شركة المحولات السعودية المحدودة
THE SAUDI TRANSFORMERS CO.LTD

Efficient
POWER
is our Objective

THE SAUDI TRANSFORMERS CO.LTD

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SAUDI TRANSFORMERS CO.LTD

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شركة المحولات السعودية المحدودة

THE SAUDI TRANSFORMERS CO.LTD

GROUP PROFILE

GROUP PROFILE

Group Profile

Electrical Industries Company

Electrical Industries Company (EIC) is a holding company that provides a diversified electrical products and services to customers in the Kingdom of Saudi Arabia and the Middle East. EIC is the owner company of "The Saudi Transformers Co" popularly known as STC and "Wahah Electric Supply Company of Saudi Arabia" otherwise known as WESCOSA.

Electrical Industries Company (EIC) was established with the merging of the leading manufacturers of electrical products as stated above in pursuit of a common goal; to satisfy growing demand of electrical equipment in the Kingdom.

Wahah Electric Supply Company of Saudi Arabia (WESCOSA) and the Saudi Transformers Company (STC), each with a reputation for strategic vision, outstanding craftsmanship and a high profile multi-national client base, have therefore combined to form an innovative alliance with dedication, loyalty and commitment at its core.

EIC meets the challenges of a rapidly changing industry with courage and a leadership spirit that invests in sustainable solutions for the benefit of generations to come.

To gain more insight into EIC, please visit our website www.eic.com.sa

COMPANY PROFILE

Company Profile

The Saudi Transformers Company Ltd. (STC) is a leading transformer manufacturing company in Saudi Arabia. It was established in 1982 under the licensing agreement with CG (formerly know as Pauwels Belgium). It is located in First Industrial City in Dammam, Saudi Arabia, a convenient location for neighboring counties like Kuwait, Iraq, Bahrain, Qatar and UAE.

Saudi Transformers Co. Ltd. manufactures Distribution Transformers, Package Substations & Unit Substations. Aside from the standard products, custom-made products meeting individual requirements are the specialty of STC. All products are designed and manufactured in-house with the help of highly qualified professionals and have been type tested at international laboratories like KEMA (Netherland). STC has the capacity to conduct routine tests on transformers as per IEC and ANSI specification and also has the capability to perform temperature rise test and sound level test.

With two major facilities and a combined area of 30,000 + sq. m. for manufacturing transformers and substation, state of the art machineries and highly skilled employees, STC can manufacture 19,000 + transformers and 4,800 + substations per year.

STC is an approved supplier of Saudi Electricity Company, Saudi Aramco and all utilities in the region. It has also supplied transformers and substations to Dubai Electricity and Water Authority - DEWA (Dubai), Electricity and Water Authority - EWA (Bahrain), Ministry of Electricity and Water - MEW (Kuwait), Abu Dhabi Water & Electricity Authoriry (ADWEA) and private contractors in and outside the Kingdom.

STC believes in consistent quality and no concession is allowed on quality related issues. Quality assurance is not the sole responsibility of QA department but it is the responsibility of each individual involved in the process. STC is ISO 9001:2008 certified company and has been maintaining ISO certification since 1995. To answer the call for the protection of our environment, STC is now ISO 14001:2004 certified.

