

VALIADIS S.A.

ELECTRIC MOTOR TEST REPORT - THREE PHASE INDUCTION MOTOR

NAMEPLATE DATA	IEC TYPE	11 KW	1459 RPM
K160M-4 FRAME	3 PHASE	400 VOLTS	50 HZ / CYCLES
88.7 EFFICIENCY	20.50 AMPS	54 IP	IC411 IC
4 POLE	S1 DUTY	0.874 PF	N/A EFF2
VALIADIS MANUFACTURER	SERIAL NO.	F INS.CLASS	DELTA CONNECTION

TEST DATA	LOCKED ROTOR							
	NO LOAD	25% LOAD	50% LOAD	75% LOAD	100% LOAD	110% LOAD	125% LOAD	ROTOR
EFFICIENCY	0	81.71	86.85	88.63	88.67	88.51	87.88	
PF	0.116	0.577	0.746	0.833	0.874	0.882	0.880	0.517
RPM	1500	1492	1482	1472	1459	1454	1445	0
SLIP	0.00%	0.51%	1.19%	1.90%	2.72%	3.09%	3.67%	100.00%
AMPS	7.31	8.42	12.26	16.13	20.50	22.36	25.67	150.5
VOLTS	400	400	400	400	400	400	400	400
TORQUE NM	0	17.6	35.5	53.6	72.0	79.5	90.9	171.0
KW INPUT	0.589	3.37	6.33	9.31	12.41	13.67	15.65	53.95
KW OUTPUT	0	2.75	5.50	8.25	11.00	12.10	13.75	

LOSSES(kw)	25% LOAD	50% LOAD	75% LOAD	100% LOAD	110% LOAD	125%LOAD
STATOR LOSS Pcu1	0.079	0.167	0.289	0.467	0.56	0.73
STATOR LOSS %	2.34%	2.64%	3.11%	3.76%	4.07%	4.68%
ROTOR LOSS Pcu2	0.015	0.070	0.165	0.316	0.40	0.54
ROTOR LOSS %	0.45%	1.11%	1.77%	2.55%	2.89%	3.43%
CORE LOSS Pfe	0.302	0.302	0.302	0.302	0.302	0.302
CORE LOSS %	8.99%	4.78%	3.25%	2.44%	2.21%	1.93%
WINDAGE/FRICTION Pfw	0.243	0.243	0.243	0.243	0.243	0.243
WINDAGE/FRICTION %	7.21%	3.83%	2.61%	1.96%	1.78%	1.55%
STRAY LOAD LOSS Ps	0.017	0.032	0.047	0.062	0.068	0.078
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	0.5454 OHMS @	7.9 DEG.C.	BETWEEN STATOR LEADS
STATOR RESISTANCE ADJUSTED	0.741 OHMS @	95 DEG.C.	BETWEEN STATOR LEADS
STATOR RESISTANCE HOT	0.702 OHMS	after test of temp rise	BETWEEN STATOR LEADS
WINDING TEMPERATURE RISE	62.2 DEG.C.	at full load steady state at	30 SECS
WINDING TEMPERATURE RISE	65.0 DEG.C.	at full load steady state at	0 SECS
PT100 TEMPERATURE OF DE WINDING	75.9 DEG.C.	at full load steady state at ambient	8.1 DEG.C.
PT100 TEMPERATURE OF NDE WINDING	N/A DEG.C.	at full load steady state at ambient	8.1 DEG.C.
PT100 TEMPERATURE DE BEARING	56.4 DEG.C.	at full load steady state at ambient	8.1 DEG.C.
PT100 TEMPERATURE NDE BEARING	N/A DEG.C.	at full load steady state at ambient	8.1 DEG.C.
PT100 TEMPERATURE IN TERMINAL BOX	38.6 DEG.C.	at full load steady state at ambient	8.1 DEG.C.
PT100 TEMPERATURE ON STATOR LEADS	40.3 DEG.C.	at full load steady state at ambient	8.1 DEG.C.

OTHER

NOISE LEVEL(Lp)	69	dB(A) @ 1meter	INSULATION RESISTANCE	300	MEG.OHMS
VIBRATION LEVEL	1.2	mm/sec on no load	D.E. BEARING	180309-KZ2	
WEIGHT	123	kg	N.D.E.BEARING	180209-KZ2	
H-POT TEST VOLTS	1800	VOLTS			

VALIADIS S.A. K160M-4 11 kW 400 VOLTS 50 Hz	SCALE	N/A		
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	APPRVD			
	CHECKED			

