

VALIADIS S.A.

ELECTRIC MOTOR TEST REPORT - THREE PHASE INDUCTION MOTOR

NAMEPLATE DATA			
K315LX-4 FRAME	IEC TYPE	315 kW	1485 r/min
4 POLE	3 PHASE	400 VOLTS	50 Hz
VALIADIS MANUFACTURER	531,2 AMPS	IP55 IP	
	S1 DUTY	F INS.CLASS	Δ CONNECTION

MAJOR CONTENTS	UNIT	TEST VALUE
STATOR RESISTANCE OF PHASE	OHM	0,00999
NO LOAD CURRENT	AMP	137,46
NO LOAD INPUT	W	4853,4
CORE LOSS(Pfe)	W	3243,5
WINDAGE FRICTION LOSS(Pfw)	W	1429,7
STATOR WINDING LOSS(Pcu1)	W	2915,4
ROTOR WINDING LOSS(Pcu2)	W	3135,5
STRAY LOAD LOSS(Ps)	W	4118,8
FULL LOAD CURRENT	AMP	527,23
LOCKED ROTOR CURRENT	AMP	3740,94
LOCKED ROTOR CURRENT/FULL LOAD CURRENT	P.U.	7,04
FULL LOAD TORQUE	N.m	2024,91
LOCKED ROTOR TORQUE	N.m	4509,59
LOCKED ROTOR TORQUE/FULL LOAD TORQUE	P.U.	2,23
PULL OUT TORQUE	N.m	5872,59
PULL OUT TORQUE/FULL LOAD TORQUE	P.U.	2,90
INPUT @ FULL LOAD	kW	329,84
EFFICIENCY @ FULL LOAD	%	95,50
POWER FACTOR @ FULL LOAD		0,903
FULL LOAD SLIP	%	0,969
FULL LOAD SPEED	r/min	1485,5
STATOR WINDING TEMPERATURE RISE	K	73
D.E. BEARINGS TEMPERATURE BY PT100	Deg. C	57,0
AMBIENT TEMPERATURE OF TESTING	Deg. C	9,2
NOISE	dB(A)	98
VIBRATION	mm/s	2,0

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

VALIADIS S.A K315LX-4 315 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	K315LX-4	Poles	4	Power	315,0 kW
Voltage	400 V	Current	531,2 A	Frequency	50 Hz
Speed	1485 r/min	Duty	S1	Connection	△
Ins.class	F	Weight	kg		IP55

NO LOAD TEST

VOL	mul.	HZ	I01	I02	I03	mul.	W1	W2	W3	°C
486,1	1	50	3,160	3,250	3,145	100	30,5	49,0	54,5	80,9
448,8	1	50	2,200	2,155	2,125	100	22,0	34,5	20,0	80,7
400,6	1	50	1,380	1,390	1,370	100	16,3	16,5	15,9	80,0
360,9	1	50	2,104	2,120	2,032	50	26,8	25,6	24,0	78,3
304,3	1	50	1,548	1,576	1,556	50	15,6	18,4	22,4	77,9
245,1	1	50	3,140	3,110	3,020	20	39,0	39,0	39,0	77,6
199,5	1	50	2,450	2,440	2,390	20	32,6	37,7	34,5	76,8
156,3	1	50	1,910	2,170	1,990	20	29,7	33,1	30,9	76,3
106,2	1	50	1,570	1,500	1,410	20	26,8	26,6	27,1	75,7

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VALIADIS S.A.

Type	K315LX-4	Poles	4	Power	315,0	kW
Voltage	400 V	Current	531,2 A	Frequency	50,0	Hz
Speed	1485 r/min	Duty	S1	Connection	Δ	
Ins.class	F	Weight	kg		IP55	

LOCKED ROTOR TEST

VOL	mul.	Ik1	Ik2	Ik3	mul.	W1	W2	mul.	Torque (N.m)
164,2	1,0	3,208	3,223	3,242	400,0	-115,3	369,5	400	536,01
148,9	1,0	2,879	2,894	2,907	400,0	-95,5	299,9	400	431,10
136,8	1,0	2,620	2,634	2,646	400,0	-81,2	249,9	400	355,72
118,5	1,0	2,229	2,244	2,251	400,0	-61,1	183,5	400	258,19
104,9	1,0	1,947	1,961	1,965	400,0	-48,2	141,6	400	197,06
90,2	1,0	1,644	1,655	1,657	400,0	-35,8	102,4	400	140,56
73,3	1,0	1,301	1,313	1,310	400,0	-23,7	65,8	400	88,97

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ELECTRIC MOTOR TEST REPORT - THREE PHASE INDUCTION MOTOR

VALIADIS S.A.

