

ঢাকা ওয়াসা

বিষয়ঃ সরবরাহকৃত সমুদয় মালামাল গ্রহণ প্রসঙ্গে।

চুক্তিপত্র ও সরবরাহ আদেশের কপি।

যৌথ পরিদর্শন প্রতিবেদন।

ফেক্টোরী টেস্ট রিপোর্টের কপি।

- ১। সংযুক্তি-১ হতে ৩ দয়া করে দেখা যেতে পারে। চুক্তি নংঃ ৪৬.০৫.০০০০.৪২৭.০২.০১৫.২০২৩-/সি-০৩; তারিখঃ ২২/১০/২০২৩ খ্রীঃ এবং স্বাক্ষরের তারিখঃ ১৬/১১/২০২৩ খ্রীঃ এবং সরবরাহ আদেশ স্মারক নং- ৪৬.০৫.০০০০.৪২৭.০২.০১৫.২০২৩-৬৯০, তারিখঃ ১৬/১১/২০২৩ খ্রীঃ (সংযুক্তিঃ নং-১) এর আওতায় General Electric Manufacturing Co. Ltd কর্তৃক আলোচ্য “Procurement of Distribution Transformer for Dhaka WASA” কাজের মালামালসমূহ গত ১৪/০৩/২০২৪ খ্রীঃ তারিখে ঢাকা ওয়াসার কেন্দ্রীয় ভান্ডার বিভাগ, পাগলায় সরবরাহ করা হয়। সরবরাহকৃত মালামালসমূহ পরিদর্শন কমিটি কর্তৃক গত ২০/০৩/২০২৪ খ্রীঃ তারিখে পরিদর্শন করা হয়। স্পেসিফিকেশন মোতাবেক এবং বাহ্যিকভাবে মালামালসমূহ সঠিক পাওয়া যায়। সমুদয় মালামাল এবং মালামালের ফ্যাক্টোরী টেস্ট রিপোর্ট সন্তোষজনক পাওয়ায় যৌথ পরিদর্শন কমিটি কর্তৃক মালামালসমূহ চূড়ান্তভাবে গ্রহণের জন্য সুপারিশ করা হয় (সংযুক্তিঃ নং-২ ও ৩)। ঢাকা ওয়াসার গভীর নলকূপ পরিচালন কাজ সুষ্ঠুভাবে সম্পাদনের লক্ষ্যে এফ এম বিভাগ- ১/২ এবং মডস জোন-১০ (বোতলজাত পানি উৎপাদন প্ল্যান্ট) এর জন্য ১৭ টি Distribution Transformer বরাদ্দ দেয়া প্রয়োজন। নিম্ন বর্ণিত ছকে ১৭ টি Distribution Transformer বরাদ্দের খসড়া তালিকা প্রস্তাব করা হলঃ

ক্রঃ নং	বরাদ্দকৃত বিভাগের নাম	মালামালের বিবরণ	বরাদ্দকৃত পরিমাণ	মন্তব্য
১।	বোতলজাত পানি উৎপাদন প্ল্যান্ট	11/0.415 KV, 315 KVA Distribution Transformer. SI No for Transformer: 23-24-001 to 23-24-002	২ টি	
২।	এফ এম বিভাগ-১	11/0.415 KV, 200 KVA Distribution Transformer. SI No for Transformer: 23-24-021 to 23-24 -028	৮ টি	
৩।	এফ এম বিভাগ-২	11/0.415 KV, 200 KVA Distribution Transformer. SI No for Transformer: 23-24-029 to 23-24 -035	৭ টি	

- ২। এই অবস্থায়, অনুচ্ছেদ-১ এর বর্ণনালোকে General Electric Manufacturing Co. Ltd কর্তৃক সরবরাহকৃত ১৭ টি Distribution Transformer প্রাপ্ত যৌথ পরিদর্শন কমিটির সুপারিশের ভিত্তিতে চূড়ান্তভাবে গ্রহণ করতঃ উপস্থাপিত খসড়া তালিকা মোতাবেক বরাদ্দ দেয়া যেতে পারে।

০৬
28.3.24

উম্মে হাফসা
উপ-সহকারী প্রকৌশলী
সংগ্রহ বিভাগ-১
ঢাকা ওয়াসা

SPE Com/13
28-03-2024

সরসিজ আলম
উপ-বিভাগীয় প্রকৌশলী
সংগ্রহ বিভাগ-১
ঢাকা ওয়াসা।

৫/৫

২৪/৩/২৪
মোঃ আল আমিন
নির্বাহী প্রকৌশলী
সংগ্রহ বিভাগ-১
ঢাকা ওয়াসা।

SE (RPE/14)

28.3.2024
মোঃ আল আমিন
নির্বাহী প্রকৌশলী
সংগ্রহ বিভাগ-১
ঢাকা ওয়াসা।

০৬

OK.

28.03.24

মুস্তাফিজুর রহমান
প্রধান প্রকৌশলী
ঢাকা ওয়াসা

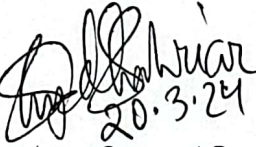
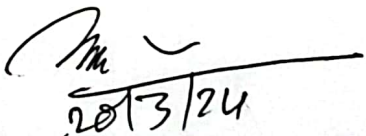
ঢাকা ওয়াসা
মালামালের যৌথ পরিদর্শন প্রতিবেদন

চুক্তি নং-	:	৪৬.০৫.০০০০.৪২৭.০২.০৫.২০২৩-২৪/সিও; তারিখ: ২২/১০/২০২৩ খ্রীঃ এবং চুক্তি স্বাক্ষরের তারিখ: ২৬/১১/২৩ খ্রীঃ।
সরবরাহ আদেশ স্মারক নং-	:	৪৬.০৫.০০০০.৪২৭.০২.০৫.২০২৩-২৪-৬৯০ তারিখ: ২৬/১১/২০২৩ খ্রীঃ।
কাজের নাম	:	Procurement of Distribution Transformer for Dhaka WASA
সরবরাহকারীর নাম	:	General Electric Manufacturing Co. Ltd North Potenga, Chattogram Cantonment, Bangladesh.
ক্রয়কারী বিভাগ	:	সংগ্রহ বিভাগ-১, ঢাকা ওয়াসা।
ব্যবহারকারী বিভাগ	:	এফ. এম বিভাগ, ঢাকা ওয়াসা।
সরবরাহের স্থান	:	ঢাকা ওয়াসার কেন্দ্রীয় ভান্ডার, পাগলা, ঢাকা।
সরবরাহের তারিখ	:	১৪/০৩/২০২৪ খ্রীঃ।
যৌথ পরিদর্শনের তারিখ	:	২০/০৩/২০২৪ খ্রীঃ।

ক্রঃ নং	মালামালের বিবরণ	চুক্তি অনুযায়ী মালামালের পরিমাণ	একই কিস্তিতে দেয় মালামালের পরিমাণ	একই কিস্তিতে গ্রহণযোগ্য মালামালের পরিমাণ	একই কিস্তিতে বাতিলকৃত মালামালের পরিমাণ
1.	11/0.415 KV, 315 KVA Distribution Transformer As per technical Specification. SI No for Transformer: 23-24-001 to 23-24-002	2 Nos	2 Nos	2 Nos	Nil
2.	11/0.415 KV, 200 KVA Distribution Transformer As per technical Specification. SI No for Transformer: 23-24-021 to 23-24-035	15 Nos	15 Nos	15 Nos	Nil

