



3 PHASE ASYNCHRON MOTOR TEST REPORT ACCORDING TO IEC 60034-2-1

ELECTRIC
MOTOR PLANT

NAMEPLATE VALUES

Motor Type	Q3E132M4B	Voltage	400/690V	Nominal limit for IE3	89,60%
Serial Number	5869	Current	11.1 / 6.4 A	Duty Type	S1
Power	5.5kW	RPM	1465	Insulation Class	F
Frequency	50Hz	Power Factor	0,79	IC	41

NOLOAD TEST	TEST NUM:	: 10855	REV	: 2
	DATE:	: 14.01.2011		

U(V)	U ²	Im(A)	Pin(W)	Pcu(W)	Pfe+Pstv	P fe(W)	P stv(W)	R(ohm)
80	6400	1,00	48	1,6	46,4	3,6	42,8	1,603
120	14400	1,60	68	4,1	63,9	21,1	42,8	1,603
160	25600	2,10	88	7,0	81,0	38,1	42,8	1,603
200	40000	2,63	120	11,1	108,9	66,1	42,8	1,603
240	57600	3,22	151	16,6	134,4	91,5	42,8	1,603
305	93025	4,26	213	29,0	184,0	141,1	42,8	1,603
370	136900	5,62	298	50,6	247,4	204,6	42,8	1,603
400	160000	6,47	349	67,1	281,9	239,1	42,8	1,603
435	189225	8,07	434	104,3	329,7	286,9	42,8	1,603
500	250000	14,73	824	348,0	476,0	433,2	42,8	1,603

