



TRANSFORMER & SWITCHGEAR



System Engineering Ltd.

Always with our customer

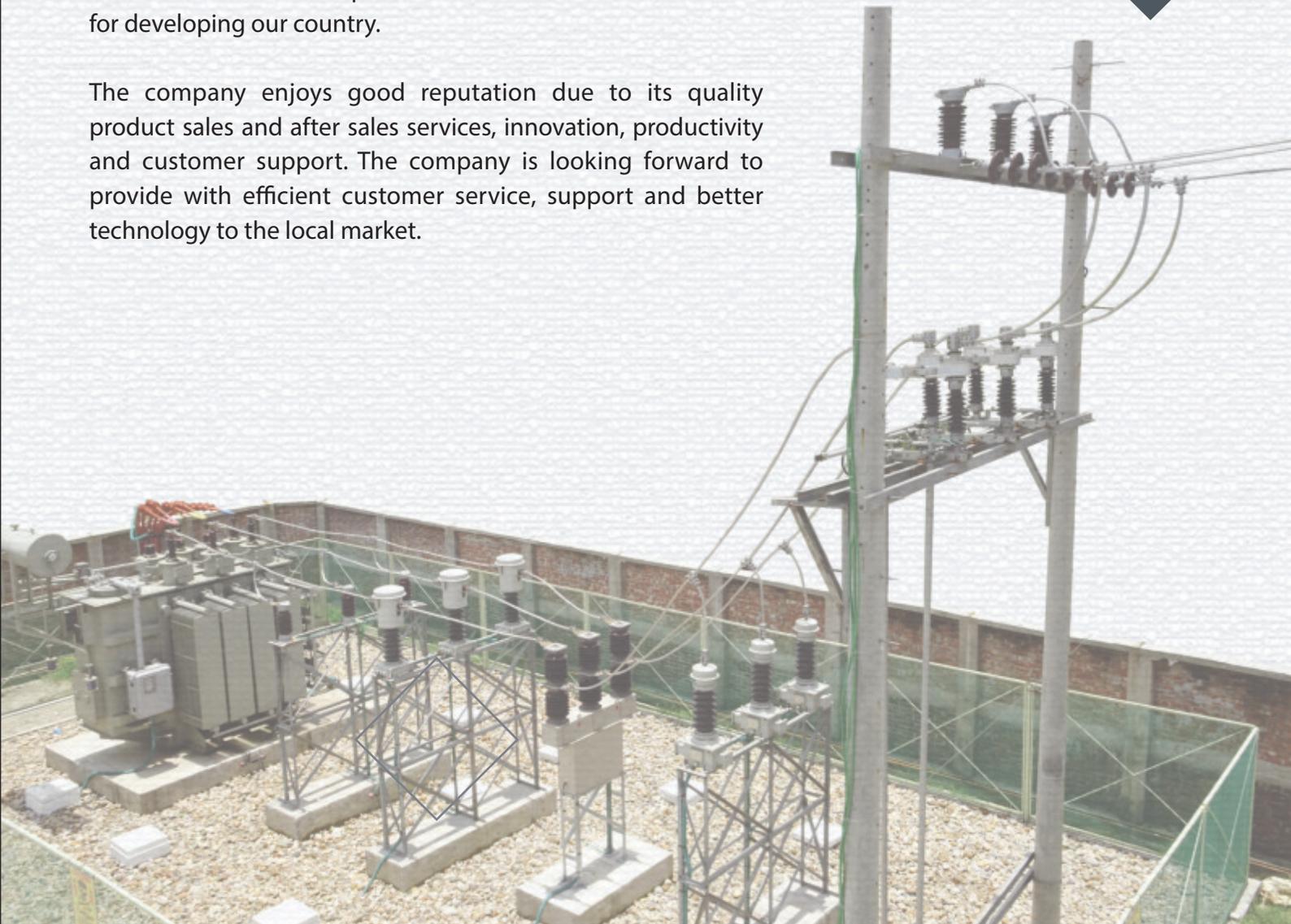
INTRODUCTION

Introduction

System Engineering Ltd. is one of the most reputed organizations in Bangladesh for different kind of Industrial Automation works, Electro-Mechanical & Electrical Engineering works, Plant Erection & maintenance, Lighting Automation, Energy Management, Power Distribution, Transmission & Man-Machine Customization etc. Its objective is to help to make maximum return from systems. It has self-supported expertise technical teams with modern tools & technology.

System Engineering Ltd. is authorized sole-agent of some world-class manufacturers in Bangladesh. SEL has selected these companies for their high quality products with justified price for Bangladesh. SEL thinks, high quality products & services are the most important factors to our industrial sector for developing our country.

The company enjoys good reputation due to its quality product sales and after sales services, innovation, productivity and customer support. The company is looking forward to provide with efficient customer service, support and better technology to the local market.



System Engineering Limited (SEL) has been passionately working hard to manufacture the finest quality of Sub-Station equipment (like Transformer and Switch-gear Panel) through maintaining the standard procedures of inspection and testing. To achieve its goals, SEL is committed to meet or exceed its customers' expectations being focused on continuous improvement of production processes, operational activities and enhancing employees' knowledge, skills and competencies. SEL strives to achieve quality by practicing the following actions:

- Providing customers with high quality installations and services which meet requirements and are fit for their purpose.
- Operating the business to the systems required by ISO 9001: 2015.
- Enhancing the skills of management and production staff through review and actively pursuing an on-going training policy, the objective of which is to prepare staff to perform their work more effectively.
- Promoting the quality driven culture and the philosophy of getting things done in a right manner.
- Rigorously controlling the supply, installation and completion to the steps of all processes.
- Promoting the quality management systems and ensuring implementation is achieved by internal auditing and management review and taking corrective and preventive action.
- Engaging everyone responsible for the quality within the company and for maintaining high-standards.
- Sourcing high quality raw materials through maintaining a supplier database



Products from Transformer Division of SEL



Oil-Immersed Transformer

At SEL, we are constantly striving to introduce new innovations to the transformer industry, bringing you the highest quality, most reliable transformers. SEL Reign transformer emphasizing process improvement in all phase of design, manufacture, and testing.

In order to drive this innovation, we have invested both time and money to satisfy our customers. We put our products into various tests to increase the quality of transformer.

SEL REIGN Transformer adopts a structure that can reduce the loss, and it ensures the electrical stability of the transformer by selecting the high efficiency and optimum insulation structure.

PROCESS

Winding

Process for manufacturing winding of rectangular & circular shaped high grade imported copper wire (Purity over 99.99%) which flows the current.

The winding is very important & sensitive part of a transformer. The winding machines are separated into vertical & horizontal types. Vertical is used for high voltage (HV) low currents conditions with a small number of conductors and implements a complex winding method. Similarly, horizontal type is used for low voltage (LV) high current type with large number of conductors.



Core Cutting & Assembling

The cores are produced by high grade grain-oriented Silicon Steel Sheets(0.27mm) are stacked to form magnetic circuits that are capable of generating of magnetic flux and SEL ensure a noise less, low no-load losses by maintaining properly stacking method and high-quality materials as well as expert technical hands.



Tank

The Tank and Top-Cover are made of Lamination free, high quality steel sheet, fabricated of rigid bottom. Each tank is tested with 0.5 KG pressure and 100% vacuum to ensure no-leakage and withstand during short circuit of the Transformer. High skilled welder and fabrication persons are equipped with modern tools for making the Transformer tank.





TAP-Changer

Is to change the turn ratio by adding or reducing the specified turns from the winding circuit to have the required ratio. Based on customer requirement off-load or on-load Tap-changer can be provided as 5, 7, 9, 17 & 21 positions and ranging up to +/- 20% of the rated voltages. Both in-tank and on-tank type tap-changer can be provided as required.



SHORT CIRCUIT (IMPEDANCE) VOLTAGE

The short circuit impedance voltages are generally

As per IEC 60076-5; 2000

KVA	Minimum Impedance
Up to 630	4%
631 to 1250	5%
1251 to 2500	6%
2501 to 6300	7%
6301 to 25000	8%
25001 to 40000	10%
40001 to 630000	11%
630001 to 100000	12.50%
above 100000	>12.5%

ACCESSORIES

Following standard fittings are provided on the transformers



Bushings

Three high voltage porcelain bushings for in-door or out-door services.

