R S TECHNOCRACY

Office : 266/2, West, Shewrapara (1st Floor), Mirpur, Dhaka-1216, Cell : 01711-462738
Cor. Office : F # B-4, H # 16, NHAC, Mirpur-02, Dhaka-1216, Cell : 01711-987058

২৫.৯.২৩

২৪০৪/FMD-2
২৫/৯/২৩

বরাবর,
নির্বাহী প্রকৌশলী
এফ এম বিভাগ-২, ঢাকা ওয়াসা।

বিষয়ঃ- ৮(আট) টি জ্বলা ত্রুটিপূর্ণ ইলেকট্রিক ট্রান্সফরমার রিওয়াইন্ডিং ও রিকন্ডিশনিং কাজ শেষে ট্রান্সফরমার টেষ্ট রিপোর্ট পেশ করন প্রসঙ্গে।

সুত্রঃ স্মারক নং- ৪৬.০৫.০০০০.৪২৪.০৭.০০৬.২০২৩.০১.০৪.০৪ তাং-০৯/০৮/২০২৩ইং

উপরোক্ত বিষয় ও সুত্রের পরিপ্রেক্ষিতে আলোচ্য কাজের মেরামতকৃত ট্রান্সফরমারগুলি ভারপ্রাপ্ত প্রকৌশলীগনের উপস্থিতিতে টেষ্টিং প্রক্রিয়া সম্পন্ন করা হয়েছে। টেষ্ট এ প্রাপ্ত তথ্য উপাত্বসহ ফলাফল লিপিবদ্ধ করতঃ এতদ্সংগে সংযুক্ত করা হল।

এমতাবস্থায়, বর্নিত ট্রান্সফরমারগুলোর টেষ্ট রিপোর্ট আপনার সদয় অবগতির নিমিত্তে পেশ করা হলো।

Riad Ahmed
Assistant Engineer
FMD-2, Dhaka-WASA
25.9.23

Md. Shahadat Hossain
Sub-Assistant Engineer
F.M. Division-2, Dhaka WASA
25-09-23

Engr. Md. Shahajul Haque
Managing Partner
R S Technocracy

R S TECHNOCRACY

Office : 266/2, West, Shewrapara (1st Floor), Mirpur, Dhaka-1216, Cell : 01711-462738
Cor. Office : F # B-4, H # 16, NHAC, Mirpur-02, Dhaka-1216, Cell : 01711-987058

FACTORY TEST CERTIFICATE

Customer	**Dhaka WASA** **Field Maintenance Division-02 (F.M.D-02)** **Address: Darus Salam Road, Near Govt. Bangla College, Dhaka-1216.**
Manufacturer	GEMCO, 200 KVA
Repaired & Tested By	**M/S. R.S Technocracy** **Add: 266/2 west shewrapara, Mirpur, Dhaka**

Year of Manufacturing: 2010 | Serial No. 17-18-049 | **Date of Test: 20.09.2023**

Rate Voltage at no Load	HT 11000V LT 415/240V	Rated Current	HT 10.49 Amperes LT 278.2 Amperes			
KVA Rating	200	No. of Phases	3	Tapping	1	+2.5%
Type of cooling	ONAN	Impedance Voltage	4%		2	0%
Vector Group	DYn 11				3	-2.5%
Standard	BS-171/IEC-76				4	-5%
Frequency	50Hz				5	-7.5%

1. WINDING RESISTANCE MEASUREMENT

HT Side (Phase to Phase) Resistance in Ohms				LT Side (Phase to Phase) Resistance in Ohms			
Phase	Measured at Room Temp 30 °C	Measured at 75 °C		Phase	Measured at Room Temp 30 °C	Measured at 75 °C	
A-B	10.4	12.16			0.0039	0.0045	
B-C	10.3	12.04			0.0038	0.0044	
C-A	10.5	12.28			0.0040	0.0046	

2. TURN RATIO

Tap Position	Specified Value	Observed Values	Deviation	Allowable Deviation	Remark.
I	9.41 x 5	9.41 x 5	-14 -.06 -.10	±0.5%	Satisfactory
II	9.18 x 5	9.18 x 5	-.16 -.08 -.10		
III	8.95 x 5	8.95 x 5	-20 -.06 -.08		
IV	8.72 x 5	8.72 x 5	-.16 -.06 -.08		
V	8.49 x 5	8.49 x 5	-.04 -.08 -.08		

25-09-23
Md. Shahadat Hossain
Sub-Assistant Engineer
F.M. Division-2, Dhaka WASA

25.9.23
Riad Ahmed
Assistant Engineer
FMD-2, Dhaka-WASA.

25/9/23

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Office : 266/2, West, Shewrapara (1st Floor), Mirpur, Dhaka-1216, Cell : 01711-462738
Cor. Office : F # B-4, H # 16, NHAC, Mirpur-02, Dhaka-1216, Cell : 01711-987058

3. NO LOAD LOSS AT PRINCIPAL TAP

APPLIED VOLTS	MULTIPLING FACTOR	WATTMETER READING (WATTS)		MEASURED IN WATTS (W2-W1)x8	
		W1	W2		
415	8	78	133	(133-78)x8=440	

