

VALIADIS S.A.

ELECTRIC MOTOR TEST REPORT - THREE PHASE INDUCTION MOTOR

NAMEPLATE DATA		IEC TYPE		55 KW		1476 RPM	
K250M-4 FRAME		3 PHASE		400 VOLTS		50 HZ / CYCLES	
93.3 EFFICIENCY		95.7 AMPS		55 IP		IC411 IC	
4 POLE		S1 DUTY		0.889 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	87.84	92.26	93.23	93.32	93.23	92.89	
PF	0.083	0.670	0.838	0.878	0.889	0.886	0.877	0.478
RPM	1500	1494	1488	1482	1476	1473	1469	0
SLIP	0.00%	0.43%	0.78%	1.18%	1.60%	1.77%	2.07%	100.00%
AMPS	29.67	33.70	51.35	72.71	95.74	105.70	121.75	572.0
VOLTS	400	400	400	400	400	400	400	400
TORQUE NM	0	88.0	176.5	265.9	356.0	392.3	447.1	818.9
KW INPUT	1.697	15.65	29.81	44.24	58.94	64.89	74.01	189.60
KW OUTPUT	0	13.75	27.50	41.25	55.00	60.50	68.75	

LOSSES(kw)	25% LOAD	50% LOAD	75% LOAD	100% LOAD	110% LOAD	125%LOAD
STATOR LOSS Pcu1	0.136	0.315	0.632	1.096	1.34	1.77
STATOR LOSS %	0.87%	1.06%	1.43%	1.86%	2.06%	2.39%
ROTOR LOSS Pcu2	0.062	0.223	0.500	0.906	1.11	1.47
ROTOR LOSS %	0.40%	0.75%	1.13%	1.54%	1.71%	1.99%
CORE LOSS Pfe	1.067	1.067	1.067	1.067	1.067	1.067
CORE LOSS %	6.82%	3.58%	2.41%	1.81%	1.64%	1.44%
WINDAGE/FRICTION Pfw	0.543	0.543	0.543	0.543	0.543	0.543
WINDAGE/FRICTION %	3.47%	1.82%	1.23%	0.92%	0.84%	0.73%
STRAY LOAD LOSS Ps	0.078	0.149	0.221	0.295	0.324	0.370
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	0.0631367 OHMS @	22.4 DEG.C.	BETWEEN STATOR LEADS
STATOR RESISTANCE ADJUSTED	0.080 OHMS @	90 DEG.C.	BETWEEN STATOR LEADS
STATOR RESISTANCE HOT	0.082 OHMS	after test of temp rise	BETWEEN STATOR LEADS
WINDING TEMPERATURE RISE	65.4 DEG.C.	at full load steady state at	90 SECS
WINDING TEMPERATURE RISE	71.3 DEG.C.	at full load steady state at	0 SECS
PT100 TEMPERATURE OF DE WINDING	100.7 DEG.C.	at full load steady state at ambient	25 DEG.C.
PT100 TEMPERATURE OF NDE WINDING	NO DEG.C.	at full load steady state at ambient	25 DEG.C.
PT100 TEMPERATURE DE BEARING	71.3 DEG.C.	at full load steady state at ambient	25 DEG.C.
PT100 TEMPERATURE NDE BEARING	N/A DEG.C.	at full load steady state at ambient	25 DEG.C.
PT100 TEMPERATURE IN TERMINAL BOX	47.7 DEG.C.	at full load steady state at ambient	25 DEG.C.
PT100 TEMPERATURE ON STATOR LEADS	55.1 DEG.C.	at full load steady state at ambient	25 DEG.C.

OTHER			
NOISE LEVEL(Lp)	75	dB(A) @ 1meter	INSULATION RESISTANCE 500 MEG.OHMS
VIBRATION LEVEL	2.1	mm/sec on no load	D.E. BEARING 6314 C3
WEIGHT	448	kg	N.D.E.BEARING 6313 C3
H-POT TEST VOLTS	1800	VOLTS	

VALIADIS S.A. K250M-4 55 kW 400 VOLTS 50 Hz	SCALE	N/A	
	DATE		REV
	DRAWN		DOCUMENT NO.
	APPRVD		
CHECKED			

RESULT SUMMARY

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93.3 EFFICIENCY	95.7 AMPS	55 IP	IC411 IC
4 POLE	S1 DUTY	0.889 PF	N/A EFF2
VALIADIS MANUFACTURER	SERIAL NO.	F INS.CLASS	DELTA CONNECTION

