

VALIADIS S.A.

ELECTRIC MOTOR TEST REPORT - THREE PHASE INDUCTION MOTOR

NAMEPLATE DATA		IEC TYPE		18,5 KW		1464 RPM	
K180M-4 FRAME		3 PHASE		400 VOLTS		50 HZ / CYCLES	
90,8 EFFICIENCY		33,3 AMPS		55 IP		IC411 IC	
4 POLE		S1 DUTY		0,883 PF		N/A EFF2	
VALIADIS MANUFACTURER		SERIAL NO.		F INS.CLASS		DELTA CONNECTION	

TEST DATA	NO LOAD	25% LOAD	50% LOAD	75% LOAD	100% LOAD	110% LOAD	125% LOAD	LOCKED ROTOR
	EFFICIENCY	0	85,73	90,14	91,06	90,83	90,61	90,05
PF	0,083	0,574	0,762	0,842	0,883	0,893	0,900	0,472
RPM	1500	1492	1483	1474	1464	1460	1453	0
SLIP	0,00%	0,53%	1,13%	1,74%	2,38%	2,65%	3,15%	100,00%
AMPS	11,50	13,57	19,44	26,12	33,31	36,29	41,17	229,5
VOLTS	400	400	400	400	400	400	400	400
TORQUE NM	0	29,6	59,6	89,9	120,7	133,1	152,1	257,7
KW INPUT	0,661	5,39	10,26	15,24	20,37	22,46	25,68	75,10
KW OUTPUT	0	4,63	9,25	13,88	18,50	20,35	23,13	

LOSSES(kw)	25% LOAD	50% LOAD	75% LOAD	100% LOAD	110% LOAD	125%LOAD
STATOR LOSS Pcu1	0,117	0,239	0,432	0,702	0,83	1,07
STATOR LOSS %	2,16%	2,33%	2,83%	3,45%	3,71%	4,18%
ROTOR LOSS Pcu2	0,026	0,108	0,249	0,457	0,56	0,76
ROTOR LOSS %	0,47%	1,05%	1,63%	2,24%	2,50%	2,96%
CORE LOSS Pfe	0,462	0,462	0,462	0,462	0,462	0,462
CORE LOSS %	8,57%	4,51%	3,03%	2,27%	2,06%	1,80%
WINDAGE/FRICTION Pfw	0,134	0,134	0,134	0,134	0,134	0,134
WINDAGE/FRICTION %	2,48%	1,31%	0,88%	0,66%	0,60%	0,52%
STRAY LOAD LOSS Ps	0,027	0,051	0,076	0,102	0,112	0,128
STRAY LOAD LOSS %	0,50%	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	0,3256333 OHMS @	15,9 DEG.C.	BETWEEN STATOR LEADS
STATOR RESISTANCE ADJUSTED	0,422 OHMS @	90 DEG.C.	BETWEEN STATOR LEADS
STATOR RESISTANCE HOT	0,426 OHMS	after test of temp rise	BETWEEN STATOR LEADS
WINDING TEMPERATURE RISE	69,3 DEG.C.	at full load steady state at	30 SECS
WINDING TEMPERATURE RISE	72,6 DEG.C.	at full load steady state at	0 SECS
PT100 TEMPERATURE OF DE WINDING	93,2 DEG.C.	at full load steady state at ambient	16,4 DEG.C.
PT100 TEMPERATURE OF NDE WINDING	N/A DEG.C.	at full load steady state at ambient	16,4 DEG.C.
PT100 TEMPERATURE DE BEARING	73,9 DEG.C.	at full load steady state at ambient	16,4 DEG.C.
PT100 TEMPERATURE NDE BEARING	N/A DEG.C.	at full load steady state at ambient	16,4 DEG.C.
PT100 TEMPERATURE IN TERMINAL BOX	48,7 DEG.C.	at full load steady state at ambient	16,4 DEG.C.
PT100 TEMPERATURE ON STATOR LEADS	50,6 DEG.C.	at full load steady state at ambient	16,4 DEG.C.

