

VALIADIS S.A.

ELECTRIC MOTOR TEST REPORT - THREE PHASE INDUCTION MOTOR

NAMEPLATE DATA		IEC TYPE		90 KW		2970 RPM	
K280M-2 FRAME		3 PHASE		400 VOLTS		50 HZ / CYCLES	
94.2 EFFICIENCY		152.9 AMPS		55 IP		IC411 IC	
2 POLE		S1 DUTY		0.902 PF		N/A EFF2	
Valiadis MANUFACTURER		SERIAL NO.		F INS.CLASS		DELTA CONNECTION	

TEST DATA	NO LOAD	25% LOAD	50% LOAD	75% LOAD	100% LOAD	110% LOAD	125% LOAD	LOCKED ROTOR
	EFFICIENCY	0	88.35	92.75	93.93	94.16	94.08	93.96
PF	0.130	0.738	0.870	0.900	0.902	0.898	0.890	0.383
RPM	3000	2993	2985	2978	2970	2966	2961	0
SLIP	0.00%	0.24%	0.48%	0.72%	1.00%	1.13%	1.31%	100.00%
AMPS	29.43	49.82	80.51	115.31	152.87	169.15	194.27	948.0
VOLTS	400	400	400	400	400	400	400	400
TORQUE NM	0	71.8	144.0	216.5	289.5	318.9	363.0	618.7
KW INPUT	2.647	25.47	48.52	71.87	95.58	105.23	119.74	251.40
KW OUTPUT	0	22.50	45.00	67.50	90.00	99.00	112.50	

LOSSES(kw)	25% LOAD	50% LOAD	75% LOAD	100% LOAD	110% LOAD	125%LOAD
STATOR LOSS Pcu1	0.166	0.435	0.891	1.566	1.92	2.53
STATOR LOSS %	0.65%	0.90%	1.24%	1.64%	1.82%	2.11%
ROTOR LOSS Pcu2	0.059	0.228	0.505	0.932	1.16	1.53
ROTOR LOSS %	0.23%	0.47%	0.70%	0.97%	1.10%	1.28%
CORE LOSS Pfe	0.839	0.839	0.839	0.839	0.839	0.839
CORE LOSS %	3.30%	1.73%	1.17%	0.88%	0.80%	0.70%
WINDAGE/FRICTION Pfw	1.752	1.752	1.752	1.752	1.752	1.752
WINDAGE/FRICTION %	6.88%	3.61%	2.44%	1.83%	1.66%	1.46%
STRAY LOAD LOSS Ps	0.127	0.243	0.359	0.478	0.526	0.599
STRAY LOAD LOSS %	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%

Losses are measured/calculated as per IEC 34-2 - The Summation of Losses Method
All data is measured at Nominal Volts

TEMPERATURES			
STATOR RESISTANCE COLD	0.0362023 OHMS @	28.3 DEG.C.	BETWEEN STATOR LEADS
STATOR RESISTANCE ADJUSTED	0.04469 OHMS @	90 DEG.C.	BETWEEN STATOR LEADS
STATOR RESISTANCE HOT	0.04760 OHMS	after test of temp rise	BETWEEN STATOR LEADS
WINDING TEMPERATURE RISE	77.9 DEG.C.	at full load steady state at	90 SECS
WINDING TEMPERATURE RISE	85.3 DEG.C.	at full load steady state at	0 SECS
PT100 TEMPERATURE OF DE WINDING	109.1 DEG.C.	at full load steady state at ambient	28.5 DEG.C.
PT100 TEMPERATURE OF NDE WINDING	N/A DEG.C.	at full load steady state at ambient	28.5 DEG.C.
PT100 TEMPERATURE DE BEARING	83.3 DEG.C.	at full load steady state at ambient	28.5 DEG.C.
PT100 TEMPERATURE NDE BEARING	N/A DEG.C.	at full load steady state at ambient	28.5 DEG.C.
PT100 TEMPERATURE IN TERMINAL BOX	49.5 DEG.C.	at full load steady state at ambient	28.5 DEG.C.
PT100 TEMPERATURE ON STATOR LEADS	54.4 DEG.C.	at full load steady state at ambient	28.5 DEG.C.

OTHER			
NOISE LEVEL(Lp)	74 dB(A) @ 1meter	INSULATION RESISTANCE	500 MEG.OHMS
VIBRATION LEVEL	1.5 mm/sec on no load	D.E. BEARING	6314C3
WEIGHT	620 kg	N.D.E.BEARING	6314C3
H-POT TEST VOLTS	1800 VOLTS		

VALIADIS S.A. K280M-2 90 kW 400 VOLTS 50 Hz	SCALE	N/A	
	DATE		REV
	DRAWN		DOCUMENT NO.
	APPRVD		
CHECKED			

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Valiadis MANUFACTURER	SERIAL NO.	F INS.CLASS	DELTA CONNECTION

