

# VALIADIS S.A.

## ELECTRIC MOTOR TEST REPORT - THREE PHASE INDUCTION MOTOR

NAMEPLATE DATA		IEC TYPE	160 KW	1488 RPM
K315L-4 FRAME		3 PHASE	400 VOLTS	50 HZ / CYCLES
95.3 EFFICIENCY		272.0 AMPS	55 IP	IC411 IC
4 POLE		S1 DUTY	0.891 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	90.35	94.05	95.05	95.30	95.26	95.19	
PF	0.088	0.661	0.817	0.877	0.891	0.889	0.886	0.329
RPM	1500	1498	1495	1491	1488	1486	1484	0
SLIP	0.00%	0.13%	0.35%	0.58%	0.82%	0.93%	1.09%	100.00%
AMPS	62.63	96.71	150.25	207.81	271.95	299.91	342.20	1883.2
VOLTS	400	400	400	400	400	400	400	400
TORQUE NM	0	255.1	511.3	768.8	1027.5	1131.5	1287.9	2339.4
KW INPUT	3.811	44.27	85.06	126.25	167.89	184.75	210.10	429.53
KW OUTPUT	0	40.00	80.00	120.00	160.00	176.00	200.00	

LOSSES(kw)	25% LOAD	50% LOAD	75% LOAD	100% LOAD	110% LOAD	125%LOAD
STATOR LOSS Pcu1	0.246	0.593	1.135	1.943	2.36	3.08
STATOR LOSS %	0.56%	0.70%	0.90%	1.16%	1.28%	1.46%
ROTOR LOSS Pcu2	0.056	0.288	0.710	1.344	1.67	2.23
ROTOR LOSS %	0.13%	0.34%	0.56%	0.80%	0.90%	1.06%
CORE LOSS Pfe	2.204	2.204	2.204	2.204	2.204	2.204
CORE LOSS %	4.98%	2.59%	1.75%	1.31%	1.19%	1.05%
WINDAGE/FRICTION Pfw	1.526	1.526	1.526	1.526	1.526	1.526
WINDAGE/FRICTION %	3.45%	1.79%	1.21%	0.91%	0.83%	0.73%
STRAY LOAD LOSS Ps	0.221	0.425	0.631	0.839	0.924	1.051
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	0.0139767 OHMS @	24.3 DEG.C.	BETWEEN STATOR LEADS
STATOR RESISTANCE ADJUSTED	0.018 OHMS @	90 DEG.C.	BETWEEN STATOR LEADS
STATOR RESISTANCE HOT	0.018 OHMS	after test of temp rise	BETWEEN STATOR LEADS
WINDING TEMPERATURE RISE	79.0 DEG.C.	at full load steady state at	90 SECS
WINDING TEMPERATURE RISE	81.5 DEG.C.	at full load steady state at	0 SECS
PT100 TEMPERATURE OF DE WINDING	107.1 DEG.C.	at full load steady state at ambient	26.1 DEG.C.
PT100 TEMPERATURE OF NDE WINDING	NO DEG.C.	at full load steady state at ambient	26.1 DEG.C.
PT100 TEMPERATURE DE BEARING	76 DEG.C.	at full load steady state at ambient	26.1 DEG.C.
PT100 TEMPERATURE NDE BEARING	N/A DEG.C.	at full load steady state at ambient	26.1 DEG.C.
PT100 TEMPERATURE IN TERMINAL BOX	47.5 DEG.C.	at full load steady state at ambient	26.1 DEG.C.
PT100 TEMPERATURE ON STATOR LEADS	59.9 DEG.C.	at full load steady state at ambient	26.1 DEG.C.