পরিদর্শন কমিটির বাস্তব (ফিজিক্যাল) পরিদর্শন রিপোর্ট ও স্বাক্ষর :

যৌথ পরিদর্শন কমিটি কর্তৃক মালামাল পরিদর্শন করা হল। স্পেসিফিকেশন মোতাবেক এবং বাহ্যিকভাবে মালামালসমূহ সঠিক পাওয়া গেল। সমুদয় মালামাল এবং মালামালের ফ্যাক্টোরী টেস্ট রিপোর্ট সন্তোষজনক পাওয়ায় চূড়ান্তভাবে গ্রহণের সুপারিশ করা হল।

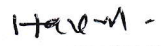
 মোঃ আল আমিন নির্বাহী প্রকৌশলী সংগ্রহ বিভাগ-১, ঢাকা ওয়াসা ও সদস্য-সচিব যৌথ পরিদর্শন কমিটি। ২০.৩.২৪	 মোঃ হুসেইন হোসেন খান নির্বাহী প্রকৌশলী ভান্ডার বিভাগ, ঢাকা ওয়াসা ও সদস্য যৌথ পরিদর্শন কমিটি। ২০.৩.২৪	 সাইদ শাহরিয়ার হোসাইনী নির্বাহী প্রকৌশলী (চঃ দাঃ) পি এন্ড ডি (তড়িৎ ও যান্ত্রিক) বিভাগ, ঢাকা ওয়াসা ও সদস্য যৌথ পরিদর্শন কমিটি। ২০.৩.২৪	 সুজন চন্দ্র বর্মণ নির্বাহী প্রকৌশলী, এফ.এম. বিভাগ-১, ঢাকা ওয়াসা ও সদস্য যৌথ পরিদর্শন কমিটি। ২০.৩.২৪	 লেঃ কর্ণেল মোঃ মাকসুদুল হক (অবঃ) প্রধান নিরাপত্তা কর্মকর্তা নিরাপত্তা ও গোয়েন্দা বিভাগ, ঢাকা ওয়াসা ও সদস্য, যৌথ পরিদর্শন কমিটি। ২০.৩.২৪	 মোঃ আব্দুল লতিফ তত্ত্বাবধায়ক প্রকৌশলী আর.পি.ই. এন্ড এম সার্কেল, ঢাকা ওয়াসা ও আশ্রয়ক যৌথ পরিদর্শন কমিটি। ২০.৩.২৪
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GENERAL ELECTRIC MANUFACTURING CO. LIMITED
NORTH PATENGA, CHATTOGRAM-4204.

Packing List of 11/0.415 KV, 315 KVA Distribution Transformer
Name of Purchaser : Dhaka WASA

Contract No.: 46.05.0000.427.02.015.2023/C-03 Date: 16/11/2023	
Serial No.	Transformer Mfg.No.
1	23-24-001
2	23-24-002


.....
(Engr. Hasan-Uz-Zaman Khan)
Engineer (Elec.) &
Incharge, Testing
GEM Co. Ltd.


.....
(Engr. Md. Hayet Mahmud)
Deputy Chief Engineer (Mech.) &
Head of Prod. And Tech. Dept.
GEM. Co. Ltd.

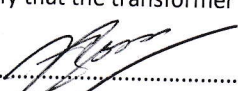
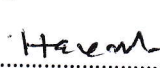
GENERAL ELECTRIC MANUFACTURING COMPANY LIMITED

(An Enterprise of BSEC under Ministry of Industries)

NORTH PATENGA, CHATTOGRAM-4204.



TEST CERTIFICATE

Type :TM-315/11-85T1/2020		3 - Phase Distribution Transformer				X-former Mfg. No.- 23-24-002			
Purchaser: Dhaka WASA		Contract No.: 46.05.0000.427.02.015.2023/C-03 Date: 16/11/2023				Year of Manufacture: 2023			
Standard: IEC-60076	Tap	Volts in	Volts in	Voltage ratio: 11000/415					
Service: Continious	Position	H.V	L.V.	Values at 75°C					
Type of Cooling: ONAN	1	11275			Po (kW)	Psc (kW)	Imp. (%)		
	2	11000	415	Guarantee	0.65	4.5	4.00		
Rated Frequency: 50 Hz	3	10725		Tolerance	+15%	+15%	±15%		
	4	10450		Total Weight: 1450 KG					
BIL: 75 KV	5	10175		Weight of Oil: 320 KG					
	Current in Amps:	16.53	438						
	Rated Capacity:	315 KVA							
	Phase:	3(Three)							
	Vecto Group:	Dyn-11							
Winding Resistance in ohm at 30°C				Ratio Test					
High Voltage Side		Low Voltage Side		Tapping:	1	2	3	4	5
A-B	4.91	a-b	0.0056	Measured					
B-C	4.91	b-c	0.0056	Ratio:	27.17	26.5	25.84	25.18	24.52
C-A	4.91	c-a	0.0056	Vector Group Test					
				Test Result:	Dyn-11				
Measurement of No-Load Loss & Current				Measurement of Load Loss & Impedence					
Applied Voltage on LV side	No Load Loss in Watts	No Load Current(%)	Rated Current in Amps	Load Loss at 75°C in watts	Imp. at 75°C in %				
415 V	636	0.22	16.53	4410	4.56				
High Voltage Test				Induced Over Voltage Test					
Applied Voltage on HV side:	28 kV		Applied Voltage on LV side:	0.83 kV					
Applied Voltage on LV side:	2.5 kV		Frequency:	200 Hz					
Frequency:	50 Hz		Time Duration:	30 second					
Time Duration:	1 minute								
Dielectric Strength of Oil in KV				Insulation Resistance Measured by 2.5K V Megger at 32°C					
At 2.5 mm electrode gap:	>50		HV-Body in GΩ:	8.25					
			LV-Body in GΩ:	5.56					
			HV-LV in GΩ:	12.5					
It is hereby certify that the transformer is in conformity with the existing standards and declared fit for operation.									
 (Engr. Hasan-Uz-Zaman Khan) Engineer (Elec.) and In-Charge, Testing				 (Engr. Md. Hayet Mahmud) Deputy Chief Engineer (Mech.) and Head of Prod. And Tech. Dept.					

GENERAL ELECTRIC MANUFACTURING COMPANY LIMITED

(An Enterprise of BSEC under Ministry of Industries)

NORTH PATENGA, CHATTOGRAM-4204.

