

# VALIADIS S.A.

## ELECTRIC MOTOR TEST REPORT - THREE PHASE INDUCTION MOTOR

NAMEPLATE DATA		IEC TYPE		110 KW		1483 RPM	
K315S-4 FRAME		3 PHASE		400 VOLTS		50 HZ / CYCLES	
95.1 EFFICIENCY		187.8 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								LOCKED
	NO LOAD	25% LOAD	50% LOAD	75% LOAD	100% LOAD	110% LOAD	125% LOAD	ROTOR
EFFICIENCY	0	91.18	94.17	94.98	95.06	95.00	94.84	
PF	0.067	0.697	0.825	0.875	0.889	0.888	0.884	0.354
RPM	1500	1495	1491	1487	1483	1482	1479	0
SLIP	0.00%	0.31%	0.59%	0.84%	1.10%	1.22%	1.41%	100.00%
AMPS	51.37	62.50	102.19	143.27	187.82	207.10	236.84	1216.9
VOLTS	400	400	400	400	400	400	400	400
TORQUE NM	0	175.7	352.4	529.9	708.4	780.2	888.3	1568.4
KW INPUT	2.379	30.16	58.41	86.86	115.71	127.37	144.98	298.04
KW OUTPUT	0	27.50	55.00	82.50	110.00	121.00	137.50	

LOSSES(kw)	25% LOAD	50% LOAD	75% LOAD	100% LOAD	110% LOAD	125%LOAD
STATOR LOSS Pcu1	0.174	0.466	0.916	1.574	1.91	2.50
STATOR LOSS %	0.58%	0.80%	1.05%	1.36%	1.50%	1.73%
ROTOR LOSS Pcu2	0.088	0.332	0.711	1.244	1.51	1.99
ROTOR LOSS %	0.29%	0.57%	0.82%	1.07%	1.18%	1.37%
CORE LOSS Pfe	1.295	1.295	1.295	1.295	1.295	1.295
CORE LOSS %	4.29%	2.22%	1.49%	1.12%	1.02%	0.89%
WINDAGE/FRICTION Pfw	0.985	0.985	0.985	0.985	0.985	0.985
WINDAGE/FRICTION %	3.27%	1.69%	1.13%	0.85%	0.77%	0.68%
STRAY LOAD LOSS Ps	0.151	0.292	0.434	0.579	0.637	0.725
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	0.0238933 OHMS @	26 DEG.C.	BETWEEN STATOR LEADS
STATOR RESISTANCE ADJUSTED	0.030 OHMS @	90 DEG.C.	BETWEEN STATOR LEADS
STATOR RESISTANCE HOT	0.031 OHMS	after test of temp rise	BETWEEN STATOR LEADS
WINDING TEMPERATURE RISE	69.3 DEG.C.	at full load steady state at	90 SECS
WINDING TEMPERATURE RISE	75.8 DEG.C.	at full load steady state at	0 SECS
PT100 TEMPERATURE OF DE WINDING	105.5 DEG.C.	at full load steady state at ambient	28.6 DEG.C.
PT100 TEMPERATURE OF NDE WINDING	NO DEG.C.	at full load steady state at ambient	28.6 DEG.C.
PT100 TEMPERATURE DE BEARING	76.1 DEG.C.	at full load steady state at ambient	28.6 DEG.C.
PT100 TEMPERATURE NDE BEARING	N/A DEG.C.	at full load steady state at ambient	28.6 DEG.C.
PT100 TEMPERATURE IN TERMINAL BOX	47.2 DEG.C.	at full load steady state at ambient	28.6 DEG.C.
PT100 TEMPERATURE ON STATOR LEADS	58.5 DEG.C.	at full load steady state at ambient	28.6 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 6319 C3
WEIGHT	1000	kg	N.D.E.BEARING 6319 C3
H-POT TEST VOLTS	1800	VOLTS	

<b>VALIADIS S.A.</b> <b>K315S-4</b> <b>110 kW</b> <b>400 VOLTS      50 Hz</b>	SCALE	N/A	
	DATE		REV
	DRAWN		DOCUMENT NO.
	APPRVD		
CHECKED			