4. LOAD LOSS AT PRINCIPAL TAP

Room Temperature: 30 °C

VOLTS	CURRENT IN AMPS. CTR 25/5=5	WATTMETR READING (WATTS)		MEASURED (W1-W2)x8x5 IN WATTS	CORRECTED LOSS AT 75°C IN WATTS	
		W1	W2			
376	2.10x5	10	79	(79-10)x8x5=2750		

5. VACTOR GROUP TEST

SUPPLY VOLTAGE (THREE PHASE)	VOLTAGE BETWEEN	VALUE OF VOLTAGE (IN VOLTS)
400 VOLTS (C & c Shorted)	A-a	381
	A-b	381
	B-a	392
	B-b	380

6. INSUATION RESISTANCE TEST

a) Magger : China
b) Temperature : 30 °C
c) Applied Volt : 1000V

CONNECTIONS	VALUE IN MΩ
HT to Earth	1000 Above OK.
LT to Earth	1000 Above OK.
HT to LT	1000 Above OK.

7. DIELECTIC STRENGTH OF OIL(2.5mm Electrode Gap)

BREAKDOWN AT : 50 KV

8. POWER FREQUENCY WITHSTAND TEST

L.T. SIDE: 2.5 KV (60 Sec) Withstood.(Leakage current 0.50 mA) OK.
H.T. SIDE: 28 KV (60 Sec) Withstood.(Leakage current 0.50 mA) OK.

9. INDUCED OVER VOLTAGE TEST

:830 Volts of L.V. side for 1 Min at 100 Hz With stood. OK.

10. Percentage of Impedance Voltage at 75 °C= 4%

Test Performed by: **Test Witnessed**

25-09-23
Md. Shahadat Hossain
Sub-Assistant Engineer
E.M. Division-2, Dhaka WASA

25-9-23
Riad Ahmed
Assistant Engineer
FMD-2, Dhaka-WASA

20/9/23

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Cor. Office : F # B-4, H # 16, NHAC, Mirpur-02, Dhaka-1216, Cell : 01711-987058

FACTORY TEST CERTIFICATE

Customer	**Dhaka WASA** **Field Maintenance Division-02 (F.M.D-02)** **Address: Darus Salam Road, Near Govt. Bangla College, Dhaka-1216.**
Manufacturer	GEMCO, 200 KVA
Repaired & Tested By	**M/S. R.S Technocracy** **Add: 266/2 west shewrapara, Mirpur, Dhaka**

Year of Manufacturing: 2012	**Serial No. 990-854**	**Date of Test: 20.09.2023**

Rate Voltage at no Load	HT 11000V LT 415/240V	Rated Current	HT 10.49 Amperes LT 278.2 Amperes			
KVA Rating	200	No. of Phases	3	Tapping	1	+2.5%
Type of cooling	ONAN	Impedance Voltage	4%		2	0%
Vector Group	DYn 11				3	-2.5%
Standard	BS-171/IEC-76				4	-5%
Frequency	50Hz				5	-7.5%

1. WINDING RESISTANCE MEASUREMENT

HT Side (Phase to Phase) Resistance in Ohms				LT Side (Phase to Phase) Resistance in Ohms			
Phase	Measured at Room Temp 30 °C	Measured at 75 °C		Phase	Measured at Room Temp 30 °C	Measured at 75 °C	
A-B	10.4	12.16			0.0039	0.0045	
B-C	10.3	12.04			0.0038	0.0044	
C-A	10.5	12.28			0.0040	0.0046	

2. TURN RATIO

Tap Position	Specified Value	Observed Values	Deviation	Allowable Deviation	Remark.
I	9.41 x 5	9.41 x 5	-14 -.06 -.10	±0.5%	Satisfactory
II	9.18 x 5	9.18 x 5	-.16 -.08 -.10		
III	8.95 x 5	8.95 x 5	-20 -.06 -.08		
IV	8.72 x 5	8.72 x 5	-.16 -.06 -.08		
V	8.49 x 5	8.49 x 5	-.04 -.08 -.08		

25-09-23
Md. Shahadat Hossain
Sub-Assistant Engineer
F.M. Division-2, Dhaka WASA

25.9.23
Riad Ahmed
Assistant Engineer
FMD-2, Dhaka-WASA

24/9/23

R S TECHNOCRACY

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Cor. Office : F # B-4, H # 16, NHAC, Mirpur-02, Dhaka-1216, Cell : 01711-987058

3. NO LOAD LOSS AT PRINCIPAL TAP

APPLIED VOLTS	MULTIPLING FACTOR	WATTMETER READING (WATTS)		MEASURED IN WATTS (W2-W1)x8	
		W1	W2		
415	8	80	131	(131-80)x8=408	

4. LOAD LOSS AT PRINCIPAL TAP

Room Temperature: 30 °C

VOLTS	CURRENT IN AMPS. CTR 25/5=5	WATTMETR READING (WATTS)		MEASURED (W1-W2)x8x5 IN WATTS	CORRECTED LOSS AT 75°C IN WATTS	
		W1	W2			
376	2.10x5	12	80	(80-12)x8x5=2720		

5. VACTOR GROUP TEST

SUPPLY VOLTAGE (THREE PHASE)	VOLTAGE BETWEEN	VALUE OF VOLTAGE (IN VOLTS)
400 VOLTS (C & c Shorted)	A-a	381
	A-b	381
	B-a	392
	B-b	380

6. INSUATION RESISTANCE TEST

a) Magger : China
b) Temperature : 30 °C
c) Applied Volt : 1000V

CONNECTIONS	VALUE IN MΩ
HT to Earth	1000 Above OK.
LT to Earth	1000 Above OK.
HT to LT	1000 Above OK.