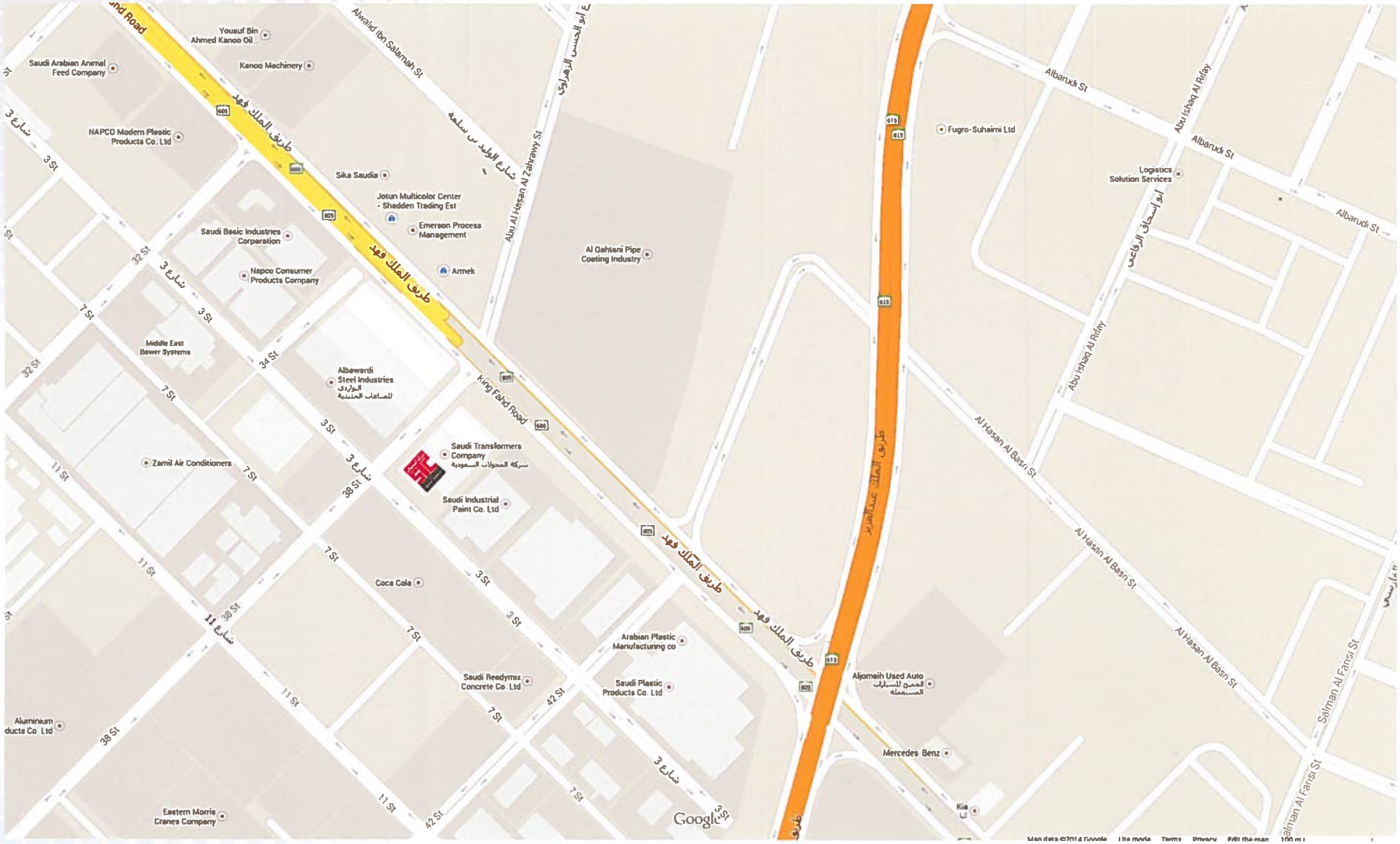
STC believes in developing new products using latest technical information and as a result has introduced SLIM transformers, a very compact transformer which is specially made to answer the requirements of transformers where installation space and safety factor are of prime concern without compromising efficiency, reliability and safety.

With its offices in the major cities within the Kingdom and a vast network of agents and representative throughout the gulf, STC can serve its customers locally as well as regionally. Expert technical advice, training to customers employee, product demonstration are readily available for our customers at home as well as abroad.

LOCATION MAP

LOCATION MAP

Location Mao



MISSION STATEMENT

Mission Statement

We aspire to become a leader in manufacturing Distribution Transformers and Substations in the region by satisfying the requirements of our customers with safe, reliable and economical products.We strive to keep ourselves abreast of the latest technical developments in the distribution sector of electrical engineering and to pass it on our customers in the form of high quality products.

Safety is our prime concern in and out the factory. Safety of the staff in the factory as well as the safety of the customers is embedded in our philosophy of work.

We understand that people are the strength of an organization. Our goal is to retain our staff by providing equal opportunities for career development.

MESSAGE FROM THE PRESIDENT

MESSAGE FROM THE PRESIDENT

Message from President

In more than three decades of existence, STC has emerged as an excellent engineering, manufacturing and marketing enterprise with a prominent presence in the regional market. This position has been achieved through integrity, competence and objectivity.

Our aim is not to provide our customers with a mere product, but rather with the most cost effective, quality products and solutions in the industry.

We work as closely as possible with all of our customers. We encourage them to think beyond their needs and become our partner in looking for ways to improve the products and services.

Our people are an integral part of our company's culture and share in our vision and our ideals. We believe in enhancing the abilities of our employees and investing in them, so that they can deliver the best which eventually satisfy both the company and its customers.

STC has a vibrant history, an encouraging present and a promising future. We have the uphill task to maintain our position and further improve it. We believe that it can be achieved by infusing a spirit of challenge in ourselves which will motivate us to speed in fulfilling customer's needs.

We always welcome your comments as they can guide us further in improving our products and services.

