

# VALIADIS S.A.

## ELECTRIC MOTOR TEST REPORT - THREE PHASE INDUCTION MOTOR

<b>NAMEPLATE DATA</b>	IEC	<b>TYPE</b>	0.25	<b>KW</b>	2585	<b>RPM</b>
AK63 - 2 <b>FRAME</b>	3	<b>PHASE</b>	400	<b>VOLTS</b>	50	<b>HZ/CYCLES</b>
67.5 <b>EFFICIENCY</b>	0.74	<b>AMPS</b>	55	<b>IP</b>	IC01	<b>IC</b>
2 <b>POLE</b>	S1	<b>DUTY</b>	0.72	<b>PF</b>	N/A	<b>EFF2</b>
VALIADIS <b>MANUFACTURER</b>		<b>SERIAL NO.</b>	F	<b>INS. CLASS</b>	Y	<b>CONNECTION</b>

MAJOR CONTENTS		UNIT	TESE VALUE	
STATOR RESISTANCE OF PHASE TO PHASE	75	DEG.C	OHM	63.9864
NO LOAD CURRENT			AMP	0.54
NO LOAD INPUT			kW	0.0486
CORE LOSS (Pfe)			kW	0.015
WINDAGE FRICTION LOSS (Pfw)			kW	0.008
STATOR WINDING LOSS(Pcu1)			kW	0.0511
ROTOR WINDING LOSS(Pcu2)			kW	0.0417
STRAY LOAD LOSS (Ps)			kW	0.0018
FULL LOAD CURRENT			AMP	0.73
LOCKED ROTOR CURRENT			AMP	2.98
LOCKED ROTOR CURRENT/FULL LOAD CURRENT			P.U.	4.1
LOCKED ROTOR INPUT @ 100% VOLT			kW	1.688
FULL LOAD TORQUE			N.m.	0.92
LOCKED ROTOR TORQUE			N.m.	2.75
LOCKED ROTOR TORQUE/FULL LOAD TORQUE			P.U.	2.98
PULL OUT TORQUE			N.m.	2.97
PULL OUT TORQUE/FULL LOAD TORQUE			P.U.	3.21
PULL UP TORQUE			N.m.	1.64
PULL UP TORQUE/FULL LOAD TORQUE			P.U.	1.78
EFFICIENCY @ FULL LOAD			%	67.99
POWER FACTOR @ FULL LOAD				0.727
FULL LOAD SLIP				13.83%
FULL LOAD SPEED			r/min	2585
STATOR WINDING TEMPERATURE RISE	30	SECS	K	51.4
DE BEARING TEMPERATURE BY PT100			Deg. C	51.0
NDE BEARING TEMPERATURE BY PT100			Deg. C	51.0
TEMPERATURE ON LEADS BY PT100			Deg. C	
TEMPERATURE IN TERMINAL BOX BY PT100			Deg. C	
AMBIENT TEMPERATURE BY PT100			Deg. C	
SOUND PRESSURE LEVEL			dB (A)	45.6
VIBRATION			mm/s	0.6
MOMENT OF INERTIA			kgm <sup>2</sup>	0.00019
WEIGHT			kg	5.3

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

<b>VALIADIS S.A.</b>				SCALE	N/A		
				DATE		REV	
AK63 - 2 0.25 kW 400 VOLTS 50 Hz				DRAWN		DOCUMENT NO.	
				APPRVD			
				CHECKED			

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2	<b>POLE</b>	S1	<b>DUTY</b>	0.72	<b>PF</b>	N/A
VALIADIS	<b>MANUFACTURER</b>	<b>SERIAL NO.</b>	F	<b>INS. CLASS</b>	Y	<b>CONNECTION</b>

<b>TEST DATA</b>	NO LOAD	25% LOAD	50% LOAD	75% LOAD	100% LOAD	125% LOAD	LOCKED ROTOR
EFFICIENCY	0	53.2	66.3	69.3	68.0	64.4	
PF	0.130	0.308	0.478	0.619	0.727	0.809	0.818
RPM	3000	2906	2822	2715	2585	2434	0
SLIP	0.00%	3.13%	5.93%	9.50%	13.83%	18.87%	100.00%
AMPS	0.54	0.55	0.57	0.63	0.73	0.87	2.98
VOLTS	400	400	400	400	400	400	400
TORQUE NM	0	0.21	0.42	0.66	0.92	1.23	2.75
KW INPUT	0.0486	0.1173	0.1888	0.2702	0.3678	0.4877	1.688
KW OUTPUT	0	0.062	0.125	0.187	0.250	0.314	

