

VALIADIS S.A.

ELECTRIC MOTOR TEST REPORT - THREE PHASE INDUCTION MOTOR

NAMEPLATE DATA			
K355L-6	FRAME REDUCED	IEC TYPE	315 kW
6	POLE	3	PHASE
VALIADIS	MANUFACTURER	551,0	AMPS
		S1	DUTY
		400	VOLTS
		IP55	IP
		F	INS.CLASS
			990 r/min
			50 Hz
			Δ CONNECTION

MAJOR CONTENTS	UNIT	TEST VALUE
STATOR RESISTANCE OF PHASE	OHM	0,01031
NO LOAD CURRENT	AMP	165,07
NO LOAD INPUT	W	7640,1
CORE LOSS(Pfe)	W	5883,0
WINDAGE FRICTION LOSS(Pfw)	W	1493,7
STATOR WINDING LOSS(Pcu1)	W	3115,5
ROTOR WINDING LOSS(Pcu2)	W	3616,6
STRAY LOAD LOSS(Ps)	W	3165
FULL LOAD CURRENT	AMP	550,40
LOCKED ROTOR CURRENT	AMP	3395,96
LOCKED ROTOR CURRENT/FULL LOAD CURRENT	P.U.	6,16
FULL LOAD TORQUE	N.m	3041,96
LOCKED ROTOR TORQUE	N.m	6179,86
LOCKED ROTOR TORQUE/FULL LOAD TORQUE	P.U.	2,03
PULL OUT TORQUE	N.m	8233,04
PULL OUT TORQUE/FULL LOAD TORQUE	P.U.	2,71
INPUT @ FULL LOAD	kW	332,21
EFFICIENCY @ FULL LOAD	%	94,82
POWER FACTOR @ FULL LOAD		0,87
FULL LOAD SLIP	%	1,119
FULL LOAD SPEED	r/min	988,8
STATOR WINDING TEMPERATURE RISE	K	67
D.E. BEARINGS TEMPERATURE BY PT100	Deg. C	53,1
AMBIENT TEMPERATURE OF TESTING	Deg. C	7,7
HIGH VOLTAGE TEST	V	1800
INSULATION RESISTANCE	MΩ	500
NOISE	dB(A)	92
VIBRATION	mm/s	0,8

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

VALIADIS S.A. K355L-6 315 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.

Type	K355L-6	Poles	6			Power	315,0 kW	
Voltage	400 V	Current	551	A		Frequency	50 Hz	
Speed	990 r/min	Duty	S1			Connection	Δ	
Ins.class	F	Weight	0	kg			IP55	

Frame Redused

NO LOAD TEST

VOL	mul.	Hz	I01	I02	I03	mul.	W1	W2	mul.	°C
460,6	1	50	2,618	2,583	2,697	100	-669,1	803,3	100	74,3
429,0	1	50	2,012	1,986	2,077	100	-478,6	573,6	100	74,4
400,1	1	50	1,641	1,619	1,695	100	-361,6	438,0	100	74,3
359,7	1	50	1,317	1,307	1,368	100	-258,4	319,2	100	74,1
309,3	1	50	2,155	2,148	2,253	50	-358,6	452,8	50	73,8
252,9	1	50	1,715	1,713	1,794	50	-227,2	301,5	50	73,6
195,4	1	50	1,318	1,318	1,379	50	-128,0	185,7	50	73,5
166,8	1	50	1,128	1,133	1,177	50	-90,0	140,9	50	73,2
120,1	1	50	2,076	2,098	2,156	20	-101,7	205,1	20	73,0
85,4	1	50	1,539	1,548	1,600	20	-34,2	122,5	20	72,7

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	Test Date	Report Number

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VALIADIS S.A.

Type	K355L-6	Poles	6	Power	315,0 kW
Voltage	400 V	Current	551 A	Frequency	50,0 Hz
Speed	990 r/min	Duty	S1	Connection	Δ
Ins.class	F	Weight	0 kg		IP55

Frame Reduced

LOCKED ROTOR TEST

VOL	mul.	lk1	lk2	lk3	mul.	W1	W2	mul.	Torque N.m
182,4	1,0	2,243	2,240	2,228	600,0	70,8	138,7	600	965,09
156,8	1,0	1,907	1,904	1,893	600,0	50,1	98,0	600	679,86
131,9	1,0	3,174	3,167	3,146	300,0	67,9	131,8	300	459,03
106,0	1,0	2,513	2,500	2,479	300,0	41,8	81,3	300	279,10
80,0	1,0	1,850	1,855	1,836	300,0	22,7	44,1	300	150,28
59,1	1,0	1,329	1,332	1,323	300,0	11,5	22,8	300	76,68

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ELECTRIC MOTOR TEST REPORT - THREE PHASE INDUCTION MOTOR

VALIADIS S.A.