MAJOR CONTENTS	UNIT	TEST VALUE
STATOR RESISTANCE OF PHASE TO PHASE	90 DEG.C	0.04469
NO LOAD CURRENT	AMP	29.43
NO LOAD INPUT	kW	2.647
CORE LOSS(Pfe)	kW	0.839
WINDAGE FRICTION LOSS(Pfw)	kW	1.752
STATOR WINDING LOSS(Pcu1)	kW	1.566
ROTOR WINDING LOSS(Pcu2)	kW	0.932
STRAY LOAD LOSS(Ps)	kW	0.478
FULL LOAD CURRENT	AMP	152.87
LOCKED ROTOR CURRENT	AMP	948.01
LOCKED ROTOR CURRENT/FULL LOAD CURRENT	P.U.	6.2
LOCKED ROTOR INPUT @ FULL LOAD	kW	251.40
FULL LOAD TORQUE	N.m	289.52
LOCKED ROTOR TORQUE	N.m	618.69
LOCKED ROTOR TORQUE/FULL LOAD TORQUE	P.U.	2.1
PULL OUT TORQUE	N.m	766.9
PULL OUT TORQUE/FULL LOAD TORQUE	P.U.	2.6
PULL UP TORQUE	N.m	549.81
PULL UP TORQUE/FULL LOAD TORQUE	P.U.	1.90
EFFICIENCY @ FULL LOAD	%	94.2
POWER FACTOR @ FULL LOAD		0.90
FULL LOAD SLIP	%	1.000
FULL LOAD SPEED	r/min	2970
STATOR WINDING TEMPERATURE RISE	90 SECS	K
D.E. BEARINGS TEMPERATURE BY PT100		Deg. C
TEMPERATURE ON LEADS BY PT100		Deg. C
TEMPERATURE IN TERMINAL BOX BY PT100		Deg. C
AMBIENT TEMPERATURE OF TESTING		Deg. C
SOUND PRESSURE LEVEL		dB(A)
VIBRATION		mm/s
MOMENT OF INERTIA		kgm2
WEIGHT		kg

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

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NAMEPLATE DATA

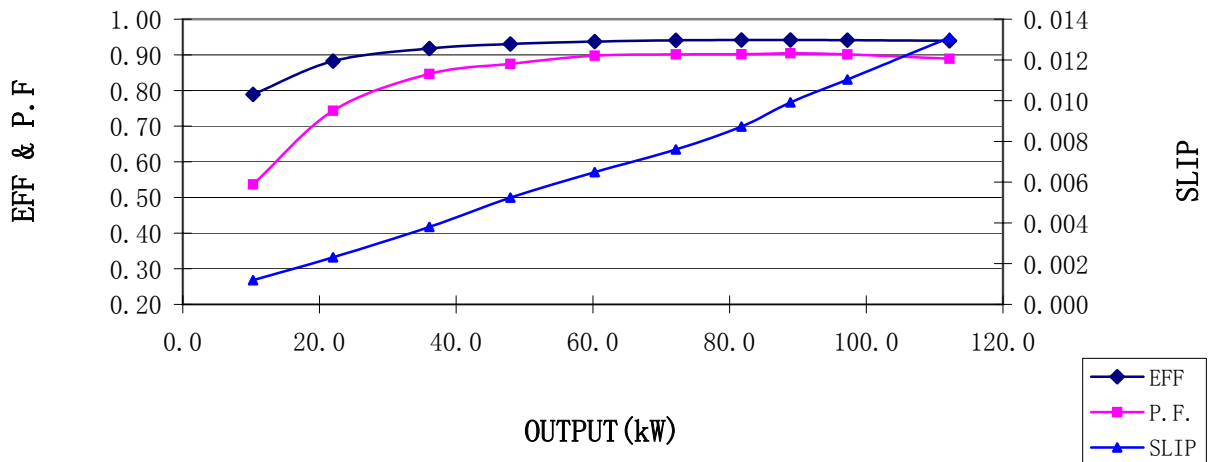
K280M-2 FRAME
 94.2 EFFICIENCY
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 Valiadis MANUFACTURER

