

ROYCE CROSS GROUP

ELECTRIC MOTOR TEST REPORT - THREE PHASE INDUCTION MOTOR

NAMEPLATE DATA

YE2-100L1-8 FRAME	IEC TYPE	0.75 kW	690 r/min
8 POLE	3 PHASE	415 VOLTS	50 Hz
ROYCE CROSS GROUP MANUFACTURER	2.3 AMPS	IP55 IP	
	S1 DUTY	F INS.CLASS	Y CONNECTION

MAJOR CONTENTS	UNIT	TEST VALUE
STATOR RESISTANCE OF PHASE	OHM	10.6756
NO LOAD CURRENT	AMP	2.131
NO LOAD INPUT	W	182.5
CORE LOSS(Pfe)	W	37.3
WINDAGE FRICTION LOSS(Pfw)	W	9.4
STATOR WINDING LOSS(Pcu1)	W	170.8
ROTOR WINDING LOSS(Pcu2)	W	90.9
STRAY LOAD LOSS(Ps)	W	28.2
FULL LOAD CURRENT	AMP	2.327
LOCKED ROTOR CURRENT	AMP	9.72
LOCKED ROTOR CURRENT/FULL LOAD CURRENT	P.U.	4.23
FULL LOAD TORQUE	N.m	10.64
LOCKED ROTOR TORQUE	N.m	19.99
LOCKED ROTOR TORQUE/FULL LOAD TORQUE	P.U.	1.93
PULL OUT TORQUE	N.m	25.28
PULL OUT TORQUE/FULL LOAD TORQUE	P.U.	2.43
INPUT @ FULL LOAD	kW	1.089
EFFICIENCY @ FULL LOAD	%	69.02
POWER FACTOR @ FULL LOAD		0.651
FULL LOAD SLIP	%	10.273
FULL LOAD SPEED	r/min	673.0
STATOR WINDING TEMPERATURE RISE	K	55
D.E. BEARINGS TEMPERATURE BY PT100	Deg. C	46.1
AMBIENT TEMPERATURE OF TESTING	Deg. C	20.0
HIGH VOLTAGE TEST	V	1830
INSULATION RESISTANCE	MΩ	500
NOISE	dB(A)	52
VIBRATION	mm/s	0.3

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

ROYCE CROSS GROUP YE2-100L1-8 0.75 kW 415 VOLTS 50 Hz	SERIAL NO.		
	DATE		REV
	DRAWN		DOCUMENT NO.
	APPRVD		
CHECKED			

ELECTRIC MOTOR TEST REPORT - THREE PHASE INDUCTION MOTOR

ROYCE CROSS GROUP

Type	YE2-100L1-8	Poles	8	Power	0.75 kW
Voltage	415 V	Current	2.3 A	Frequency	50 Hz
Speed	690 r/min	Duty	S1	Connection	Y
Ins. class	F	Weight	0 kg		IP55

NO LOAD TEST

VOL	mul.	Hz	I01	I02	I03	mul.	W1	W2	mul.	℃
489.6	1	50	3.191	3.177	3.203	1	-431.4	801.6	1	73.6
460.2	1	50	2.699	2.686	2.705	1	-353.4	627.3	1	73.5
415.9	1	50	2.143	2.134	2.143	1	-261.9	445.8	1	73.1
400.2	1	50	1.991	1.982	1.991	1	-235.7	398.0	1	72.9
338.3	1	50	1.533	1.527	1.530	1	-153.9	258.3	1	72.5
276.0	1	50	1.182	1.178	1.179	1	-95.4	163.6	1	72.2
207.1	1	50	0.850	0.847	0.847	1	-49.3	89.7	1	71.5
191.5	1	50	0.779	0.778	0.777	1	-41.0	76.7	1	71.1
160.1	1	50	0.645	0.644	0.643	1	-26.7	54.0	1	71.0
113.1	1	50	0.456	0.453	0.452	1	-10.5	29.0	1	70.6

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Type	YE2-100L1-8	Poles	8	Power	0.75	kW
Voltage	415 V	Current	2.3 A	Frequency	50.0	Hz
Speed	690 r/min	Duty	S1	Connection	Y	
Ins. class	F	Weight	0 kg		IP55	