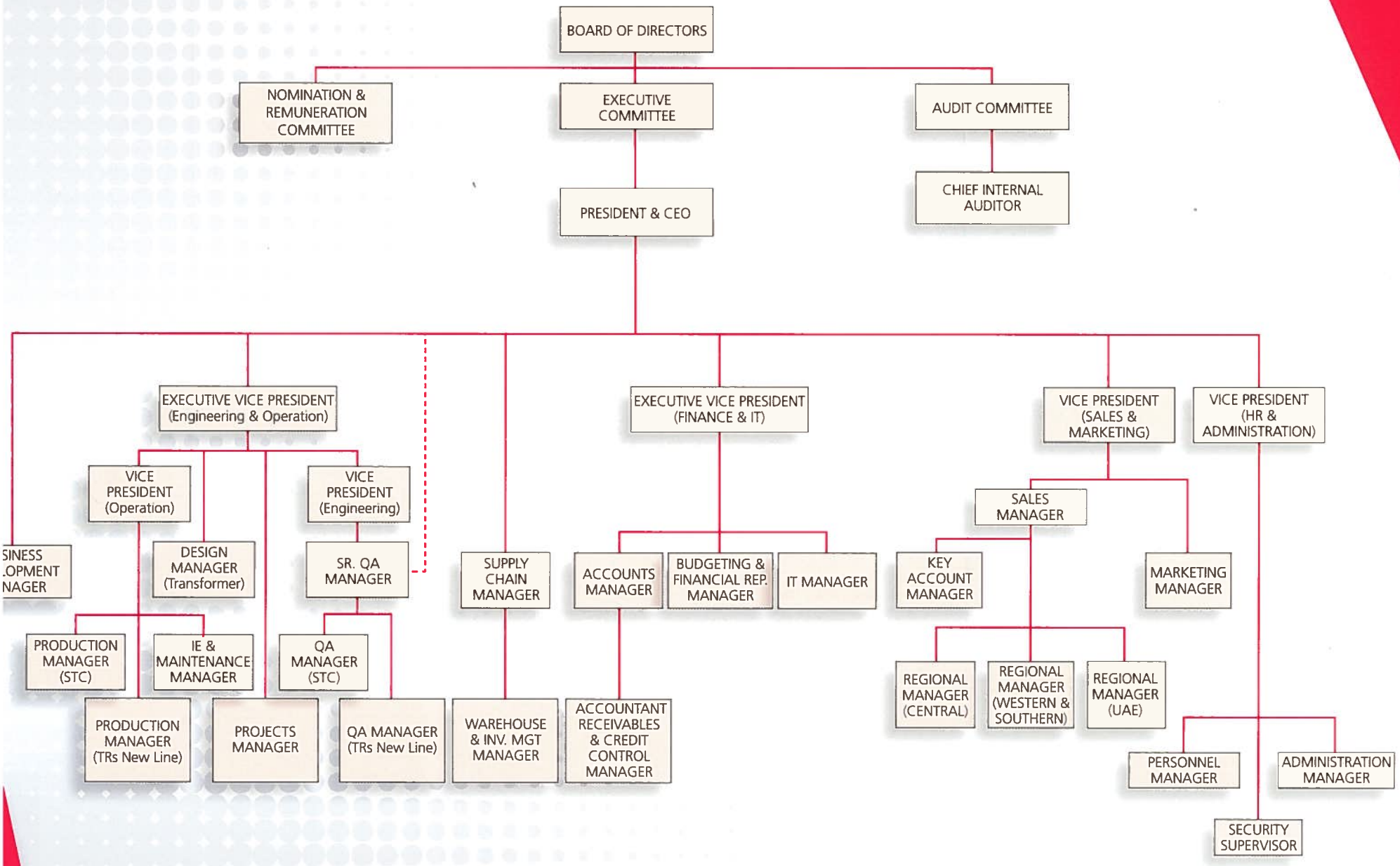
LIST OF MANAGEMENT

List of Management

NAME	DESIGNATION	QUALIFICATION	CONTACT NO.
1. Mr. Ahmad Al Swaidan	Managing Director	B.E. (Mechanical)	8100280-1000
2. Mr. Tariq M. Al Tahini	President & CEO	B.E. (Mechanical)	8100280-1111
3. Mr. Hossam A. Al Shaikh	Executive Vice President (Engineering & Operations)	B.E. (Electrical)	8100280-1500
4. Mr. Medhat Adham Ghaleb	Executive Vice President (Finance & IT)	B. Com.	8100280-1444
5. Mr. Mohammed Y. Abu-Sa'ada	Vice President (Sales & Mktg.)	M.S.c. (Electrical)	8100280-1220
6. Mr. Maher Al Najjar	Vice President (Operation)	B.E. (Electrical)	8473020-2224
7. Mr. Abbas Azzam Al Dhafiry	Vice President (HR & Adminidstration)	MBA	8100280-1001
8. Mr. Ahmad Nadeem Khawaja	Sales Manager	B.E. (Electrical)+MBA (Mktg.)	8473020-2222
9. Mr. Khalid Malik	Senior QA Manager	B.E. (Electrical)	8473020-2228
10. Mr. Joseph Kurian	Design Manager	B.E. (Electrical)	8100280-1247
11. Mr, Hassan Mufleh	Supply Chain Manager	B.E. (Electrical)	8100280-1400
12. Mr. Nader Ellithey	Account Manager	B.Com.	8100280-1311
13. Mr. Amer Al Agil	Budgeting & Financial Repoting Manager	B.Com.	8100280-1355
14. Mr. Mohammad Ajaz	I.T. Manager	B.Sc. Computer	8100280-1311
15. Mr. Mohammed Shajrawi	Production Manager (TR)	B.E. (Electrical)	8473020-2267
16. Mr. Ihab Ali	Production Manager (SS)	B.E. (Electrical)	8100280-1600
17. Mr. Augusto Pau	I.E. & Maint. Manager	B.E. (Electrical)	8474242-4370
18. Mr. Waleed N. Boushnaq	Warehouse & Inventory Mngt. Manager	B.Com.	8100280-1555
19. Mr. Jaffar Abbad	Personnel Manager	B.A.	8474242-4208
20. Mr. Saad Shahrani	Administration Manager	B.A.	8473020-2216
21. Mr. Tariq Osman	Account Receivable Manager	B.Com.	8100234-3341
22. Mr. Ahmad Khankan	Key Account Manager	B.E. (Electrical)	8473020-2231
23. Mr. Tami Al Bishi	Regional Manager (Western & Southern Region)	B.E. (Electrical)	012 6512394
24. Mr. Syed Murshid Pervaiz	Regional Manager (Central Region)	B.E. (Electrical)	011 4600525-100
25. Mr. K.P. Mohamed	Regional Manager "A" (UAE)	B.E. (Electrical)	
26. Mr. Nadeem Qadir	QA Manager	B.E. (Electrical)	8100280-1629

