

ENG231 - Electrical Machines And Transformers -  
Assesment 2 Lab 4

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Contents

1   **ENG231 - Electrical Machines And Transformers - Assesment 2 Lab 4**   **1**  
1.1   Name Plate . . . . . 1  
1.2   DC Test . . . . . 1  
1.3   Open Circuit Test . . . . . 2  
1.4   Short Circuit Test . . . . . 2  
1.5   Performance Test / Full Load Test . . . . . 2

1   **ENG231 - Electrical Machines And Transformers - Assesment 2 Lab 4**

Data Collected During Lab

1.1   **Name Plate**

VA ratings	500
Primary Voltage	240
Secondary voltage	115
Primary current	2.083333333333333
Secondary current	4.34782608695652
Turns ratio	2.08695652173913

1.2   **DC Test**

Primary resistance (R1dc)	1.5
Secondary resistance (R2dc)	0.4

### 1.3 Open Circuit Test

	Primary				Secondary
	V1	I1	Poc	PF	V2
LV side open	110	0.563	10.3	0.165	220
HV side open	240	0.375	12.5	0.138	120

### 1.4 Short Circuit Test

	Primary				Secondary
	V1	I1	Poc	PF	I2
LV side Short circuited	7	1.76	10	0.863	3.5

### 1.5 Performance Test / Full Load Test

		No Load	Load 1: 200ohm	Load 2: 150ohm	Load 3: 100ohm	Load 4: 50ohm
Primary	V1	240		240	240	240
	I1	0.375		0.495	0.56	0.71
	P1	12		80	102	147
	PF	0.138		0.677	0.76	0.861
Secondary	V2	120		120	119	118
	I2	0		0.56	0.753	1.12
	P2	0		67	90	133
	PF	NULL		1	1	1
% Efficiency						
% Voltage Regulation						