7. DIELECTIC STRENGTH OF OIL(2.5mm Electrode Gap)

BREAKDOWN AT : 50 KV

8. POWER FREQUENCY WITHSTAND TEST

L.T. SIDE: 2.5 KV (60 Sec) Withstood.(Leakage current 0.50 mA) OK.
H.T. SIDE: 28 KV (60 Sec) Withstood.(Leakage current 0.50 mA) OK.

9. INDUCED OVER VOLTAGE TEST

:830 Volts of L.V. side for 1 Min at 100 Hz With stood. OK.

10. Percentage of Impedance Voltage at 75 °C= 4%

Test Performed by:

25-09-23
Md. Shahadat Hossain
Sub-Assistant Engineer
F.M. Division-2, Dhaka WASA

Test Witnessed

25-9-23
Riad Ahmed
Assistant Engineer
FMD-2, Dhaka-WASA

FACTORY TEST CERTIFICATE

Customer	**Dhaka WASA** **Field Maintenance Division-02 (F.M.D-02)** **Address: Darus Salam Road, Near Govt. Bangla College, Dhaka-1216.**
Manufacturer	GEMCO, 200 KVA
Repaired & Tested By	**M/S. R.S Technocracy** **Add: 266/2 west shewrapara, Mirpur, Dhaka**

Year of Manufacturing: 2013 | **Serial No.** 990-844 | **Date of Test: 20.09.2023**

Rate Voltage at no Load	HT 11000V LT 415/240V	Rated Current	HT 10.49 Amperes LT 278.2 Amperes			
KVA Rating	200	No. of Phases	3	Tapping	1	+2.5%
Type of cooling	ONAN	Impedance Voltage	4%		2	0%
Vector Group	DYn 11				3	-2.5%
Standard	BS-171/IEC-76				4	-5%
Frequency	50Hz				5	-7.5%

1. WINDING RESISTANCE MEASUREMENT

HT Side (Phase to Phase) Resistance in Ohms				LT Side (Phase to Phase) Resistance in Ohms			
Phase	Measured at Room Temp 30 °C	Measured at 75 °C		Phase	Measured at Room Temp 30 °C	Measured at 75 °C	
A-B	10.4	12.16			0.0039	0.0045	
B-C	10.3	12.04			0.0038	0.0044	
C-A	10.5	12.28			0.0040	0.0046	

2. TURN RATIO

Tap Position	Specified Value	Observed Values	Deviation	Allowable Deviation	Remark.
I	9.41 x 5	9.41 x 5	-14 -.06 -.10	±0.5%	Satisfactory
II	9.18 x 5	9.18 x 5	-.16 -.08 -.10		
III	8.95 x 5	8.95 x 5	-20 -.06 -.08		
IV	8.72 x 5	8.72 x 5	-.16 -.06 -.08		
V	8.49 x 5	8.49 x 5	-.04 -.08 -.08		

25.09.23
Md. Shahadat Hossain
Sub-Assistant Engineer
F.M. Division-2, Dhaka WASA

25.9.23
Riad Ahmed
Assistant Engineer
FMD-2, Dhaka-WASA

26/9/23

3. NO LOAD LOSS AT PRINCIPAL TAP

APPLIED VOLTS	MULTIPLING FACTOR	WATTMETER READING (WATTS)		MEASURED IN WATTS (W2-W1)x8	
		W1	W2		
415	8	80	135	(135-80)x8=440	

4. LOAD LOSS AT PRINCIPAL TAP

Room Temperature: 30 °C

VOLTS	CURRENT IN AMPS. CTR 25/5=5	WATTMETR READING (WATTS)		MEASURED (W1-W2)x8x5 IN WATTS	CORRECTED LOSS AT 75°C IN WATTS	
		W1	W2			
376	2.10x5	12	81	(81-12)x8x5=2760		

5. VACTOR GROUP TEST

SUPPLY VOLTAGE (THREE PHASE)	VOLTAGE BETWEEN	VALUE OF VOLTAGE (IN VOLTS)
400 VOLTS (C & c Shorted)	A-a	381
	A-b	381
	B-a	392
	B-b	380

6. INSUATION RESISTANCE TEST

a) Magger : China
b) Temperature : 30 °C
c) Applied Volt : 1000V

CONNECTIONS	VALUE IN MΩ
HT to Earth	1000 Above OK.
LT to Earth	1000 Above OK.
HT to LT	1000 Above OK.