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<b>95.1 EFFICIENCY</b>	<b>187.8 AMPS</b>	<b>55 IP</b>	<b>IC411 IC</b>
<b>4 POLE</b>	<b>S1 DUTY</b>	<b>0.889 PF</b>	<b>N/A EFF2</b>
<b>VALIADIS MANUFACTURER</b>	<b>SERIAL NO.</b>	<b>F INS.CLASS</b>	<b>DELTA CONNECTION</b>

MAJOR CONTENTS	UNIT	TEST VALUE
STATOR RESISTANCE OF PHASE TO PHASE	90 DEG.C	0.029752
NO LOAD CURRENT	AMP	51.37
NO LOAD INPUT	kW	2.379
CORE LOSS(Pfe)	kW	1.295
WINDAGE FRICTION LOSS(Pfw)	kW	0.985
STATOR WINDING LOSS(Pcu1)	kW	1.574
ROTOR WINDING LOSS(Pcu2)	kW	1.244
STRAY LOAD LOSS(Ps)	kW	0.579
FULL LOAD CURRENT	AMP	187.82
LOCKED ROTOR CURRENT	AMP	1216.93
LOCKED ROTOR CURRENT/FULL LOAD CURRENT	P.U.	6.5
LOCKED ROTOR INPUT @ FULL LOAD	kW	298.04
FULL LOAD TORQUE	N.m	708.45
LOCKED ROTOR TORQUE	N.m	1568.39
LOCKED ROTOR TORQUE/FULL LOAD TORQUE	P.U.	2.21
PULL OUT TORQUE	N.m	2059.7
PULL OUT TORQUE/FULL LOAD TORQUE	P.U.	2.91
PULL UP TORQUE	N.m	1246.23
PULL UP TORQUE/FULL LOAD TORQUE	P.U.	1.76
EFFICIENCY @ FULL LOAD	%	95.06
POWER FACTOR @ FULL LOAD		0.889
FULL LOAD SLIP	%	1.102
FULL LOAD SPEED	r/min	1483
STATOR WINDING TEMPERATURE RISE	90 SECS	69.3
D.E. BEARINGS TEMPERATURE BY PT100	Deg. C	76.1
TEMPERATURE ON LEADS BY PT100	Deg. C	58.5
TEMPERATURE IN TERMINAL BOX BY PT100	Deg. C	47.2
AMBIENT TEMPERATURE OF TESTING	Deg. C	28.6
SOUND PRESSURE LEVEL	dB(A)	75
VIBRATION	mm/s	2.1
MOMENT OF INERTIA	kgm2	3.1100
WEIGHT	kg	1000