OTHER			
NOISE LEVEL(Lp)	64 dB(A) @ 1meter	INSULATION RESISTANCE	500 MEG.OHMS
VIBRATION LEVEL	0,6 mm/sec on no load	D.E. BEARING	6311C3
WEIGHT	190 kg	N.D.E.BEARING	6311C3
H-POT TEST VOLTS	1800 VOLTS		

VALIADIS S.A.		SCALE	N/A	
		DATE		REV
K180M-4 18,5 kW 400 VOLTS 50 Hz		DRAWN		DOCUMENT NO.
		APPRVD		
		CHECKED		

RESULT SUMMARY

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VALIADIS MANUFACTURER	SERIAL NO.	F INS.CLASS	DELTA CONNECTION

MAJOR CONTENTS	UNIT	TEST VALUE
STATOR RESISTANCE OF PHASE TO PHASE	90 DEG.C	OHM 0,422
NO LOAD CURRENT		AMP 11,50
NO LOAD INPUT		kW 0,661
CORE LOSS(Pfe)		kW 0,462
WINDAGE FRICTION LOSS(Pfw)		kW 0,134
STATOR WINDING LOSS(Pcu1)		kW 0,702
ROTOR WINDING LOSS(Pcu2)		kW 0,457
STRAY LOAD LOSS(Ps)		kW 0,102
FULL LOAD CURRENT		AMP 33,31
LOCKED ROTOR CURRENT		AMP 229,53
LOCKED ROTOR CURRENT/FULL LOAD CURRENT		P.U. 6,9
LOCKED ROTOR INPUT @ FULL LOAD		kW 75,10
FULL LOAD TORQUE		N.m 120,71
LOCKED ROTOR TORQUE		N.m 257,68
LOCKED ROTOR TORQUE/FULL LOAD TORQUE		P.U. 2,13
PULL OUT TORQUE		N.m 372,6
PULL OUT TORQUE/FULL LOAD TORQUE		P.U. 3,09
PULL UP TORQUE		N.m 231,64
PULL UP TORQUE/FULL LOAD TORQUE		P.U. 1,92
EFFICIENCY @ FULL LOAD		% 90,83
POWER FACTOR @ FULL LOAD		0,883
FULL LOAD SLIP		% 2,380
FULL LOAD SPEED		r/min 1464
STATOR WINDING TEMPERATURE RISE	30 SECS	K 69,3
D.E. BEARINGS TEMPERATURE BY PT100		Deg. C 73,9
TEMPERATURE ON LEADS BY PT100		Deg. C 50,6
TEMPERATURE IN TERMINAL BOX BY PT100		Deg. C 48,7
AMBIENT TEMPERATURE OF TESTING		Deg. C 16,4
SOUND PRESSURE LEVEL		dB(A) 64
VIBRATION		mm/s 0,6
MOMENT OF INERTIA		kgm2 0,1390
WEIGHT		kg 190