TEST CERTIFICATE



Type :TM-315/11-85T1/2020		3 - Phase Distribution Transformer				X-former Mfg. No.- 23-24-001	
Purchaser: Dhaka WASA		Contract No.: 46.05.0000.427.02.015.2023/C-03 Date: 16/11/2023				Year of Manufacture: 2023	
Standard: IEC-60076	Tap	Volts in	Volts in	Voltage ratio: 11000/415			
Service: Continious	Position	H.V	L.V.	Values at 75°C			
Type of Cooling: ONAN	1	11275		Po (kW)	Psc (kW)	Imp. (%)	
	2	11000	415	Guarantee	0.65	4.5	4.00
Rated Frequency: 50 Hz	3	10725		Tolerance	+15%	+15%	±15%
BIL: 75 KV	4	10450		Total Weight:		1450 KG	
	5	10175		Weight of Oil:		320 KG	
	Current in Amps:	16.53	438				
	Rated Capacity:	315 KVA					
	Phase:	3(Three)					
	Vecto Group:	Dyn-11					
Winding Resistance in ohm at 30°C				Ratio Test			
High Voltage Side		Low Voltage Side		Tapping:	1	2	3
A-B	4.91	a-b	0.0056	Measured			
B-C	4.91	b-c	0.0056	Ratio:	27.17	26.5	25.84
C-A	4.91	c-a	0.0056			25.18	24.52
				Vector Group Test			
				Test Result: Dyn-11			
Measurement of No-Load Loss & Current				Measurement of Load Loss & Impedence			
Applied Voltage on LV side	No Load Loss in Watts	No Load Current(%)	Rated Current in Amps	Load Loss at 75°C in watts	Imp. at 75°C in %		
415 V	636	0.22	16.53	4410	4.65		
High Voltage Test				Induced Over Voltage Test			
Applied Voltage on HV side:	28 kV	Applied Voltage on LV side:		0.83 kV			
Applied Voltage on LV side:	2.5 kV	Frequency:		200 Hz			
Frequency:	50 Hz	Time Duration:		30 second			
Time Duration:	1 minute						
Dielectric Strength of Oil in KV				Insulation Resistance Measured by 2.5K V Megger at 32°C			
At 2.5 mm electrode gap:		>50		HV-Body in GΩ:	8.25		
				LV-Body in GΩ:	5.56		
				HV-LV in GΩ:	12.5		
It is hereby certify that the transformer is in conformity with the existing standards and declared fit for operation.							
(Engr. Hasan-Uz-Zaman Khan) Engineer (Elec.) and In-Charge, Testing				(Engr. Md. Hayet Mahmud) Deputy Chief Engineer (Mech.) and Head of Prod. And Tech. Dept.			

GENERAL ELECTRIC MANUFACTURING CO. LIMITED
NORTH PATENGA, CHATTOGRAM-4204.

Packing List of 11/0.415 KV, 200 KVA Distribution Transformer
Name of Purchaser : Dhaka WASA

Contract No.: 46.05.0000.427.02.015.2023/C-03 Date: 16/11/2023	
Serial No.	Transformer Mfg.No.
1	23-24-021
2	23-24-022
3	23-24-023
4	23-24-024
5	23-24-025
6	23-24-026
7	23-24-027
8	23-24-028
9	23-24-029
10	23-24-030
11	23-24-031
12	23-24-032
13	23-24-033
14	23-24-034
15	23-24-035
 (Engr. Hasan-Uz-Zaman Khan) Engineer (Elec.) & Incharge, Testing GEM Co. Ltd.  (Engr. Md. Hayet Mahmud) Deputy Chief Engineer (Mech.) & Head of Prod. And Tech. Dept. GEM. Co. Ltd.	

GENERAL ELECTRIC MANUFACTURING COMPANY LIMITED

(An Enterprise of BSEC under Ministry of Industries)

NORTH PATENGA, CHATTOGRAM-4204.

TEST CERTIFICATE



Type :TM-200/11-76T1/08		3 - Phase Distribution Transformer		X-former Mfg. No.- 23-24-021	
Purchaser: Dhaka WASA		Contract No.: 46.05.0000.427.02.015.2023/C-03 Date: 16/11/2023		Year of Manufacture: 2023	
Standard: IEC-60076	Tap	Volts in	Volts in	Voltage ratio: 11000/415	
Service: Continious	Position	H.V	L.V.	Values at 75°C	
Type of Cooling:	1	11275		Po (kW)	Psc (kW)
ONAN	2	11000	415	Guarantee	0.435
Rated Frequency:	3	10725		Tolerance	+15%
50 Hz	4	10450		Total Weight:	945±5 KG
BIL: 75 KV	5	10175		Weight of Oil:	244 KG
Current in Amps:		10.5	278.24		
Rated Capacity:		200 KVA			
Phase:		3(Three)			
Vecto Group:		Dyn-11			
Winding Resistance in ohm at 32°C				Ratio Test	
High Voltage Side		Low Voltage Side		Tapping:	1 2 3 4 5
A-B	8.20	a-b	0.0085	Measured	
B-C	8.20	b-c	0.0085	Ratio:	27.17 26.5 25.84 25.18 24.52
C-A	8.20	c-a	0.0085	Vector Group Test	
				Test Result: Dyn-11	
Measurement of No-Load Loss & Current				Measurement of Load Loss & Impedence	
Applied Voltage on LV side	No Load Loss in Watts	No Load Current(%)	Rated Current in Amps	Load Loss at 75°C in watts	Imp. at 75°C in %
415 V	425	1.86	10.5	2804	3.92
High Voltage Test				Induced Over Voltage Test	
Applied Voltage on HV side:		28 kV		Applied Voltage on LV side: 0.83 kV	
Applied Voltage on LV side:		2.5 kV		Frequency: 200 Hz	
Frequency:		50 Hz		Time Duration: 30 second	
Time Duration:		1 minute			
Dielectric Strength of Oil in KV				Insulation Resistance Measured by 2.5K V Megger at 32°C	
At 2.5 mm electrode gap:		>50		HV-Body in GΩ:	8.7
				LV-Body in GΩ:	6.9
				HV-LV in GΩ:	11.5
It is hereby certify that the transformer is in conformity with the existing standards and declared fit for operation.					
(Engr. Hasan-Uz-Zaman Khan) Engineer (Elec.) and In-Charge, Testing			(Engr. Md. Hayet Mahmud) Deputy Chief Engineer (Mech.) and Head of Prod. And Tech. Dept.		

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NORTH PATENGA, CHATTOGRAM-4204.

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Type :TM-200/11-76T1/08		3 - Phase Distribution Transformer		X-former Mfg. No.- 23-24-022	
Purchaser: Dhaka WASA		Contract No.: 46.05.0000.427.02.015.2023/C-03 Date: 16/11/2023		Year of Manufacture: 2023	
Standard: IEC-60076	Tap	Volts in	Volts in	Voltage ratio: 11000/415	
Service: Continous	Position	H.V	L.V.	Values at 75°C	
Type of Cooling: ONAN	1	11275		Po (kW)	Psc (kW)
	2	11000	415	Guarantee	0.435
Rated Frequency: 50 Hz	3	10725		Tolerance	+15%
	4	10450		Total Weight:	945±5 KG
BIL: 75 KV	5	10175		Weight of Oil:	244 KG
Current in Amps:		10.5	278.24		
Rated Capacity:		200 KVA			
Phase:		3(Three)			
Vecto Group:		Dyn-11			
Winding Resistance in ohm at 32°C				Ratio Test	
High Voltage Side		Low Voltage Side		Tapping:	1 2 3 4 5
A-B	8.22	a-b	0.0085	Measured	
B-C	8.22	b-c	0.0085	Ratio:	27.17 26.5 25.84 25.18 24.52
C-A	8.22	c-a	0.0085	Vector Group Test	
				Test Result: Dyn-11	
Measurement of No-Load Loss & Current				Measurement of Load Loss & Impedence	
Applied Voltage on LV side	No Load Loss in Watts	No Load Current(%)	Rated Current in Amps	Load Loss at 75°C in watts	Imp. at 75°C in %
415 V	430	1.67	10.5	2813	3.93
High Voltage Test				Induced Over Voltage Test	
Applied Voltage on HV side:		28 kV		Applied Voltage on LV side: 0.83 kV	
Applied Voltage on LV side:		2.5 kV		Frequency: 200 Hz	
Frequency:		50 Hz		Time Duration: 30 second	
Time Duration:		1 minute			
Dielectric Strength of Oil in KV				Insulation Resistance Measured by 2.5K V Megger at 32°C	
At 2.5 mm electrode gap:		>50		HV-Body in GΩ:	9.12
				LV-Body in GΩ:	7.54
				HV-LV in GΩ:	12.6
It is hereby certify that the transformer is in conformity with the existing standards and declared fit for operation.					
(Engr. Hasan-Uz-Zaman Khan) Engineer (Elec.) and In-Charge, Testing			(Engr. Md. Hayet Mahmud) Deputy Chief Engineer (Mech.) and Head of Prod. And Tech. Dept.		