<b>LOSSES (kW)</b>	25% LOAD	50% LOAD	75% LOAD	100% LOAD	125% LOAD
STATOR LOSS Pcu1	0.029	0.031	0.038	0.051	0.073
STATOR LOSS %	24.75%	16.52%	14.10%	13.91%	4.30%
ROTOR LOSS Pcu2	0.002	0.008	0.021	0.042	0.075
ROTOR LOSS %	1.96%	4.48%	7.63%	11.35%	4.47%
CORE LOSS Pfe	0.015	0.015	0.015	0.015	0.015
CORE LOSS %	12.79%	7.94%	5.55%	4.08%	0.89%
WINDGE/FRICTION Pfw	0.008	0.008	0.008	0.008	0.008
WINDGE/FRICTION %	6.82%	4.24%	2.96%	2.18%	0.47%
STRAY LOAD LOSS Ps	0.001	0.001	0.001	0.002	0.002
STRAY LOAD LOSS %	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	53.15 OHMS @	22.5	DEG.C.	BETWEEN STATOR LEADS
STATOR RESISTANCE ADJUSTED	63.9864 OHMS @	75	DEG.C.	BETWEEN STATOR LEADS
STATOR RESISTANCE HOT	63.76 OHMS	after test of temp rise		BETWEEN STATOR LEADS
WINDING TEMPERATURE RISE	51.4 DEG.C.	at full load steady state at		30 SECS
WINDING TEMPERATURE RISE	DEG.C.	at full load steady state at		0 SECS
PT100 TEMPERATURE OF DE WINDING	DEG.C.	at full load steady state at ambient		DEG.C.
PT100 TEMPERATURE OF NDE WINDING	DEG.C.	at full load steady state at ambient		DEG.C.
PT100 TEMPERATURE OF DE BEARING	51.0 DEG.C.	at full load steady state at ambient		22.5 DEG.C.
PT100 TEMPERATURE OF NDE BEARING	51.0 DEG.C.	at full load steady state at ambient		22.5 DEG.C.
PT100 TEMPERATURE OF IN TERMINAL BOX	DEG.C.	at full load steady state at ambient		DEG.C.
PT100 TEMPERATURE OF ON STATOR LEAD	DEG.C.	at full load steady state at ambient		DEG.C.

### OTHER

NOISE LEVEL (Lp)	45.6	dB(A) 1meter	INSULATION RESISTANCE	500	MEG.OHMS
VIBRATION LEVEL	0.6	mm/sec on no load	D.E. BEARING		
WEIGHT	5.3	kg	N.D.E. BEARING		
H-POT TEST VOLTS	1800	VOLTS			

<b>VALIADIS S.A.</b>				<b>SCALE</b>	<b>N/A</b>		
				<b>DATE</b>		<b>REV</b>	
<b>AK63 - 2</b>				<b>DRAWN</b>		<b>DOCUMENT NO.</b>	
<b>0.25</b>	<b>kW</b>			<b>APPRVD</b>			
<b>400</b>	<b>VOLTS</b>	<b>50</b>	<b>Hz</b>	<b>CHECKED</b>			

