

VALIADIS S.A.

ELECTRIC MOTOR TEST REPORT - THREE PHASE INDUCTION MOTOR

NAMEPLATE DATA	IEC	TYPE	0.55	KW	1410	RPM
AK80 - 4 FRAME	3	PHASE	400	VOLTS	50	HZ/CYCLES
72.0 EFFICIENCY	1.49	AMPS	55	IP	IC01	IC
4 POLE	S1	DUTY	0.74	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 32.1346
NO LOAD CURRENT		AMP 1.07
NO LOAD INPUT		kW 0.116
CORE LOSS (Pfe)		kW 0.058
WINDAGE FRICTION LOSS (Pfw)		kW 0.006
STATOR WINDING LOSS(Pcu1)		kW 0.1056
ROTOR WINDING LOSS(Pcu2)		kW 0.0351
STRAY LOAD LOSS (Ps)		kW 0.0038
FULL LOAD CURRENT		AMP 1.48
LOCKED ROTOR CURRENT		AMP 7.12
LOCKED ROTOR CURRENT/FULL LOAD CURRENT		P.U. 4.8
LOCKED ROTOR INPUT @ 100% VOLT		kW 3.801
FULL LOAD TORQUE		N.m. 3.70
LOCKED ROTOR TORQUE		N.m. 10.32
LOCKED ROTOR TORQUE/FULL LOAD TORQUE		P.U. 2.79
PULL OUT TORQUE		N.m. 10.8
PULL OUT TORQUE/FULL LOAD TORQUE		P.U. 2.92
PULL UP TORQUE		N.m. 6.13
PULL UP TORQUE/FULL LOAD TORQUE		P.U. 1.66
EFFICIENCY @ FULL LOAD		% 72.41
POWER FACTOR @ FULL LOAD		0.737
FULL LOAD SLIP		5.93%
FULL LOAD SPEED		r/min 1411
STATOR WINDING TEMPERATURE RISE	30 SECS	K 49.5
DE BEARING TEMPERATURE BY PT100		Deg. C 40.0
NDE BEARING TEMPERATURE BY PT100		Deg. C 40.0
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) 47.3
VIBRATION		mm/s 0.3
MOMENT OF INERTIA		kgm ² 0.0018
WEIGHT		kg 9.5

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

VALIADIS S.A.				SCALE	N/A		
				DATE		REV	
AK80 - 4 0.55 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	51.8	66.4	71.3	72.4	70.9	
PF	0.156	0.342	0.513	0.643	0.737	0.794	0.771
RPM	1500	1482	1461	1438	1411	1375	0
SLIP	0.00%	1.20%	2.60%	4.13%	5.93%	8.33%	100.00%
AMPS	1.07	1.09	1.16	1.29	1.48	1.76	7.12
VOLTS	400	400	400	400	400	400	400
TORQUE NM	0	0.86	1.79	2.72	3.70	4.77	10.32
KW INPUT	0.116	0.2579	0.4125	0.5744	0.7557	0.9686	3.801
KW OUTPUT	0	0.134	0.274	0.409	0.547	0.687	

LOSSES (kW)	25% LOAD	50% LOAD	75% LOAD	100% LOAD	125% LOAD
STATOR LOSS Pcu1	0.057	0.065	0.080	0.106	0.149
STATOR LOSS %	22.21%	15.72%	13.96%	13.97%	3.93%
ROTOR LOSS Pcu2	0.002	0.008	0.018	0.035	0.063
ROTOR LOSS %	0.66%	1.83%	3.14%	4.65%	1.67%
CORE LOSS Pfe	0.058	0.058	0.058	0.058	0.058
CORE LOSS %	22.49%	14.06%	10.10%	7.68%	1.53%
WINDGE/FRICTION Pfw	0.006	0.006	0.006	0.006	0.006
WINDGE/FRICTION %	2.33%	1.45%	1.04%	0.79%	0.16%
STRAY LOAD LOSS Ps	0.001	0.002	0.003	0.004	0.005
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	26.43334 OHMS @	20.0	DEG.C.	BETWEEN STATOR LEADS
STATOR RESISTANCE ADJUSTED	32.1346 OHMS @	75	DEG.C.	BETWEEN STATOR LEADS
STATOR RESISTANCE HOT	31.878 OHMS	after test of temp rise		BETWEEN STATOR LEADS
WINDING TEMPERATURE RISE	49.5 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	40.0 DEG.C.	at full load steady state at ambient		23.0 DEG.C.
PT100 TEMPERATURE OF NDE BEARING	40.0 DEG.C.	at full load steady state at ambient		23.0 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)	47.3	dB(A) 1meter	INSULATION RESISTANCE	500	MEG.OHMS
VIBRATION LEVEL	0.3	mm/sec on no load	D.E. BEARING		
WEIGHT	9.5	kg	N.D.E. BEARING		
H-POT TEST VOLTS	1800	VOLTS			