Type	K315LX-4	Poles	4	Power	315 kW
Voltage	400 V	Current	531,2 A	Frequency	50 Hz
Speed	1485 r/min	Duty	S1	Connection	Δ
Ins.class	F	Weight	1520 kg		IP55

TEMPERATURE RISE TEST

TIME (h:min)	V	I1	I2	I3	mul.	W1	W2	W3	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		
10:30	400,2	2,695	2,718	2,672	200	560,0	572,5	560	54,7	—	—	84,6	83,5	—	—	—	—	—	—	—	—	10,2	
11:00	400,5	2,672	2,718	2,649	200	557,5	572,5	560	56,4	—	—	88,9	88,0	—	—	—	—	—	—	—	—	10,7	
11:30	400,5	2,672	2,672	2,625	200	555,0	565,0	550	57,8	—	—	92,2	91,4	—	—	—	—	—	—	—	—	11,3	
12:00	399,9	2,649	2,695	2,625	200	552,5	565,0	553	58,6	—	—	94,2	93,6	—	—	—	—	—	—	—	—	11,8	
12:30	400,0	2,672	2,718	2,649	200	557,5	572,5	555	59,4	—	—	95,7	95,1	—	—	—	—	—	—	—	—	12,1	
13:00	400,5	2,672	2,695	2,649	200	555,0	567,5	555	58,1	—	—	96,0	95,6	—	—	—	—	—	—	—	—	9,6	
13:30	400,5	2,649	2,695	2,625	200	555,0	567,5	555	57,1	—	—	95,8	95,4	—	—	—	—	—	—	—	—	9,0	
14:00	400,2	2,672	2,695	2,602	200	557,5	567,5	550	57,0	—	—	95,8	95,2	—	—	—	—	—	—	—	—	8,9	
AVERAGE		532,303			A	335333,3			W	57,0	—	—	95,8	95,2	—	—	—	—	—	—	—	—	9,2

T1 T2 : DE BEARING TEMPERATURE

T11 : CORE TEMPERATRE

T12: FRAME TEMPERATRE

T3~T10 : DE WINDING TEMPERATURE

T13 : AMBIENT TEMPERATURE

WINDING RESISTANCE (HOT) AT END OF TEMPERATURE RISE TEST

TIME (S)	65	95	125	155	185	215	245	275
RESISTANC	0,00646	0,00643	0,00641	0,00639	0,00637	0,00635	0,00633	0,00631

WINDING RESISTANCE(COLD)

Δ	U1-V1	U1-W1	V1-W1	AVERAGE	MIN	AMBIENT TEM.
	0,00488	0,004839	0,004847	0,00486	0,00484	5,7 °C
Y	U1-U2	V1-V2	W1-W2	AVERAGE	MIN	AMBIENT TEM.
	0	0	0	0,000	0	0 °C

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Type	K315LX-4	Poles	4	output Power	315,0	kW
Voltage	400 V	Current	531,2 A	Frequency	50,0	Hz
Speed	1485 r/min	Duty	S1	Connection	Δ	
Ins.class	F	Weight	kg		IP55	

LOAD TEST

V	HZ	A1 (unit)	A2 (unit)	A3 (unit)	mul.	W1 (unit)	W2 (unit)	W3 (unit)	r/min
400,4	50,00	4,167	4,192	4,073	200	847,5	864,0	835,8	1476,2
400,3	49,99	3,418	3,474	3,371	200	703,8	725,5	702,5	1480,9
400,2	49,98	2,685	2,727	2,662	200	556,5	570,8	557,5	1485,6
400,3	50,00	2,062	2,104	2,037	200	423,0	437,3	423,8	1489,1
400,2	49,99	2,860	2,874	2,800	100	555,0	565,5	549,5	1493,4
400,5	49,98	1,894	1,908	1,852	100	301,0	311,0	300,0	1496,6

% LOAD	OUTPUT W	INPUT W	AMPS A	Pcu1 W	SLIP %	Pcu2 W	Ps W	EFF %	P.F.
150	472500	502669,7	817,019	7001,1	1,673	8236,3	10259,0	94,00	0,888
125	393750	415134,8	665,876	4650,4	1,300	5292,8	6768,4	94,85	0,900
100	315000	329843,0	527,230	2915,4	0,969	3135,5	4118,8	95,50	0,903
75	236250	246665,6	398,986	1669,6	0,742	1794,4	2278,3	95,78	0,892
50	157500	164677,4	281,524	831,3	0,443	711,3	961,7	95,64	0,844
25	78750	84068,4	179,474	337,8	0,177	142,3	165,1	93,67	0,676