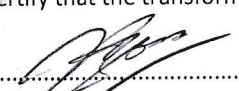
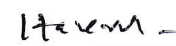
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NORTH PATENGA, CHATTOGRAM-4204.

TEST CERTIFICATE



Type :TM-200/11-76T1/08		3 - Phase Distribution Transformer		X-former	
				Mfg. No.- 23-24-023	
Purchaser: Dhaka WASA		Contract No.: 46.05.0000.427.02.015.2023/C-03 Date: 16/11/2023		Year of Manufacture: 2023	
Standard: IEC-60076	Tap	Volts in	Volts in	Voltage ratio: 11000/415	
Service: Continious	Position	H.V	L.V.	Values at 75°C	
Type of Cooling: ONAN	1	11275		Po (kW)	Psc (kW)
	2	11000	415	Guarantee	0.435
Rated Frequency: 50 Hz	3	10725		Tolerance	+15%
	4	10450		Total Weight:	945±5 KG
BIL: 75 KV	5	10175		Weight of Oil:	244 KG
		Current in Amps:	10.5	278.24	
		Rated Capacity:		200 KVA	
		Phase:		3(Three)	
		Vecto Group:		Dyn-11	
Winding Resistance in ohm at 32°C			Ratio Test		
High Voltage Side	Low Voltage Side		Tapping:	1	2
A-B	8.15	a-b	0.0084	Measured	
B-C	8.15	b-c	0.0084	Ratio:	27.17
C-A	8.15	c-a	0.0084		26.5
			Vector Group Test		
			Test Result: Dyn-11		
Measurement of No-Load Loss & Current			Measurement of Load Loss & Impedence		
Applied Voltage on LV side	No Load Loss in Watts	No Load Current(%)	Rated Current in Amps	Load Loss at 75°C in watts	Imp. at 75°C in %
415 V	421	1.74	10.5	2806	3.99
High Voltage Test			Induced Over Voltage Test		
Applied Voltage on HV side:	28 kV		Applied Voltage on LV side:	0.83 kV	
Applied Voltage on LV side:	2.5 kV		Frequency:	200 Hz	
Frequency:	50 Hz		Time Duration:	30 second	
Time Duration:	1 minute				
Dielectric Strength of Oil in KV			Insulation Resistance Measured by 2.5K V Megger at 32°C		
At 2.5 mm electrode gap:	>50		HV-Body in GΩ:	5.68	
			LV-Body in GΩ:	7.12	
			HV-LV in GΩ:	13.8	
It is hereby certify that the transformer is in conformity with the existing standards and declared fit for operation.					
 (Engr. Hasan-Uz-Zaman Khan) Engineer (Elec.) and In-Charge, Testing			 (Engr. Md. Hayet Mahmud) Deputy Chief Engineer (Mech.) and Head of Prod. And Tech. Dept.		

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NORTH PATENGA, CHATTOGRAM-4204.

TEST CERTIFICATE



Type :TM-200/11-76T1/08		3 - Phase Distribution Transformer		X-former Mfg. No.- 23-24-024	
Purchaser: Dhaka WASA		Contract No.: 46.05.0000.427.02.015.2023/C-03 Date: 16/11/2023		Year of Manufacture: 2023	
Standard: IEC-60076	Tap	Volts in	Volts in	Voltage ratio: 11000/415	
Service: Continious	Position	H.V	L.V.	Values at 75°C	
Type of Cooling: ONAN	1	11275		Po (kW)	Psc (kW)
	2	11000	415	Guarantee	0.435
Rated Frequency: 50 Hz	3	10725		Tolerance	+15%
	4	10450			+15%
BIL: 75 KV	5	10175		Total Weight:	945±5 KG
				Weight of Oil:	244 KG
	Current in Amps:	10.5	278.24		
	Rated Capacity:	200 KVA			
	Phase:	3(Three)			
	Vecto Group:	Dyn-11			
Winding Resistance in ohm at 32°C			Ratio Test		
High Voltage Side	Low Voltage Side	Tapping:	1	2	3
A-B	8.2	a-b	0.0085	Measured	
B-C	8.2	b-c	0.0085	Ratio:	27.17
C-A	8.2	c-a	0.0085		26.5
					25.84
					25.18
					24.52
			Vector Group Test		
			Test Result: Dyn-11		
Measurement of No-Load Loss & Current			Measurement of Load Loss & Impedence		
Applied Voltage on LV side	No Load Loss in Watts	No Load Current(%)	Rated Current in Amps	Load Loss at 75°C in watts	Imp. at 75°C in %
415 V	425	1.65	10.5	2813	3.97
High Voltage Test			Induced Over Voltage Test		
Applied Voltage on HV side:	28 kV	Applied Voltage on LV side:	0.83 kV		
Applied Voltage on LV side:	2.5 kV	Frequency:	200 Hz		
Frequency:	50 Hz	Time Duration:	30 second		
Time Duration:	1 minute				
Dielectric Strength of Oil in KV			Insulation Resistance Measured by 2.5K V Megger at 32°C		
At 2.5 mm electrode gap:	>50	HV-Body in GΩ:	8.25		
		LV-Body in GΩ:	9.5		
		HV-LV in GΩ:	8.15		
It is hereby certify that the transformer is in conformity with the existing standards and declared fit for operation.					
(Engr. Hasan-Uz-Zaman Khan) Engineer (Elec.) and In-Charge, Testing			(Engr. Md. Hayet Mahmud) Deputy Chief Engineer (Mech.) and Head of Prod. And Tech. Dept.		