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				DATE		REV	
AK80 - 4				DRAWN		DOCUMENT NO.	
				APPRVD			
				CHECKED			
0.55	400	VOLTS	50	Hz	kW		

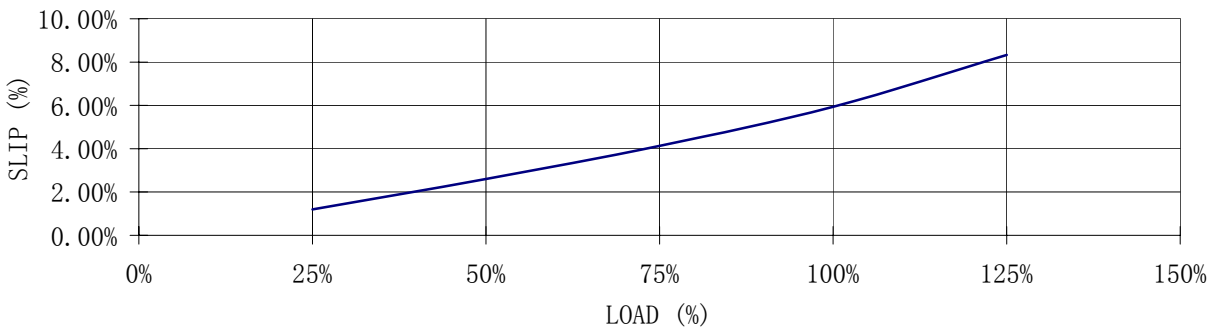
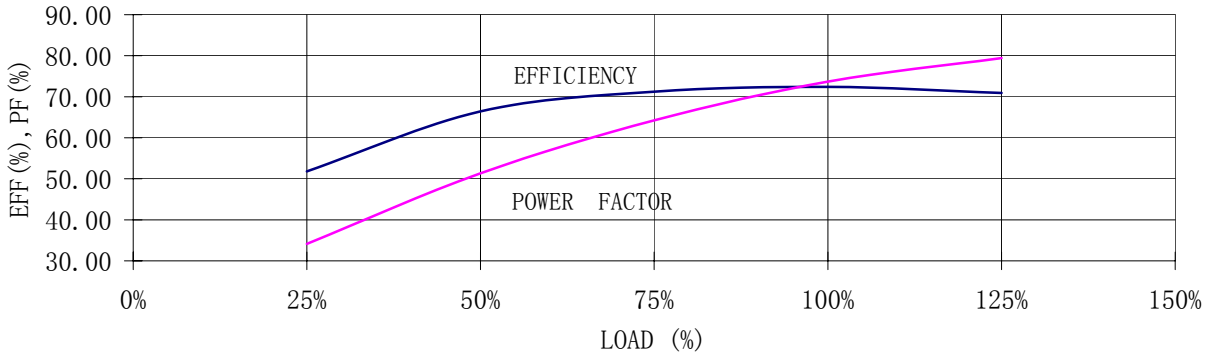
RESULT SUMMARY

VALIADIS S.A.

