		% 77.12
POWER FACTOR @ FULL LOAD		0.766
FULL LOAD SLIP		7.53%
FULL LOAD SPEED		r/min 1387
STATOR WINDING TEMPERATURE RISE	30 SECS	K 59.3
DE BEARING TEMPERATURE BY PT100		Deg. C 56.5
NDE BEARING TEMPERATURE BY PT100		Deg. C 54.0
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) 49.5
VIBRATION		mm/s 0.7
MOMENT OF INERTIA		kgm ² 0.0021
WEIGHT		kg 14.5

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

VALIADIS S.A.	SCALE	N/A		
	DATE		REV	
AK90S - 4	DRAWN		DOCUMENT NO.	
1.1 kW	APPRVD			
400 VOLTS 50 Hz	CHECKED			

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TEST DATA	NO LOAD	25% LOAD	50% LOAD	75% LOAD	100% LOAD	125% LOAD	LOCKED ROTOR
EFFICIENCY	0	67.7	77.2	78.7	77.1	73.4	
PF	0.107	0.359	0.562	0.693	0.766	0.807	0.674
RPM	1500	1477	1452	1423	1387	1339	0
SLIP	0.00%	1.53%	3.20%	5.13%	7.53%	10.73%	100.00%
AMPS	1.57	1.62	1.84	2.18	2.69	3.38	13.08
VOLTS	400	400	400	400	400	400	400
TORQUE NM	0	1.76	3.63	5.53	7.58	9.90	19.26
KW INPUT	0.1169	0.4028	0.7158	1.0471	1.4282	1.8905	6.105
KW OUTPUT	0	0.273	0.553	0.824	1.101	1.388	

LOSSES (kW)	25% LOAD	50% LOAD	75% LOAD	100% LOAD	125% LOAD
STATOR LOSS Pcu1	0.060	0.077	0.108	0.164	0.259
STATOR LOSS %	14.79%	10.74%	10.31%	11.50%	4.25%
ROTOR LOSS Pcu2	0.004	0.019	0.046	0.091	0.170
ROTOR LOSS %	1.11%	2.63%	4.35%	6.40%	2.78%
CORE LOSS Pfe	0.051	0.051	0.051	0.051	0.051
CORE LOSS %	12.66%	7.12%	4.87%	3.57%	0.84%
WINDGE/FRICTION Pfw	0.013	0.013	0.013	0.013	0.013
WINDGE/FRICTION %	3.23%	1.82%	1.24%	0.91%	0.21%
STRAY LOAD LOSS Ps	0.002	0.004	0.005	0.007	0.009
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	12.5253 OHMS @	21.5	DEG.C.	BETWEEN STATOR LEADS
STATOR RESISTANCE ADJUSTED	15.1378 OHMS @	75	DEG.C.	BETWEEN STATOR LEADS
STATOR RESISTANCE HOT	15.372 OHMS	after test of temp rise		BETWEEN STATOR LEADS
WINDING TEMPERATURE RISE	59.3 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	56.5 DEG.C.	at full load steady state at ambient		20.5 DEG.C.
PT100 TEMPERATURE OF NDE BEARING	54.0 DEG.C.	at full load steady state at ambient		20.5 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)	49.5	dB(A) 1meter	INSULATION RESISTANCE	500	MEG.OHMS
VIBRATION LEVEL	0.7	mm/sec on no load	D.E. BEARING		
WEIGHT	14.5	kg	N.D.E. BEARING		
H-POT TEST VOLTS	1800	VOLTS			

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				DATE		REV	
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400	VOLTS	50	Hz	CHECKED			