Four low-voltage bushings including Neutral.



Oil-level Gauge on Conservator

Is used to monitor the oil level of a Transformer.

It has the maximum and minimum level indicator is to prevent over flow of oil due to heating.



Silica-gel dehydrating breather

Is used to take out the moisture of the air that enters through the conservator when the Transformer is in operation.



Buchholz Relay

Is a protection device for monitoring the gas and oil movement in oil immersed Transformers and to detect the faults and minimize the propagation of damages.



Pressure Relief Device

Is used to prevent the rapid build-up of pressure within the Transformer tank that might cause an explosion hazard.



Connector

Made of mixed alloy up to 2500A rating can be provided.



Radiator

Is used to dissipate the heat generated due to the losses of transformer.

Transformer bigger than 500 kVA can be provided with detachable radiator along with isolating valve for transport facility.

TESTING



- Ratio Meter, Vanguard USA
- Winding resistance Meter, Vanguard USA
- Power Analyzer, Yokogawa, Japan.
- HV Testing Transformer, Juter, China
- Insulation resistance tester, Metrel, Slovenia
- Instrument transformer (CT, PT), AE, India



RATIO METER



COMBIEND TEST BENCH



RESISTANCE METER

**LOSS MEASURING PANEL
with YOKOGAWA ANALYZER**

**Control Unit for
Various Testing**

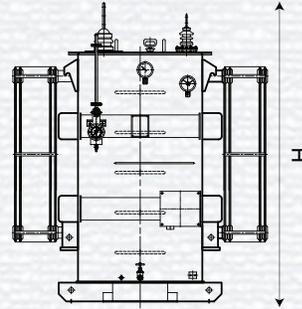
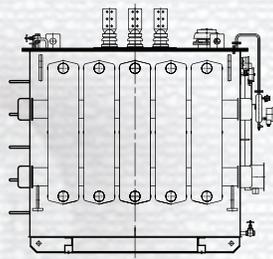
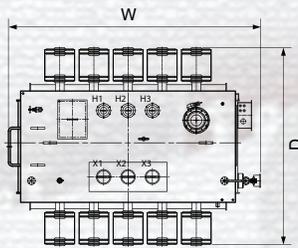


QUALITY CONTROL

Specimen	Check point / Test performed	Tools for Checking
Incoming Inspections		
Core	<ul style="list-style-type: none"> • Specific loss • Thickness 	AS per SEL Transformer
Copper Conductor	<ul style="list-style-type: none"> • Resistivity • Dimensions • Width & Thickness(Bare) 	Process Manual
Insulating Material	<ul style="list-style-type: none"> • Density • Shrinkage(for paper) • Electric strength • Thickness 	
Transformer Oil	<ul style="list-style-type: none"> • Appearance • Density • BDV • Tan delta • Resistivity at 27 deg.C & 90 deg.C 	
Gaskets	<ul style="list-style-type: none"> • Thickness • Hardness 	
Raw Material Tank & Conservator	<ul style="list-style-type: none"> • Type of material • Thickness 	
Tank Assembly	<ul style="list-style-type: none"> • Overall dimensions • Weld finish & size • Welding distances & Alignment • Leakage, Pressure & Vacuum test • Paint adhesion test • Measurement of paint • Film thickness 	
Radiator	<ul style="list-style-type: none"> • Visual & Dimension • Pressure test & leakage test • Paint thickness 	
Bushings	<ul style="list-style-type: none"> • Mounting Dimensions • Electrical Routine • Tests as per relevant std. 	
Tap Changing Switch	<ul style="list-style-type: none"> • Type / Rating • Physical condition • Mechanical operation Check • Insulation resistance test 	

In Process Checking/ Testing

Assembled Core	<ul style="list-style-type: none"> • Visual • Stack height • H.V.test between Core & clamps 	AS per SEL Transformer Process		
Wound coils	<ul style="list-style-type: none"> • Visual check • Lead disposition 			
Coil & Core assembled	<ul style="list-style-type: none"> • 1kV~5KV insulation test (Depend on Transformer) • Measurement of Voltage ratio & Magnetizing Current & Magnetic balance 			
Assembled Transformer	<ul style="list-style-type: none"> • Completeness of the Transformer for all • Fittings, finish level etc. 			
Final testing Routine test	<table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;"> <ol style="list-style-type: none"> 1) Measurement of winding resistance 2) Measurement of voltage ratio and check of phase displacement 3) Measurement of short-circuit impedance and load loss 4) Measurement of no-load loss and current </td> <td style="width: 50%; border: none;"> <ol style="list-style-type: none"> 5) Dielectric Routine Tests <ol style="list-style-type: none"> a) Separate Source Voltage Withstand Test (HV Test) b) Induced Over Voltage Test (DVDF Test) 6) Tests on on-load tap-changers, where appropriate </td> </tr> </table>	<ol style="list-style-type: none"> 1) Measurement of winding resistance 2) Measurement of voltage ratio and check of phase displacement 3) Measurement of short-circuit impedance and load loss 4) Measurement of no-load loss and current 	<ol style="list-style-type: none"> 5) Dielectric Routine Tests <ol style="list-style-type: none"> a) Separate Source Voltage Withstand Test (HV Test) b) Induced Over Voltage Test (DVDF Test) 6) Tests on on-load tap-changers, where appropriate 	As per IEC-60076 or Other International Standard as customer required
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Type test	<ul style="list-style-type: none"> • Temperature Rise Test. 			



Dimensions & Specification (11/0.415 KV)

rating [KVA]	losses [W]		Vcc Vcc [%]	no-load current [%]	noise [dB] [A]	full load regulation [%]		efficiency [%]						weights [Kg]		overall dimension [mm]				
	no-load	load				cos o		cos o = 1			cos o = 0,8			oil	total	fig	Lu	La	H	D
						1	0,8	100%	75%	50%	100%	75%	50%							
100	320	1750	4	2,5	59	1,815	3,575	97,97	98,29	98,51	97,48	97,87	98,14	140	600	1	1150	700	1300	520
150	460	2350	4	2,3	62	1,538	3,429	98,27	98,54	98,71	97,85	98,18	98,39	160	750	1	1300	780	1300	520
200	540	2750	4	2,1	64	1,446	3,378	98,38	98,63	98,79	97,99	98,29	98,49	175	880	1	1350	780	1350	520
250	650	3250	4	2,1	65	1,372	3,335	98,46	98,70	98,84	98,09	98,38	98,56	195	1000	1	1400	830	1350	520
315	770	3850	4	2,0	66	1,295	3,290	98,56	98,77	98,91	98,20	98,47	98,64	225	1160	1	1450	850	1400	670
400	930	4600	4	1,9	68	1,223	3,247	98,64	98,84	98,97	98,30	98,56	98,72	255	1350	1	1500	920	1400	670
500	1100	5500	4	1,9	69	1,174	3,217	98,70	98,89	99,02	98,38	98,62	98,78	290	1580	1	1550	1030	1400	670
630	1300	6500	4	1,8	70	1,106	3,175	98,78	98,96	99,08	98,48	98,71	98,85	360	1850	1	1650	1100	1500	670
800	1400	8300	6	1,7	72	1,212	4,460	98,80	99,00	99,14	98,51	98,75	98,93	430	2250	1	1780	1230	1550	670
1000	1700	10500	6	1,5	73	1,224	4,468	98,79	99,00	99,14	98,50	98,75	98,93	480	2600	1	1750	1250	1600	820
1250	2100	13100	6	1,4	75	1,223	4,467	98,80	99,00	99,15	98,50	98,75	98,94	550	3050	1	1860	1280	1700	820
1600	2600	17000	6	1,3	76	1,237	4,477	98,79	99,00	99,15	98,49	98,75	98,94	660	3700	1	2050	1500	1800	820
2000	3200	22000	6	1,2	79	1,274	4,501	98,76	98,97	99,14	98,45	98,72	98,92	820	4250	1	2150	1600	2150	1070
2500	3800	26500	6	1,1	81	1,234	4,475	98,80	99,01	99,17	98,51	98,77	98,97	940	4900	1	2350	1650	2150	1070
3150	4400	34000	6	1,0	83	1,254	4,488	98,80	99,01	99,19	98,50	98,77	98,99	1050	5800	1	2950	1700	2200	1070

