

# VALIADIS S.A.

## ELECTRIC MOTOR TEST REPORT - THREE PHASE INDUCTION MOTOR

NAMEPLATE DATA			
K225M-6 <b>FRAME REDUCED</b>	IEC TYPE 3 <b>PHASE</b>	37 <b>kW</b>	980 <b>r/min</b>
6 <b>POLE</b>	66,6 <b>AMPS</b>	400 <b>VOLTS</b>	50 <b>Hz</b>
VALIADIS <b>MANUFACTURER</b>	S1 <b>DUTY</b>	IP55 <b>IP</b>	$\Delta$ <b>CONNECTION</b>
		F <b>INS.CLASS</b>	

MAJOR CONTENTS	UNIT	TEST VALUE
STATOR RESISTANCE OF PHASE	OHM	0,23820
NO LOAD CURRENT	AMP	24,21
NO LOAD INPUT	W	1397,6
CORE LOSS(Pfe)	W	1069,5
WINDAGE FRICTION LOSS(Pfw)	W	197,9
STATOR WINDING LOSS(Pcu1)	W	1145,8
ROTOR WINDING LOSS(Pcu2)	W	645,0
STRAY LOAD LOSS(Ps)	W	570
FULL LOAD CURRENT	AMP	69,06
LOCKED ROTOR CURRENT	AMP	349,53
LOCKED ROTOR CURRENT/FULL LOAD CURRENT	P.U.	5,25
FULL LOAD TORQUE	N.m	359,35
LOCKED ROTOR TORQUE	N.m	716,41
LOCKED ROTOR TORQUE/FULL LOAD TORQUE	P.U.	1,99
PULL OUT TORQUE	N.m	853,04
PULL OUT TORQUE/FULL LOAD TORQUE	P.U.	2,36
INPUT @ FULL LOAD	kW	40,56
EFFICIENCY @ FULL LOAD	%	91,23
POWER FACTOR @ FULL LOAD		0,85
FULL LOAD SLIP	%	1,679
FULL LOAD SPEED	r/min	983,2
STATOR WINDING TEMPERATURE RISE	K	71
D.E. BEARINGS TEMPERATURE BY PT100	Deg. C	45,5
AMBIENT TEMPERATURE OF TESTING	Deg. C	4,7
HIGH VOLTAGE TEST	V	1800
INSULATION RESISTANCE	M $\Omega$	500
NOISE	dB(A)	75
VIBRATION	mm/s	0,7

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

<b>VALIADIS S.A.</b>  K225M-6 37 kW 400 VOLTS 50 Hz	SERIAL NO.			
	DATE		REV	
	DRAWN		DOCUMENT NO.	
	APPRVD			
CHECKED				

# ELECTRIC MOTOR TEST REPORT - THREE PHASE INDUCTION MOTOR

**VALIADIS S.A.**

<b>Type</b>	K225M-6	<b>Poles</b>	6		<b>Power</b>	37,0 kW
<b>Voltage</b>	400 V	<b>Current</b>	66,6	<b>A</b>	<b>Frequency</b>	50 Hz
<b>Speed</b>	980 r/min	<b>Duty</b>	S1		<b>Connection</b>	Δ
<b>Ins.class</b>	F	<b>Weight</b>	355	<b>kg</b>		IP55

Frame Reduced

## NO LOAD TEST

<b>VOL</b>	<b>mul.</b>	<b>Hz</b>	<b>I01</b>	<b>I02</b>	<b>I03</b>	<b>mul.</b>	<b>W1</b>	<b>W2</b>	<b>mul.</b>	<b>°C</b>
457,8	1	50	4,021	4,011	3,999	10	-854,5	1121,9	10	72,8
429,7	1	50	3,103	3,097	3,085	10	-626,6	814,5	10	72,9
400,1	1	50	2,428	2,425	2,415	10	-455,7	595,6	10	72,7
385,4	1	50	2,188	2,185	2,177	10	-393,5	517,3	10	72,3
340,6	1	50	1,702	1,699	1,693	10	-267,0	358,6	10	72,1
266,2	1	50	2,426	2,422	2,411	5	-287,0	409,3	5	71,8
199,6	1	50	1,753	1,755	1,747	5	-146,0	230,3	5	71,1
168,8	1	50	3,634	3,644	3,627	2	-245,3	414,2	2	70,6
138,7	1	50	2,988	3,008	2,988	2	-142,5	299,7	2	70,2
93,4	1	50	2,110	2,133	2,118	2	-40,8	162,7	2	69,7