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MAJOR CONTENTS	UNIT	TEST VALUE
STATOR RESISTANCE OF PHASE TO PHASE	95 DEG.C	OHM 0.741
NO LOAD CURRENT		AMP 7.31
NO LOAD INPUT		kW 0.589
CORE LOSS(Pfe)		kW 0.302
WINDAGE FRICTION LOSS(Pfw)		kW 0.243
STATOR WINDING LOSS(Pcu1)		kW 0.467
ROTOR WINDING LOSS(Pcu2)		kW 0.316
STRAY LOAD LOSS(Ps)		kW 0.062
FULL LOAD CURRENT		AMP 20.50
LOCKED ROTOR CURRENT		AMP 150.5
LOCKED ROTOR CURRENT/FULL LOAD CURRENT		P.U. 7.3
LOCKED ROTOR INPUT @ FULL LOAD		kW 53.95
FULL LOAD TORQUE		N.m 72.0
LOCKED ROTOR TORQUE		N.m 170.99
LOCKED ROTOR TORQUE/FULL LOAD TORQUE		P.U. 2.37
PULL OUT TORQUE		N.m 208.94
PULL OUT TORQUE/FULL LOAD TORQUE		P.U. 2.90
PULL UP TORQUE		N.m 139.36
PULL UP TORQUE/FULL LOAD TORQUE		P.U. 1.94
EFFICIENCY @ FULL LOAD		% 88.67
POWER FACTOR @ FULL LOAD		0.874
FULL LOAD SLIP		% 2.717
FULL LOAD SPEED		r/min 1459
STATOR WINDING TEMPERATURE RISE	30 SECS	K 62.2
D.E. BEARINGS TEMPERATURE BY PT100		Deg. C 56.4
TEMPERATURE ON LEADS BY PT100		Deg. C 40.3
TEMPERATURE IN TERMINAL BOX BY PT100		Deg. C 38.6
AMBIENT TEMPERATURE OF TESTING		Deg. C 8.1
SOUND PRESSURE LEVEL		dB(A) 69
VIBRATION		mm/s 1.2
MOMENT OF INERTIA		kgm2 0.075
WEIGHT		kg 123

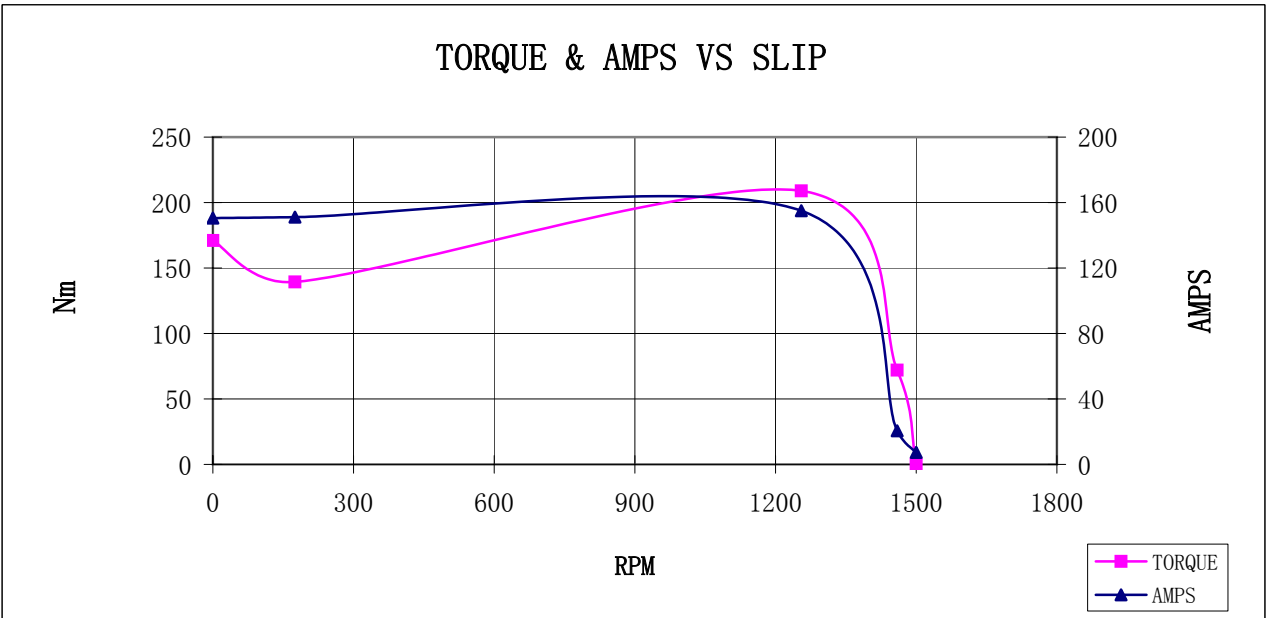
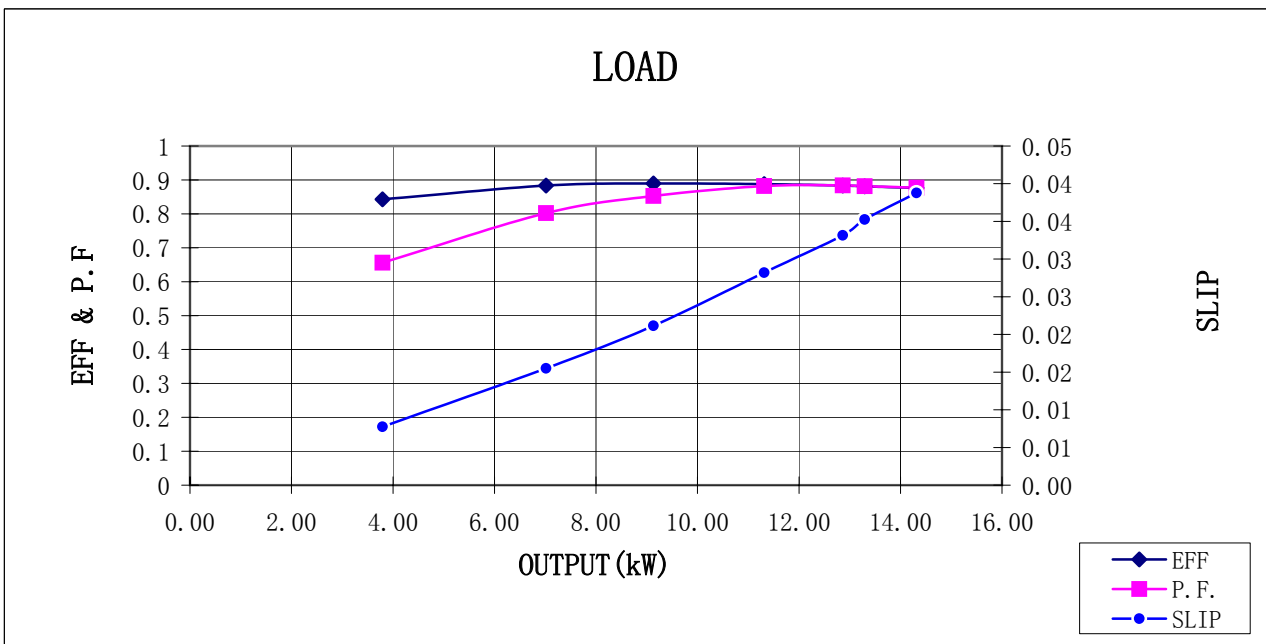
The data above is calculated as per IEC 34-2,all data at nominal Volts