Transformer Rating Chart (33/11KV & 33/0.415KV)

Sl. NO	KVA Rating	Impedance (%)	Voltage Ratio (kV)	Current Rating (A)
1	100	4	33/0.415	1.7/139.1
2	150	4	33/0.415	2.6/209.1
3	200	4	33/0.415	3.4/278.28
4	315	4	33/0.415	5.5/438.2
5	400	4	33/0.415	6.9/556.48
6	1250	7	33/0.415	21.8/1739
7	1600	8	33/0.415	27.9/2225.9
8	2000	8	33/0.415	34.9/2782.4
9	2500	8	33/0.415	43.7/3478.01
10	3000	8	33/0.415	52.4/4173.6
11	3150	8	33/0.415	55.1/4382.29
12	3500	8	33/0.415	61.2/4869.2
13	3750	8	33/0.415	65.6/5217
14	3750	8	33/11	65.6/196.8
15	4500	8	33/0.415	78.7/6260.4
16	4500	8	33/11	78.7/236.1
17	5000	8	33/0.415	87.4/6956.02

Sl. NO	KVA Rating	Impedance (%)	Voltage Ratio (kV)	Current Rating (A)
18	5000	8	33/11	87.4/262.4
19	7500	8.5	33/11	131.2/393.6
20	10000	8.5	33/11	174.9/524.8
21	12500	10	33/11	218.6/656.07
22	10~12	10	33/11	209.9/629.8
23	10~13	10	33/11	227.4/682.3
24	10~14	10	33/11	244.9/734.8
25	12~14	10	33/11	244.9/734.8
26	12~16	10	33/11	279.9/839.7
27	20000	10	33/11	349.9/1049.7
28	20~22	10	33/11	131.2/393.6
29	21500	10	33/11	376.1/1128.4
30	22~24	10	33/11	419.8/1259.6
31	24~30	10	33/11	524.8/1574.5
32	31500	10	33/11	551.1/1653.3
33	16~20		33/11	349.9/1049.7

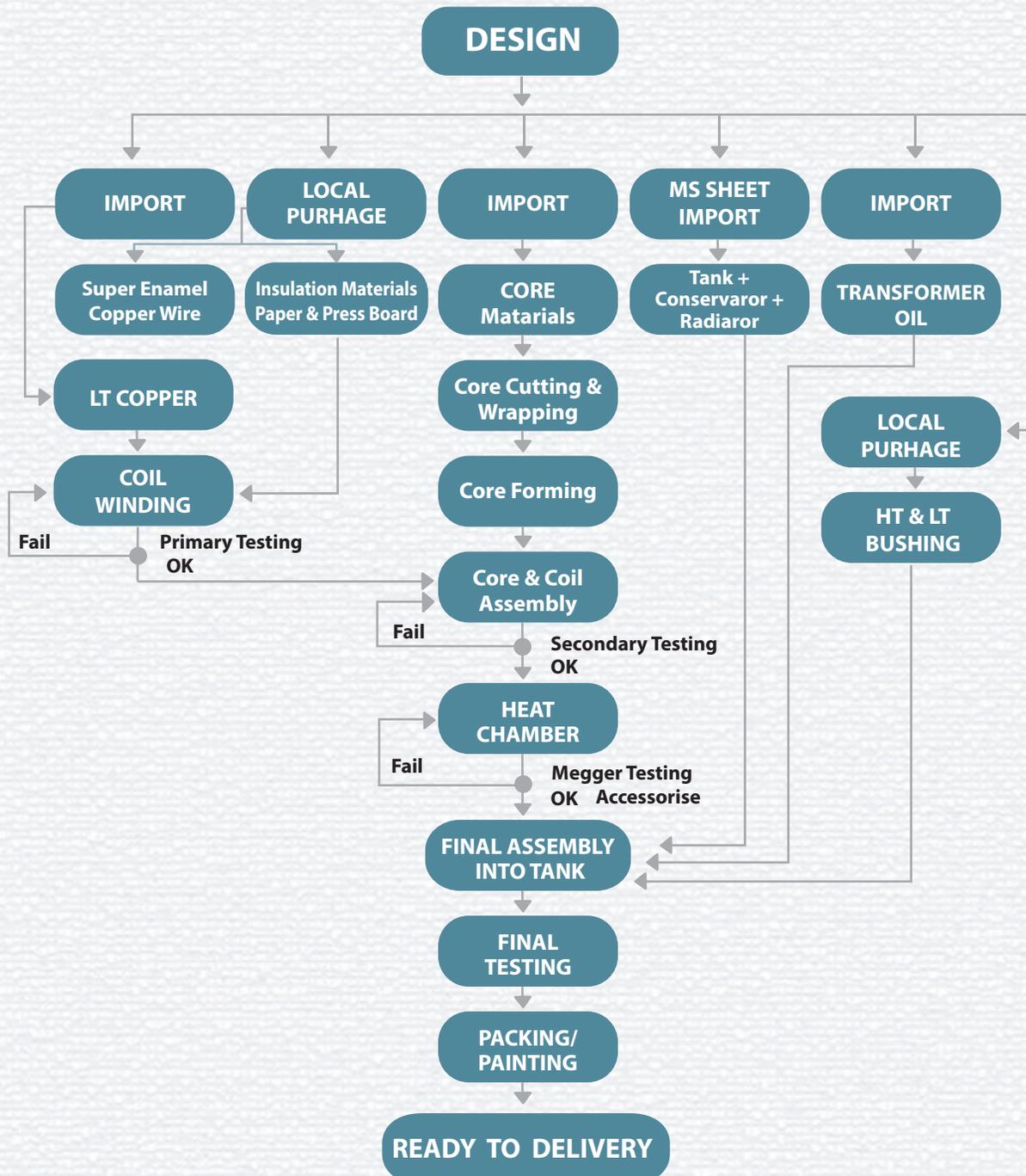
Production Flow System

SEL reign transformers are manufactured in accordance with the quality system as per ISO 9001: 2015.

The quality system is aimed at achieving customer satisfaction in terms of design, quality, service, and adaptation of equipment in line with technology.

The process includes the manufacturing flow chart, internal audit, control non-conforming product, corrective action, quality checking, quality of suppliers and others.

TRANSFORMER PRODUCTION FLOW CHART



Products from Switchgear Division of SEL





System Engineering Ltd. does design of switchgear in accordance with international (IEC-61439) standards and gives an optimal solution to satisfy the customer requirements for switchgear in electrical networks like-

- Power stations
- MV/LV substations
- Industry
- Infrastructure

■ **System Engineering Ltd.** is manufacturing switchgear by maintaining IP20, IP42, IP43 & IP53. Now our main focus is to manufacture switchgear in accordance with IP54 and we are working on it.

■ **System Engineering Ltd.** is able to manufacture different form of switchgear panel like form 2a, 2b, 3a, 3b and 4a (Type 1, 2), 4b (Type 3, 4, 5, 6, 7).

■ **SEL switchgear specialty-**

- Standard- IEC 61439,
- ISO Certified (9001:2015)
- Operational reliability
- Available cooling system
- Easy to install
- Maintenance and service friendly

Different type of switchgear panels which are manufactured by System Engineering Ltd. in our own factory are given below-

- **H.T Panel (VCB Panel)**
- **LBS (Load Break Switch) Panel**
- **H.T Metering Panel**
- **33KV Control Panel**
- **RTCC Panel**
- **L.T Panel**
- **P.F.I Plant**
- **ATS Panel**
- **MCC Panel**
- **PMCC Panel**
- **MDB**
- **DB & SDB**

■ **System Engineering Ltd.** has successfully done assemble of type tested panels (L.T, P.F.I, ATS, MDB, DB, SDB) of ABB. But SEL is capable to assemble all types of type tested panel of any brand.

■ **As per IEC 61439, the below mentioned routine tests are done in our SEL factory-**

- Degree of protection IP provided by an assembly enclosure
- Clearances and creepage distances
- Protection against electric shock and integrity of the protection circuits
- Incorporation of built-in components
- Internal electrical circuits and connections
- Terminals for external conductors
- Mechanical operation
- Dielectric properties
- Wiring, operational performance and function.