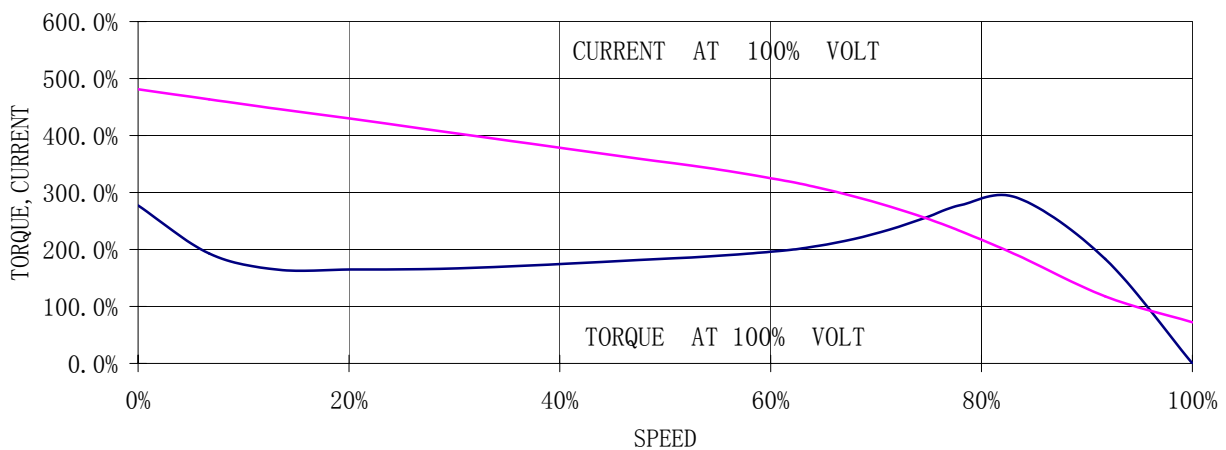
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LOAD TEST



SPEED VS TORQUE, CURRENT



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				DATE		REV
	AK80 - 4			DRAWN		DOCUMENT NO.
	0.55 kW			APPRVD		
400 VOLTS 50 Hz			CHECKED			