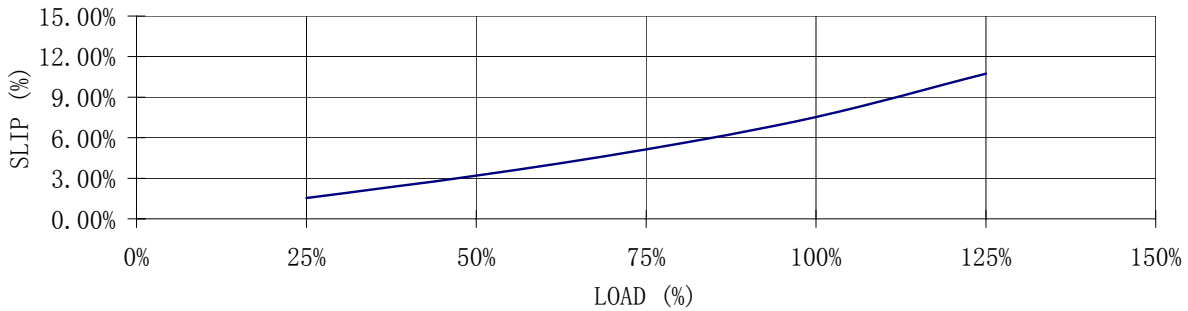
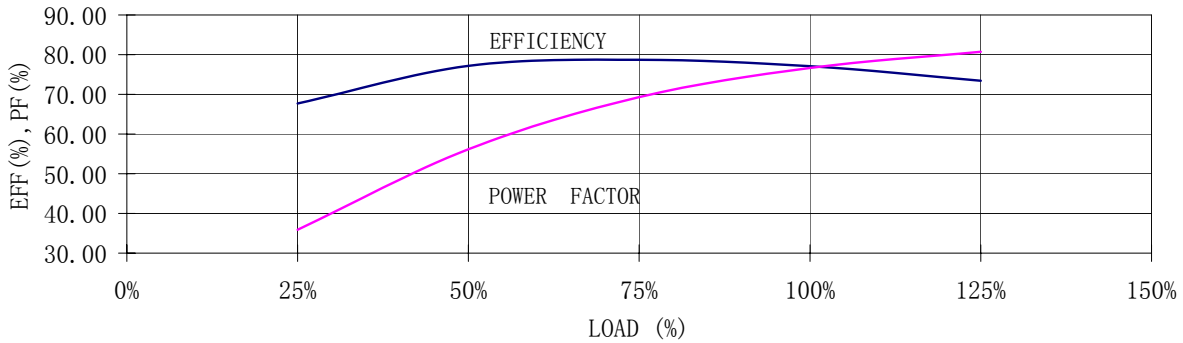
RESULT SUMMARY

VALIADIS S.A.

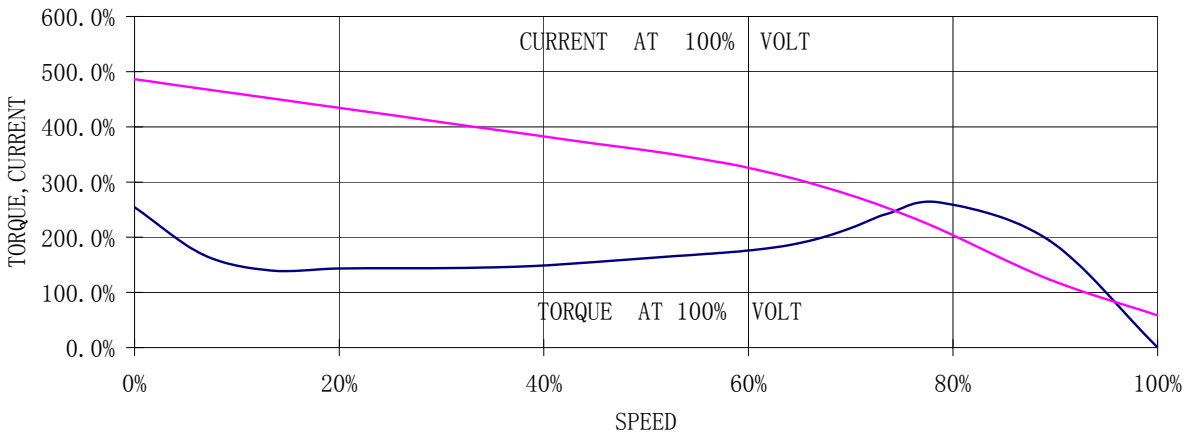
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LOAD TEST