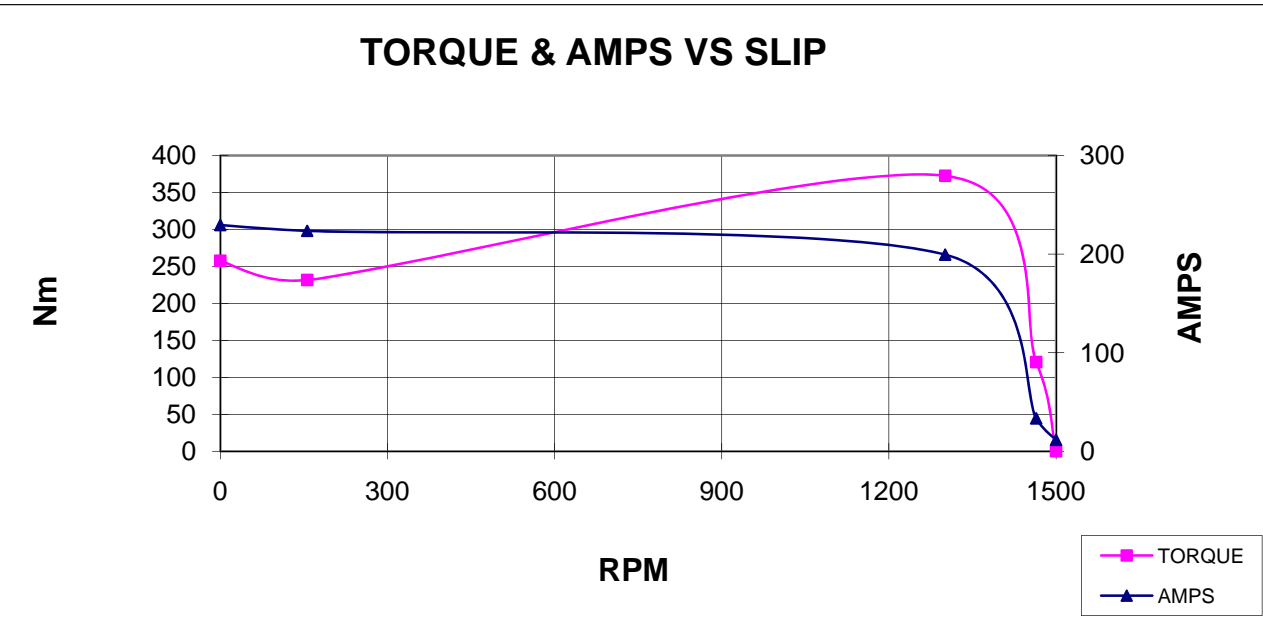
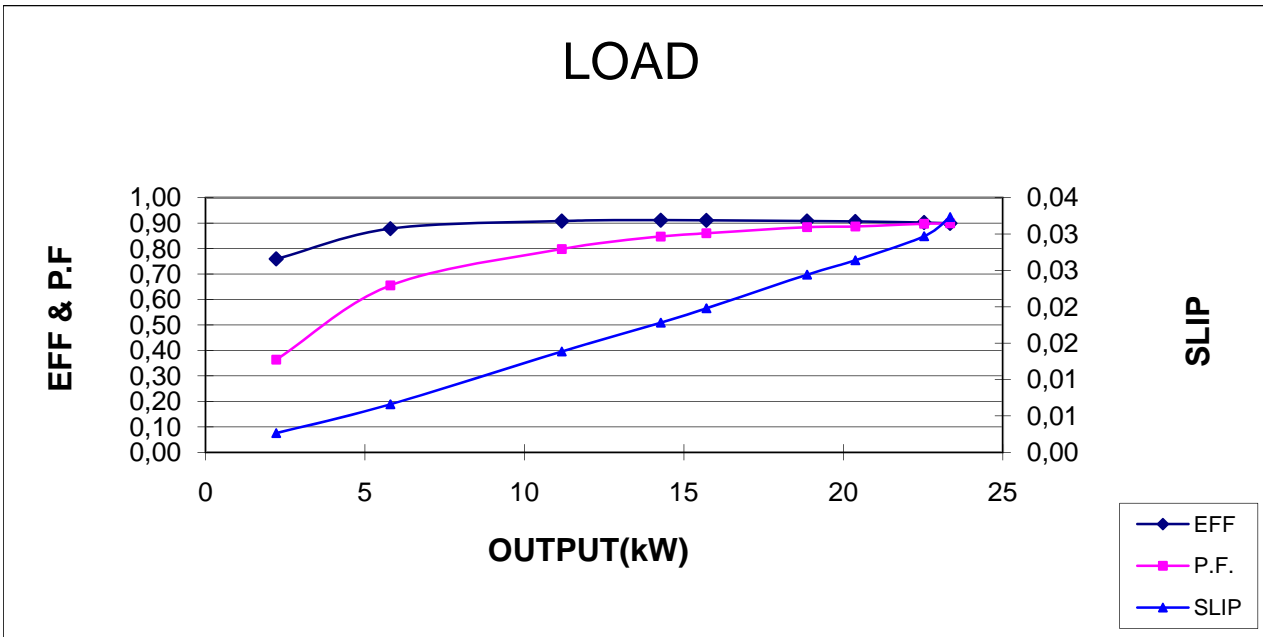
The data above is calculated as per IEC 34-2,all data at nominal Volts