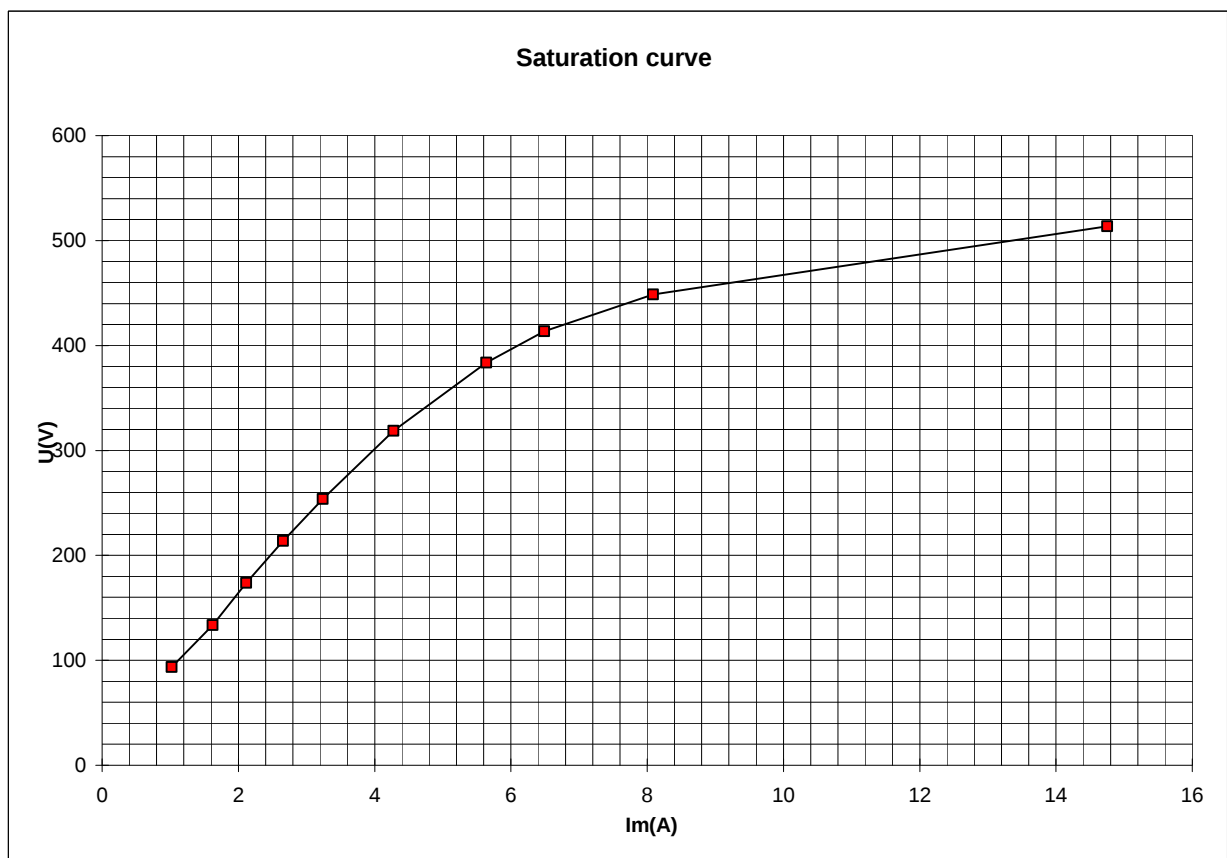
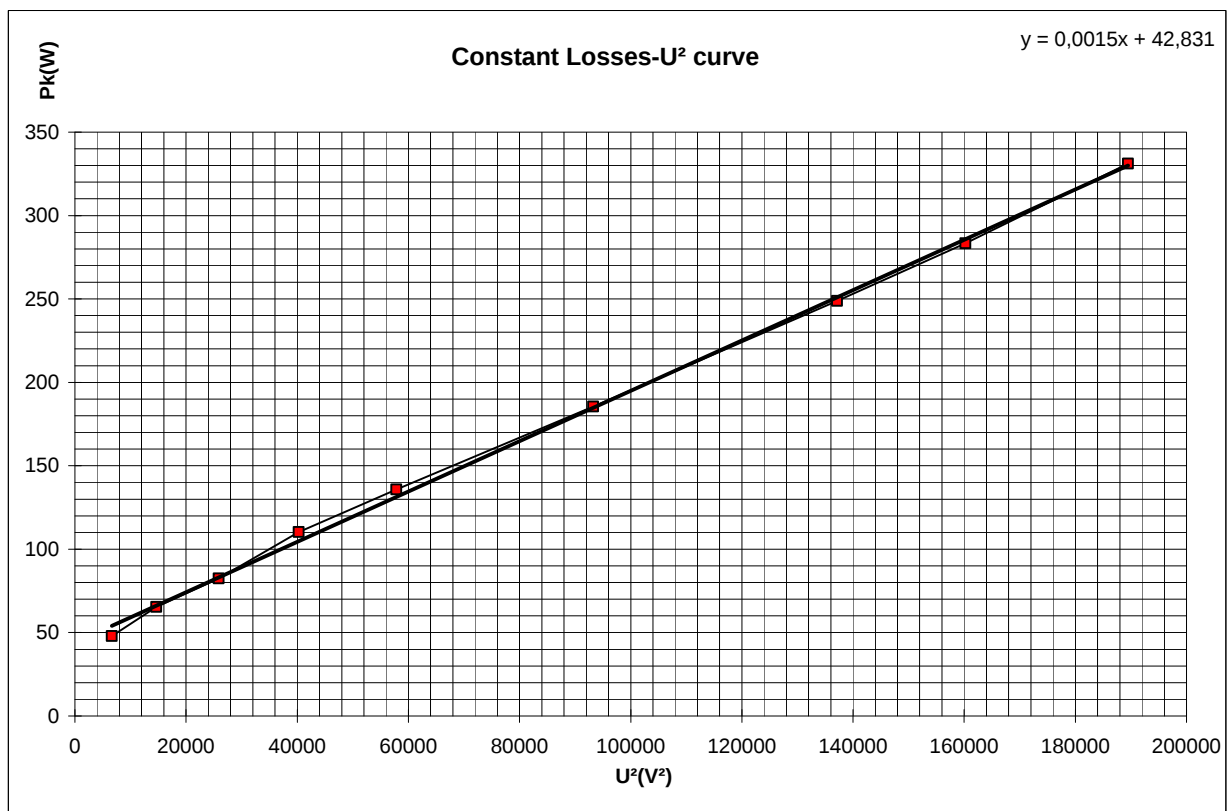
PERFORMANCE

Amb.Temp 24 °C Dt : 45 K

Voltage	U(V)	402	400	399	400	401	400
Phase current	Im(A)	6,74	7,77	9,27	11,14	13,11	15,24
Input Power	Pin(W)	1701	3161	4620	6122	7652	9188
Resistance	R()	1,603	1,603	1,603	1,603	1,603	1,603
Copper Losses	Pcu(W)	73	97	138	199	276	372
Iron Losses	Pfe(W)	239	239	239	239	239	239
	Pcu+Pstv(W)	312	336	377	438	515	611
	Pin-Pcu-Pstv(W)	1389	2825	4243	5684	7137	8577
slip	s(%)	0,60	1,07	1,60	2,20	3,00	3,67
Rotor Losses	Pr(W)	8	30	68	125	214	314
Friction Losses	Pstv(W)	43	43	43	43	43	43
Stray load losses	PLL(W)	2,1	8,6	19,3	34,4	53,7	77,3
	Pr+Pstv+PLL (W)	53	82	130	202	311	435
Output Power	Pout (W)	1336	2743	4113	5482	6827	8142
Apparent Power	S(VA)	4695	5386	6407	7716	9106	10558
Power Factor	COSphi	0,362	0,587	0,721	0,793	0,840	0,870
Efficiency	Eta(%)	78,5	86,8	89,0	89,5	89,2	88,6
Torque	M(Nm)	9,1	18,1	27,2	36,2	45,3	54,3
Speed	n(U/min)	1491	1484	1476	1467	1455	1445
	Pmech(W)	1414	2814	4199	5564	6898	8221