Type	K355L-6	Poles	6	Power	315 kW	Frame Reduced
Voltage	400 V	Current	551 A	Frequency	50 Hz	
Speed	990 r/min	Duty	S1	Connection	Δ	
Ins.class	F	Weight	0 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	399,9	2,739	2,728	2,784	200	542,6	1103,1	200	46,1	42,4	77,3	76,0	—	—	—	—	—	—	—	—	—	7,4	
11:30	400,1	2,743	2,731	2,776	200	543,9	1106,7	200	48,1	44,5	76,7	75,4	—	—	—	—	—	—	—	—	—	7,7	
12:00	400,2	2,748	2,734	2,786	200	546,9	1107,1	200	50,0	45,8	78,8	77,6	—	—	—	—	—	—	—	—	—	7,8	
12:30	399,6	2,747	2,732	2,778	200	547,0	1104,2	200	51,1	46,4	79,0	77,7	—	—	—	—	—	—	—	—	—	7..8	
13:00	400,3	2,752	2,721	2,732	200	553,7	1109,4	200	52,1	47,1	79,6	78,3	—	—	—	—	—	—	—	—	—	7,7	
13:30	400,2	2,741	2,724	2,777	200	549,6	1103,4	200	52,6	47,6	80,3	79,0	—	—	—	—	—	—	—	—	—	7,7	
14:00	399,9	2,745	2,732	2,794	200	550,3	1100,7	200	53,1	47,7	80,4	79,2	—	—	—	—	—	—	—	—	—	7,7	
14:30	400,0	2,733	2,712	2,762	200	546,5	1097,8	200	53,1	47,8	80,6	79,3	—	—	—	—	—	—	—	—	—	7,7	
Last 3 points average		549,300			A	329886,7			W	53,1	47,8	80,6	79,3	—	—	—	—	—	—	—	—	—	7,7

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)	73	92	120	155	185	207	262	303
RESISTANC	0,00647	0,00646	0,00645	0,00643	0,00643	0,00642	0,00641	0,0064

WINDING RESISTANCE(COLD)

	U1-V1	U1-W1	V1-W1	AVERAGE	MIN	AMBIENT TEM.
	0,004991	0,004983	0,004989	0,00499	0,00498	4,5 °C

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

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

VALIADIS S.A.

Type	K355L-6	Poles	6	Power	315,0	kW
Voltage	400 V	Current	551 A	Frequency	50,0	Hz
Speed	990 r/min	Duty	S1	Connection	Δ	
Ins.class	F	Weight	0 kg		IP55	

Frame Reduced

LOAD TEST

V	Hz	I1	I2	I3	mul.	W1	W2	mul.	r/min	Temperature °C	Torqu N.m
400,1	50,00	4,028	4,011	4,184	200	812,4	1628,4	200	984,1	80,8	4482,0
400,2	50,00	3,319	3,323	3,345	200	671,3	1347,0	200	986,8	81,0	3716,3
399,9	50,01	2,720	2,699	2,750	200	547,7	1095,4	200	989,6	81,3	3026,8
400,2	50,01	2,076	2,054	2,103	200	399,2	831,7	200	992,0	81,1	2263,7
399,9	50,00	1,557	1,527	1,573	200	217,2	606,5	200	994,1	80,3	1510,3
400,2	49,99	1,076	1,054	1,093	200	59,3	388,2	200	996,0	80,0	793,5

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

LOAD %	P2 W	I A	P1 W	Pcu1s W	Ss %	Pcu2s W	Ps W	Pfe W	EFF %	P.F
150,0	472500	840,1	502466,1	7258,7	1,717	8403,1	7209,2	5736,6	94,02	0,863
125,0	393750	688,9	416753,1	4880,5	1,420	5768,7	4976,3	5765,8	94,49	0,873
100,0	315000	550,4	332207,9	3115,5	1,119	3616,6	3165,4	5781,0	94,82	0,871
75,0	236250	420,4	249266,7	1817,7	0,865	2090,3	1771,5	5815,9	94,78	0,856
50,0	157500	314,3	167658,6	1015,9	0,626	1005,9	783,5	5829,9	93,93	0,770
25,0	78750	211,7	87067,2	460,9	0,393	317,3	195,0	5865,23	90,54	0,594

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ELECTRIC MOTOR TEST REPORT - THREE PHASE INDUCTION MOTOR

VALIADIS S.A.

Type	K355L-6		Poles	6		Frame Reduced	output Power	315,0	kW
Voltage	400	V	Current	551	A	Frequency	50,0	Hz	
Speed	990	r/min	Duty	S1		Connection	Δ		
Ins.class	F		Weight	0			IP55		

LOAD CURVE