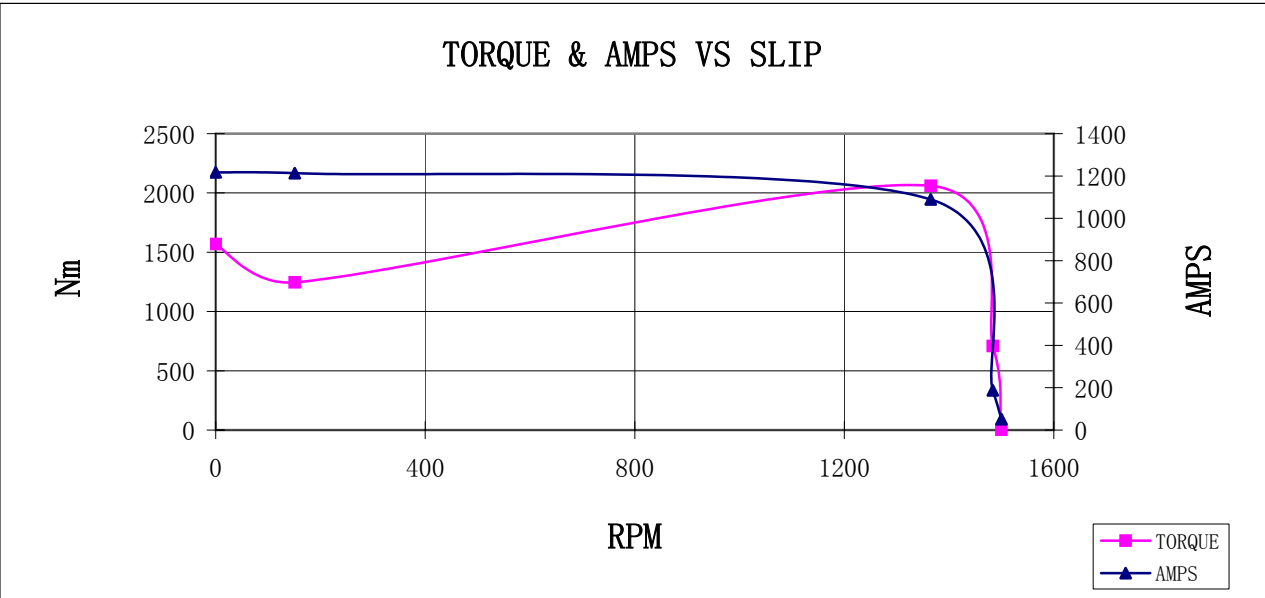
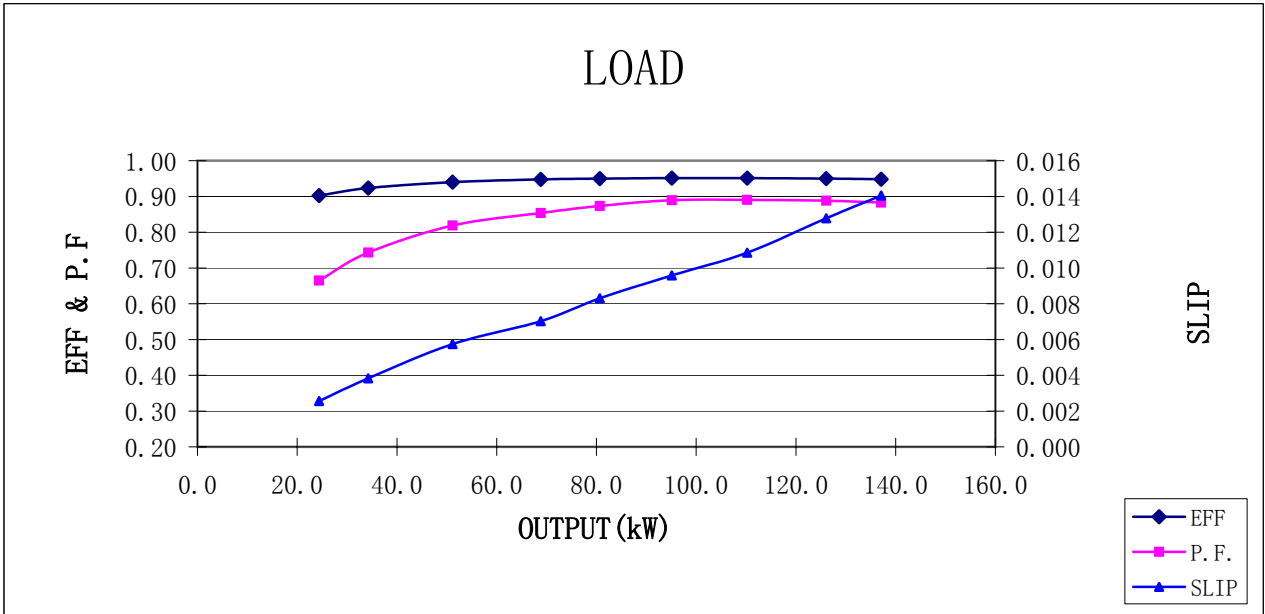
The data above is calculated as per IEC 34-2,all data at nominal Volts

<b>VALIADIS S.A.</b>  <b>K315S-4</b> <b>110 kW</b>  <b>400 VOLTS      50      Hz</b>	<b>SCALE</b>	N/A	
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	<b>DRAWN</b>		<b>DOCUMENT NO.</b>
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 95.1 EFFICIENCY  
 4 POLE  
 VALIADIS MANUFACTURER