OTHER			
NOISE LEVEL(Lp)	83	dB(A) @ 1meter	INSULATION RESISTANCE 500 MEG.OHMS
VIBRATION LEVEL	2.1	mm/sec on no load	D.E. BEARING 6319C3
WEIGHT	1330	kg	N.D.E.BEARING 6319C3
H-POT TEST VOLTS	1800	VOLTS	

VALIADIS S.A.		SCALE	N/A	
		DATE		REV
K315L-4 160 kW 400 VOLTS 50 Hz		DRAWN		DOCUMENT NO.
		APPRVD		
		CHECKED		

RESULT SUMMARY

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<b>95.3 EFFICIENCY</b>	<b>272.0 AMPS</b>	<b>55 IP</b>	<b>IC411 IC</b>
<b>4 POLE</b>	<b>S1 DUTY</b>	<b>0.891 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	OHM 0.017518
NO LOAD CURRENT		AMP 62.63
NO LOAD INPUT		kW 3.811
CORE LOSS(Pfe)		kW 2.204
WINDAGE FRICTION LOSS(Pfw)		kW 1.526
STATOR WINDING LOSS(Pcu1)		kW 1.943
ROTOR WINDING LOSS(Pcu2)		kW 1.344
STRAY LOAD LOSS(Ps)		kW 0.839
FULL LOAD CURRENT		AMP 271.95
LOCKED ROTOR CURRENT		AMP 1883.20
LOCKED ROTOR CURRENT/FULL LOAD CURRENT		P.U. 6.9
LOCKED ROTOR INPUT @ FULL LOAD		kW 429.53
FULL LOAD TORQUE		N.m 1027.54
LOCKED ROTOR TORQUE		N.m 2339.40
LOCKED ROTOR TORQUE/FULL LOAD TORQUE		P.U. 2.28
PULL OUT TORQUE		N.m 2796.8
PULL OUT TORQUE/FULL LOAD TORQUE		P.U. 2.72
PULL UP TORQUE		N.m 1632.97
PULL UP TORQUE/FULL LOAD TORQUE		P.U. 1.59
EFFICIENCY @ FULL LOAD		% 95.30
POWER FACTOR @ FULL LOAD		0.891
FULL LOAD SLIP		% 0.821
FULL LOAD SPEED		r/min 1488
STATOR WINDING TEMPERATURE RISE	90 SECS	K 79.0
D.E. BEARINGS TEMPERATURE BY PT100		Deg. C 76.0
TEMPERATURE ON LEADS BY PT100		Deg. C 59.9
TEMPERATURE IN TERMINAL BOX BY PT100		Deg. C 47.5
AMBIENT TEMPERATURE OF TESTING		Deg. C 26.1
SOUND PRESSURE LEVEL		dB(A) 83
VIBRATION		mm/s 2.1
MOMENT OF INERTIA		kgm2 3.7900
WEIGHT		kg 1330