7. DIELECTIC STRENGTH OF OIL(2.5mm Electrode Gap)
BREAKDOWN AT : 50 KV

8. POWER FREQUENCY WITHSTAND TEST
L.T. SIDE: 2.5 KV (60 Scc) Withstood.(Leakage current 0.50 mA) OK.
H.T. SIDE: 28 KV (60 Scc) Withstood.(Leakage current 0.50 mA) OK.

9. INDUCED OVER VOLTAGE TEST
:830 Volts of L.V. side for 1 Min at 100 Hz With stood. OK.

10. Percentage of Impedance Voltage at 75 °C= 4%

Test Performed by: **Test Witnessed**

25-09-23
Md. Shahadat Hossain
Sub-Assistant Engineer
F.M. Division-2, Dhaka WASA

25/9/23
Riad Ahmed
Assistant Engineer
FMD-2, Dhaka-WASA.

২৫/৯/২৩
সুজন চন্দ্র বর্মন
নির্বাহী প্রকৌশলী
এফ এম বিভাগ-২, ঢাকা ওয়াসা

R S TECHNOCRACY

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Cor. Office : F # B-4, H # 16, NHAC, Mirpur-02, Dhaka-1216, Cell : 01711-987058

FACTORY TEST CERTIFICATE

Customer	**Dhaka WASA** **Field Maintenance Division-02 (F.M.D-02)** **Address: Darus Salam Road, Near Govt. Bangla College, Dhaka-1216.**
Manufacturer	GEMCO, 200 KVA
Repaired & Tested By	**M/S. R.S Technocracy** **Add: 266/2 west shewrapara, Mirpur, Dhaka**

Year of Manufacturing: 2015 | **Serial No.** 17-18-025 | **Date of Test: 20.09.2023**

Rate Voltage at no Load	HT 11000V LT 415/240V	Rated Current	HT 10.49 Amperes LT 278.2 Amperes			
KVA Rating	200	No. of Phases	3	Tapping	1	+2.5%
Type of cooling	ONAN	Impedance Voltage	4%		2	0%
Vector Group	DYn 11				3	-2.5%
Standard	BS-171/IEC-76				4	-5%
Frequency	50Hz				5	-7.5%

1. WINDING RESISTANCE MEASUREMENT

HT Side (Phase to Phase) Resistance in Ohms				LT Side (Phase to Phase) Resistance in Ohms			
Phase	Measured at Room Temp 30 °C	Measured at 75 °C		Phase	Measured at Room Temp 30 °C	Measured at 75 °C	
A-B	10.4	12.16			0.0039	0.0045	
B-C	10.3	12.04			0.0038	0.0044	
C-A	10.5	12.28			0.0040	0.0046	

2. TURN RATIO

Tap Position	Specified Value	Observed Values	Deviation	Allowable Deviation	Remark.
I	9.41 x 5	9.41 x 5	-14 -.06 -.10	±0.5%	Satisfactory
II	9.18 x 5	9.18 x 5	-.16 -.08 -.10		
III	8.95 x 5	8.95 x 5	-20 -.06 -.08		
IV	8.72 x 5	8.72 x 5	-.16 -.06 -.08		
V	8.49 x 5	8.49 x 5	-.04 -.08 -.08		

25-09-23
Md. Shahadat Hossain
Sub-Assistant Engineer
F.M. Division-2, Dhaka WASA

25.9.23
Riad Ahmed
Assistant Engineer
FMD-2, Dhaka-WASA.

২৫/৯/২৩
সুজন চন্দ্র বর্মন
নির্বাহী প্রকৌশলী
এফ এম বিভাগ-২, ঢাকা ওয়াসা

R S TECHNOCRACY

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Cor. Office : F # B-4, H # 16, NHAC, Mirpur-02, Dhaka-1216, Cell : 01711-987058

3. NO LOAD LOSS AT PRINCIPAL TAP

APPLIED VOLTS	MULTIPLING FACTOR	WATTMETER READING (WATTS)		MEASURED IN WATTS (W2-W1)x8	
		W1	W2		
415	8	78	134	(134-78)x8=448	

4. LOAD LOSS AT PRINCIPAL TAP

Room Temperature: 30 °C

VOLTS	CURRENT IN AMPS. CTR 25/5=5	WATTMETR READING (WATTS)		MEASURED (W1-W2)x8x5.IN WATTS	CORRECTED LOSS AT 75°C IN WATTS	
		W1	W2			
376	2.10x5	12	81	(81-12)x8x5=2760		

5. VACTOR GROUP TEST

SUPPLY VOLTAGE (THREE PHASE)	VOLTAGE BETWEEN	VALUE OF VOLTAGE (IN VOLTS)
400 VOLTS (C & c Shorted)	A-a	381
	A-b	381
	B-a	392
	B-b	380

6. INSUATION RESISTANCE TEST

a) Magger : China
b) Temperature : 30 °C
c) Applied Volt : 1000V

CONNECTIONS	VALUE IN MΩ
HT to Earth	1000 Above OK.
LT to Earth	1000 Above OK.
HT to LT	1000 Above OK.