MAJOR CONTENTS	UNIT	TEST VALUE
STATOR RESISTANCE OF PHASE TO PHASE	90 DEG.C	0.079718
NO LOAD CURRENT	AMP	29.67
NO LOAD INPUT	kW	1.697
CORE LOSS(Pfe)	kW	1.067
WINDAGE FRICTION LOSS(Pfw)	kW	0.543
STATOR WINDING LOSS(Pcu1)	kW	1.096
ROTOR WINDING LOSS(Pcu2)	kW	0.906
STRAY LOAD LOSS(Ps)	kW	0.295
FULL LOAD CURRENT	AMP	95.74
LOCKED ROTOR CURRENT	AMP	572.01
LOCKED ROTOR CURRENT/FULL LOAD CURRENT	P.U.	6.0
LOCKED ROTOR INPUT @ FULL LOAD	kW	189.60
FULL LOAD TORQUE	N.m	356.00
LOCKED ROTOR TORQUE	N.m	818.93
LOCKED ROTOR TORQUE/FULL LOAD TORQUE	P.U.	2.30
PULL OUT TORQUE	N.m	902.6
PULL OUT TORQUE/FULL LOAD TORQUE	P.U.	2.54
PULL UP TORQUE	N.m	604.89
PULL UP TORQUE/FULL LOAD TORQUE	P.U.	1.70
EFFICIENCY @ FULL LOAD	%	93.32
POWER FACTOR @ FULL LOAD		0.889
FULL LOAD SLIP	%	1.595
FULL LOAD SPEED	r/min	1476
STATOR WINDING TEMPERATURE RISE	90 SECS	K
D.E. BEARINGS TEMPERATURE BY PT100		Deg. C
TEMPERATURE ON LEADS BY PT100		Deg. C
TEMPERATURE IN TERMINAL BOX BY PT100		Deg. C
AMBIENT TEMPERATURE OF TESTING		Deg. C
SOUND PRESSURE LEVEL		dB(A)
VIBRATION		mm/s
MOMENT OF INERTIA		kgm2
WEIGHT		kg

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

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 4 POLE
 VALIADIS MANUFACTURER