LOCKED ROTOR TEST

VOL	mul.	Ik1	Ik2	Ik3	mul.	W1	W2	mul.	Torque N. m
416.7	1.0	4.867	4.886	4.902	2.0	421.4	1666.0	2	20.17
370.3	1.0	4.179	4.189	4.206	2.0	306.2	1267.3	2	15.13
323.8	1.0	3.534	3.543	3.561	2.0	215.2	932.0	2	11.03
292.8	1.0	3.134	3.146	3.157	2.0	164.6	745.9	2	8.83
246.2	1.0	2.573	2.579	2.589	2.0	105.4	512.3	2	5.99
199.3	1.0	2.041	2.047	2.055	2.0	64.1	326.8	2	3.78
152.3	1.0	1.541	1.545	1.548	2.0	35.3	187.9	2	2.21
105.1	1.0	1.058	1.060	1.063	2.0	16.8	88.4	2	1.05

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ROYCE CROSS GROUP

Type	YE2-100L1-8		Poles	8		Power	0.75 kW	
Voltage	415 V		Current	2.3 A		Frequency	50 Hz	
Speed	690 r/min		Duty	S1		Connection	Y	
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	
10:30	415.1	2.445	2.445	2.439	1	255.9	903.3	1	44.9	—	82.3	—	—	—	—	—	—	—	—	—	—	18.9
11:00	415.1	2.448	2.449	2.442	1	257.3	905.4	1	44.7	—	84.0	—	—	—	—	—	—	—	—	—	—	19.2
11:30	414.9	2.442	2.439	2.438	1	256.3	901.4	1	45.2	—	85.2	—	—	—	—	—	—	—	—	—	—	19.5
12:00	415.2	2.444	2.442	2.440	1	257.0	902.5	1	44.8	—	85.8	—	—	—	—	—	—	—	—	—	—	19.7
12:30	415.2	2.452	2.449	2.447	1	259.7	905.6	1	45.0	—	86.4	—	—	—	—	—	—	—	—	—	—	20.1
13:00	415.1	2.450	2.447	2.446	1	259.5	905.1	1	46.1	—	86.7	—	—	—	—	—	—	—	—	—	—	20.3
最后三点平均值		2.446			A	1163.133		W	46.1	—	86.7	—	—	—	—	—	—	—	—	—	—	20.0

T1 T2: DE BEARING TEMPERATURE
T3~8: DE WINDING TEMPERATURE

T9: AIR INLET TEMPERATURE
T10: AIR OUTLET TEMPERATURE

T11: CORE TEMPERATRE
T13: AMBIENT TEMPERATURE

T12: FRAME TEMPERATRE

WINDING RESISTANCE (HOT) AT END OF TEMPERATURE RISE TEST

TIME (S)	32	42	52	62	72	82	92	102
RESISTANCE	20.46	20.40	20.32	20.24	20.18	20.11	20.04	19.98

WINDING RESISTANCE (COLD)