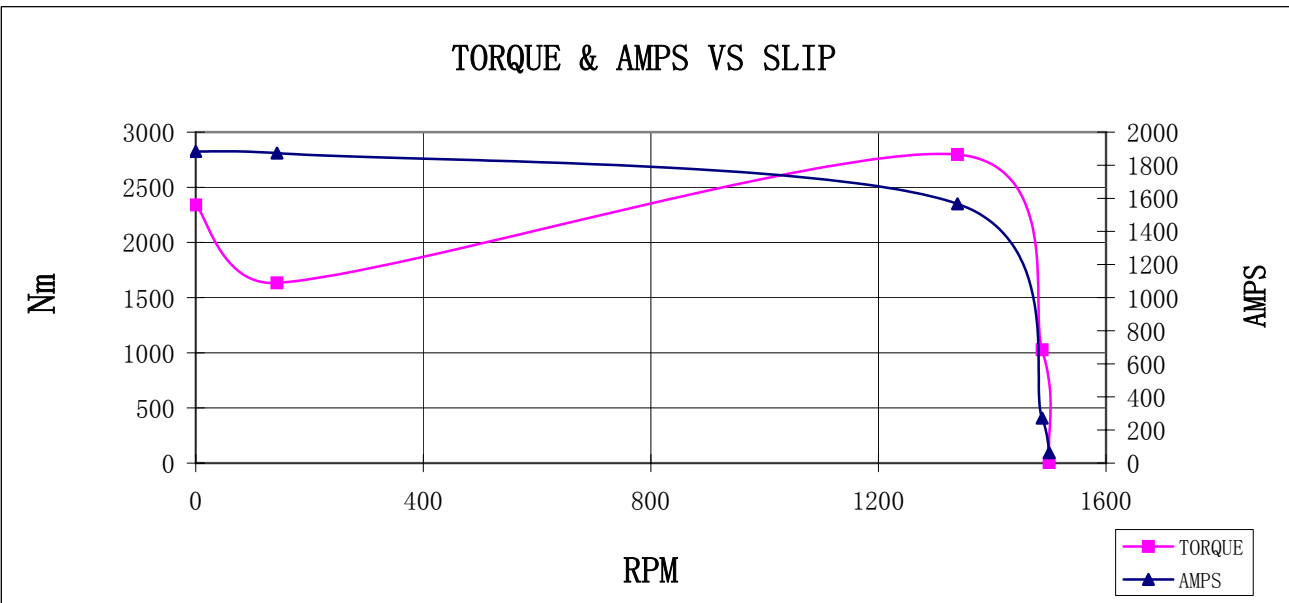
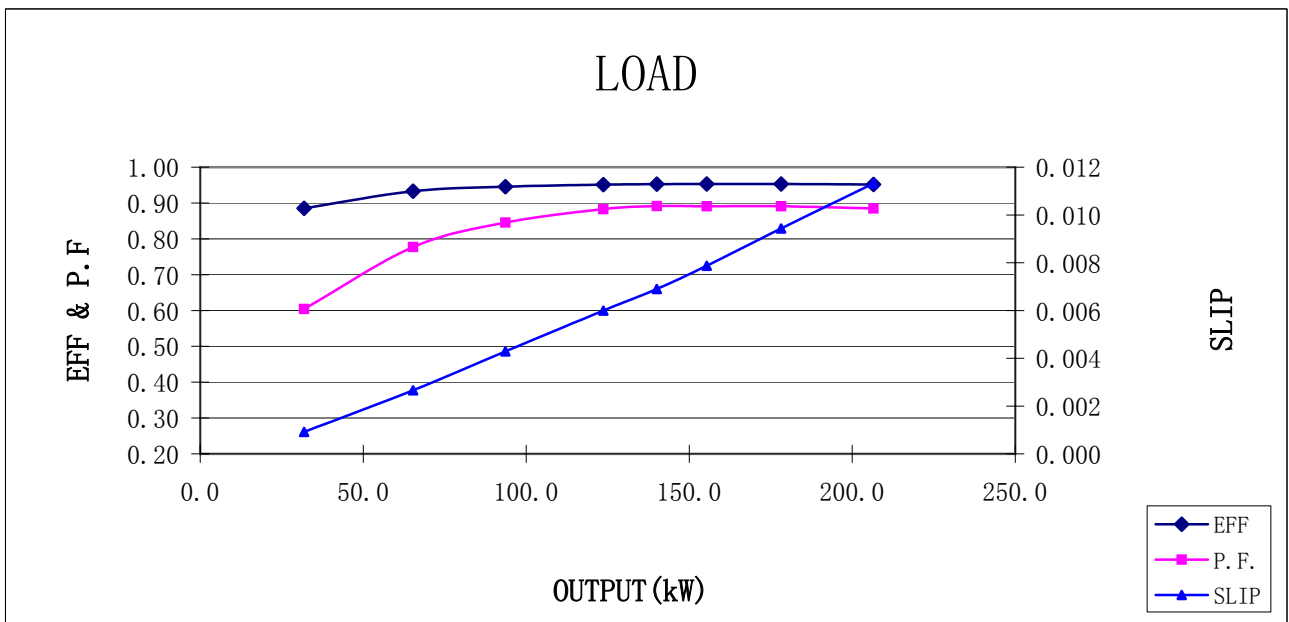
The data above is calculated as per IEC 34-2,all data at nominal Volts

<b>VALIADIS S.A.</b>  <b>K315L-4</b> <b>160 kW</b>  <b>400 VOLTS    50    Hz</b>	<b>SCALE</b>	N/A	
	<b>DATE</b>		<b>REV</b>
	<b>DRAWN</b>		<b>DOCUMENT NO.</b>
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### NAMEPLATE DATA