ORGANIZATION CHART

Organization Chart



MANPOWER

MANPOWER

Man Power

Department	Engineer	Associate Engineer	Staff	Supervisor	Labour	Total
Sales and Marketing	6	0	6	4	0	16
Design	2	8	0	2	0	12
Production	7	5	0	11	159	182
Quality Assurance	3	12	0	1	0	16
purchasing	4	0	7	2	0	13
Material (Warehousing)	0	0	19	2	13	34
Industrial Eng'g. & Maint	1	0	6	4	16	27
Finance & Accounting	0	0	15	2	0	17
Information Technology	1	0	6	2	0	9
Administration	0	0	11	2	14	27
TOTAL	**24**	**25**	**70**	**32**	**202**	**353**

CERTIFICATIONS

CERTIFICATIONS

CERTIFICATE

TÜV NORD

Management system as per
EN ISO 9001 : 2008

In accordance with TÜV NORD CERT procedures, it is hereby certified that

THE SAUDI TRANSFORMERS CO. LTD.
P. O. Box 5785, Dammam - 31432
Kingdom of Saudi Arabia

(A Member of Electrical Industrie

applies a management system [illegible] the above [illegible] the following scope

Design, [illegible]facture & Se[illegible]ce o[illegible]sformers
Up to rat[illegible]MVA, 36kV [illegible]s
Package [illegible]bsta[illegible]s and Lo[illegible]oltage Distribution Panels

Certificate Regis[illegible]on No. 04 100 950567
[illegible]ort No. [illegible]3 1869

Valid until 2014-08-21
Initial certification 1995

Certification Body
at TÜV NORD CERT GmbH

Essen, 2011-08-22

This certification was conducted in accordance with the TÜV NORD CERT auditing and certification procedures and is subject to regular surveillance audits.

TÜV NORD CERT GmbH | Langemarckstrasse 20 | 45141 Essen | www.tuev-nord-cert.com

TGA-ZM-07-06-00

CERTIFICATE

TÜV NORD

Management system as per
EN ISO 14001 : 2004

In accordance with TÜV NORD CERT procedures, it is hereby certified that

THE SAUDI TRANSFORMERS CO. LTD. (STC)
(A Member of Electrical Industries)
1st Industrial Area
31432 Dammam
Saudi Arabia

applies a management system [illegible] the above [illegible] the following scope

Design, [illegible]facture & Se[illegible]ce of [illegible]nsformers up to 5.0 MVA, 36kV Cla[illegible]H[illegible]ge Subst[illegible]ons and low voltage distribution panels.

Certificate Regist[illegible] No. 44 104 117647 Valid until 2015-02-04
[illegible]rt No. 3[illegible] 3497

Certification Body
at TÜV NORD CERT GmbH

Essen, 2012-02-05

This certification was conducted in accordance with the TÜV NORD CERT auditing and certification procedures and is subject to regular surveillance audits

TÜV NORD CERT GmbH Langemarckstrasse 20 45141 Essen www.tuev-nord-cert.com

IAF

TGA-ZM-07-06-00

وزارة التجارة والصناعة
Ministry of Commerce and Industry

شهادة تسجيل شركة

الرقم: ٢٠٥٠٠٠٦٠٠٧
التاريخ: ١٣٩٨\٠٦\٠٧

الإسم التجاري للشركة: شركة المحولات السعودية المحدودة
نوعها: ذات مسئولية محدودة جـ سعوديه
مدة الشركة: ٣٠ سنة تبدأ من: ٠٧، ٧٨١ وتنتهي في: ١٤٥٨\٠٦\٠٦
مركزها الرئيسي: الدمام \ المدينة الصناعية الأولي
ص.ب: ٥٧٨٥ الرمز البريدي: ٣١٤٣٢ هاتف: ٨٤٧٠ فاكس: ٨٤٧١٧١٨
النشاط: تسويق منتجات المصنع

رأس المال: ١٠٢٧٥٠٠٠٠,٠٠ ﷼ سعو

المديرون:
١ - أحمد ناصر يعقوب ، جو
٢ - فهد سعد عبدالله التويجري
٣ - محمود محمد محمو الطوخ
٤ - فيصل صالح زيد القرشي
٥ - عدنان إبراهيم مود حيسن
٦ - طلال أحمد عبدالله الزامل
٧ - صالح علي حمود الـ
٨ - يوسف بن علي بن زيد القريشي
٩ -
١٠ -
١١ -
١٢ -