HT Switchgear

In an electrical power system, switchgear is the combination of electrical disconnect switches and switchboards.

In a HT Switchgear the LBS, VCB, SF6 Circuit Breaker used as a main part or disconnect into the optimized design switchboards. We are also providing very high quality smart & economic design "Ring main Unit (RMU)' as HT Panel" using in populated & expensive land area for multi feeder In coming & Out Going. Ensuring a smart operation, low cost & sustainable plant.

Basic function

- Controlling or Switching (High Voltage, like: 11KV, 33KV).
- Protection against (Overload, Short Circuit, Earth Fault Or any other Electrical Faults).
- Reading of Electrical Quantity (Like: Current, Voltage, Frequency).

Testing of HT Switchgear

Tested Before Assembly

Main Components Like LBS, VCB, SF6 test.
 HT/PT & HT/CT Test.
 IDMT Relay Test.
 Multifunction, Ampere & KV Meter execution ensuring.
 Insulator, Busbar, Lamp & other accessories testing as required.

Tested After Assembly

Power & Control Wiring Test as per design.
 Continuity Test.
 Insulation Resistance Test.
 Mechanical Fittings, Components Fittings & Position as per design checked.

Final Check & dispatch



Type of HT Switchgear

- Fixed Type.
- Draw-Out Type.

LT Switchgear

Basic function

- Controlling, Switching & smart Distribution the power.
- Protection against Over Load, Short Circuits, Earth Fault & other Electrical Faults.
- Observe or reserve the Electrical Quantity Like, Current, Voltage, Frequency etc.

Construction of Switchgear

Main Components

Like CB, MC, TOR and measuring & controlling device imported (Like LS, ABB, Autonics, etc.)

Frame or Body

By MS Sheet size as required & standard.

Cable

Well reputed Bangladeshi Manufacturer high quality Cable Like BRB, BBS, RR, Eastern etc. maintaining the color & properly control marking.

Busbar

imported & Properly insulated copper Busbar standard size for different rating.

Painting

After a proper chemical treatment, painted (Siemens Gray) at high temperature in a well setup powder coating plant.

Conductor Termination

Suitable for BBT & Cable connection, Bottom in -Top Out or Reverse or Both are designed as customer demand.



LT- Switchgear

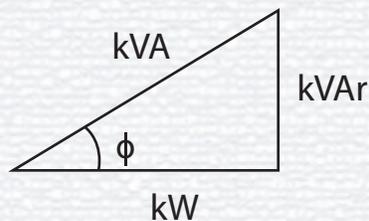


Power Factor Improvement (PFI) Plant



Power Factor

Power factor is the ratio between the 'Real Power' and the 'Apparent Power' of an electrical system.



"Real" power = working power = kW

"Apparent" power = Volts x Amps = kVA

"Reactive" power = magnetizing power = kVAR

What is VAR/KVAR

Electrical equipment like motors and transformers require reactive power create a Magnetic Field and allow work to be performed.

This reactive power is called "volt-amperes-reactive" or VAR's

Reactive power is measured in VAR or KVAR.





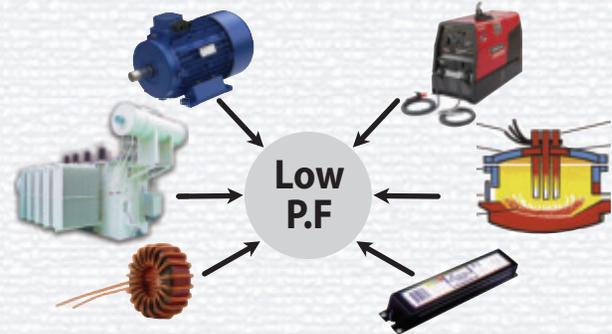
Somebody has to pay for capacity and losses



Sources of Low Power Factor

Reactive power is required by many loads to provide magnetizing current for:

- Motors
- Power transformers
- Welding machines
- Electric arc furnaces
- Inductors
- Lighting ballasts



Why Consider PFC

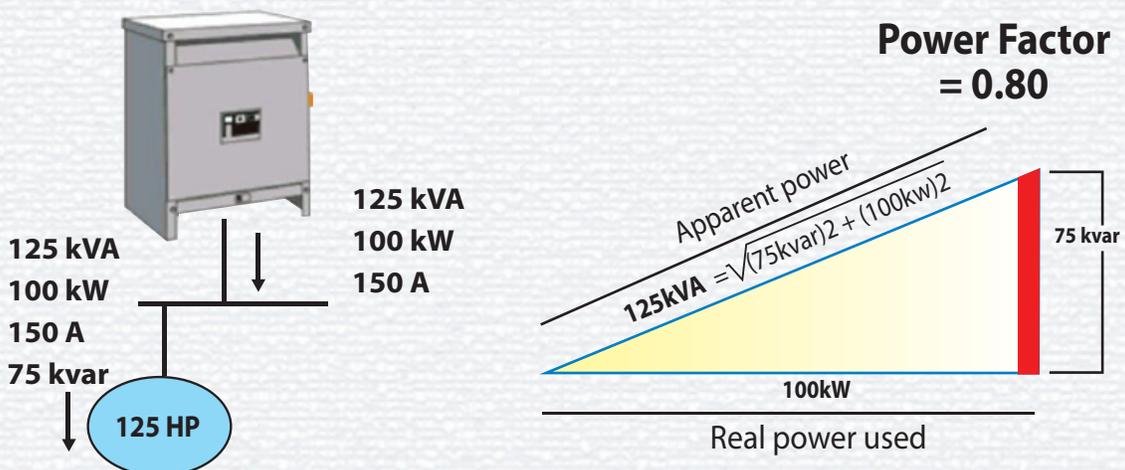
Primary Benefit:

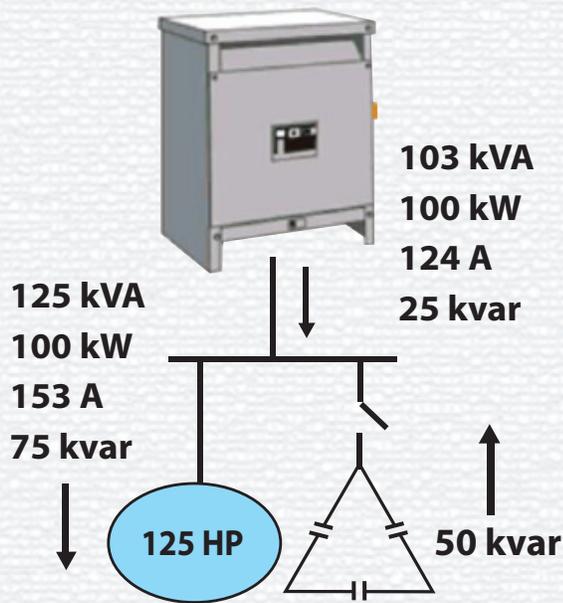
- Reduced electric utility bill if there is a penalty.