PREPARED BY : H.GEDIK

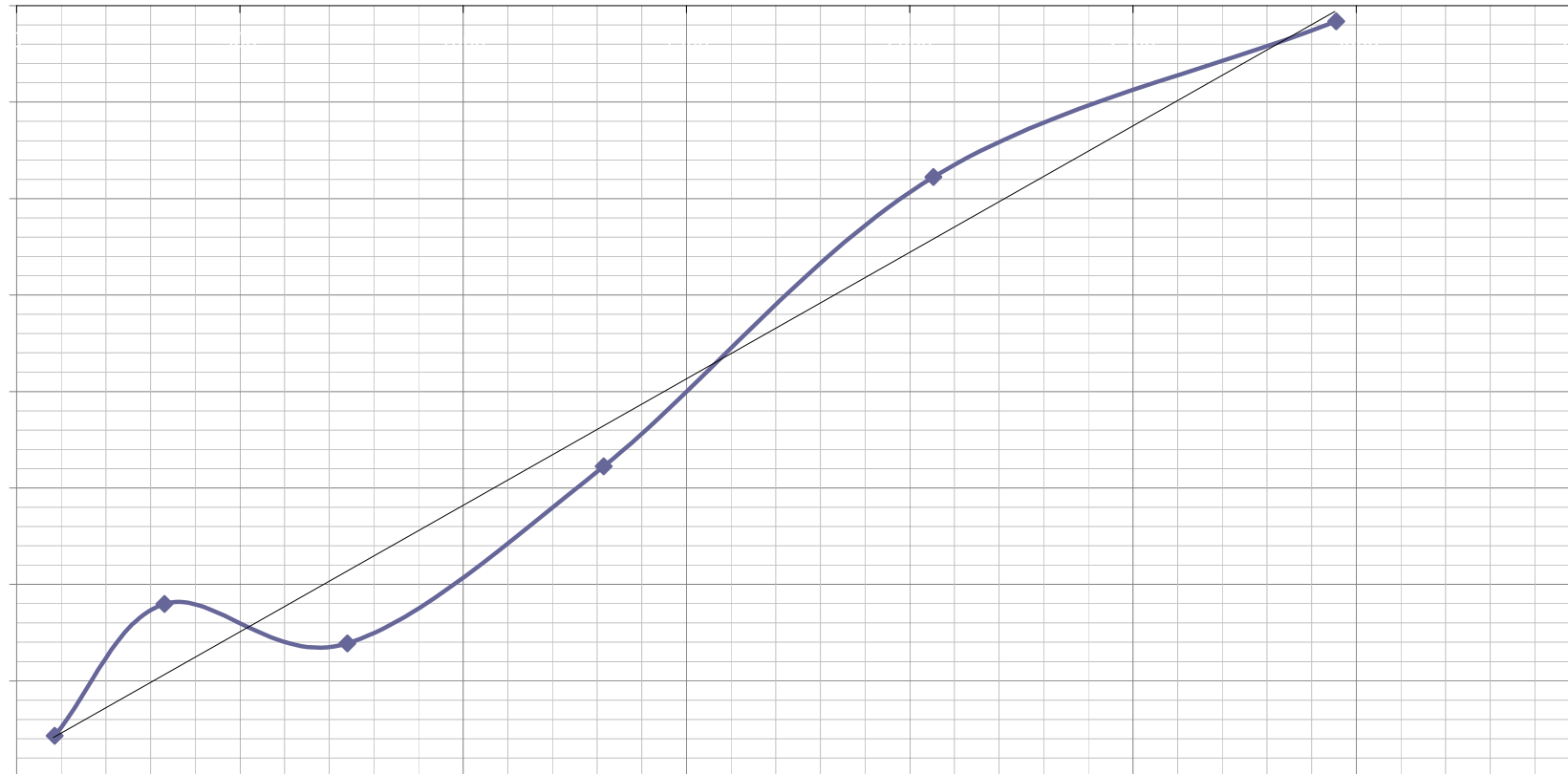
CONTROL : C.ERTÜRK



Stray load losses curve

$$y = 0,0262x - 78,03$$

$$R^2 = 0,9605$$



—◆— $T^2(\text{Nm}^2)$ — Linear ($T^2(\text{Nm}^2)$)