### IEC TYPE

3 PHASE  
 187.8 AMPS  
 S1 DUTY  
 SERIAL NO.

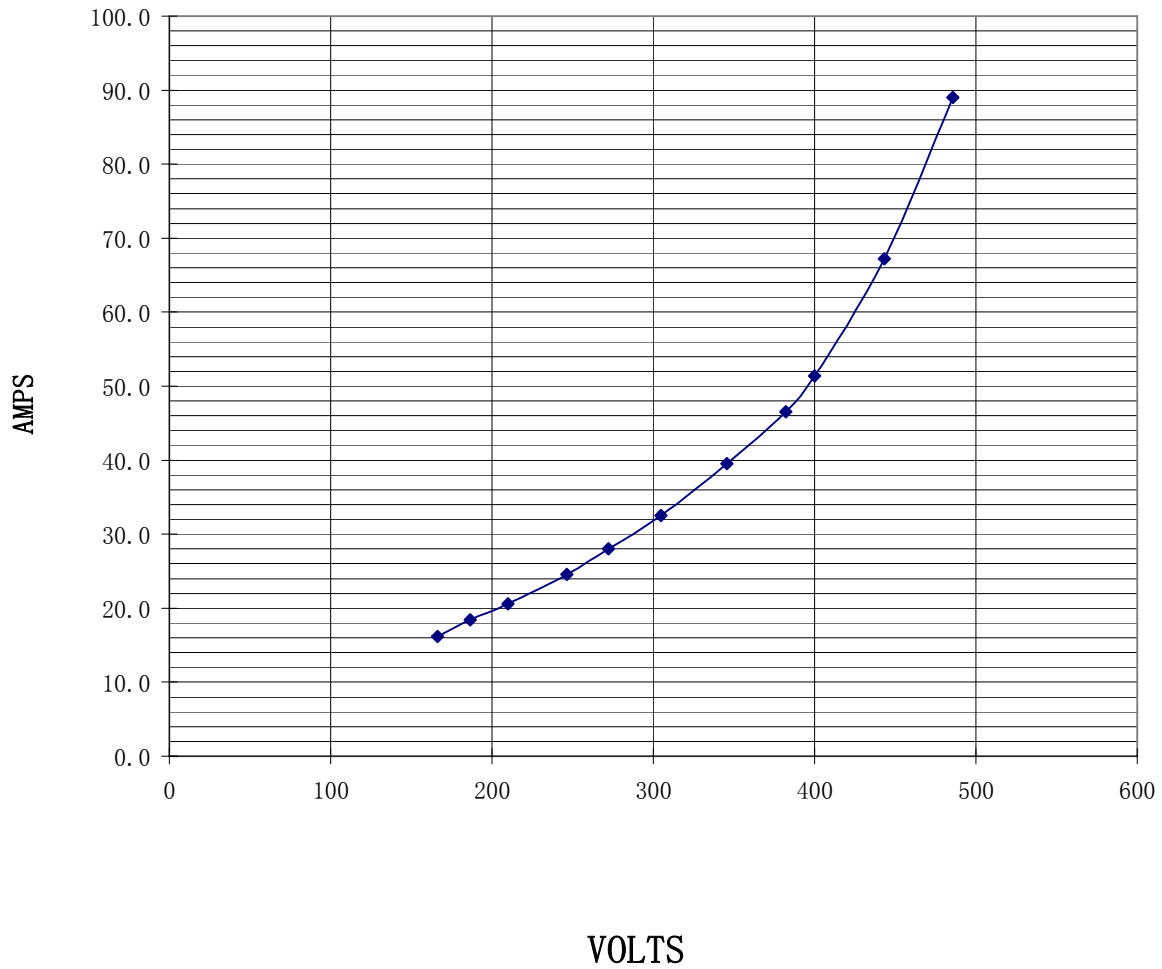
### 110 KW

400 VOLTS  
 55 IP  
 0.889 PF  
 F INS.CLASS

### 1483 RPM

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

MAGNETIZATION CURVE - NO LOAD



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