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Type :TM-200/11-76T1/08		3 - Phase Distribution Transformer		X-former Mfg. No.- 23-24-025	
Purchaser: Dhaka WASA		Contract No.: 46.05.0000.427.02.015.2023/C-03 Date: 16/11/2023		Year of Manufacture: 2023	
Standard: IEC-60076	Tap	Volts in	Volts in	Voltage ratio: 11000/415	
Service: Continious	Position	H.V	L.V.	Values at 75°C	
Type of Cooling: ONAN	1	11275		Po (kW)	Psc (kW)
	2	11000	415	Guarantee	0.435
Rated Frequency: 50 Hz	3	10725		Tolerance	+15%
	4	10450		Total Weight:	945±5 KG
BIL: 75 KV	5	10175		Weight of Oil:	244 KG
Current in Amps:		10.5	278.24		
Rated Capacity:		200 KVA			
Phase:		3(Three)			
Vecto Group:		Dyn-11			
Winding Resistance in ohm at 32°C				Ratio Test	
High Voltage Side		Low Voltage Side		Tapping:	1 2 3 4 5
A-B	8.12	a-b	0.0083	Measured	
B-C	8.12	b-c	0.0083	Ratio:	27.17 26.5 25.84 25.18 24.52
C-A	8.12	c-a	0.0083	Vector Group Test	
				Test Result: Dyn-11	
Measurement of No-Load Loss & Current				Measurement of Load Loss & Impedence	
Applied Voltage on LV side	No Load Loss in Watts	No Load Current(%)	Rated Current in Amps	Load Loss at 75°C in watts	Imp. at 75°C in %
415 V	430	1.88	10.5	2805	3.99
High Voltage Test			Induced Over Voltage Test		
Applied Voltage on HV side:	28 kV	Applied Voltage on LV side:	0.83 kV		
Applied Voltage on LV side:	2.5 kV	Frequency:	200 Hz		
Frequency:	50 Hz	Time Duration:	30 second		
Time Duration:	1 minute				
Dielectric Strength of Oil in KV			Insulation Resistance Measured by 2.5K V Megger at 32°C		
At 2.5 mm electrode gap:	>50	HV-Body in GΩ:	8.23		
		LV-Body in GΩ:	4.12		
		HV-LV in GΩ:	12.56		
It is hereby certify that the transformer is in conformity with the existing standards and declared fit for operation.					
(Engr. Hasan-Uz-Zaman Khan) Engineer (Elec.) and In-Charge, Testing			(Engr. Md. Hayet Mahmud) Deputy Chief Engineer (Mech.) and Head of Prod. And Tech. Dept.		

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Type :TM-200/11-76T1/08		3 - Phase Distribution Transformer				X-former			
Purchaser: Dhaka WASA		Contract No.: 46.05.0000.427.02.015.2023/C-03 Date: 16/11/2023				Mfg. No.- 23-24-026			
Standard: IEC-60076		Tap	Volts in	Volts in	Voltage ratio: 11000/415				
Service: Continious		Position	H.V	L.V.	Values at 75°C				
Type of Cooling: ONAN		1	11275		Po (kW)	Psc (kW)	Imp. (%)		
Rated Frequency: 50 Hz		2	11000	415	Guarantee	0.435	2.82	4.00	
BIL: 75 KV		3	10725		Tolerance	+15%	+15%	±10%	
		4	10450		Total Weight:	945±5 KG			
		5	10175		Weight of Oil:	244 KG			
		Current in Amps:	10.5	278.24					
		Rated Capacity:	200 KVA						
		Phase:	3(Three)						
		Vecto Group:	Dyn-11						
Winding Resistance in ohm at 32°C					Ratio Test				
High Voltage Side		Low Voltage Side		Tapping:	1	2	3	4	
A-B	8.22	a-b	0.0085	Measured				5	
B-C	8.22	b-c	0.0085	Ratio:	27.17	26.5	25.84	25.18	
C-A	8.22	c-a	0.0085					24.52	
					Vector Group Test				
					Test Result: Dyn-11				
Measurement of No-Load Loss & Current					Measurement of Load Loss & Impedence				
Applied Voltage on LV side	No Load Loss in Watts	No Load Current(%)	Rated Current in Amps	Load Loss at 75°C in watts	Imp. at 75°C in %				
415 V	427	1.72	10.5	2810	3.97				
High Voltage Test					Induced Over Voltage Test				
Applied Voltage on HV side:	28 kV		Applied Voltage on LV side:	0.83 kV					
Applied Voltage on LV side:	2.5 kV		Frequency:	200 Hz					
Frequency:	50 Hz		Time Duration:	30 second					
Time Duration:	1 minute								
Dielectric Strength of Oil in KV					Insulation Resistance Measured by 2.5K V Megger at 32°C				
At 2.5 mm electrode gap:		>50		HV-Body in GΩ:	8.25				
				LV-Body in GΩ:	5.56				
				HV-LV in GΩ:	12.5				
It is hereby certify that the transformer is in conformity with the existing standards and declared fit for operation.									
(Engr. Hasan-Uz-Zaman Khan) Engineer (Elec.) and In-Charge, Testing				(Engr. Md. Hayet Mahmud) Deputy Chief Engineer (Mech.) and Head of Prod. And Tech. Dept.					

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Type :TM-200/11-76T1/08		3 - Phase Distribution Transformer				X-former Mfg. No.- 23-24-027	
Purchaser: Dhaka WASA		Contract No.: 46.05.0000.427.02.015.2023/C-03 Date: 16/11/2023				Year of Manufacture: 2023	
Standard: IEC-60076	Tap	Volts in	Volts in	Voltage ratio: 11000/415			
Service: Continious	Position	H.V	L.V.	Values at 75°C			
Type of Cooling: ONAN	1	11275		Po (kW)	Psc (kW)	Imp. (%)	
	2	11000	415	Guarantee	0.435	2.82	4.00
Rated Frequency: 50 Hz	3	10725		Tolerance	+15%	+15%	±10%
	4	10450		Total Weight: 945±5 KG			
BIL: 75 KV	5	10175		Weight of Oil: 244 KG			
	Current in Amps:	10.5	278.24				
	Rated Capacity:	200 KVA					
	Phase:	3(Three)					
	Vecto Group:	Dyn-11					
Winding Resistance in ohm at 32°C				Ratio Test			
High Voltage Side		Low Voltage Side		Tapping:	1	2	3
A-B	8.16	a-b	0.0083	Measured			
B-C	8.16	b-c	0.0083	Ratio:	27.17	26.5	25.84
C-A	8.16	c-a	0.0083			25.18	24.52
				Vector Group Test			
				Test Result: Dyn-11			
Measurement of No-Load Loss & Current				Measurement of Load Loss & Impedence			
Applied Voltage on LV side	No Load Loss in Watts	No Load Current(%)	Rated Current in Amps	Load Loss at 75°C in watts	Imp. at 75°C in %		
415 V	430	1.82	10.5	2811	3.98		
High Voltage Test				Induced Over Voltage Test			
Applied Voltage on HV side:	28 kV		Applied Voltage on LV side:	0.83 kV			
Applied Voltage on LV side:	2.5 kV		Frequency:	200 Hz			
Frequency:	50 Hz		Time Duration:	30 second			
Time Duration:	1 minute						
Dielectric Strength of Oil in KV				Insulation Resistance Measured by 2.5K V Megger at 32°C			
At 2.5 mm electrode gap:	>50		HV-Body in GΩ:	5.23			
			LV-Body in GΩ:	4.23			
			HV-LV in GΩ:	14.25			
It is hereby certify that the transformer is in conformity with the existing standards and declared fit for operation.							
(Engr. Hasan-Uz-Zaman Khan) Engineer (Elec.) and In-Charge, Testing				(Engr. Md. Hayet Mahmud) Deputy Chief Engineer (Mech.) and Head of Prod. And Tech. Dept.			