سلطات المدير / المديرون: احسب ما نص عليه عقد الشركة~

يشهد مكتب السجل التجاري: مدينة الدمام وانه تم تسجيل الشركة آنفة الذكر بسجل مدينة الدمام
وتنتهي صلاحية الشهادة: ١٤٣٨\٠٠ بي الإحصاء برقم: ٠٠٠٣٠٠٣٧ وتاريخ: ١٤٣٣\٠٣\٢٨

مدير السجل التجاري للشركات: سعيد جابر الله آل مشيط
التوقيع:

الدمام
المختتم
قسم الشركات

شركة المحولات السعودية المحدودة

THE SAUDI TRANSFORMERS CO.LTD

المؤسسة العامة للتأمينات الاجتماعية

General Organization for Social Insurance

مكتب المنطقة الشرقية

Eastern R Office

التاريخ ١٤٣٤/١٢/٠٣

الموافق ٢٠١٣/١٠/٠٨

الرقم ١٥٦٥٩٨٧١

شهادة

المنشأة : شركة المحولات السعودية المحدودة
ص.ب ٥٧ الدمام ٣١٤٣٢ السعو

إشتراك : ٠١٣١١ ٢٠	
السجل التجاري : ٠٧ ٢٠٥٠٠	مصدره: الدمام

عدد المشتركين ين	١٠	مائة اثنا عشره مشتركا
عدد المشتركين غير السعوديين	٣٧	ثمانية و خمسون ثلاثون مشتركا
المجموع	٥٤٧	سبعمائة و سبعة اربعون مشتركا

تشهد المؤسسة العامة للتأمينات الاجتماعية بأن المنشأة المذكورة أعلاه وفت بالتزاماتها تجاه المؤسسة وفق البيانات المقدمة منها حتى تاريخ إصدار هذه الشهادة والتي يمكن تقديمها لأية جهة تطلبها ، وهي صالحة لجميع الأغراض التي نص عليها نظام التأمينات الاجتماعية في المادة (٦/١٩)

هذه الشهادة سارية المفعول حتى ١٤٣٥/٠٦/٠٣ هـ

(الثالث من شهر جمادى الثانية لعام ألف و اربعمائة و خمسة و ثلاثين هجري

مدير عام مكتب المنطقة الشرقية

محمد بن عبدالمحسن الدايل

المملكة العربية السعودية
المؤسسة العامة للتأمينات الاجتماعية
General Organization For Social Insurance
مكتب المنطقة الشرقية

- لايعتد إلا بأصل هذه الشهادة لجميع الأغراض.
- تعتبر هذه الشهادة لاغية في حالة وجود كشط أو شطب عليها.
- إن تصنيف منشأتكم في برنامج نطاقات خاضع لأحكام ذلك البرنامج .

مكتب المنطقة الشرقية صندوق بريد ١٢٠٣ الدمام ٣١٤٣١ –هاتف: ٨٢٧٥٦٦٦ –فاكس: ٨٢٧٠٣٠٣

P.O.Box1203-dammam(31431) -Tel:8275666-Fax:8270303-WebSite:www.gosi. gov.sa-E-mail:dmm@gosi. gov.sa

بسم الله الرحمن الرحيم

المملكة العربية السعودية
وزارة المالية
مصلحة الزكاة والدخل
(١٨٥)

فرع الدمام

رقم الملف: ٣٠٠٤٥٤٩٣٢٥

رقم الشهادة: ٧٥٣٧٥

التاريخ: ١٥-٠٧-١٤٣٤هـ

شهادة

تشهد مصلحة الزكاة والدخل بأن المكلف/شركة المحولات السعودية
سجل مدني رقم (بدون) وسجل تجاري/رخصة رقم/ ٠٠٦٠٠
قدم إقراره عن الفترة المنتهيه في ٣١-١٢-٢٠١٣م
وقد منح هذه الشهاده لتمكينه من إنهاء جميع معاملاته لدى الجهات ذات العلاقة في ذلك الصرف مستحقاته النهائية عن العقود .
يسري مفعول هذه الشهادة حتى تاريخ ١-٧-١٤٣٥ الموافق ١-١٠-٢٠١٤ .
(الاول من شهر رجب سنة الف و اربعمائة وخمسة وثلاثون هجري)

الختم الرسمي
مصلحة الزكاة والدخل
فرع الدمام
١٣٧٠هـ

الوظيفة : مدير عام فرع المصلحة بالدمام
الإسم : صالح بن حماد الحماد
التوقيع :

يمكنكم التأكد من صحة الشهادة وسريانها من خلال بوابة المصلحة www.dzit.gov.sa

وزارة التجارة والصناعة
Ministry of Commerce and Industry

المشرف العام على مركز خدمات الصنا
رقم الصادر ٤٤٣٧٠٢٦ ٥١٩٩ ع
تاريخ الصادر ٢٦ ١٢ ١٤٣٥ هـ
نوع المرفق لا يوجد
670415--1-5199-21-7
info@mci.gov.sa info@mci.gov.sa

