

VALIADIS S.A.

ELECTRIC MOTOR TEST REPORT - THREE PHASE INDUCTION MOTOR

NAMEPLATE DATA			
K280MX-6 FRAME	IEC TYPE	110 kW	990 r/min
6 POLE	3 PHASE	400 VOLTS	50 Hz
VALIADIS MANUFACTURER	196,0 AMPS	55 IP	411 IC
	S1 DUTY	F INS.CLASS	Δ CONNECTION

MAJOR CONTENTS	UNIT	TEST VALUE
STATOR RESISTANCE OF PHASE	OHM	0,05405
NO LOAD CURRENT	AMP	58,21
NO LOAD INPUT	W	2592,1
CORE LOSS(Pfe)	W	1839,0
WINDAGE FRICTION LOSS(Pfw)	W	572,3
STATOR WINDING LOSS(Pcu1)	W	2071,2
ROTOR WINDING LOSS(Pcu2)	W	1264,0
STRAY LOAD LOSS(Ps)	W	1429,1
FULL LOAD CURRENT	AMP	195,82
LOCKED ROTOR CURRENT	AMP	1320,77
LOCKED ROTOR CURRENT/FULL LOAD CURRENT	P.U.	6,74
FULL LOAD TORQUE	N.m	1062,26
LOCKED ROTOR TORQUE	N.m	2460,78
LOCKED ROTOR TORQUE/FULL LOAD TORQUE	P.U.	2,32
PULL OUT TORQUE	N.m	2928,74
PULL OUT TORQUE/FULL LOAD TORQUE	P.U.	2,76
INPUT @ FULL LOAD	kW	117,01
EFFICIENCY @ FULL LOAD	%	93,88
POWER FACTOR @ FULL LOAD		0,860
FULL LOAD SLIP	%	1,118
FULL LOAD SPEED	r/min	988,8
STATOR WINDING TEMPERATURE RISE	K	67
D.E. BEARINGS TEMPERATURE BY PT100	Deg. C	68,0
AMBIENT TEMPERATURE OF TESTING	Deg. C	27,9
NOISE	dB(A)	79
VIBRATION	mm/s	1,7

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

VALIADIS S.A. K280MX-6 110 kW 400 VOLTS 50 Hz	SERIAL NO.		
	DATE		REV
	DRAWN		DOCUMENT NO.
	APPRVD		
CHECKED		0	

ELECTRIC MOTOR TEST REPORT - THREE PHASE INDUCTION MOTOR

VALIADIS S.A.

Type	K280MX-6	Poles	6	Power	110,0 kW
Voltage	400 V	Current	196 A	Frequency	50 Hz
Speed	990 r/min	Duty	S1	Connection	Δ
Ins.class	F	Weight	0 kg		IP55

NO LOAD TEST

VOL	mul.	Hz	I01	I02	I03	mul.	W1	W2	mul.	°C
484,4	1	50	2,033	2,031	2,050	50	-436,5	548,9	50	90,8
437,5	1	50	1,449	1,432	1,454	50	-280,9	349,3	50	90,6
400,4	1	50	1,170	1,154	1,174	50	-206,3	258,3	50	90,4
361,5	1	50	2,446	2,431	2,483	20	-386,1	486,8	20	90,1
304,6	1	50	1,973	1,952	1,984	20	-258,8	337,4	20	90,0
254,0	1	50	1,594	1,572	1,598	20	-167,6	232,5	20	89,9
204,1	1	50	1,262	1,240	1,261	20	-98,6	153,8	20	89,8
175,5	1	50	2,137	2,090	2,140	10	-134,6	230,2	10	89,6
134,6	1	50	1,649	1,619	1,684	10	-64,7	145,0	10	89,5
112,2	1	50	1,377	1,388	1,439	10	-35,5	108,9	10	89,3

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

ELECTRIC MOTOR TEST REPORT - THREE PHASE INDUCTION MOTOR

VALIADIS S.A.

Type	K280MX-6	Poles	6	Power	110,0	kW
Voltage	400 V	Current	196 A	Frequency	50,0	Hz
Speed	990 r/min	Duty	S1	Connection	Δ	
Ins.class	F	Weight	0 kg		IP55	

LOCKED ROTOR TEST

VOL	mul.	lk1	lk2	lk3	mul.	W1	W2	mul.	Torque N.m
299,9	1,0	4,548	4,566	4,626	200,0	-214,3	959,2	200	1183,65
264,9	1,0	3,889	3,914	3,958	200,0	-168,6	719,8	200	882,14
228,7	1,0	3,246	3,261	3,300	200,0	-127,9	514,1	200	622,19
195,7	1,0	2,683	2,697	2,724	200,0	-95,5	360,5	200	429,35
169,7	1,0	2,258	2,267	2,293	200,0	-72,8	260,4	200	302,57
136,3	1,0	1,760	1,766	1,781	200,0	-47,3	161,7	200	181,12
106,6	1,0	2,687	2,697	2,727	100,0	-58,5	192,0	100	104,41

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

ELECTRIC MOTOR TEST REPORT - THREE PHASE INDUCTION MOTOR

VALIADIS S.A.