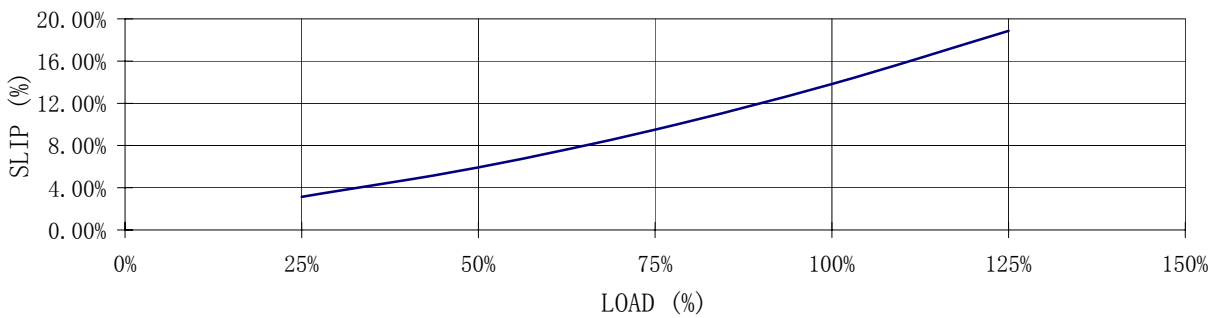
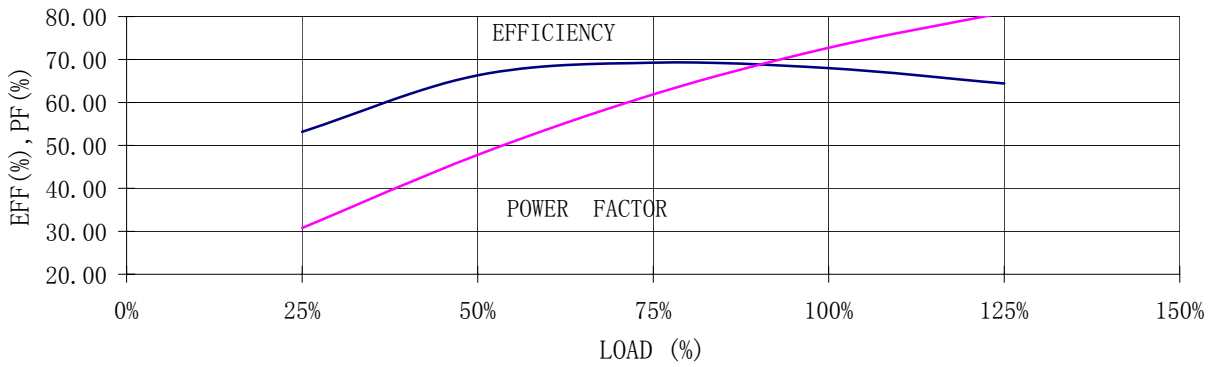
RESULT SUMMARY

# ELECTRIC MOTOR

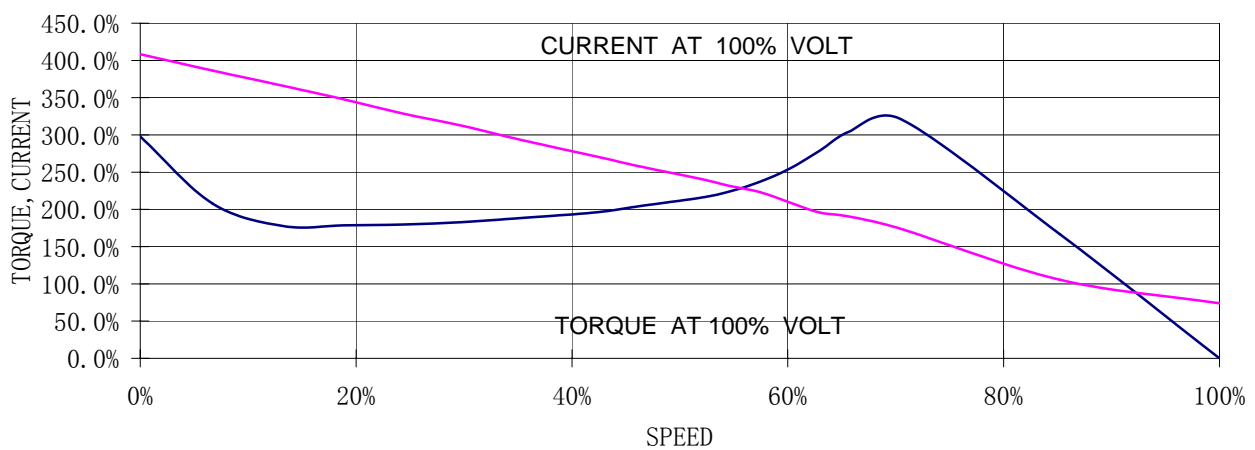
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<b>VALIDADIS</b>	<b>MANUFACTURER</b>	<b>SERIAL NO.</b>	F	<b>INS. CLASS</b>	Y	<b>CONNECTION</b>