<b>VALIADIS S.A.</b>	<b>Manufacturing Date</b>	<b>Serial No</b>
	<b>Test Date</b>	<b>Report Number</b>

# ELECTRIC MOTOR TEST REPORT - THREE PHASE INDUCTION MOTOR

**VALIADIS S.A.**

<b>Type</b>	K225M-6	<b>Poles</b>	6	<b>Power</b>	37,0	Frame Reduced	<b>kW</b>
<b>Voltage</b>	400 V	<b>Current</b>	66,6 A	<b>Frequency</b>	50,0		<b>Hz</b>
<b>Speed</b>	980 r/min	<b>Duty</b>	S1	<b>Connection</b>	Δ		
<b>Ins.class</b>	F	<b>Weight</b>	355 kg				IP55

## LOCKED ROTOR TEST

VOL	mul.	lk1	lk2	lk3	mul.	W1	W2	mul.	Torque N.m
366,3	1,0	1,571	1,564	1,568	200,0	-67,3	583,5	200	591,43
320,9	1,0	1,328	1,322	1,325	200,0	-52,5	430,1	200	422,87
290,9	1,0	2,340	2,332	2,337	100,0	-89,0	683,3	100	330,75
260,5	1,0	2,039	2,032	2,036	100,0	-73,2	530,4	100	252,35
229,5	1,0	1,747	1,741	1,744	100,0	-59,2	398,7	100	186,69
199,6	1,0	1,468	1,463	1,466	100,0	-46,7	288,9	100	131,81
153,7	1,0	2,145	2,136	2,146	50,0	-61,0	319,9	50	70,56
107,3	1,0	1,427	1,420	1,428	50,0	-31,1	146,6	50	30,87

<b>VALIADIS S.A.</b>	Manufacturing Date	Serial No
	Test Date	Report Number

## ELECTRIC MOTOR TEST REPORT - THREE PHASE INDUCTION MOTOR

**VALIADIS S.A.**

<b>Type</b>	K225M-6	<b>Poles</b>	6	<b>Power</b>	37 kW	Frame Reduced
<b>Voltage</b>	400 V	<b>Current</b>	66,6 A	<b>Frequency</b>	50 Hz	
<b>Speed</b>	980 r/min	<b>Duty</b>	S1	<b>Connection</b>	Δ	
<b>Ins.class</b>	F	<b>Weight</b>	355 kg		IP55	

### TEMPERATURE RISE TEST

TIME (h:min)	V	I1	I2	I3	mul.	W1	W2	mul.	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	T7 °C	T8 °C	T9 °C	T10 °C	T11 °C	T12 °C	T13 °C
11:00	400,1	3,457	3,453	3,467	20	650,4	1378,1	20	39,0	—	77,4	—	—	—	—	—	3,9	15,8	35,3	22,4	3,0
11:30	400,1	3,463	3,460	3,474	20	653,8	1381,3	20	41,0	—	79,2	—	—	—	—	—	3,6	16,4	37,1	23,6	2,4
12:00	400,2	3,439	3,436	3,451	20	648,8	1372,0	20	42,2	—	81,2	—	—	—	—	—	5,5	18,3	39,0	25,7	4,5
12:30	400,1	3,481	3,478	3,491	20	660,3	1388,8	20	44,2	—	82,4	—	—	—	—	—	5,8	19,0	40,3	26,7	4,6
13:00	400,2	3,453	3,449	3,463	20	653,7	1376,8	20	44,7	—	82,5	—	—	—	—	—	5,8	18,9	40,7	27,1	5,0
13:30	400,2	3,429	3,425	3,439	20	648,3	1367,4	20	45,5	—	83,2	—	—	—	—	—	6,2	19,4	41,1	27,6	5,3
14:00	400,2	3,440	3,438	3,451	20	650,9	1372,9	20	45,7	—	83,1	—	—	—	—	—	5,4	18,9	41,0	27,2	4,7
14:30	400,2	3,455	3,452	3,464	20	654,4	1378,1	20	45,5	—	82,6	—	—	—	—	—	5,1	18,3	40,3	26,7	4,1

Last 3 points average	68,873	A	40480	W	45,5	—	82,6	—	—	—	—	—	—	—	—	5,1	18,3	40,3	26,7	4,7
-----------------------	--------	---	-------	---	------	---	------	---	---	---	---	---	---	---	---	-----	------	------	------	-----