Other Benefits:

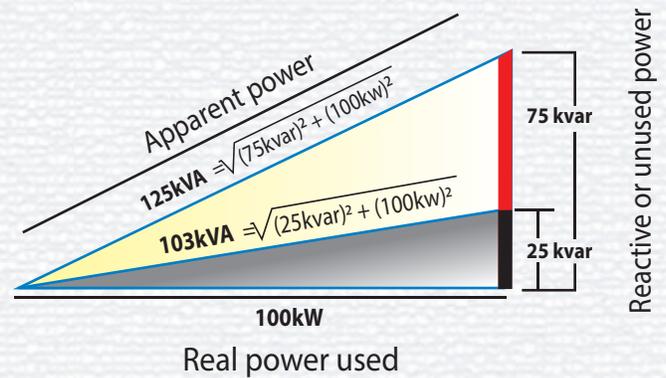
- Increased system capacity (generators, cables, transformers)
- Reduced losses in transformers and cables
- Improved voltage regulation
- Greening the power system

An Example: Improving PF



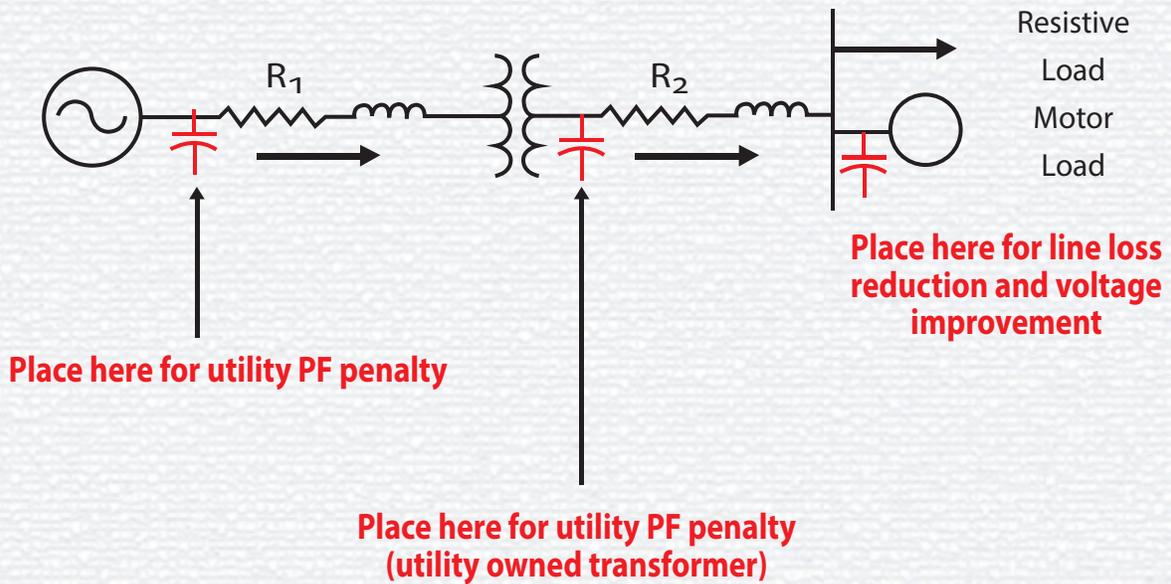


Power Factor
0.80 ==> 0.97



Correcting poor Power Factor can Significantly reduce the load on Transformers & Conductors and allow for facility expansion.

Effect of Location

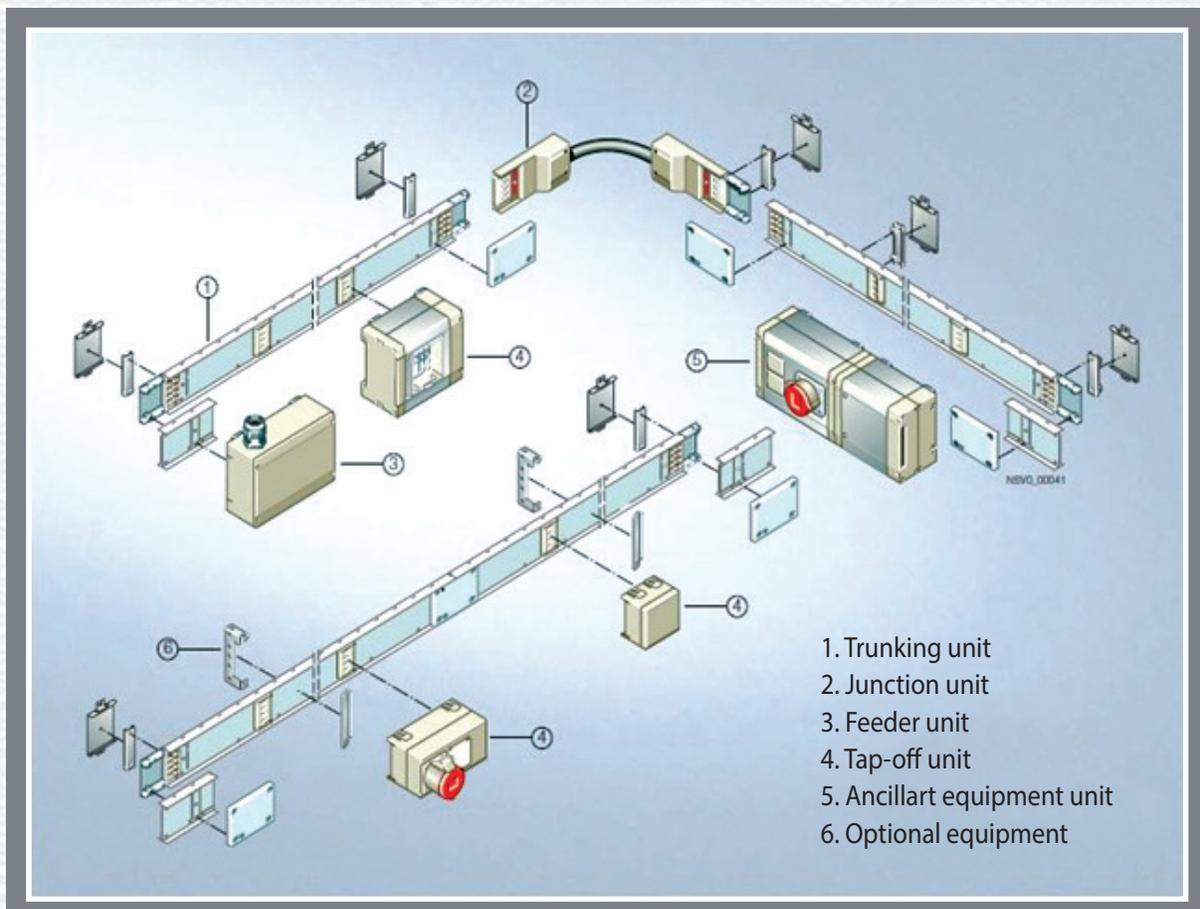


BBT (Busbar Trunking System)

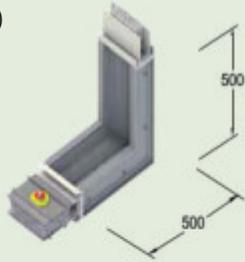
Busbar Trunking System in compact design is the most efficient, safe and ideal system for electricity supply to industrial installation and high-rise structure, offering a wide range from 20A to 6300A.

Why Busbar Trunking System

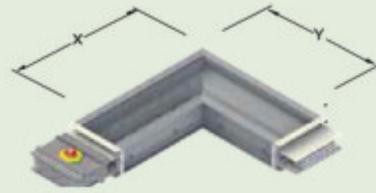
- Long Service life
- High Short circuit Strength
- Low Fire Hazard
- Low Voltage drops
- Low space requirement
- Easy installation
- Easy distribution of load
- Easy retrofitting in case of change of location and consumer loads.



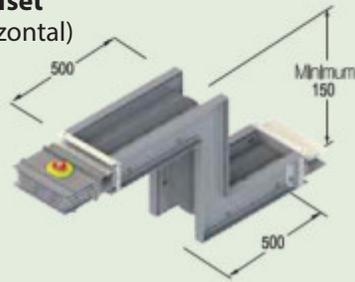
Elbow
(Horizontal)



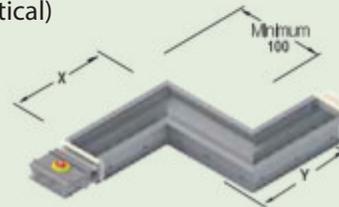
(Vertical)



Offset
(Horizontal)



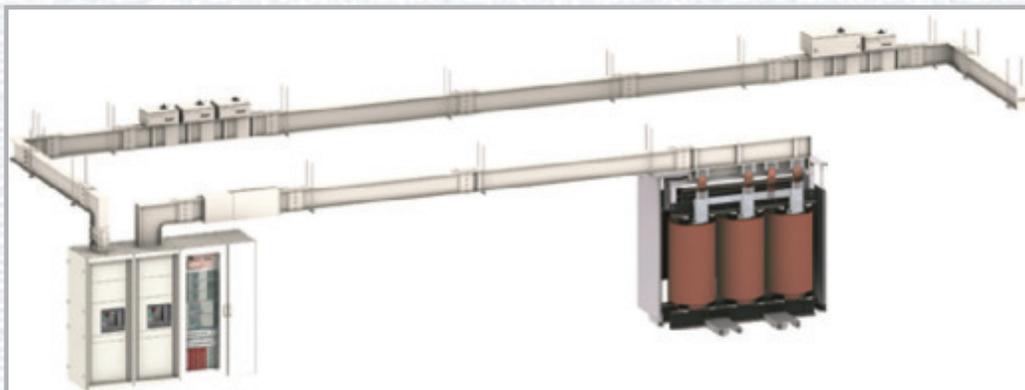
(Vertical)



Product Specifications

Busbar trunking System (BBT) consist of insulated copper or aluminum Busbar enclosed in a Trunking. The low impedance prefabricated horizontal & vertical Busbar Trunking system shall be type tested assembly (TTA) conforming to IEC 61439-6.