ترخيص صناعي

وزارة التجارة والصناعة
Ministry of Commerce and Industry

رقم: (٢٦٢٨) بتاريخ: ١٤٣٥/١٢/٢١ هـ
تعديل للترخيص رقم: ١٥ بتاريخ: ١٣٩٨/٠١/١٤ هـ

إسم المصنع: مصنع شركة المحولات السعودية المحدودة

موقع المصنع: الدمام (N26.39999997 - E50.14258861) هاتف: ٨٧٣٠٢٠ ٠ فاكس: ٠١٣٨٤٧١٧١٨

ملكية المصنع: شركة المحولات السعوديه المحدوده (رقم السجل التجاري: ٢٠٥٠٠٠٦٠٠٧ / شركة ذا[illegible] محدودة)

المدينة: الدمام صندوق ب[illegible] ٥٧٨ الرمز البريدي: ٣١٤٣٢

النشاط الصناعي: صنع المحركات والمولدات والمحولات الكهربائية واجهزة توزيع الكهرباء والتحكم فيها (رمز [illegible]: ٢٧١٠

الطاقة الإنتاجية	الوحدة	رمز المنتج	وصف المنتج	الطاقة الإنتاجية	الوحدة	رمز المنتج	وصف المنتج
١٥٠٠	وحدة	٨٥٠٣٠٠٠٠	لوحات تحكم لمحطات الكهرباء			٨٥٠٤١٠٠٠	محولات كهربائية (تبريد زيت/جافة راتنجية)بقدرة من ٥٠ حتى ٣١٥٠ ك.ف.أ
٤٥٠٠	وحدة	٨٥٠٤١٠٠٠	محطات محولات كهربائية بقدرة من ٥٠ حتى ٣١٥٠ ك.ف.أ				

عدد العمالة: ٦٨٠ [illegible] فردا

إجمالي التمويل: ٢٢١ (مائتان [illegible]) مليون ريال والمدفوع منه لا يقل عن ٢٥%

تنتهي صلاحية هذا القرار بتاريخ ١٤٣٨/١٢/٢٠ هـ

ملاحظة هامة: التعليمات خلف الترخيص متممه له

وزير التجارة والصناعة
توفيق بن فوزان الربيعة

صفحة ١ من ١

الخدمات الخاصة
Private Services

شهادة اشتراك - ٢٠١٤ م
الدرجة الممتازة

Membership No :2809
Classification: Premium
Date of Issue: 6/1/2014
Asharqia Chamber Certifies that
The Saudi Transformers Co.
Commercial Register No (2050006007)
Registered for this year
The certificate expires on31/12/2014

P.O.Box 5785 DAMMAM 31432

رقم العضوية: 2809
الدرجة : الممتازة
تاريخ الاصدار :2014/1/6
تشهد الغرفة التجارية الصناعية بالمنطقة الشرقية بأن :
شركة المحولات السعوديه المحدودة
المقيدة بالسجل التجاري / الترخيص رقم (2050006007)
مشتركة لدينا لهذا العام
وينتهي سريان هذه الشهادة في2014/12/31
صندوق البريد 5785 الدمام 31432

صدرت في : 2014/1/6 الموافق :1435/03/05 هـ
رقم السند :106872709-1 /18 تاريخ الاشتراك :6/17/ 11004

التوقيع
أحمد بن علي العثمان
Ahmed Bin Ali Al-Othman

الختم
غرفة الشرقية
ASHARQIA CHAMBER
مركز الخدمات الخاصة

P.O. Box 719 Dammam t +966 3 859 8090
Saudi Arabia - 31421 f +966 3 859 8199
private@chamber.org.sa
http://chamber.org.sa/private
الرقم الموحد ٩٢٠٠٠١٣٦