7. DIELECTIC STRENGTH OF OIL(2.5mm Electrode Gap)
BREAKDOWN AT : 50 KV

8. POWER FREQUENCY WITHSTAND TEST
L.T. SIDE: 2.5 KV (60 Sec) Withstood.(Leakage current 0.50 mA) OK.
H.T. SIDE: 28 KV (60 Sec) Withstood.(Leakage current 0.50 mA) OK.

9. INDUCED OVER VOLTAGE TEST
:830 Volts of L.V. side for 1 Min at 100 Hz With stood. OK.

10. Percentage of Impedance Voltage at 75 °C= 4%

Test Performed by:

25.09.23
Md. Shahadat Hossain
Sub-Assistant Engineer
F.M. Division-2, Dhaka WASA

25.9.23
Riad Ahmed
Assistant Engineer
FMD-2, Dhaka-WASA.

Test Witnessed

Engr. Md. Shahajul Haque
Managing Partner
R S Technocracy

সজল চন্দ্র বর্মন

R S TECHNOCRACY

Office : 266/2, West, Shewrapara (1st Floor), Mirpur, Dhaka-1216, Cell : 01711-462738
Cor. Office : F # B-4, H # 16, NHAC, Mirpur-02, Dhaka-1216, Cell : 01711-987058

ACTORY TEST CERTIFICATE

Customer	**Dhaka WASA** **Field Maintenance Division-02 (F.M.D-02)** **Address: Darus Salam Road, Near Govt. Bangla College, Dhaka-1216.**
Manufacturer	GEMCO, 200 KVA
Repaired & Tested By	**M/S. R.S Technocracy** **Add: 266/2 west shewrapara, Mirpur, Dhaka**

Year of Manufacturing: 2013 | **Serial No.** 989-228 | **Date of Test: 20.09.2023**

Rate Voltage at no Load	HT 11000V LT 415/240V	Rated Current	HT 10.49 Amperes LT 278.2 Amperes			
KVA Rating	200	No. of Phases	3	Tapping	1	+2.5%
Type of cooling	ONAN	Impedance Voltage	4%		2	0%
Vector Group	DYn 11				3	-2.5%
Standard	BS-171/IEC-76				4	-5%
Frequency	50Hz				5	-7.5%

1. WINDING RESISTANCE MEASUREMENT

HT Side (Phase to Phase) Resistance in Ohms				LT Side (Phase to Phase) Resistance in Ohms			
Phase	Measured at Room Temp 30 °C	Measured at 75 °C		Phase	Measured at Room Temp 30 °C	Measured at 75 °C	
A-B	10.4	12.16			0.0039	0.0045	
B-C	10.3	12.04			0.0038	0.0044	
C-A	10.5	12.28			0.0040	0.0046	

2. TURN RATIO

Tap Position	Specified Value	Observed Values	Deviation	Allowable Deviation	Remark.
I	9.41 x 5	9.41 x 5	-14 -.06 -.10	±0.5%	Satisfactory
II	9.18 x 5	9.18 x 5	-.16 -.08 -.10		
III	8.95 x 5	8.95 x 5	-20 -.06 -.08		
IV	8.72 x 5	8.72 x 5	-.16 -.06 -.08		
V	8.49 x 5	8.49 x 5	-.04 -.08 -.08		

25-09-23
Md. Shahadat Hossain
Sub-Assistant Engineer
Division-2, Dhaka WASA

Riad Ahmed
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BSTI Approved
AN ISO 9001 2008 Certified

R S TECHNOCRACY

Office : 266/2, West, Shewrapara (1st Floor), Mirpur, Dhaka-1216, Cell : 01711-462738
Cor. Office : F # B-4, H # 16, NHAC, Mirpur-02, Dhaka-1216, Cell : 01711-987058

3. NO LOAD LOSS AT PRINCIPAL TAP

APPLIED VOLTS	MULTIPLING FACTOR	WATTMETER READING (WATTS)		MEASURED IN WATTS (W2-W1)x8	
		W1	W2		
415	8	78	134	(134-78)x8=448	

4. LOAD LOSS AT PRINCIPAL TAP

Room Temperature: 30 °C

VOLTS	CURRENT IN AMPS. CTR 25/5=5	WATTMETR READING (WATTS)		MEASURED (W1-W2)x8x5 IN WATTS	CORRECTED LOSS AT 75°C IN WATTS	
		W1	W2			
376	2.10x5	11	80	(80-11)x8x5=2760		

5. VACTOR GROUP TEST

SUPPLY VOLTAGE (THREE PHASE)	VOLTAGE BETWEEN	VALUE OF VOLTAGE (IN VOLTS)
400 VOLTS (C & c Shorted)	A-a	381
	A-b	381
	B-a	392
	B-b	380

6. INSUATION RESISTANCE TEST

a) Magger : China
b) Temperature : 30 °C
c) Applied Volt : 1000V

CONNECTIONS	VALUE IN MΩ
HT to Earth	1000 Above OK.
LT to Earth	1000 Above OK.
HT to LT	1000 Above OK.