IEC TYPE
 3 PHASE
 152.9 AMPS
 S1 DUTY
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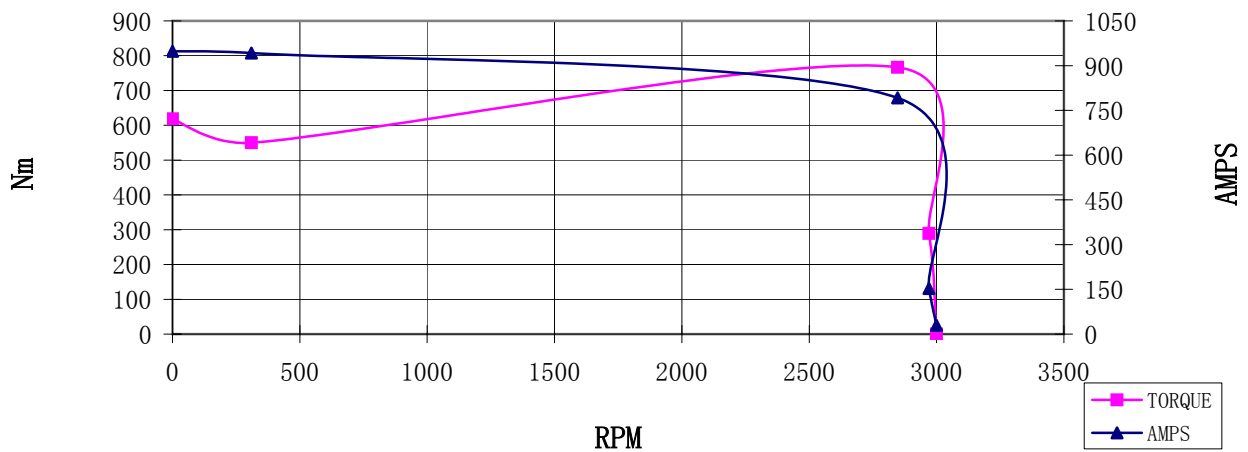
90 KW
 400 VOLTS
 55 IP
 0.902 PF
 F INS.CLASS

2970 RPM
 50 HZ / CYCLES
 IC411 IC
 N/A EFF2
 DELTA CONNECTION

LOAD



TORQUE & AMPS VS SLIP



VALIADIS S.A.		SCALE	N/A	
		DATE		REV
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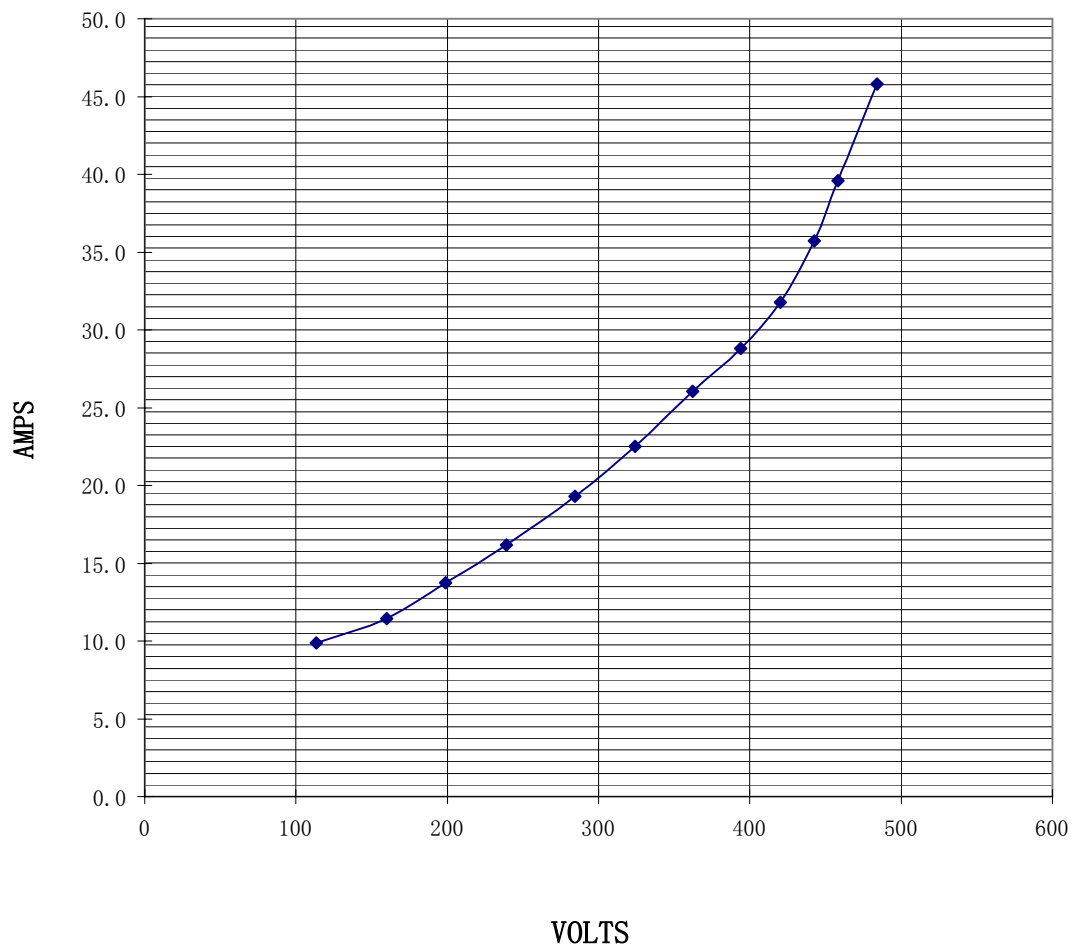
90 KW

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 F INS.CLASS

2970 RPM

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 N/A EFF2
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MAGNETIZATION CURVE - NO LOAD



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