SPEED VS TORQUE, CURRENT



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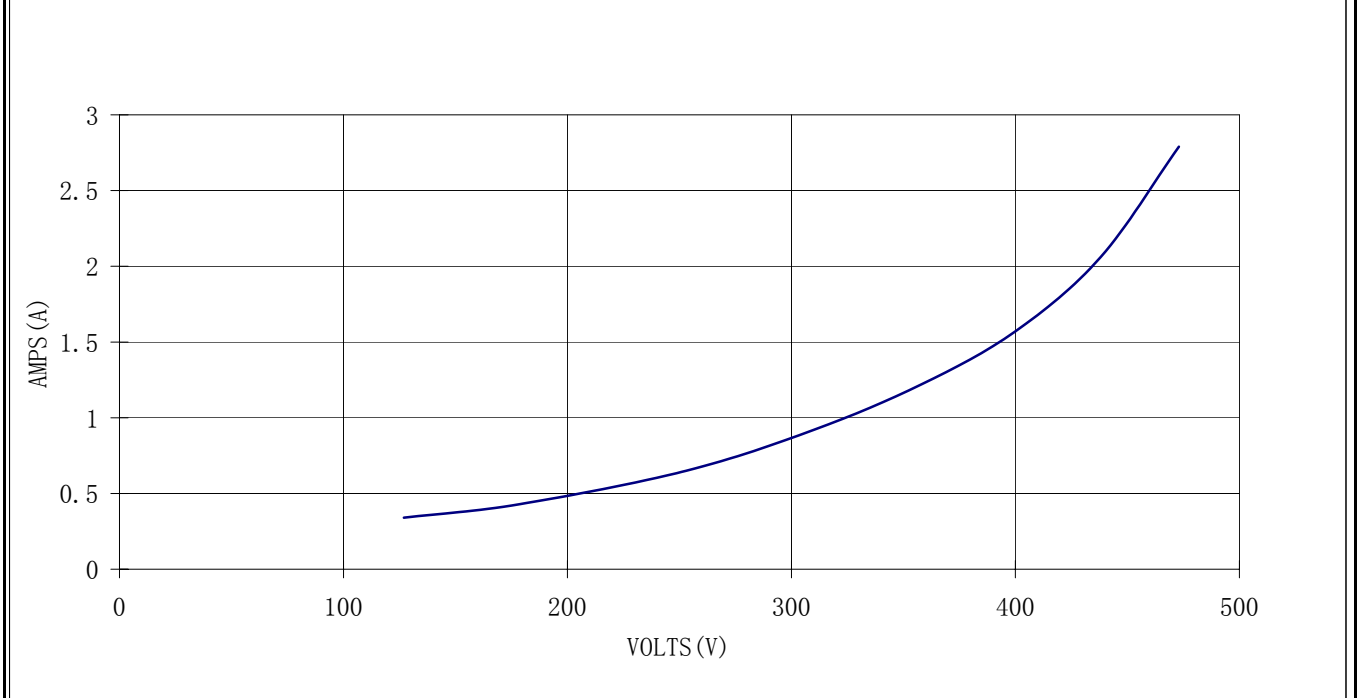
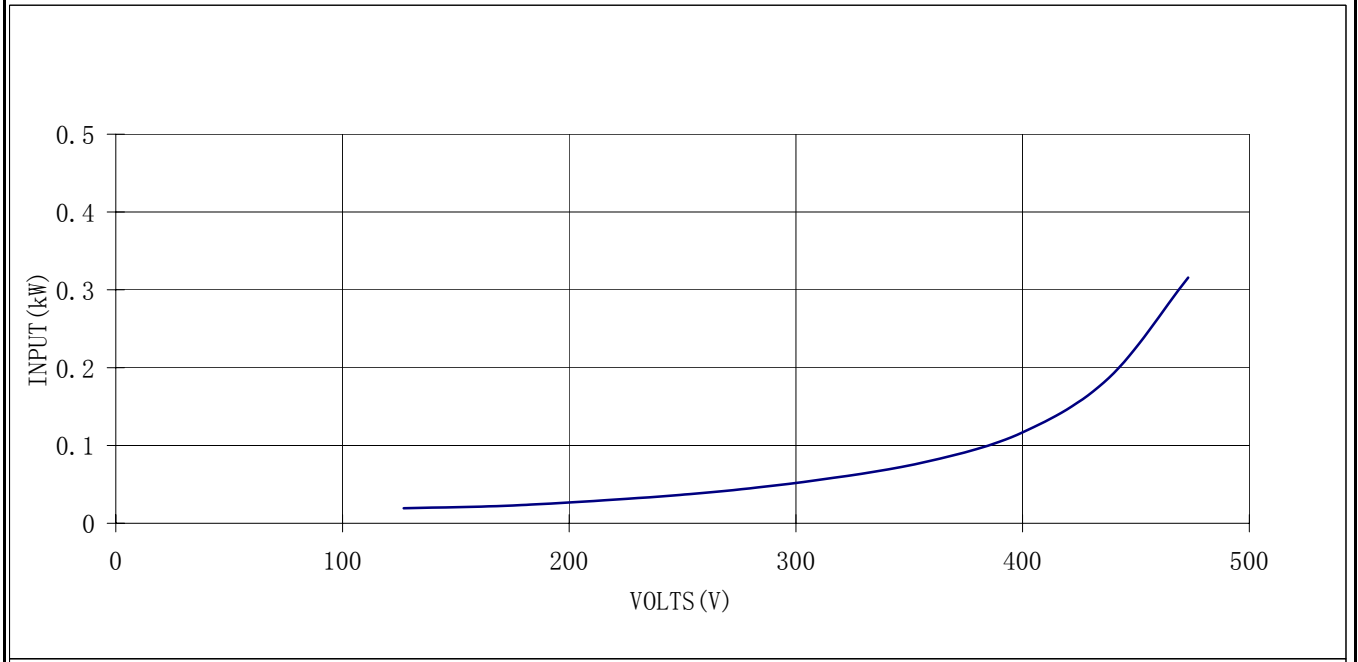
CURVE

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400	CHECKED			
	kw			
	50	Hz		

CURVE