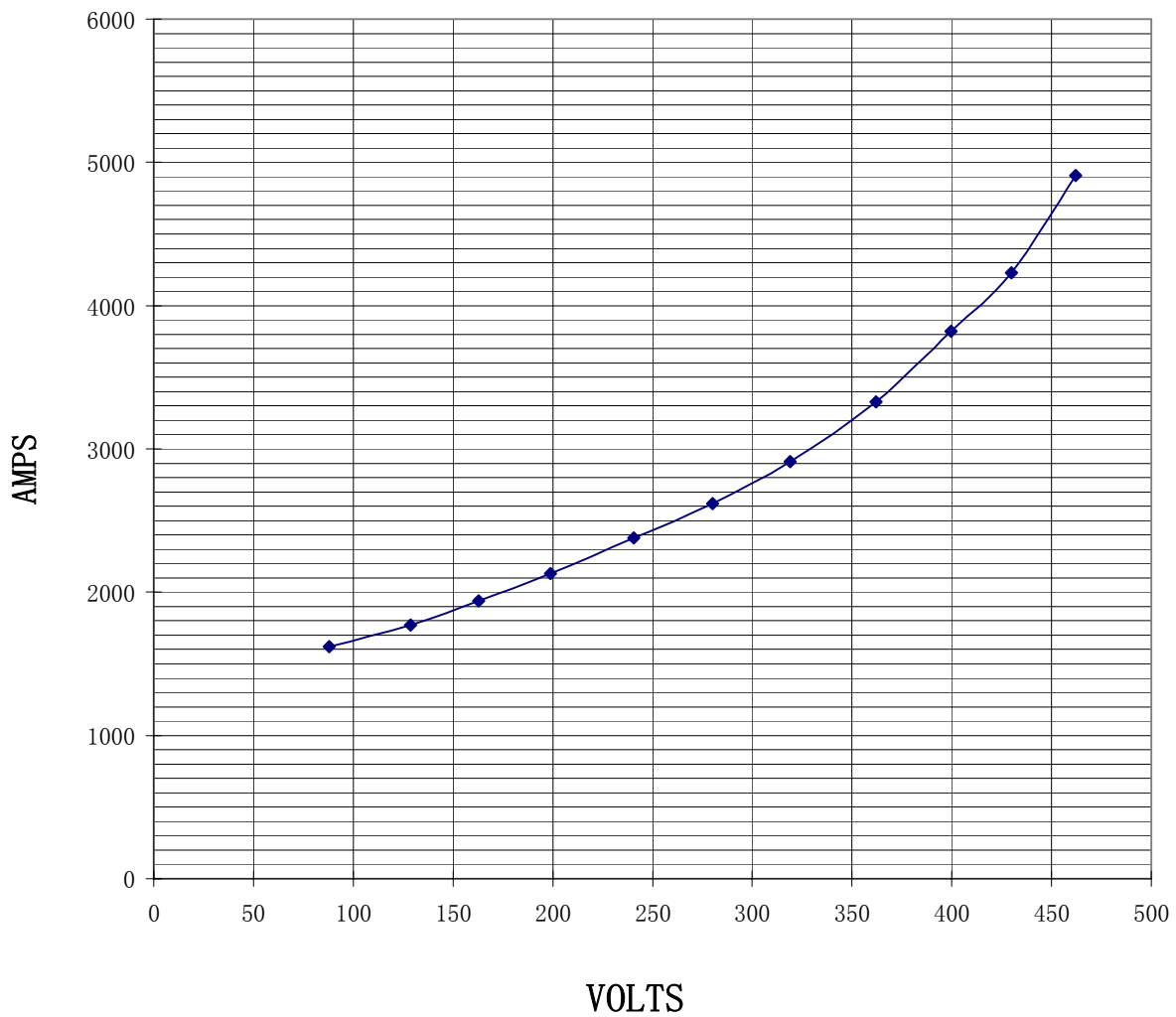
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 95.3 EFFICIENCY  
 4 POLE  
 VALIADIS MANUFACTURER

IEC TYPE  
 3 PHASE  
 272.0 AMPS  
 S1 DUTY  
 SERIAL NO.

160 KW  
 400 VOLTS  
 55 IP  
 0.891 PF  
 F INS.CLASS

1488 RPM  
 50 HZ / CYCLES  
 IC411 IC  
 N/A EFF2  
 DELTA CONNECTION

### MAGNETIZATION CURVE - NO LOAD



<b>VALIADIS S.A.</b>  K315L-4 160 kW 400 VOLTS      50 Hz	SCALE	N/A	REV
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