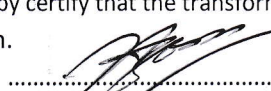
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NORTH PATENGA, CHATTOGRAM-4204.

TEST CERTIFICATE



Type :TM-200/11-76T1/08		3 - Phase Distribution Transformer		X-former Mfg. No.- 23-24-028	
Purchaser: Dhaka WASA		Contract No.: 46.05.0000.427.02.015.2023/C-03 Date: 16/11/2023		Year of Manufacture: 2023	
Standard: IEC-60076	Tap	Volts in	Volts in	Voltage ratio: 11000/415	
Service: Continious	Position	H.V	L.V.	Values at 75°C	
Type of Cooling:	1	11275		Po (kW)	Psc (kW)
ONAN	2	11000	415	Guarantee	0.435
Rated Frequency:	3	10725		Tolerance	+15%
50 Hz	4	10450		Total Weight:	945±5 KG
BIL: 75 KV	5	10175		Weight of Oil:	244 KG
Current in Amps:		10.5	278.24		
Rated Capacity:		200 KVA			
Phase:		3(Three)			
Vecto Group:		Dyn-11			
Winding Resistance in ohm at 32°C				Ratio Test	
High Voltage Side		Low Voltage Side		Tapping:	1
A-B	8.15	a-b	0.0084	Measured	2
B-C	8.15	b-c	0.0084	Ratio:	27.17
C-A	8.15	c-a	0.0084	Vector Group Test	
				Test Result:	Dyn-11
Measurement of No-Load Loss & Current				Measurement of Load Loss & Impedence	
Applied Voltage on LV side	No Load Loss in Watts	No Load Current(%)	Rated Current in Amps	Load Loss at 75°C in watts	Imp. at 75°C in %
415 V	425	1.56	10.5	2812	3.99
High Voltage Test			Induced Over Voltage Test		
Applied Voltage on HV side:		28 kV	Applied Voltage on LV side:		0.83 kV
Applied Voltage on LV side:		2.5 kV	Frequency:		200 Hz
Frequency:		50 Hz	Time Duration:		30 second
Time Duration:		1 minute			
Dielectric Strength of Oil in KV			Insulation Resistance Measured by 2.5K V Megger at 32°C		
At 2.5 mm electrode gap:		>50	HV-Body in GΩ:		5.23
			LV-Body in GΩ:		4.15
			HV-LV in GΩ:		10.8
It is hereby certify that the transformer is in conformity with the existing standards and declared fit for operation.					
 (Engr. Hasan-Uz-Zaman Khan) Engineer (Elec.) and In-Charge, Testing			 (Engr. Md. Hayet Mahmud) Deputy Chief Engineer (Mech.) and Head of Prod. And Tech. Dept.		

GENERAL ELECTRIC MANUFACTURING COMPANY LIMITED

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NORTH PATENGA, CHATTOGRAM-4204.

TEST CERTIFICATE



Type :TM-200/11-76T1/08		3 - Phase Distribution Transformer		X-former Mfg. No.- 23-24-029	
Purchaser: Dhaka WASA		Contract No.: 46.05.0000.427.02.015.2023/C-03 Date: 16/11/2023		Year of Manufacture: 2023	
Standard: IEC-60076	Tap	Volts in	Volts in	Voltage ratio: 11000/415	
Service: Continious	Position	H.V	L.V.	Values at 75°C	
Type of Cooling: ONAN	1	11275	415	Po (kW)	Psc (kW)
	2	11000		Imp. (%)	
Rated Frequency: 50 Hz	3	10725		Guarantee	0.435
	4	10450		Tolerance	+15%
BIL: 75 KV	5	10175		Total Weight:	945±5 KG
				Weight of Oil:	244 KG
	Current in Amps:	10.5	278.24		
	Rated Capacity:	200 KVA			
	Phase:	3(Three)			
	Vecto Group:	Dyn-11			
Winding Resistance in ohm at 32°C			Ratio Test		
High Voltage Side	Low Voltage Side	Tapping:	1	2	3
A-B	a-b	Measured			
B-C	b-c	Ratio:	27.17	26.5	25.84
C-A	c-a			25.18	24.52
		Vector Group Test			
		Test Result: Dyn-11			
Measurement of No-Load Loss & Current			Measurement of Load Loss & Impedence		
Applied Voltage on LV side	No Load Loss in Watts	No Load Current(%)	Rated Current in Amps	Load Loss at 75°C in watts	Imp. at 75°C in %
415 V	420	1.65	10.5	2801	3.92
High Voltage Test			Induced Over Voltage Test		
Applied Voltage on HV side:	28 kV	Applied Voltage on LV side:	0.83 kV		
Applied Voltage on LV side:	2.5 kV	Frequency:	200 Hz		
Frequency:	50 Hz	Time Duration:	30 second		
Time Duration:	1 minute				
Dielectric Strength of Oil in KV			Insulation Resistance Measured by 2.5K V Megger at 32°C		
At 2.5 mm electrode gap:	>50	HV-Body in GΩ:	7.25		
		LV-Body in GΩ:	4.23		
		HV-LV in GΩ:	9.65		
It is hereby certify that the transformer is in conformity with the existing standards and declared fit for operation.					
(Engr. Hasan-Uz-Zaman Khan) Engineer (Elec.) and In-Charge, Testing			(Engr. Md. Hayet Mahmud) Deputy Chief Engineer (Mech.) and Head of Prod. And Tech. Dept.		

GENERAL ELECTRIC MANUFACTURING COMPANY LIMITED

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NORTH PATENGA, CHATTOGRAM-4204.

TEST CERTIFICATE



Type :TM-200/11-76T1/08		3 - Phase Distribution Transformer		X-former Mfg. No.- 23-24-030	
Purchaser: Dhaka WASA		Contract No.: 46.05.0000.427.02.015.2023/C-03 Date: 16/11/2023		Year of Manufacture: 2023	
Standard: IEC-60076	Tap	Volts in	Volts in	Voltage ratio: 11000/415	
Service: Continious	Position	H.V	L.V.	Values at 75°C	
Type of Cooling: ONAN	1	11275		Po (kW)	Psc (kW)
	2	11000	415	Guarantee	0.435
Rated Frequency: 50 Hz	3	10725		Tolerance	+15%
	4	10450		Total Weight:	945±5 KG
BIL: 75 KV	5	10175		Weight of Oil:	244 KG
Current in Amps:		10.5	278.24		
Rated Capacity:		200 KVA			
Phase:		3(Three)			
Vecto Group:		Dyn-11			
Winding Resistance in ohm at 32°C				Ratio Test	
High Voltage Side		Low Voltage Side		Tapping:	1 2 3 4 5
A-B	8.17	a-b	0.0085	Measured	
B-C	8.17	b-c	0.0085	Ratio:	27.17 26.5 25.84 25.18 24.52
C-A	8.17	c-a	0.0085	Vector Group Test	
				Test Result:	Dyn-11
Measurement of No-Load Loss & Current				Measurement of Load Loss & Impedence	
Applied Voltage on LV side	No Load Loss in Watts	No Load Current(%)	Rated Current in Amps	Load Loss at 75°C in watts	Imp. at 75°C in %
415 V	425	1.57	10.5	2820	3.91
High Voltage Test			Induced Over Voltage Test		
Applied Voltage on HV side:		28 kV	Applied Voltage on LV side:		0.83 kV
Applied Voltage on LV side:		2.5 kV	Frequency:		200 Hz
Frequency:		50 Hz	Time Duration:		30 second
Time Duration:		1 minute			
Dielectric Strength of Oil in KV			Insulation Resistance Measured by 2.5K V Megger at 32°C		
At 2.5 mm electrode gap:		>50	HV-Body in GΩ:	5.69	
			LV-Body in GΩ:	8.45	
			HV-LV in GΩ:	8.25	
It is hereby certify that the transformer is in conformity with the existing standards and declared fit for operation.					
(Engr. Hasan-Uz-Zaman Khan) Engineer (Elec.) and In-Charge, Testing			(Engr. Md. Hayet Mahmud) Deputy Chief Engineer (Mech.) and Head of Prod. And Tech. Dept.		