أي كشط أو تعديل في هذه الشهادة يلغيها

SF-MB-04 / REV.0 / 01 / 11 / 2009

غرفة الشرقية
ASHARQIA CHAMBER

شركة المحولات
السعودية المحدودة

THE SAUDI TRANSFORMERS CO.LTD

TESTING INSTRUMENTS

TESTING INSTRUMENTS

TESTING INSTRUMENTS

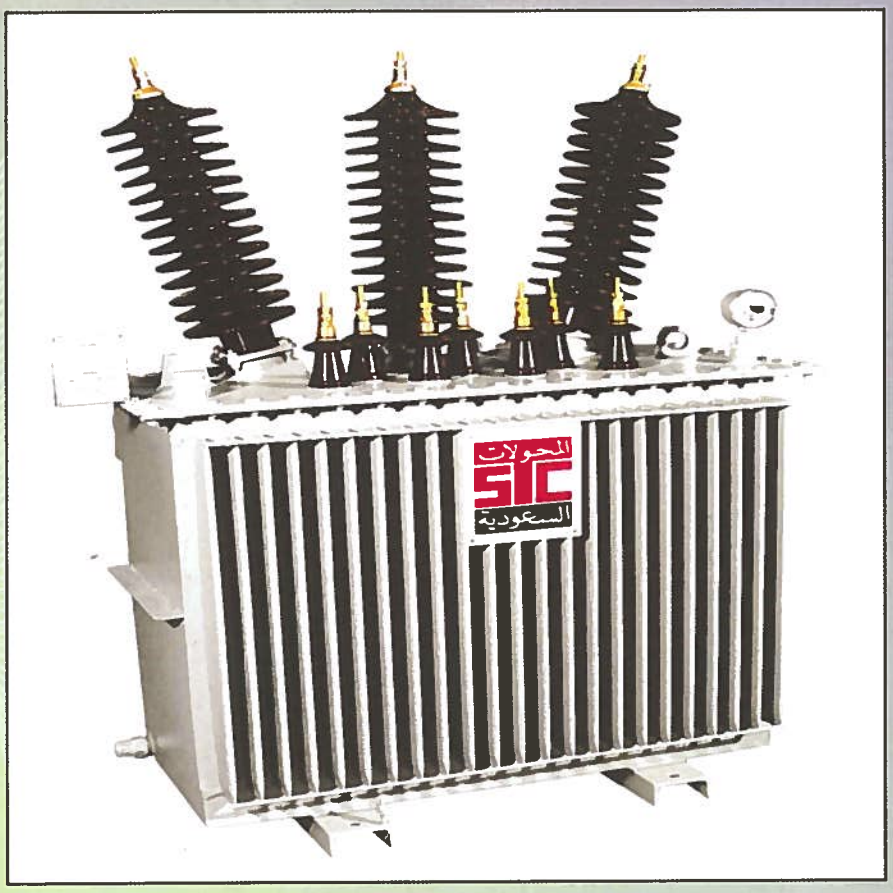
Item No.	Test	Equipment	Accuracy Class
1	Ratio measurement and verification of vector group	Ratio Meter - VETTINER, France	0.10%
2	IR Value Measurement	Insulation Tester - Megger-BM21: England	5% RDG
3	Winding Resistance Measurement	Micro ohm meter - Tinsley : England	0.10%
4	Impedance Voltage Measurement	PT-Voltage Tansformer-KWK: Germany	0.10%
		CT-Current Transformer-KWK:Germany	0.10%
		Power Analyzer-NORMA : Australia	0.50%
5	Load Loss Measurement	PT-Voltage Tansformer-KWK: Germany	0.10%
		CT-Current Transformer-KWK:Germany	0.10%
		Power Analyzer-NORMA : Australia	0.50%
6	No-Load Loss Measurement	PT-Voltage Tansformer-KWK: Germany	0.10%
		CT-Current Transformer-KWK:Germany	0.10%
		Power Analyzer-NORMA : Australia	0.50%
7	Induced Over Voltage Test	Motor Gen. Set 150Hz-AVK1 : Germany	
		Voltage Transformer-KWK : Germany	0.10%
		Current Transformer-KWK : Germany	0.10%
8	Separate Source Voltage Test	SSV High Voltage Transformer 100 kV - PTB : Belgium	-
		High Voltage Measurement System - Haefely : Switzerland	2%

TESTING MANUAL

TESTING OF TRANSFORMERS

Efficient POWER is our Objective

ISO 9001



THE SAUDI TRANSFORMERS CO. LTD.

P. O. Box 5785, DAMMAM 31432, SAUDI ARABIA

Tel.: 00966-3-847 3020 / Fax: 00966-3-847 1718

E-mail : info@sauditransformers.com Website : www.sauditransformers.com

THE SAUDI TRANSFORMERS CO. LTD.

TÜV CERT

CERTIFICATE

The TÜV CERT Certification Body of
RWTÜV Systems GmbH
certifies in accordance with TÜV CERT
procedures that

THE SAUDI TRANSFORMERS CO. LTD.
P.O. Box 5785, Dammam - 31432
Kingdom of Saudi Arabia

has established and applies a quality management system for

Design, manufacture and service of Transformers
Up to rating 5.0 MVA, 36kV class
Package Substations and
Low Voltage Distribution Panels

An audit was performed. Report No. **2.5-1429/2002**
Proof has been furnished that the requirements according to
ISO 9001 : 2000 / EN ISO 9001 : 2000
are fulfilled.
The certificate is valid until **2008-08-11**
Certificate Registration No. **04 100 19950567**
The company has been certified since **1995**

IAF

TÜV NORD

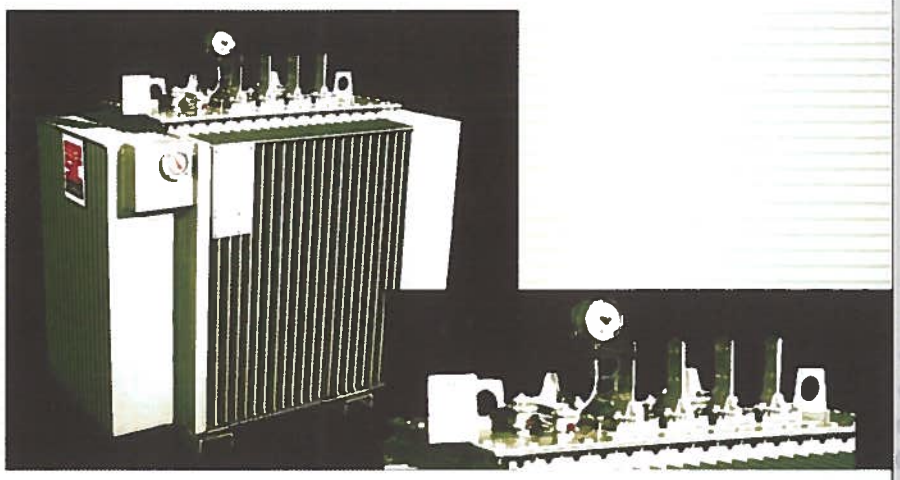
Essen, 2005-11-11

QUALITY POLICY OF SAUDI TRANSFORMERS CO.