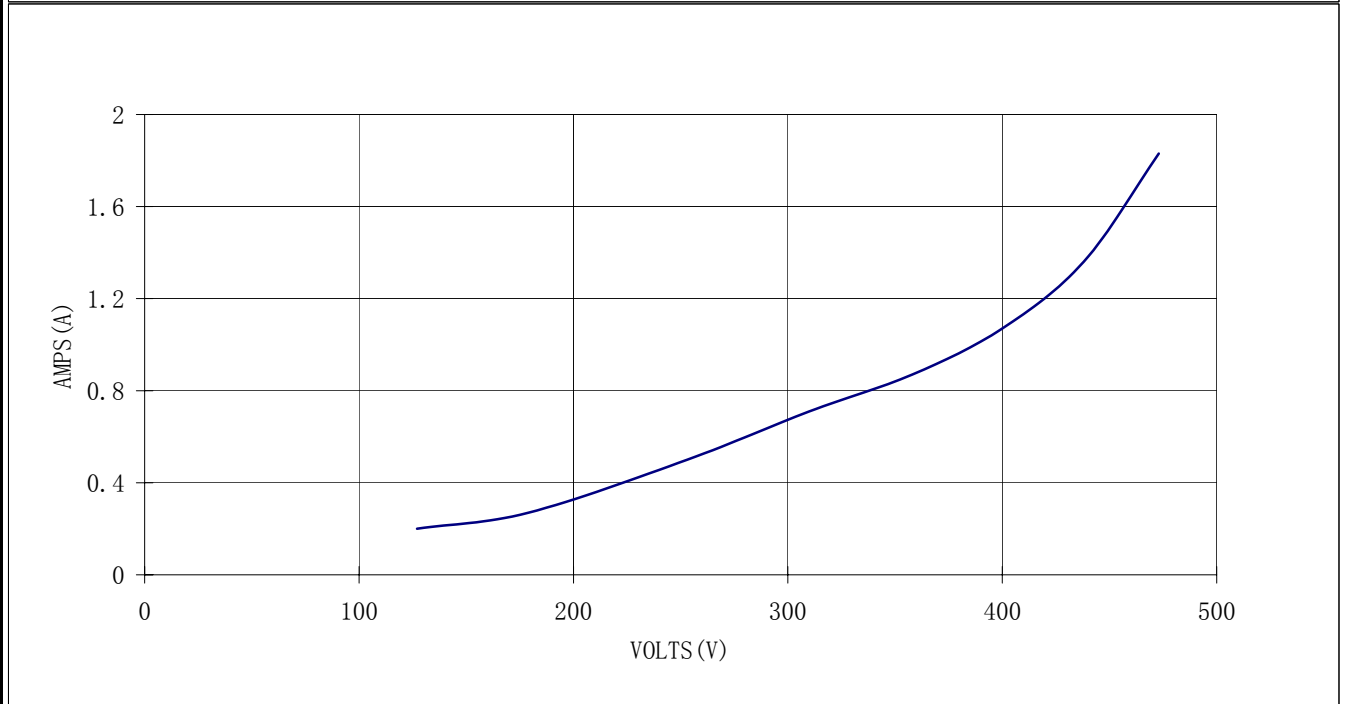
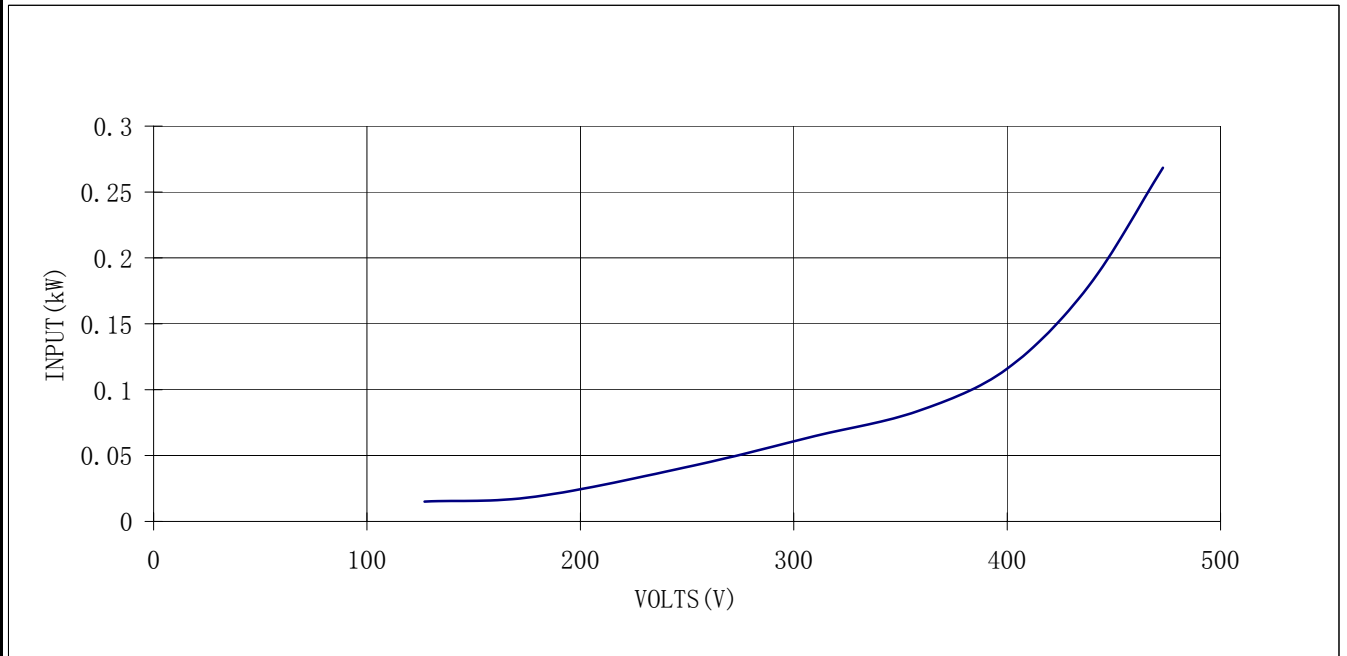
CURVE

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				DATE		REV
	AK80 - 4			DRAWN		DOCUMENT NO.
	0.55	kW		APPRVD		
400	VOLTS	50	CHECKED			

CURVE