7. DIELECTIC STRENGTH OF OIL(2.5mm Electrode Gap)
BREAKDOWN AT : 50 KV

8. POWER FREQUENCY WITHSTAND TEST
L.T. SIDE: 2.5 KV (60 Sec) Withstood.(Leakage current 0.50 mA) OK.
H.T. SIDE: 28 KV (60 Sec) Withstood.(Leakage current 0.50 mA) OK.

9. INDUCED OVER VOLTAGE TEST
:830 Volts of L.V. side for 1 Min at 100 Hz With stood. OK.

10. Percentage of Impedance Voltage at 75 °C= 4%

Test Performed by: **Test Witnessed**

25-09-23
Md. Shahadat Hossain
Sub-Assistant Engineer
FM Division-2, Dhaka WASA

25-9-23
Riad Ahmed
Assistant Engineer
FMD-2, Dhaka-WASA.

সুজন চন্দ্র বর্মন
নির্বাহী প্রকৌশলী
এম এম বিভাগ-২, ঢাকা ওয়াসা

FACTORY TEST CERTIFICATE

Customer	**Dhaka WASA** **Field Maintenance Division-02 (F.M.D-02)** **Address: Darus Salam Road, Near Govt. Bangla College, Dhaka-1216.**
Manufacturer	**SATCO, 200 KVA**
Repaired & Tested By	**M/S. R.S Technocracy** **Add: 266/2 west shewrapara, Mirpur, Dhaka**

Year of Manufacturing: 2012 | **Serial No.** 200/33 | **Date of Test: 20.09.2023**

Rate Voltage at no Load	HT 11000V LT 415/240V	Rated Current	HT 10.49 Amperes LT 278.2 Amperes			
KVA Rating	200	No. of Phases	3	Tapping	1	+2.5%
Type of cooling	ONAN	Impedance Voltage	4%		2	0%
Vector Group	DYn 11				3	-2.5%
Standard	BS-171/IEC-76				4	-5%
Frequency	50Hz				5	-7.5%

1. WINDING RESISTANCE MEASUREMENT

HT Side (Phase to Phase) Resistance in Ohms				LT Side (Phase to Phase) Resistance in Ohms			
Phase	Measured at Room Temp 30 °C	Measured at 75 °C		Phase	Measured at Room Temp 30 °C	Measured at 75 °C	
A-B	10.4	12.16			0.0039	0.0045	
B-C	10.3	12.04			0.0038	0.0044	
C-A	10.5	12.28			0.0040	0.0046	

2. TURN RATIO

Tap Position	Specified Value	Observed Values	Deviation	Allowable Deviation	Remark.
I	9.41 x 5	9.41 x 5	-14 -.06 -.10	±0.5%	Satisfactory
II	9.18 x 5	9.18 x 5	-.16 -.08 -.10		
III	8.95 x 5	8.95 x 5	-20 -.06 -.08		
IV	8.72 x 5	8.72 x 5	-.16 -.06 -.08		
V	8.49 x 5	8.49 x 5	-.04 -.08 -.08		

25-09-23
Md. Shahadat Hossain
Sub-Assistant Engineer
F.M. Division-2, Dhaka WASA

25-9-23
Riad Ahmed
Assistant Engineer
FMD-2, Dhaka-WASA.

সুজন চন্দ্র বর্মন
নির্বাহী প্রকৌশলী
এফ এম বিভাগ-২, ঢাকা ওয়াসা

3. NO LOAD LOSS AT PRINCIPAL TAP

APPLIED VOLTS	MULTIPLING FACTOR	WATTMETER READING (WATTS)		MEASURED IN WATTS (W2-W1)x8	
		W1	W2		
415	8	77	132	(132-77)x8=440	

4. LOAD LOSS AT PRINCIPAL TAP

Room Temperature: 30 °C

VOLTS	CURRENT IN AMPS. CTR 25/5=5	WATTMETR READING (WATTS)		MEASURED (W1-W2)x8x5 IN WATTS	CORRECTED LOSS AT 75°C IN WATTS	
		W1	W2			
376	2.10x5	13	82	(82-13)x8x5=2760		

5. VACTOR GROUP TEST

SUPPLY VOLTAGE (THREE PHASE)	VOLTAGE BETWEEN	VALUE OF VOLTAGE (IN VOLTS)
400 VOLTS (C & c Shorted)	A-a	381
	A-b	381
	B-a	392
	B-b	380

6. INSUATION RESISTANCE TEST

a) Magger : China
b) Temperature : 30 °C
c) Applied Volt : 1000V

CONNECTIONS	VALUE IN MΩ	
HT to Earth	1000 Above	OK.
LT to Earth	1000 Above	OK.
HT to LT	1000 Above	OK.

7. DIELECTIC STRENGTH OF OIL(2.5mm Electrode Gap)
BREAKDOWN AT : 50 KV

8. POWER FREQUENCY WITHSTAND TEST
L.T. SIDE: 2.5 KV (60 Sec) Withstood.(Leakage current 0.50 mA) OK.
H.T. SIDE: 28 KV (60 Sec) Withstood.(Leakage current 0.50 mA) OK.