Rated current	25A to 6300A
Live Conductor	4W+PE, and 5w
Neutral%	100%
Rated insulation voltage	1000V Ac
Class of insulation	Class B, F, H
Insulation materials	Epoxy, Pet, Air insulation & Mica
Busbar materials	Aluminum/ Copper
Maximum Ambient temperature	55 Deg. C
Degree of protection	IP 54, IP 55, IP 65, IP 66, IP 68



33/11/0.415 KV Sub-Station Client List of System Engineering Ltd.

S/N	Project Name	Address	Capacity
1	Base Paper Ltd.	Dhamrai, Dhaka	Complete 5 MVA,(33/11 KV) & (11/0.415KV) Sub-Station.
2	Transcom Beverage Ttd	Konabari Gazipur	7500 KVA, (33/11 KV), Transformer.
3	Minister HI Tech park	Valuka,Mymensingh	Complete 5 MVA,(33/11KV) & (11/0.415 KV) Sub-Station.
4	Everfirst technology	Sylhet Railway	200 KVA=2Nos. , (33/0.415 KV) Station Transformer.
5	Basundhara Paper Mill Industries (Unit -1)	Meghnaghat, Narayanganj	Complete 14 MVA (33/.415KV) Indoor Sub-Station.
6	Basundhara Paper Mill Industries (Unit -1)	Meghnaghat, Narayanganj	Complete 5MVA=2Nos. (33/0.415KV), Indoor Sub-Station.
7	Basundhara Paper Mill Industries (Unit -1)	Meghnaghat, Narayanganj	4MVA, (33/1.25KV) Rectifier Transformer.
8	Bashundhara Multi Food Products Ltd.	Pangaon, Konda, South Keranigonj, Dhaka	Complete 10/14 MVA, (33/11 KV) & (11/0.415KV) Sub-Station.
9	Sunyad Packaging & ind. Ltd.	Porabari, Salna, Ipsha, Gazipur.	Complete 3MVA, (33/11KV) & (11/0.415KV) Sub-Station.(Running).



Client List

11/0.415KV Sub-Station Client List of System Engineering Ltd.

S/N	Project Name	Address	Capacity
1	SK+F Pharmaceuticals Ltd.	Charag Ali, Tongi, Gazipur.	Complete 2500KVA, (11/0.415 KV) Sub-Station.
2	SK+F Pharmaceuticals Ltd.	Vulta, Narayangonj.	Complete 1500 KVA x2, (11/0.415 KV) Sub-Station.
3	SK+F Pharmaceuticals Ltd.	Salna, Gazipur.	Complete 2000 KVA, (11/0.415 KV) Sub-Station.
4	Nassa Seing Thread Ltd.	Katchpur, Narayangonj	Complete 1500 KVA, (11/0.415 KV) Sub-Station.
5	Camaria Composites Ltd.	BSCIC, Dhamrai, Dhaka	Complete 315 KVA, (11/0.415 KV) Sub-Station
6	Prime pet Industries	Keranigonj, Dhaka	Complete 315 KVA, (11/0.415 KV) Sub-Station
7	Rupnagar real Estate Ltd.	Uttara, Dhaka	Complete 315 KVA, (11/0.415 KV) Sub-Station
8	N.Amin Textile Ltd.	BSCIC, Tongi, Gazipur	Complete 630 KVA, (11/0.415 KV) Sub-Station
9	Nahar Poultry & Fish Feed	Kishoregonj, Dhaka	Complete 400 KVA, (11/0.415 KV) Sub-Station
10	Prianka City -1	Uttara, Dhaka	Complete 100 KVA, 11/0.415 KV Sub-Station
11	Prianka City -2	Uttara, Dhaka	Complete 100 KVA, 11/0.415 KV Sub-Station
12	Prianka City -3	Bashundhara, Dhaka	Complete 100 KVA, (11/0.415 KV) Sub-Station
13	Desh Dvelopers Ltd.	Kalabagan, Dhaka	Complete 100 KVA, (11/0.415 KV) Sub-Station
14	Rupnagar real Estate Ltd.	Khilkhet, Dhaka	Complete 200 KVA ,(11/0.415 KV) Sub-Station
15	Siza Developers Ltd.	Kolatoli, Coxbazar	Complete 315 KVA, (11/0.415 KV) Sub-Station
16	Bhuyan Auto Rice Mills	Kishoregonj, Dhaka	Complete 100 KVA, (11/0.415 KV) Sub-Station
17	Matrix Engineering & Technology	Rampura, Dhaka	Complete 500 KVA, (11/0.415 KV) Sub-Station
18	Matrix Engineering & Technology	Rampura, Dhaka	Complete 400 KVA, (11/0.415 KV) Sub-Station
19	Yasin Flower Mills	Demra, Dhaka	Complete 750 KVA, (11/0.415 KV) Sub-Station
20	BKSP	Savar, Dhaka	Complete 500 KVA, (11/0.415 KV) Sub-Station
21	Nassa spinners Ltd.	Mawna, Gazipur	Complete 800 KVA, (11/0.415 KV) Sub-Station

11/0.415KV Sub-Station Client List:

22	Nassa Taipei Spinners Ltd	Katchpur, Narayangonj	Complete 630 KVA , (11/0.415 KV) Sub-Station
23	Buildtrade Foils Ltd.	Katchpur, Narayangonj	Complete 630 KVA, (11/0.415 KV) Sub-Station
24	Nassa Sewing Thread Ltd.	Katchpur, Narayangonj	Complete 1000 KVA, (11/0.415 KV) Sub-Station
25	IBN Sina Medical Hospital	Jessore	Complete 630 KVA, (11/0.415 KV) Sub-Station
26	BBS Cables Ltd.	Gazipur, Bangladesh	2500KVA, (11/0.415KV) Transformer.
27	A To Z Engineering	Tongi, Gazipur	Complete 250 KVA, (11/0.415 KV) Sub-Station
28	A.R Real Estate Ltd.	Khilgaon,Dhaka	Complete 250 KVA, (11/0.415 KV) Sub-Station
29	ACS Textile Mills Ltd.	Vulta,Rupshi,Narayangong	1000KVA, (11/0.415 KV) Transformer.
30	Bashundhora Group,AMD House	Bashundhora R/A Dhaka	Complete 1500 KVA, (11/0.415 KV) Sub-Station & Cast Resin Transformer
31	Opsonin Pharama	Barishal	Complete 3 MVA, (11/0.415 KV) Sub-Station & Cast Resin Transformer =2 Set.
32	Opsonin Pharama	Barishal	Complete 2.5 MVA, (11/0.415 KV) Sub-Station & Cast Resin Transformer= 2 Set.
33	Opsonin Pharama	Barishal	Complete 3.5 MVA, (11/0.415 KV) Sub-Station & Cast Resin Transformer= 2 Set.
34	Opsonin Pharama	Barishal	Complete 4 MVA, (11/0.415 KV) Sub-Station & Cast Resin Transformer= 2 Set.
35	Opsonin Pharama	Barishal	Complete 5 MVA, (0.415/11 KV) Step Up, Sub-Station & Cast Resin Transformer= 2 Set.
36	Sigma Oil Industries Ltd.	Narayangonj.	Complete 315 KVA, (11/0.415 KV) Sub-Station.
37	Three Dots Ltd.	Mawna,Gazipur	Complete 400 KVA, (11/0.415 KV) Sub-Station.
38	A.R Real Estate Ltd.	Pabna	Complete 250 KVA, (11/0.415 KV) Sub-Station.
39	MA Hasem res.	Gulshan,Dhaka	Complete 400 KVA, (11/0.415 KV) Sub-Station.
40	Shah Dying,MD House	Dhaka	Complete 315 KVA, (11/0.415 KV) Sub-Station.
41	Rupnagar real Estate Ltd.	Airport,Dhaka	Complete 250 KVA,(11/0.415 KV) Sub-Station.
42	Royal Housing Ltd.	Mirpur,Dhaka	Complete 250 KVA, (11/0.415 KV) Sub-Station.
43	Apex Tannery Limited	savar, Dhaka	5MVA, (11/0.415 KV) Transformer.
44	Vicar Concrete Ltd.	Tangail	630 KVA, (11/0.415 KV) Transformer.