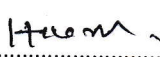
GENERAL ELECTRIC MANUFACTURING COMPANY LIMITED

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NORTH PATENGA, CHATTOGRAM-4204.



TEST CERTIFICATE

Type :TM-200/11-76T1/08		3 - Phase Distribution Transformer				X-former Mfg. No.- 23-24-031	
Purchaser: Dhaka WASA		Contract No.: 46.05.0000.427.02.015.2023/C-03 Date: 16/11/2023				Year of Manufacture: 2023	
Standard: IEC-60076	Tap	Volts in	Volts in	Voltage ratio: 11000/415			
Service: Continious	Position	H.V	L.V.	Values at 75°C			
Type of Cooling: ONAN	1	11275		Po (kW)	Psc (kW)	Imp. (%)	
	2	11000	415	Guarantee	0.435	2.82	4.00
Rated Frequency: 50 Hz	3	10725		Tolerance	+15%	+15%	±10%
	4	10450		Total Weight: 945±5 KG			
BIL: 75 KV	5	10175		Weight of Oil: 244 KG			
	Current in Amps:	10.5	278.24				
	Rated Capacity:	200 KVA					
	Phase:	3(Three)					
	Vecto Group:	Dyn-11					
Winding Resistance in ohm at 32°C				Ratio Test			
High Voltage Side		Low Voltage Side		Tapping:	1	2	3
A-B	8.20	a-b	0.0084	Measured			
B-C	8.20	b-c	0.0084	Ratio:	27.17	26.5	25.84
C-A	8.20	c-a	0.0084			25.18	24.52
				Vector Group Test			
				Test Result: Dyn-11			
Measurement of No-Load Loss & Current				Measurement of Load Loss & Impedence			
Applied Voltage on LV side	No Load Loss in Watts	No Load Current(%)	Rated Current in Amps	Load Loss at 75°C in watts	Imp. at 75°C in %		
415 V	429	1.85	10.5	2806	3.93		
High Voltage Test				Induced Over Voltage Test			
Applied Voltage on HV side:	28 kV		Applied Voltage on LV side:	0.83 kV			
Applied Voltage on LV side:	2.5 kV		Frequency:	200 Hz			
Frequency:	50 Hz		Time Duration:	30 second			
Time Duration:	1 minute						
Dielectric Strength of Oil in KV				Insulation Resistance Measured by 2.5K V Megger at 32°C			
At 2.5 mm electrode gap:	>50		HV-Body in GΩ:	4.35			
			LV-Body in GΩ:	8.64			
			HV-LV in GΩ:	9.56			
It is hereby certify that the transformer is in conformity with the existing standards and declared fit for operation.							
 (Engr. Hasan-Uz-Zaman Khan) Engineer (Elec.) and In-Charge, Testing				 (Engr. Md. Hayet Mahmud) Deputy Chief Engineer (Mech.) and Head of Prod. And Tech. Dept.			

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Type :TM-200/11-76T1/08		3 - Phase Distribution Transformer		X-former	
Purchaser: Dhaka WASA		Contract No.: 46.05.0000.427.02.015.2023/C-03		Mfg. No.- 23-24-032	
		Date: 16/11/2023		Year of Manufacture: 2023	
Standard: IEC-60076	Tap	Volts in	Volts in	Voltage ratio: 11000/415	
Service: Continious	Position	H.V	L.V.	Values at 75°C	
Type of Cooling: ONAN	1	11275		Po (kW)	Psc (kW)
	2	11000	415	Guarantee	0.435
Rated Frequency: 50 Hz	3	10725		Tolerance	+15%
	4	10450			+15%
BIL: 75 KV	5	10175		Total Weight:	945±5 KG
				Weight of Oil:	244 KG
	Current in Amps:	10.5	278.24		
	Rated Capacity:	200 KVA			
	Phase:	3(Three)			
	Vecto Group:	Dyn-11			
Winding Resistance in ohm at 32°C				Ratio Test	
High Voltage Side	Low Voltage Side		Tapping:	1	2
A-B	8.15	a-b	0.0084	Measured	
B-C	8.15	b-c	0.0084	Ratio:	27.17
C-A	8.15	c-a	0.0084		26.5
					25.84
					25.18
					24.52
				Vector Group Test	
				Test Result: Dyn-11	
Measurement of No-Load Loss & Current				Measurement of Load Loss & Impedence	
Applied Voltage on LV side	No Load Loss in Watts	No Load Current(%)	Rated Current in Amps	Load Loss at 75°C in watts	Imp. at 75°C in %
415 V	418	1.57	10.5	2730	3.91
High Voltage Test			Induced Over Voltage Test		
Applied Voltage on HV side:	28 kV		Applied Voltage on LV side:	0.83 kV	
Applied Voltage on LV side:	2.5 kV		Frequency:	200 Hz	
Frequency:	50 Hz		Time Duration:	30 second	
Time Duration:	1 minute				
Dielectric Strength of Oil in KV			Insulation Resistance Measured by 2.5K V Megger at 32°C		
At 2.5 mm electrode gap:	>50		HV-Body in GΩ:	8.25	
			LV-Body in GΩ:	4.56	
			HV-LV in GΩ:	7.23	
It is hereby certify that the transformer is in conformity with the existing standards and declared fit for operation.					
(Engr. Hasan-Uz-Zaman Khan) Engineer (Elec.) and In-Charge, Testing			(Engr. Md. Hayet Mahmud) Deputy Chief Engineer (Mech.) and Head of Prod. And Tech. Dept.		