Type	K280MX-6	Poles	6	Power	110	kW
Voltage	400 V	Current	196 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	
12:00	400,4	1,954	1,957	1,985	100	383,2	791,5	100	64,5	51,6	89,5	90,2	—	—	—	—	—	—	—	—	—	27,8
12:30	400,4	1,951	1,955	1,982	100	383,6	790,3	100	65,7	52,3	91,8	92,5	—	—	—	—	—	—	—	—	—	29,1
13:00	400,4	1,964	1,972	1,988	100	384,7	796,8	100	65,7	52,6	92,9	93,7	—	—	—	—	—	—	—	—	—	28,0
13:30	400,4	2,003	2,005	2,025	100	394,6	809,9	100	66,9	53,2	95,0	95,9	—	—	—	—	—	—	—	—	—	27,9
14:00	400,5	1,948	1,960	1,980	100	383,2	792,5	100	67,0	52,9	95,6	96,3	—	—	—	—	—	—	—	—	—	27,5
14:30	400,6	1,953	1,962	1,978	100	383,8	793,4	100	67,7	53,5	96,6	97,4	—	—	—	—	—	—	—	—	—	28,0
15:00	400,2	1,966	1,972	1,999	100	388,3	796,9	100	67,6	53,5	96,8	97,6	—	—	—	—	—	—	—	—	—	27,7
15:30	400,5	1,934	1,945	1,961	100	380,2	786,5	100	68,0	53,8	97,3	98,2	—	—	—	—	—	—	—	—	—	28,0
Last three points average		196,330			A	117636,7		W	68,0	53,8	96,9	97,7	—	—	—	—	—	—	—	—	—	27,9

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)	30	71	112	140	192	260	315
RESISTANC	0,03630	0,03620	0,03610	0,03610	0,03590	0,03580	0,03570

WINDING RESISTANCE(COLD)

U1-V1	U1-W1	V1-W1	AVERAGE	MIN	AMBIENT TEM.
0,0286	0,0286	0,0286	0,02860	0,02860	26,9 °C

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

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

VALIADIS S.A.

Type	K280MX-6	Poles	6	Power	110,0	kW
Voltage	400 V	Current	196 A	Frequency	50,0	Hz
Speed	990 r/min	Duty	S1	Connection	Δ	
Ins.class	F	Weight	0 kg		IP55	

LOAD TEST

V	Hz	I1	I2	I3	mul.	W1	W2	mul.	r/min	Temperature °C	Torque N.m
400,0	50,00	2,768	2,784	2,812	100	523,4	1125,0	100	982,2	95,5	1484,0
400,3	50,00	2,315	2,318	2,342	100	453,6	938,3	100	986	96,1	1260,0
399,9	50,00	1,911	1,917	1,942	100	375,6	774,7	100	989,3	96,4	1044,6
400,4	50,00	1,572	1,582	1,595	100	296,9	639,5	100	991,9	96,4	850,1
400,7	50,00	1,233	1,242	1,251	100	206,5	500,2	100	994,6	96,3	638,6
400,9	50,00	0,924	0,924	0,938	100	106,0	360,5	100	997,2	95,9	415,7
400,5	50,00	1,495	1,483	1,504	50	67,1	546,7	50	998,9	95,4	266,0

LOAD %	P2 W	I A	P1 W	Pcu1s W	Ss %	Pcu2s W	Ps W	Pfe W	EFF %	P.F
150,0	165000	303,8	178676,1	4985,1	2,027	3483,4	3317,8	1676,5	92,08	0,849
125,0	137500	246,0	147342,5	3269,8	1,530	2175,6	2273,8	1709,0	93,14	0,864
100,0	110000	195,8	117008,4	2071,2	1,118	1264,0	1429,1	1732,1	93,88	0,862
75,0	82500	148,3	87376,0	1188,3	0,731	616,0	780,5	1766,9	94,29	0,850
50,0	55000	108,5	58628,3	635,7	0,409	229,4	332,6	1798,0	93,84	0,780
25,0	27500	74,3	30303,4	297,9	0,106	29,8	86,1	1819,6	90,68	0,589

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

ELECTRIC MOTOR TEST REPORT - THREE PHASE INDUCTION MOTOR

VALIADIS S.A.

Type	K280MX-6	Poles	6	output Power	110,0	kW
Voltage	400 V	Current	196 A	Frequency	50,0	Hz
Speed	990 r/min	Duty	S1	Connection	Δ	
Ins.class	F	Weight	0 kg		IP55	

LOAD CURVE