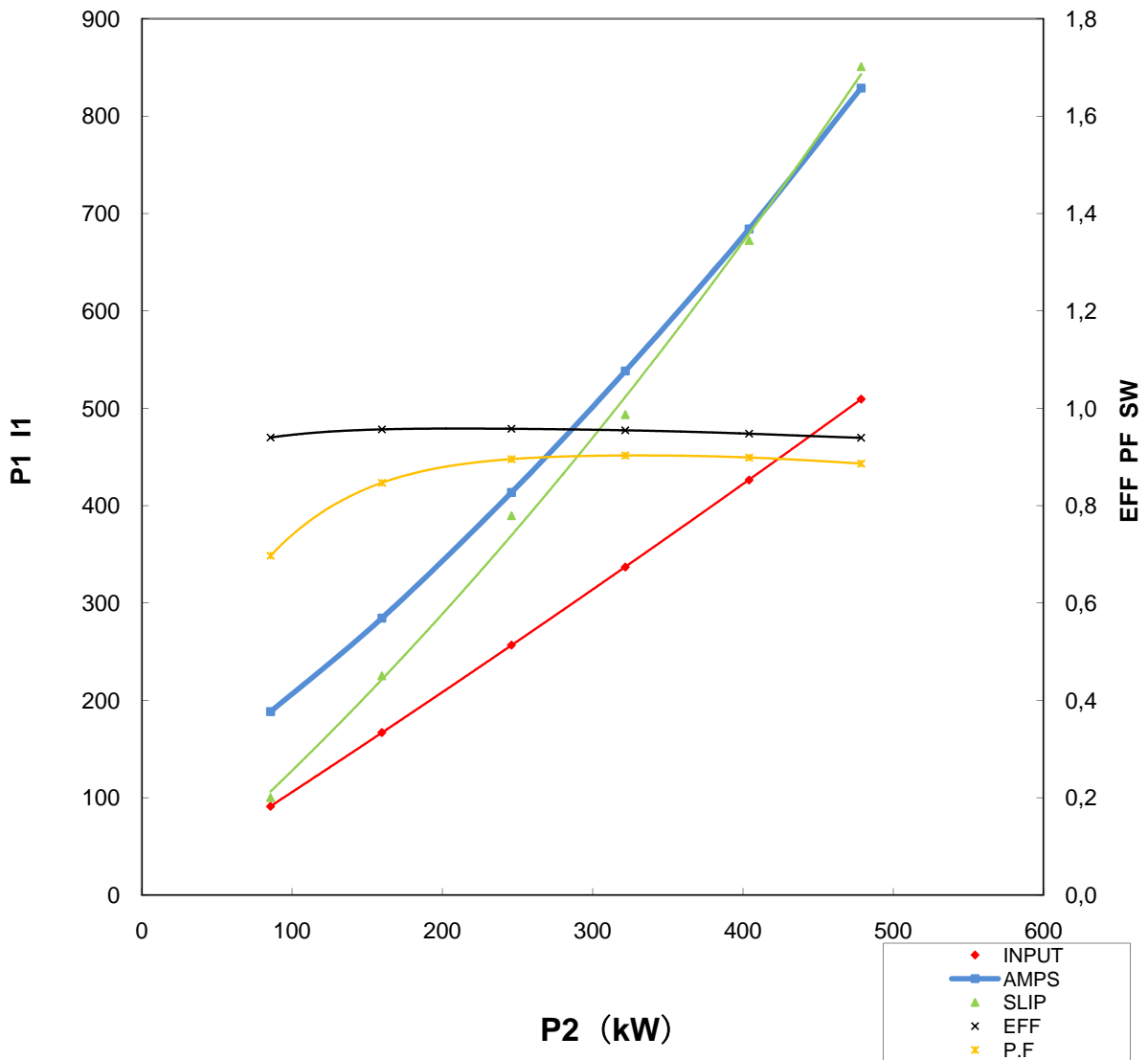
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Type	K315LX-4	Poles	4	output Power	315,0	kW
Voltage	400 V	Current	531,2 A	Frequency	50,0	Hz
Speed	1485 r/min	Duty	S1	Connection	Δ	
Ins.class	F	Weight	kg		IP55	

Load Curve



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