VALIADIS S.A. K180M-4 18,5 kW 400 VOLTS 50 Hz	SCALE	N/A	
	DATE		REV
	DRAWN		DOCUMENT NO.
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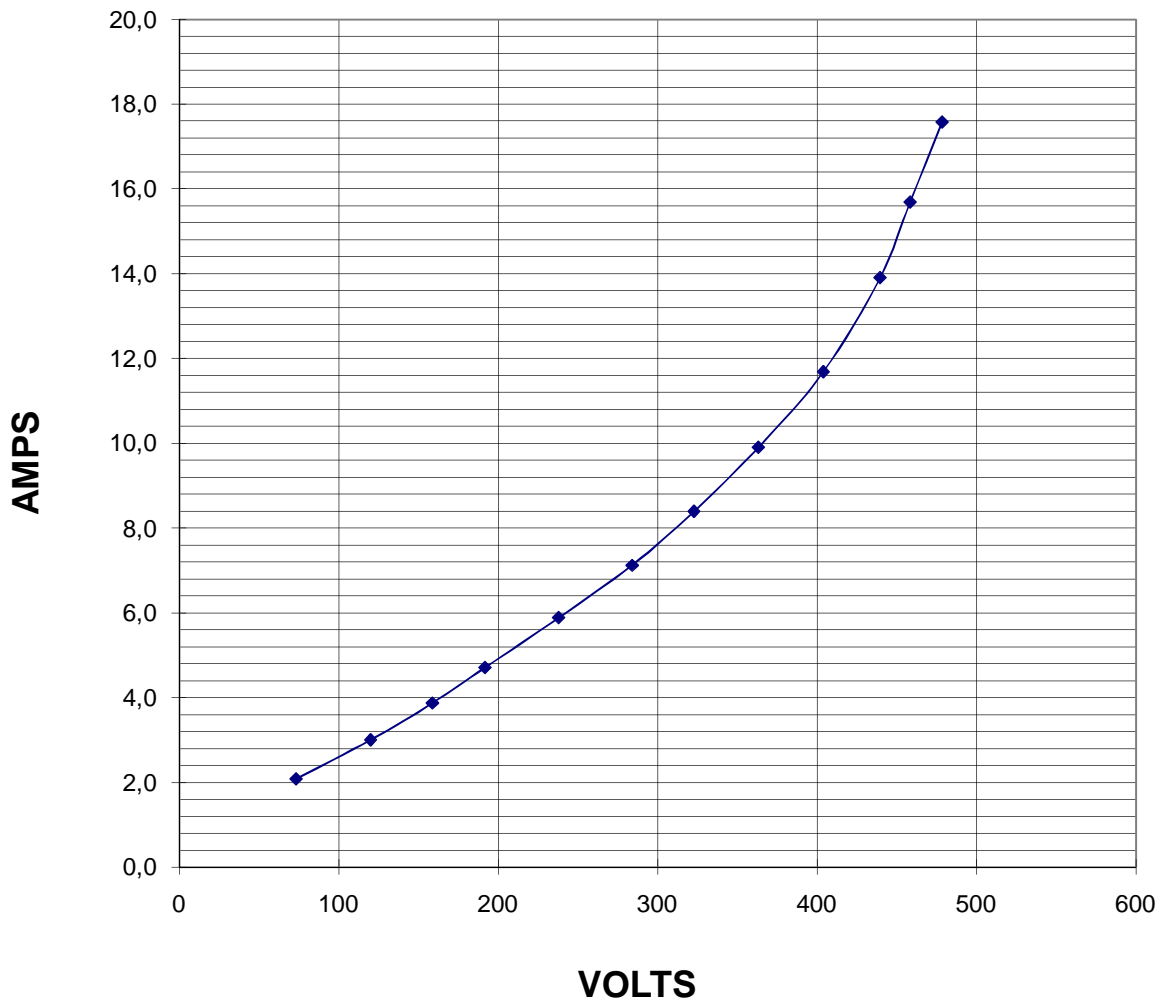
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MAGNETIZATION CURVE - NO LOAD



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18,5 kW	APPRVD		
400 VOLTS	CHECKED		
50 Hz			