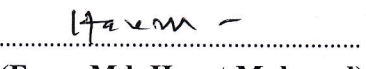
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Type :TM-200/11-76T1/08		3 - Phase Distribution Transformer			X-former Mfg. No.- 23-24-033		
Purchaser: Dhaka WASA		Contract No.: 46.05.0000.427.02.015.2023/C-03 Date: 16/11/2023			Year of Manufacture: 2023		
Standard: IEC-60076	Tap	Volts in	Volts in	Voltage ratio: 11000/415			
Service: Continious	Position	H.V	L.V.	Values at 75°C			
Type of Cooling: ONAN	1	11275		Po (kW)	Psc (kW)	Imp. (%)	
	2	11000	415	Guarantee	0.435	2.82	4.00
Rated Frequency: 50 Hz	3	10725		Tolerance	+15%	+15%	±10%
	4	10450		Total Weight:	945±5 KG		
BIL: 75 KV	5	10175		Weight of Oil:	244 KG		
	Current in Amps:	10.5	278.24				
	Rated Capacity:	200 KVA					
	Phase:	3(Three)					
	Vecto Group:	Dyn-11					
Winding Resistance in ohm at 32°C				Ratio Test			
High Voltage Side		Low Voltage Side		Tapping:	1	2	3
A-B	8.15	a-b	0.0083	Measured			
B-C	8.15	b-c	0.0083	Ratio:	27.17	26.5	25.84
C-A	8.15	c-a	0.0083			25.18	24.52
				Vector Group Test			
				Test Result: Dyn-11			
Measurement of No-Load Loss & Current				Measurement of Load Loss & Impedence			
Applied Voltage on LV side	No Load Loss in Watts	No Load Current(%)	Rated Current in Amps	Load Loss at 75°C in watts	Imp. at 75°C in %		
415 V	422	1.64	10.5	2810	3.96		
High Voltage Test				Induced Over Voltage Test			
Applied Voltage on HV side:		28 kV		Applied Voltage on LV side:		0.83 kV	
Applied Voltage on LV side:		2.5 kV		Frequency:		200 Hz	
Frequency:		50 Hz		Time Duration:		30 second	
Time Duration:		1 minute					
Dielectric Strength of Oil in KV				Insulation Resistance Measured by 2.5K V Megger at 32°C			
At 2.5 mm electrode gap:		>50		HV-Body in GΩ:		8.15	
				LV-Body in GΩ:		6.54	
				HV-LV in GΩ:		8.45	
It is hereby certify that the transformer is in conformity with the existing standards and declared fit for operation.							
 (Engr. Hasan-Uz-Zaman Khan) Engineer (Elec.) and In-Charge, Testing				 (Engr. Md. Hayet Mahmud) Deputy Chief Engineer (Mech.) and Head of Prod. And Tech. Dept.			

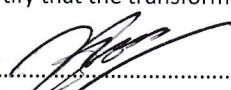
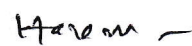
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TEST CERTIFICATE



Type :TM-200/11-76T1/08		3 - Phase Distribution Transformer				X-former Mfg. No.- 23-24-034	
Purchaser: Dhaka WASA		Contract No.: 46.05.0000.427.02.015.2023/C-03 Date: 16/11/2023				Year of Manufacture: 2023	
Standard: IEC-60076	Tap	Volts in	Volts in	Voltage ratio: 11000/415			
Service: Continious	Position	H.V	L.V.	Values at 75°C			
Type of Cooling:	1	11275		Po (kW)	Psc (kW)	Imp. (%)	
ONAN	2	11000	415	Guarantee	0.435	2.82	4.00
Rated Frequency:	3	10725		Tolerance	+15%	+15%	±10%
50 Hz	4	10450		Total Weight: 945±5 KG			
BIL: 75 KV	5	10175		Weight of Oil: 244 KG			
	Current in Amps:	10.5	278.24				
	Rated Capacity:	200 KVA					
	Phase:	3(Three)					
	Vecto Group:	Dyn-11					
Winding Resistance in ohm at 32°C				Ratio Test			
High Voltage Side		Low Voltage Side		Tapping:	1	2	3
A-B	8.15	a-b	0.0085	Measured			
B-C	8.15	b-c	0.0085	Ratio:	27.17	26.5	25.84
C-A	8.15	c-a	0.0085			25.18	24.52
				Vector Group Test			
				Test Result: Dyn-11			
Measurement of No-Load Loss & Current				Measurement of Load Loss & Impedence			
Applied Voltage on LV side	No Load Loss in Watts	No Load Current(%)	Rated Current in Amps	Load Loss at 75°C in watts	Imp. at 75°C in %		
415 V	430	1.74	10.5	2819	3.99		
High Voltage Test				Induced Over Voltage Test			
Applied Voltage on HV side:	28 kV		Applied Voltage on LV side:	0.83 kV			
Applied Voltage on LV side:	2.5 kV		Frequency:	200 Hz			
Frequency:	50 Hz		Time Duration:	30 second			
Time Duration:	1 minute						
Dielectric Strength of Oil in KV				Insulation Resistance Measured by 2.5K V Megger at 32°C			
At 2.5 mm electrode gap:		>50		HV-Body in GΩ:	4.89		
				LV-Body in GΩ:	4.23		
				HV-LV in GΩ:	9.65		
It is hereby certify that the transformer is in conformity with the existing standards and declared fit for operation.  (Engr. Hasan-Uz-Zaman Khan) Engineer (Elec.) and In-Charge, Testing  (Engr. Md. Hayet Mahmud) Deputy Chief Engineer (Mech.) and Head of Prod. And Tech. Dept.							

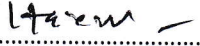
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Type :TM-200/11-76T1/08		3 - Phase Distribution Transformer		X-former Mfg. No.- 23-24-035	
Purchaser: Dhaka WASA		Contract No.: 46.05.0000.427.02.015.2023/C-03 Date: 16/11/2023		Year of Manufacture: 2023	
Standard: IEC-60076	Tap	Volts in	Volts in	Voltage ratio: 11000/415	
Service: Continious	Position	H.V	L.V.	Values at 75°C	
Type of Cooling: ONAN	1	11275		Po (kW)	Psc (kW)
	2	11000	415	Guarantee	0.435
Rated Frequency: 50 Hz	3	10725		Tolerance	+15%
	4	10450		Total Weight:	945±5 KG
BIL: 75 KV	5	10175		Weight of Oil:	244 KG
Current in Amps:		10.5	278.24		
Rated Capacity:		200 KVA			
Phase:		3(Three)			
Vecto Group:		Dyn-11			
Winding Resistance in ohm at 32°C				Ratio Test	
High Voltage Side		Low Voltage Side		Tapping:	1 2 3 4 5
A-B	8.15	a-b	0.0085	Measured	
B-C	8.15	b-c	0.0085	Ratio:	27.17 26.5 25.84 25.18 24.52
C-A	8.15	c-a	0.0085	Vector Group Test	
				Test Result: Dyn-11	
Measurement of No-Load Loss & Current				Measurement of Load Loss & Impedence	
Applied Voltage on LV side	No Load Loss in Watts	No Load Current(%)	Rated Current in Amps	Load Loss at 75°C in watts	Imp. at 75°C in %
415 V	430	1.68	10.5	2764	3.98
High Voltage Test				Induced Over Voltage Test	
Applied Voltage on HV side:		28 kV		Applied Voltage on LV side: 0.83 kV	
Applied Voltage on LV side:		2.5 kV		Frequency: 200 Hz	
Frequency:		50 Hz		Time Duration: 30 second	
Time Duration:		1 minute			
Dielectric Strength of Oil in KV				Insulation Resistance Measured by 2.5K V Megger at 32°C	
At 2.5 mm electrode gap:		>50		HV-Body in GΩ:	4.5
				LV-Body in GΩ:	6.5
				HV-LV in GΩ:	9.65
It is hereby certify that the transformer is in conformity with the existing standards and declared fit for operation.					
 (Engr. Hasan-Uz-Zaman Khan) Engineer (Elec.) and In-Charge, Testing			 (Engr. Md. Hayet Mahmud) Deputy Chief Engineer (Mech.) and Head of Prod. And Tech. Dept.		