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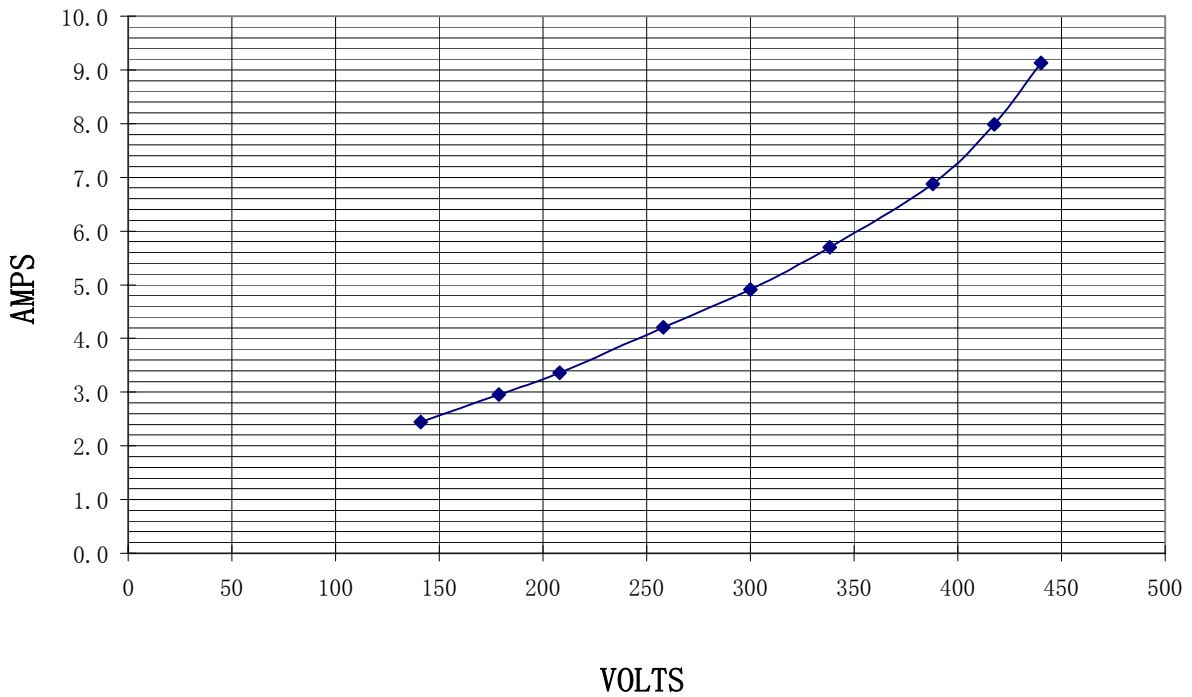
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MAGNETIZATION CURVE - NO LOAD



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