	U1-V1	U1-W1	V1-W1	AVERAGE	MIN	AMBIENT TEM.
	16.376	16.376	16.375	16.376	16.375	18.1 °C

ROYCE CROSS GROUP

Manu. Date

Serial No

Test Date

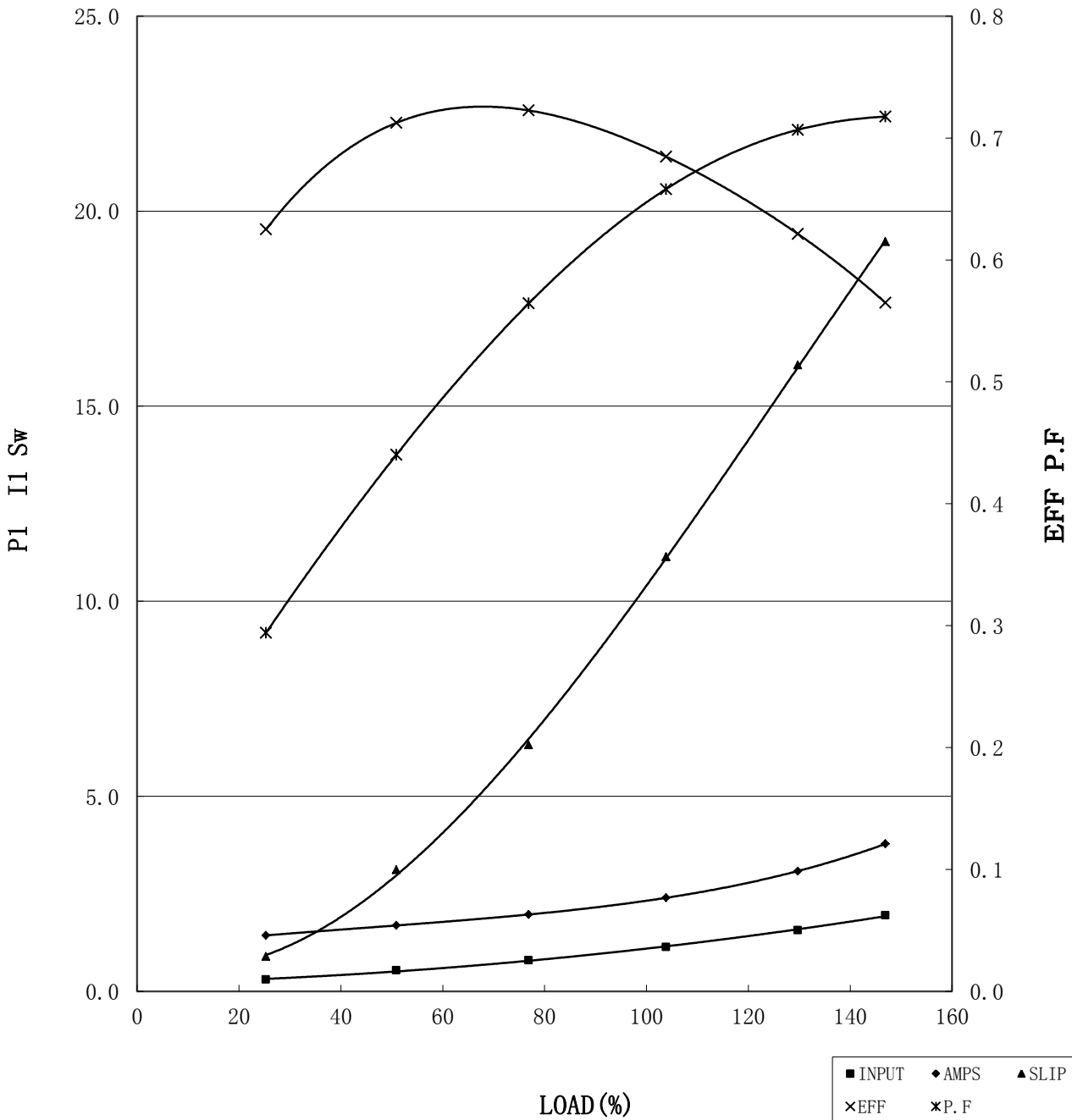
Report Number

ELECTRIC MOTOR TEST REPORT - THREE PHASE INDUCTION MOTOR

ROYCE CROSS GROUP

Type	YE2-100L1-8	Poles	8	output Power	0.75	kW
Voltage	415 V	Current	2.3 A	Frequency	50.0	Hz
Speed	690 r/min	Duty	S1	Connection	Y	
Ins. class	F	Weight	0 kg		IP55	

LOAD CURVE



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

ROYCE CROSS GROUP

Type	YE2-100L1-8	Poles	8	Power	0.75	kW
Voltage	415 V	Current	2.3 A	Frequency	50.0	Hz
Speed	690 r/min	Duty	S1	Connection	Y	
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
415.0	50.00	3.785	3.783	3.781	1	540.7	1410.5	1	608.3	84.9	17.32
415.1	50.00	3.083	3.080	3.080	1	416.2	1149.4	1	631.6	85.0	14.63
415.1	50.00	2.407	2.402	2.403	1	255.1	882.1	1	667.9	84.9	11.06
415.2	50.00	1.970	1.963	1.966	1	108.4	689.7	1	703.5	84.4	7.69
415.1	50.00	1.696	1.689	1.693	1	-11.1	546.8	1	727.1	83.9	4.88
415.1	50.01	1.438	1.432	1.437	1	-103.7	407.2	1	743.6	83.6	2.31

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	1125	3.820	2019.7	460.2	19.842	303.5	79.6	29.7	55.48	0.736
125.0	938	2.937	1487.6	272.1	15.019	177.8	49.2	31.6	63.29	0.705
100.0	750	2.327	1089.0	170.8	10.273	90.9	28.2	33.1	69.02	0.651
75.0	563	1.945	779.0	119.3	6.001	37.5	14.5	34.3	72.19	0.557
50.0	375	1.684	527.7	89.4	2.985	12.0	6.0	35.2	70.94	0.436
25.0	188	1.433	300.8	64.8	0.879	1.8	1.4	36.1	62.41	0.292

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