T1 T2 : DE BEARING TEMPERATURE                      T9 : AIR INLET TEMPERATURE                      T11 : CORE TEMPERATRE                      T12: FRAME TEMPERATRE  
 T3~8 : DE WINDING TEMPERATURE                      T10 : AIR OUTLET TEMPERATURE                      T13 : AMBIENT TEMPERATURE

#### WINDING RESISTANCE (HOT) AT END OF TEMPERATURE RISE TEST

TIME (S)	41	58	71	94	118	136	160	176
RESISTANC	0,1490	0,1485	0,1482	0,1475	0,1468	0,1465	0,1458	0,1455

#### WINDING RESISTANCE(COLD)

	U1-V1	U1-W1	V1-W1	AVERAGE	MIN	AMBIENT TEM.
	0,1126	0,1129	0,1126	0,11270	0,11260	-0,8 °C

VALIADIS S.A.	Manu. Date	Serial No
	Test Date	Report Number

**ELECTRIC MOTOR TEST REPORT -  
THREE PHASE INDUCTION MOTOR**

**VALIADIS S.A.**

<b>Type</b>	K225M-6		<b>Poles</b>	6		<b>Power</b>	37,0		kW		
<b>Voltage</b>	400	<b>V</b>	<b>Current</b>	66,6	<b>A</b>	<b>Frequency</b>	50,0		Hz		
<b>Speed</b>	980	<b>r/min</b>	<b>Duty</b>	S1		<b>Connection</b>	Δ				
<b>Ins.class</b>	F		<b>Weight</b>	355	<b>kg</b>	IP55					

**LOAD TEST**

<b>V</b>	<b>Hz</b>	<b>I1</b>	<b>I2</b>	<b>I3</b>	<b>mul.</b>	<b>W1</b>	<b>W2</b>	<b>mul.</b>	<b>r/min</b>	<b>Temper ature °C</b>	<b>Torqu r N.m</b>
400,1	50,00	4,406	4,399	4,419	20	876,3	1757,3	20	976,6	82,1	465,3
400,1	50,02	4,244	4,237	4,256	20	841,0	1692,6	20	978,4	82,3	448,5
400,1	50,01	3,859	3,853	3,870	20	752,7	1538,2	20	981,3	82,2	406,6
400,0	50,01	3,469	3,466	3,479	20	657,3	1382,9	20	984,1	81,9	361,5
400,1	50,00	3,257	3,255	3,267	20	602,4	1298,6	20	985,4	81,7	337,3
400,2	50,00	2,703	2,703	2,710	20	448,8	1075,1	20	988,7	81,4	270,8
400,1	50,00	2,047	2,049	2,052	20	236,5	796,6	20	992,5	81,1	180,2
400,0	50,00	1,513	1,516	1,516	20	7,0	528,4	20	996,2	80,3	88,4

Final Resistance of load : 0,00000 Ω ambient temperature 0,0 °C

<b>LOAD %</b>	<b>P2 W</b>	<b>I A</b>	<b>P1 W</b>	<b>Pcu1s W</b>	<b>Ss %</b>	<b>Pcu2s W</b>	<b>Ps W</b>	<b>Pfe W</b>	<b>EFF %</b>	<b>P.F</b>
150,0	55500	103,7	62238,8	2583,8	3,321	1949,5	1326,3	962,0	88,96	0,866
125,0	46250	85,8	51248,1	1770,7	2,353	1141,0	902,8	980,9	90,25	0,862
100,0	37000	69,1	40557,5	1145,8	1,679	645,0	569,9	998,7	91,23	0,848
75,0	27750	53,9	30324,8	698,2	1,183	338,5	317,4	1018,6	91,50	0,812
50,0	18500	40,7	20421,6	398,6	0,778	147,8	139,9	1034,9	90,53	0,724
25,0	9250	30,4	10795,1	222,0	0,404	38,5	34,7	1050,87	85,65	0,513

<b>VALIADIS S.A.</b>	<b>Manufacturing Date</b>	<b>Serial No</b>
	<b>Test Date</b>	<b>Report Number</b>

# ELECTRIC MOTOR TEST REPORT - THREE PHASE INDUCTION MOTOR

**VALIADIS S.A.**

Type	K225M-6		Poles	6		output Power	37,0	kW
Voltage	400	V	Current	66,6	A	Frequency	50,0	Hz
Speed	980	r/min	Duty	S1		Connection	Δ	
Ins.class	F		Weight	355	kg		IP55	

Frame Reduced

## LOAD CURVE