IEC TYPE

3 PHASE
 95.7 AMPS
 S1 DUTY
 SERIAL NO.

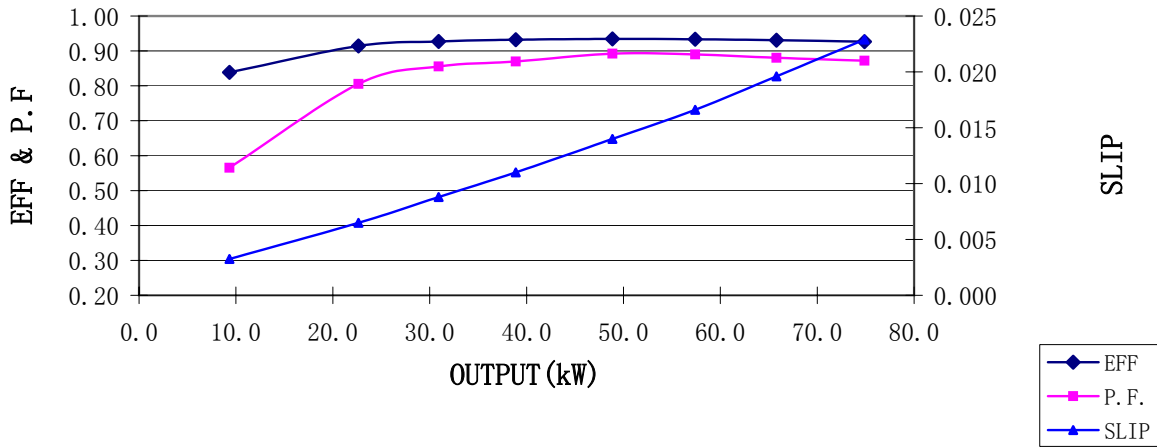
55 KW

400 VOLTS
 55 IP
 0.889 PF
 F INS.CLASS

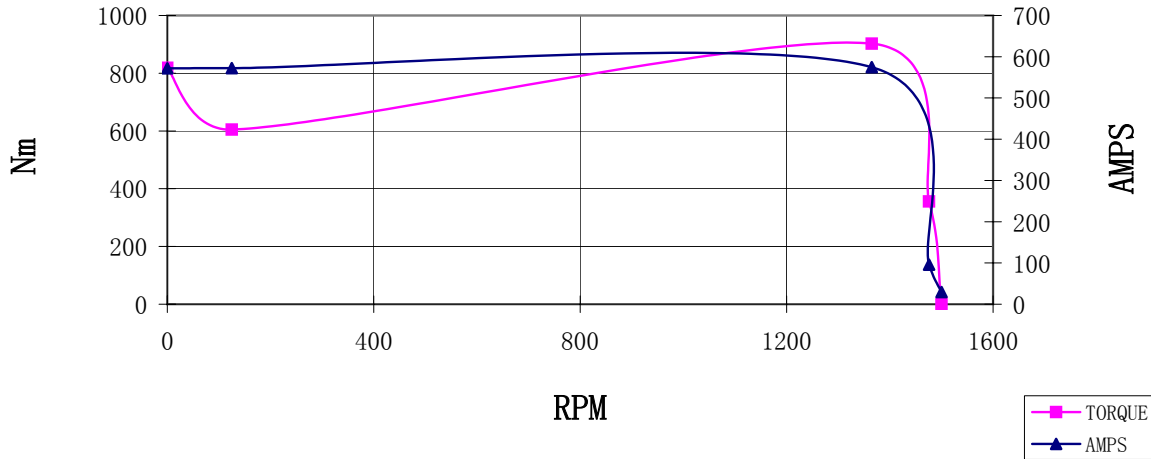
1476 RPM

50 HZ / CYCLES
 IC411 IC
 N/A EFF2
 DELTA CONNECTION

LOAD



TORQUE & AMPS VS SLIP



VALIADIS S.A.	SCALE	N/A	
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95.7 AMPS

S1 DUTY

SERIAL NO.

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400 VOLTS

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1476 RPM

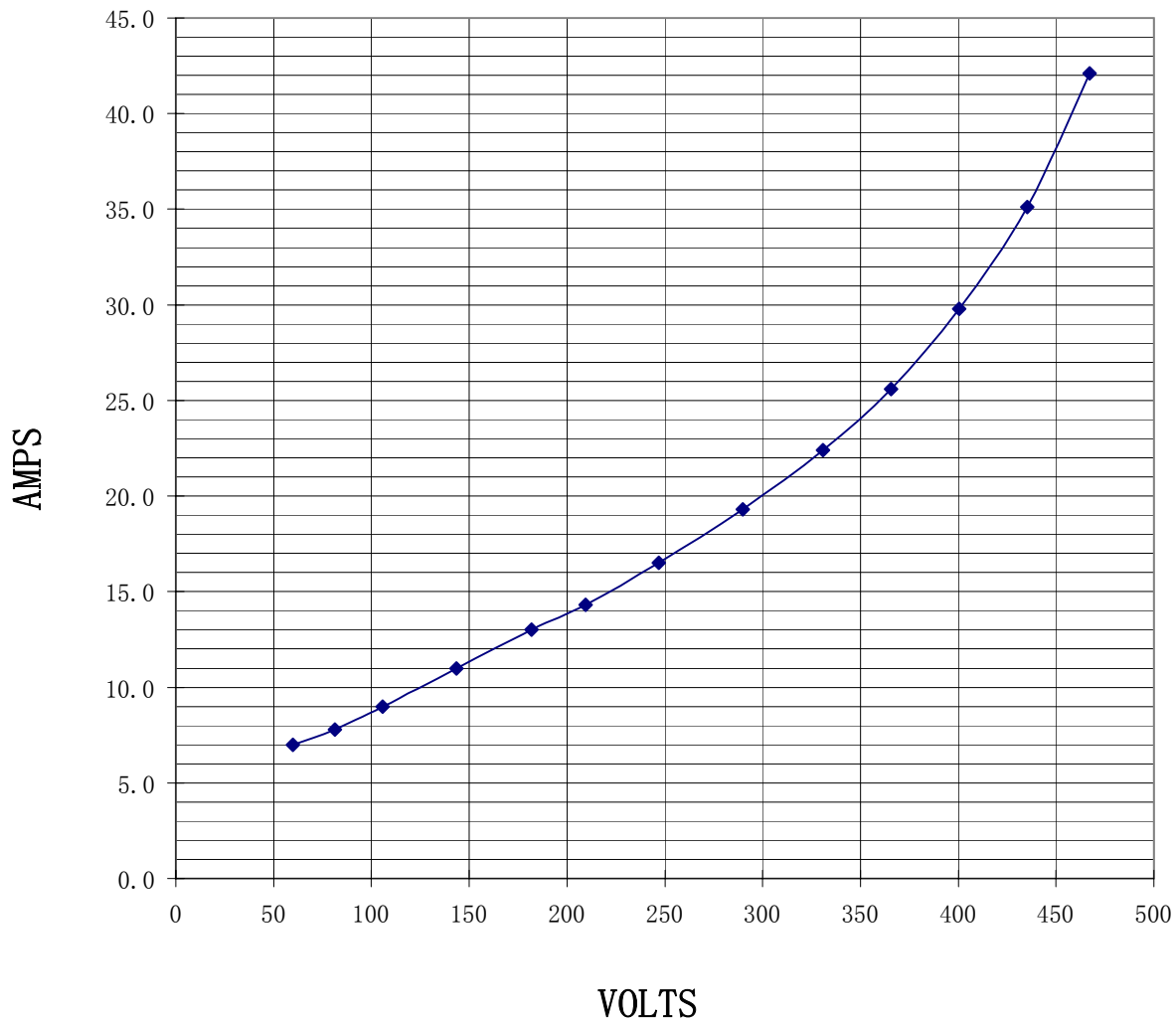
50 HZ / CYCLES

IC411 IC

N/A EFF2

DELTA CONNECTION

MAGNETIZATION CURVE - NO LOAD



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