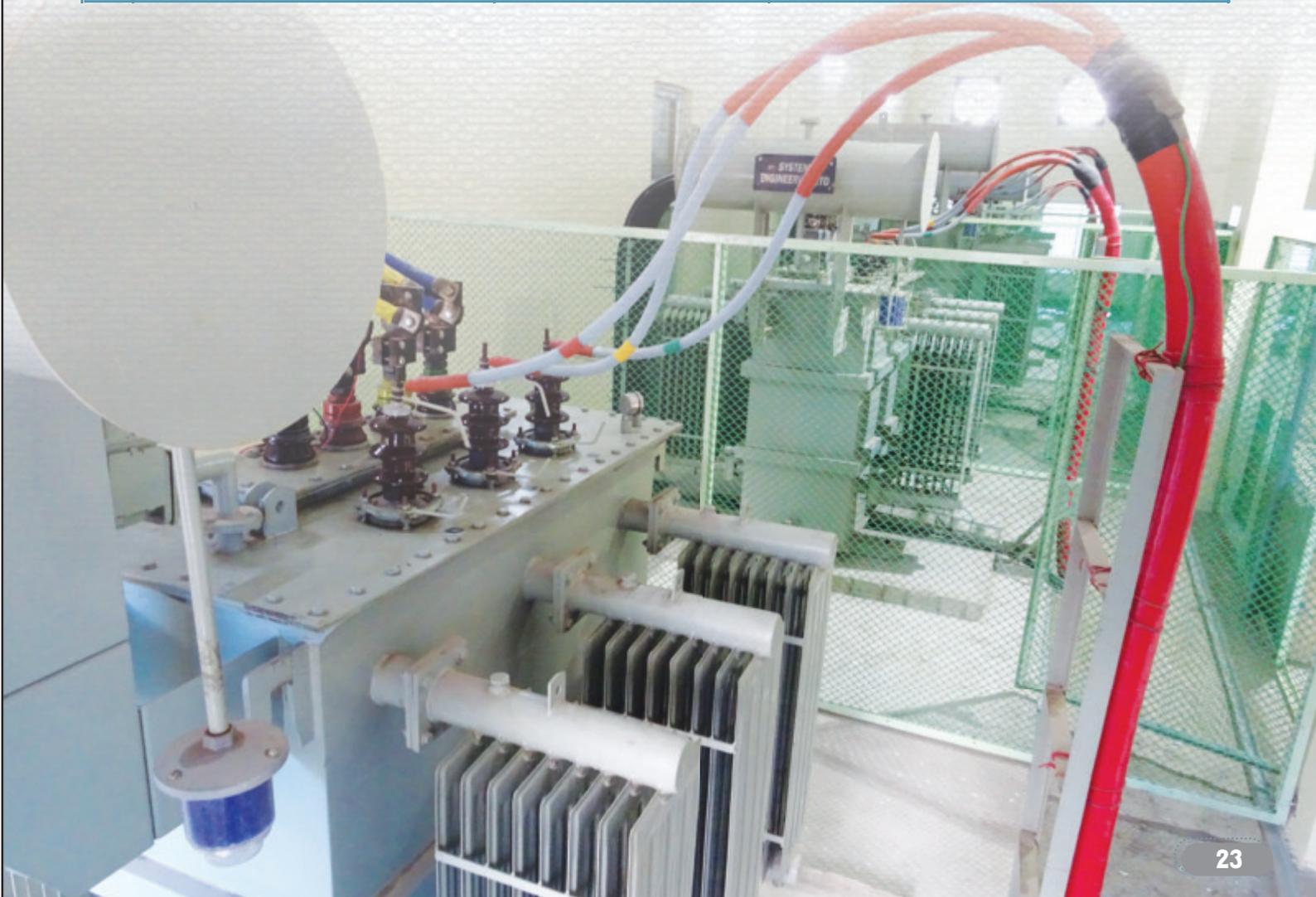
Client List

11/0.415KV Sub-Station Client List:

45	Transcom Beverage Ltd.	Konabari Gazipur	7500 KVA, (33/11 KV) Transformer.
46	Bengal Electric	Dhaka	500 KVA, (11/0.415 KV) Transformer.
47	Renata Ltd	Valuka, Mymensingh	2500 KVA, (11/0.415 KV) Transformer.
48	Everfirst technology	Sylhet	630 KVA, 11/0.415 KV Transformer
49	Mazim Agro Industries Ltd.	Mawna, Gazipur	Complete 500 KVA, 11/0.415 KV Sub-Station
50	Shah Cement Industries Ltd	Munshigonj	3000KVA, (6.6/0.415 KV) Transformer.
51	Shah Dying	Shimrail, Narayanganj	Complete 1000 KVA, (11/0.415 KV), Sub-Station with OLTC
52	Novartis Bangladesh Ltd	Charag Ali, Tongi, Gazipur.	2000KVA Transformer With OLTC.
53	Cross World Power Ltd	Project: Eastern University	1250KVA, (11/0.415 KV) Transformer.
54	Bashundhara Multi Food Products Ltd.	Pangaon, Konda, South Keranigonj, Dhaka	3000 KVA Transformer (11/0.415)KV,
55	Bashundhara Multi Food Products Ltd.	Pangaon, Konda, South Keranigonj, Dhaka	2500 KVA, (11/0.415)KV, Transformer.
56	Bashundhara Multi Food Products Ltd.	Pangaon, Konda, South Keranigonj, Dhaka	2000 KVA, (11/0.415KV)=3Nos. Transformer.
57	Bashundhara Multi Food Products Ltd.	Pangaon, Konda, South Keranigonj, Dhaka	1250 KVA, (11/0.415)KV, Rectifier Transformer .
58	Horizon Construction & Developments Ltd	LA-Allieanza, Plot -71, Road -17/A, Block -E, Banani.	Complete 150 KVA, (11/0.415 KV) Sub-Station.
59	Everfirst Technology	Sylhet Railway	200 KVA, (33/0.415KV) Station Transformer.
60	Tua-HA Textile Ltd	KABIRPUR,SAVAR, BANGLADESH., DHAKA	3500 KVA, (11/0.415 KV) Distribution Transformer .
61	Laurelle fashion Ltd / TJ Sweater Ltd	154, 330, F D Tower ,Kunia , Gazipur	Complete 1000 KVA, (11/0.415 KV) Sub-Station.
62	Winston one	Nolvog, Horirampur, Turag, Dhaka,	Complete 250 KVA, (11/0.415 KV) Sub-Station.
63	Concord Real Estate	Project : Concord Naeem, Bannai, Dhaka.	Complete 315 KVA, (11/0.415 KV) Sub-Station.
64	Premiaflex Plastics Limited	Dhormogonj, Fotulla, Narayanganj.	Complete 2500 KVA, (11/0.415KV) Sub-Station with OLTC.
65	Mega Builders	PC Culture Road, Mohammadpur, Dhaka	Complete 150 KVA, (11/0.415 KV) Sub-Station.
66	M. L THREAD & ACCESSORIES	Jamur, Rishipara, Hemyatpur, Dhaka.	Complete 200 KVA, (11/0.415 KV) Sub-Station.
67	Square Textile Ltd	Sardaganj, Kashimpur Gazipur, Bangladesh	3000 KVA with OLTC, (11/ 0.415 KV) Distribution Transformer .
68	Rokeya Begum	Nilambor Shaha Road, New Market, Hazaribag, Dhaka.	Complete 250 KVA,(11/0.415 KV) Sub-Station.