9. INDUCED OVER VOLTAGE TEST
:830 Volts of L.V. side for 1 Min at 100 Hz With stood. OK.

10. Percentage of Impedance Voltage at 75 °C= 4%

Test Performed by: **Test Witnessed**

25-09-23
Md. Shahadat Hossain
Sub-Assistant Engineer
F.M. Division-2, Dhaka WASA

25.9.23
Riad Ahmed
Assistant Engineer
FMD-2, Dhaka-WASA.

26/9/23
সুজন চন্দ্র বর্মন
নির্বাহী প্রকৌশলী
এফ এম বিভাগ-২, ঢাকা ওয়াসা

FACTORY TEST CERTIFICATE

Customer	**Dhaka WASA** **Field Maintenance Division-02 (F.M.D-02)** **Address: Darus Salam Road, Near Govt. Bangla College, Dhaka-1216.**
Manufacturer	**SATCO, 200 KVA**
Repaired & Tested By	**M/S. R.S Technocracy** **Add: 266/2 west shewrapara, Mirpur, Dhaka**

Year of Manufacturing: 2014	**Serial No.** 200-209	**Date of Test: 20.09.2029**

Rate Voltage at no Load	HT 11000V LT 415/240V	Rated Current	HT 10.49 Amperes LT 278.2 Amperes			
KVA Rating	**200**	No. of Phases	3	Tapping	1	+2.5%
Type of cooling	ONAN	Impedance Voltage	4%		2	0%
Vector Group	DYn 11				3	-2.5%
Standard	BS-171/IEC-76				4	-5%
Frequency	50Hz				5	-7.5%

1. WINDING RESISTANCE MEASUREMENT

HT Side (Phase to Phase) Resistance in Ohms				LT Side (Phase to Phase) Resistance in Ohms			
Phase	Measured at Room Temp 30 °C	Measured at 75 °C		Phase	Measured at Room Temp 30 °C	Measured at 75 °C	
A-B	10.4	12.16			0.0039	0.0045	
B-C	10.3	12.04			0.0038	0.0044	
C-A	10.5	12.28			0.0040	0.0046	

2. TURN RATIO

Tap Position	Specified Value	Observed Values	Deviation	Allowable Deviation	Remark.
I	9.41 x 5	9.41 x 5	-14 -.06 -.10	±0.5%	Satisfactory
II	9.18 x 5	9.18 x 5	-.16 -.08 -.10		
III	8.95 x 5	8.95 x 5	-20 -.06 -.08		
IV	8.72 x 5	8.72 x 5	-.16 -.06 -.08		
V	8.49 x 5	8.49 x 5	-.04 -.08 -.08		

25-09-29

Md. Shahadat Hossain
Sub-Assistant Engineer
F.M. Division-2, Dhaka WASA

25.9.23

Riad Ahmed
Assistant Engineer
FMD-2, Dhaka-WASA.

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সুজন চন্দ্র বর্মন
নির্বাহী প্রকৌশলী
এফ এম বিভাগ-২, ঢাকা ওয়াসা

R S TECHNOCRACY

Office : 266/2, West, Shewrapara (1st Floor), Mirpur, Dhaka-1216, Cell : 01711-462738
Cor. Office : F # B-4, H # 16, NHAC, Mirpur-02, Dhaka-1216, Cell : 01711-987058

3. NO LOAD LOSS AT PRINCIPAL TAP

APPLIED VOLTS	MULTIPLING FACTOR	WATTMETER READING (WATTS)		MEASURED IN WATTS (W2-W1)x8	
		W1	W2		
415	8	77	132	(132-77)x8=440	

4. LOAD LOSS AT PRINCIPAL TAP

Room Temperature: 30 °C

VOLTS	CURRENT IN AMPS. CTR 25/5=5	WATTMETR READING (WATTS)		MEASURED (W1-W2)x8x5 IN WATTS	CORRECTED LOSS AT 75°C IN WATTS	
		W1	W2			
376	2.10x5	13	80	(80-13)x8x5=2680		

5. VACTOR GROUP TEST

SUPPLY VOLTAGE (THREE PHASE)	VOLTAGE BETWEEN	VALUE OF VOLTAGE (IN VOLTS)
400 VOLTS (C & c Shorted)	A-a	381
	A-b	381
	B-a	392
	B-b	380

6. INSUATION RESISTANCE TEST

a) Magger : China
b) Temperature : 30 °C
c) Applied Volt : 1000V

CONNECTIONS	VALUE IN MΩ
HT to Earth	1000 Above OK.
LT to Earth	1000 Above OK.
HT to LT	1000 Above OK.

7. DIELECTIC STRENGTH OF OIL(2.5mm Electrode Gap)

BREAKDOWN AT : 50 KV

8. POWER FREQUENCY WITHSTAND TEST

L.T. SIDE: 2.5 KV (60 Scc) Withstood.(Leakage current 0.50 mA) OK.
H.T. SIDE: 28 KV (60 Scc) Withstood.(Leakage current 0.50 mA) OK.

9. INDUCED OVER VOLTAGE TEST

:830 Volts of L.V. side for 1 Min at 100 Hz With stood. OK.