### LOAD TEST



### SPEED VS TORQUE, CURRENT



**VALIDADIS S.A.**

**SCALE**

**N/A**

**DATE**

**REV**

**AK63 - 2**

**DRAWN**

**DOCUMENT NO.**

**0.25**

**kw**

**APPRVD**

**400**

**VOLTS**

**50**

**Hz**

**CHECKED**

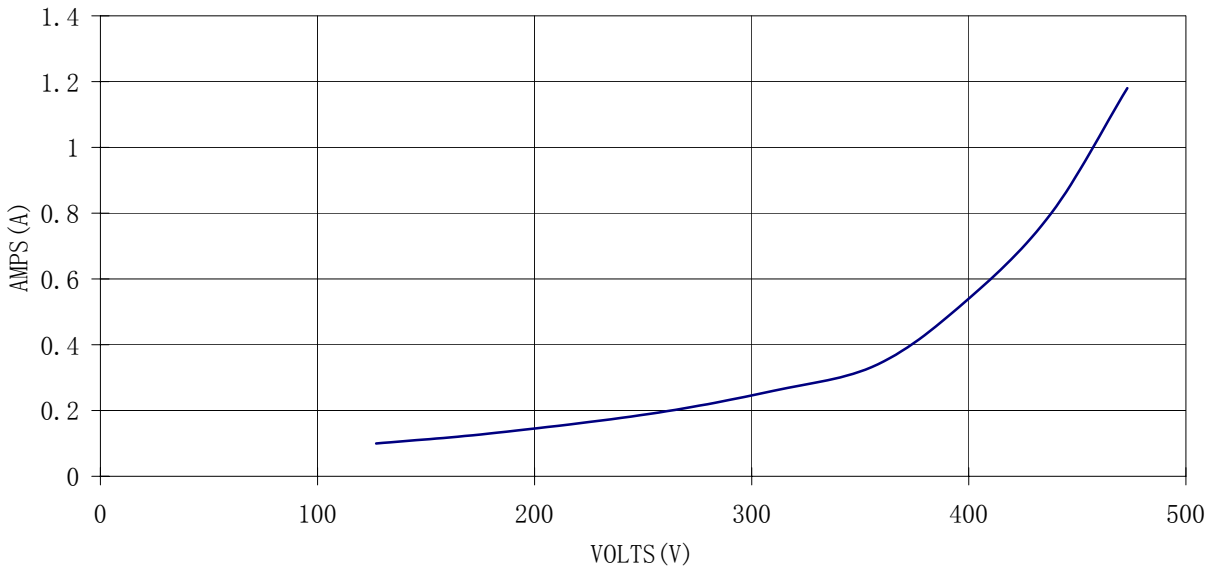
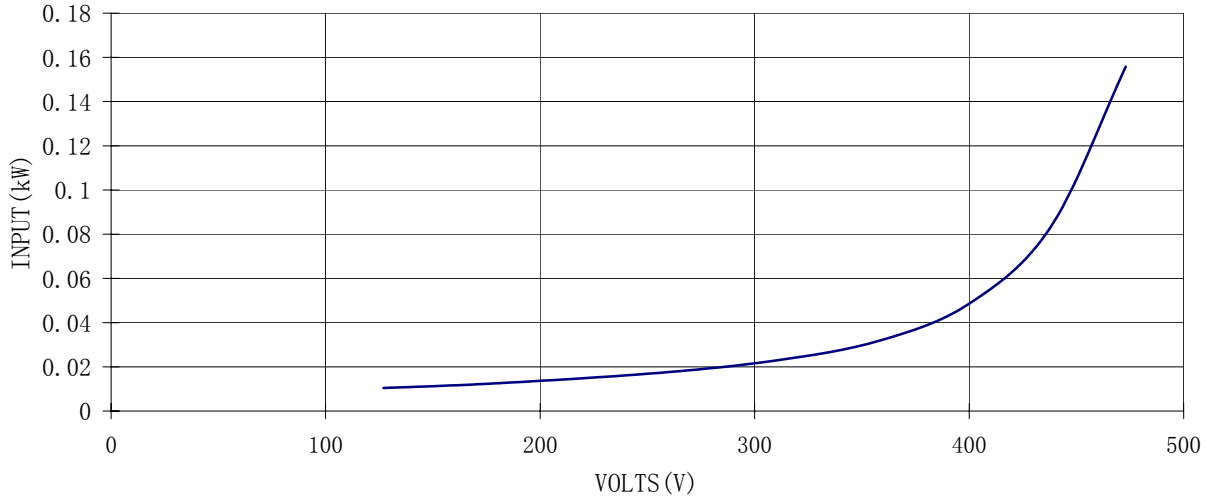
CURVE

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### NO LOAD TEST



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		<b>DATE</b>		<b>REV</b>
	AK63 - 2	<b>DRAWN</b>		<b>DOCUMENT NO.</b>
	0.25 kW	<b>APPRVD</b>		
400 VOLTS 50 Hz	<b>CHECKED</b>			

CURVE