11/0.415KV Sub-Station Client List:

69	Tampaco foils ltd	Tongi, Gazipur	Complete 2500 KVA, (11/0.415) KV Sub-Station (Running).
70	Transsion holdings limited	Vogra , Gazipur	1000 KVA, (11/0.415 KV) Distribution Transformer.
71	System Power Energy (Project Name : LISHA TEX (PVT.) LTD	Holding # 497/1, North Khailkur, N.U, Gazipur.	630 KVA, (11/0.415 KV) Distribution Transformer .
72	Centre For Engineering & Technical Assistance (CETA)	Joina Bazar, Gazipur	Complete 250 KVA,(11/0.415 KV) Sub-Station.
73	Shah Cement Industris Ltd	Mukterpur, Munshigonj	3000KVA, (6.6/0.415 KV) Transformer.
74	CROSS WORLD POWER LTD.	Project Name :-RFS Fashion	800KVA, (11/0.415KV) Transformer With OLTC.
75	CROSS WORLD POWER LTD.	Project Name :-Premier Printing Press	800KVA, (11/0.415KV)Transformer With OLTC.
76	GPH Ispat Ltd .	Chittagong	1000 KVA, (11/0.415 KV) Distribution Transformer.



Client List

Switchgear Client List of System Engineering Ltd.

S/N	Project Name	Address	Capacity
1	Incepta pharmaceuticals Ltd.	Ashulia,savar,Dhaka	6000A Double Bus Switchgear
2	Tarasima Apparels Ltd.	Nayadingi, Manikgonj	4000A LT Switchgear
3	Shirin Spinning Mills Lid.	Gorai, Mirjapur, Tangail	2000A LT Switchgear
4	Dimond Biscuits Ltd.	Gorai, Mirjapur, Tangail	2000A LT Switchgear, 600 KVAR PFI-Plant, MDB, DB,SDB
5	Ismaeel Anjuman TexTiles.	Tongi, Gazipur	2000A LT Switchgear, MDB & 600 KVAR PFI-Plant -02 Sets
6	Jaber & Jubaer Fabrics Ltd.	Tongi, Gazipur	750 KVAR PFI-Plant -02 Sets,450 KVAR PFI-Plant -02 Sets
7	Acs Textile Ltd.	Vulta, Rupshi, Narayangonj	1000 KVAR PFI-Plant -02 Sets
8	Aventis Pharma Ltd.	Tongi, Gazipur	Changeover Panel & 200 KVAR PFI Plant
9	Beacon Pharmaceutical Ltd.	Valuka, Mymensingh	1025 KVAR PFI Plant
10	East West Media Ltd.(Bashundhara Group)	Bashundhara R/A Dhaka	1200 KVAR & 800 KVAR PFI Plant,With Harmonics Reactor
11	Fatullah Fabrics Ltd.	Narayangonj	600 KVAR PFI Plant
12	Little Spinning Mills Ltd.	Ashulia, Savar, Dhaka	2000A LT Switchgear
13	JMS Glass Industries Ltd.	Katchpur, Narayangonj	925 KVAR PFI Plant with Harmonics Reactor
14	Mast Packaging Ltd.	Demra, Dhaka	800A ATS Panel
15	Nice cotton Ltd.	Savar, Dhaka	800A MDB
16	Marcella Energy Ltd.	Mawna, Gazipur	10000A Double Bus LT Switchgear with 23 Nos. ACB in Panel
17	Uniliver Bangladesh Ltd.	Kalurghat, Chittagong	Motor Control Panel
18	Base Paper Ltd.	Dhamrai, Dhaka	6 MW Common Bus LT Switchgear, 925 KVAR PFI Plant & Motor Control Panel
19	Ratna Tea Garden .	Srimongol, Moulovibazar	MDB, DB, Panel
20	Acs Textile Ltd.	Vulta, Rupshi	MDB, DB, SDB by Bureau veritas Bangladesh
21	Aristopharma Ltd.	Shampur, Dhaka	1600A Changeover Panel
22	Berger Paintd Bangladesh Ltd.	Savar, Dhaka	MDB, Panel
23	Envoy Textile Ltd.	Valuka, Mymensingh	MDB, DB, SDB & Inverter Panel
24	IBN Sina Trust.	Dhanmondi, Dhaka	1200A Changeover Panel
25	Tarasima Apparels Ltd.	Nayadingi, Manikgonj	2000A LT Switchgear
26	Acs Textile Ltd.	Vulta, Rupshi, Narayangonj	3200A ACB Panel
27	Envoy Textile Ltd.	Valuka, Mymensingh	Motor Control Panel
28	Bonny Tube Ltd.	Rajendrapur, Gazipur	90 KVAR PFI Plant
29	Matrix Sweater Ltd.	Board Bazar, Gazipur	MDB, DB Panel
30	Nassa Seing Thread Ltd.	Katchpur, Narayangonj	2500A LT Switchgear, MDB, DB, SDB
31	Marico Bangladesh Ltd.	Mawna, Gazipur	1500 KVA HT Switchgear

CLIENT LIST

Client List

Switchgear Client List of System Engineering Ltd.

32	Buildtrade Foils Ltd.	Dhamrai, Dhaka	1000A Auto Changeover Panel
33	Acs Textile Ltd.	Dhamrai, Dhaka	MDB, DB, SDB
34	Nassa Taipei Spinners Ltd	Katchpur, Narayanganj	MDB
35	Hashem Foods Ltd.	Narayanganj	250 KVAR PFI with Harmonics Reactor
36	Kanchpur Dyeing Ltd	Kanchpur, Narayanganj	600 KVAR PFI Plant
37	Aristopharma Ltd.	Gacha, Gazipur	1000A Auto Changeover Panel
38	Aristopharma Ltd.	Gacha, Gazipur	Motor Control Panel
39	Aristopharma Ltd.	Shampur, Dhaka	1000A Auto Changeover Panel
40	Bashundhora Multi Paper Ltd.	Meghnaghat, Narayanganj	5000A LT Switchgear- 08 Set 1200 KVAR PFI- 08 Set Motor Control Panel- 08 Set
41	Nippon Paints Bangladesh Ltd.	Manikganj, Bangladesh	2500A LT Switchgear
42	Base Paper Ltd.	Dhamrai, Dhaka	925 KVAR PFI Plant & Motor Control Panel
43	IBN sina Pharmaceuticals Ltd.	Gazipur, Bangladesh	1600A LT Switchgear, DB, SDB
44	Berger Paintd Bangladesh Ltd.	Chittagong, Bangladesh	5000A LT Switchgear, 4000A LT Switchgear, 1600A DB, 1250A HT Switchgear & 1900 KVAR PFI Plant
45	Dekko Garments Ltd. (Green Project)	Mawna, Sreepur, Gazipur.	31Nos. MDB, DB Panel (Upto 2000A)
46	Birds A & Z Ltd. (Birds Group)	Bypail, Savar, Gazipur.	1600A & 2000A, LT Switchgear Panel.
47	ACI Ltd. (Head office)	ACI Center, Tejgaon, Dhaka.	2000A, Auto Manual Change over Panel
48	Walton Hi-Tech Industries Ltd. (Building-3)	Chandra, Kaliakur, Gazipur.	11KV RMU, 6300A, LT Switchgear, 2x1900 Kvar PFI.
49	Walton Hi-Tech Industries Ltd. (Building-5)	Chandra, Kaliakur, Gazipur.	11KV RMU, 6300A, LT Switchgear, 2x1900 Kvar PFI.
50	Walton Hi-Tech Industries Ltd. (Building-7 (1))	Chandra, Kaliakur, Gazipur.	11KV RMU, 6300A, LT Switchgear, 2x2400 Kvar PFI.
51	Walton Hi-Tech Industries Ltd. (Building-7 (2))	Chandra, Kaliakur, Gazipur.	11KV RMU, 6300A, LT Switchgear, 2x2400 Kvar PFI.



Certified by



BUET



DUET

System Engineering Ltd.

an ISO certified company



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