10. Percentage of Impedance Voltage at 75 °C= 4%

Test Performed by: **Test Witnessed**

25-09-23

Md. Shahadat Hossain
Sub-Assistant Engineer
Division-2, Dhaka WASA

25.9.23

Riad Ahmed
Assistant Engineer
FMD-2, Dhaka WASA.

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BSTI Approved
AN ISO 9001 2008 Certified

R S TECHNOCRACY

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Cor. Office : F # B-4, H # 16, NHAC, Mirpur-02, Dhaka-1216, Cell : 01711-987058

FACTORY TEST CERTIFICATE

Customer	**Dhaka WASA** **Field Maintenance Division-02 (F.M.D-02)** **Address: Darus Salam Road, Near Govt. Bangla College, Dhaka-1216.**
Manufacturer	**ENERGYPAC, 200 KVA**
Repaired & Tested By	**M/S. R.S Technocracy** **Add: 266/2 west shewrapara, Mirpur, Dhaka**

Year of Manufacturing: 2013	**Serial No.** 200-1419	**Date of Test: 20.09.2023**

Rate Voltage at no Load	HT 11000V LT 415/240V	Rated Current	HT 10.49 Amperes LT 278.2 Amperes

KVA Rating	**200**	No. of Phases	3	Tapping	1	+2.5%
Type of cooling	ONAN	Impedance Voltage	4%		2	0%
Vector Group	DYn 11				3	-2.5%
Standard	BS-171/IEC-76				4	-5%
Frequency	50Hz				5	-7.5%

1. WINDING RESISTANCE MEASUREMENT

HT Side (Phase to Phase) Resistance in Ohms				LT Side (Phase to Phase) Resistance in Ohms			
Phase	Measured at Room Temp 30 °C	Measured at 75 °C		Phase	Measured at Room Temp 30 °C	Measured at 75 °C	
A-B	10.4	12.16			0.0039	0.0045	
B-C	10.3	12.04			0.0038	0.0044	
C-A	10.5	12.28			0.0040	0.0046	

2. TURN RATIO

Tap Position	Specified Value	Observed Values	Deviation	Allowable Deviation	Remark.
I	9.41 x 5	9.41 x 5	-14 -.06 -.10	±0.5%	Satisfactory
II	9.18 x 5	9.18 x 5	-.16 -.08 -.10		
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V	8.49 x 5	8.49 x 5	-.04 -.08 -.08		

25-09-23
Md. Shahadat Hossain
Sub-Assistant Engineer
FM. Division-2, Dhaka WASA

25.9.23
Riad Ahmed
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সুজন চন্দ্র বর্মন
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BSTI Approved
AN ISO 9001 2008 Certified

R S TECHNOCRACY

Office : 266/2, West, Shewrapara (1st Floor), Mirpur, Dhaka-1216, Cell : 01711-462738
Cor. Office : F # B-4, H # 16, NHAC, Mirpur-02, Dhaka-1216, Cell : 01711-987058

3. NO LOAD LOSS AT PRINCIPAL TAP

APPLIED VOLTS	MULTIPLING FACTOR	WATTMETER READING (WATTS)		MEASURED IN WATTS (W2-W1)x8	
		W1	W2		
415	8	77	131	(131-77)x8=432	

4. LOAD LOSS AT PRINCIPAL TAP

Room Temperature: 30 °C

VOLTS	CURRENT IN AMPS. CTR 25/5=5	WATTMETR READING (WATTS)		MEASURED (W1-W2)x8x5 IN WATTS	CORRECTED LOSS AT 75°C IN WATTS	
		W1	W2			
376	2.10x5	13	80	(80-13)x8x5=2680		

5. VACTOR GROUP TEST

SUPPLY VOLTAGE (THREE PHASE)	VOLTAGE BETWEEN	VALUE OF VOLTAGE (IN VOLTS)
400 VOLTS (C & c Shorted)	A-a	381
	A-b	381
	B-a	392
	B-b	380

6. INSUATION RESISTANCE TEST

a) Magger : China
b) Temperature : 30 °C
c) Applied Volt : 1000V

CONNECTIONS	VALUE IN MΩ	
HT to Earth	1000 Above	OK.
LT to Earth	1000 Above	OK.
HT to LT	1000 Above	OK.

7. DIELECTIC STRENGTH OF OIL(2.5mm Electrode Gap)

BREAKDOWN AT : 50 KV

8. POWER FREQUENCY WITHSTAND TEST

L.T. SIDE: 2.5 KV (60 Sec) Withstood.(Leakage current 0.50 mA) OK.
H.T. SIDE: 28 KV (60 Sec) Withstood.(Leakage current 0.50 mA) OK.

9. INDUCED OVER VOLTAGE TEST

:830 Volts of L.V. side for 1 Min at 100 Hz With stood. OK.

10. Percentage of Impedance Voltage at 75 °C= 4%

Test Performed by:

25-09-23
Md. Shahadat Hossain
Sub-Assistant Engineer
F.M. Division-2, Dhaka WASA

Test Witnessed

25-9-23
Riad Ahmed
Assistant Engineer
FMD-2, Dhaka-WASA.

সুজন চন্দ্র বর্মন
নির্বাহী প্রকৌশলী
ঢাকা ওয়াসা

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