- ✓ **Customer Satisfaction**
- ✓ **High Quality Products and Services**
- ✓ **Safe Operational Products**
- ✓ **Leadership through Continual Improvement**

شركة المحولات
STC
السعودية المحدودة

TESTING OF TRANSFORMERS



High Voltage & Low Voltage Bushing of a 1600 KVA; 13.8-11.0 KV/400-231V Transformer.

INTRODUCTION

The object of qualification tests carried out on Transformers is to enable determination of their electrical characteristics and reliability.

Following are Specified in the orders:

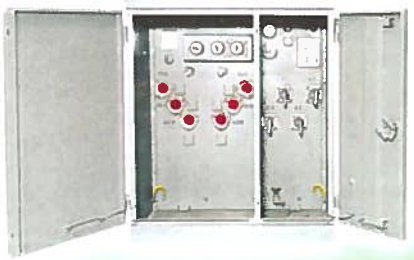
1) *Power*
2) *Primary and secondary no load voltages*
3) *Load losses*
4) *No-load losses*
5) *Impedance voltage*
6) *Maximum temperature rise of the oil and windings as well as the standards to which the Transformers must conform.*

In accordance with the requirements of IEC 60076 or ANSI C57.12.00, all STC Transformers are subjected to the following routine tests in order to make sure that they meet the guaranteed performance.

✓	:	*Measurement of Winding Resistance*
✓	:	*Measurement of Voltage Ratio and check of Phase Displacement*
✓	:	*Measurement of Short Circuit Impedance and Load Loss*
✓	:	*Measurement of No-Load Loss and Current*
✓	:	*Dielectric Routine Tests*

The following tests are Type/Special tests and are not conducted unless included in the particular contract.

1)	:	*Temperature Rise Test*
2)	:	*Determination of Sound Levels*
3)	:	*Measurement of Zero Sequence Impedance on Three phase Transformers*
4)	:	*Lightning Impulse Test*
5)	:	*Short Circuit withstand test*



TRANSFORMER TEST CERTIFICATE

THE SAUDI TRANSFORMERS CO. LTD.

Certified for ISO 9001

CLIENT :

SPECN : IEC 60076-1993

PO No :

ATC : 1000
HV : 13800
LV : 231
Sr : 2006348836
S/O : 120062241

TYP : Sxn FREQ : 60 Hz
VEC GR : Dyn11 BIL : KVp
POS : H.V. L.V.

	Volt	Amp	Volt	Amp
Nom	13800	41.84	231	2499.4

GUARANTEE VALUES

	POS	Po (W)	Pc (W)	Uk %	LV
	Nom	1080	8700	6.00	231
RESULTS	Nom	1027	7915	5.56	231

VOLTAGE RATIO TAPCHANGER

POS	HV	LV	HV/LV	AB/an	BC/bn	CA/cn
1	14490		108.65	108.62	108.62	108.62
2	14145		106.06	106.09	106.09	106.09
3	13800	231	103.47	103.45	103.45	103.45
4	13455		100.89	100.91	100.91	100.91
5	13110		98.30	98.29	98.29	98.29

INSULATION RES
at 29 °C
>2500MΩ HV/LV+E
>1000MΩ LV/HV+E
>2500MΩ HV/LV

RESISTANCES PER PHASE (OHMS)

POS	PHASE	Res.at 30°C Phase	Res.at 30°C Avg	Res.at 75°C Avg
LV	u-phase	.0001611		
231V	v-phase	.0001676		
	w-phase	.0001710	0.0001665	0.0001948
HV	u-phase	1.6033		
13.8 KV	v-phase	1.5993		
	w-phase	1.6132	1.6052	1.8778

INDUCED OVERVOLTAGE
@ 150 Hz 462 V
For 48 Secs PASSED

SEPARATE SOURCE
HV/Earth+LV 38 kV
For 1 min
LV/Earth 3 kV
For 1 min
PASSED

NO LOAD LOSSES

	Meas	Meas	Meas	Multiplier	
Uo	46.12	45.91	46.50	5	231 V
Io	.3309	.2554	.3063	15	4.46 A
Io%					0.179 %
Po	1369			75	1027 W

MAIN RESULTS

Temp		29°C	75°C
Hv	W	2799	3287
Lv	W	3110	3652
Conn	W	1146	976
Pcu	W	7055	7915
Ur	%	0.71	0.79
Ux	%	5.51	5.51
Uk	%	5.55	5.56

LOAD LOSSES at 29°C

	Meas	Meas	Meas	Multiplier	Corrected	
Uc	77.16	75.89	76.83	10	766	V
Ic	8.001	.8432	.8369	50	41.84	A
Pc	14.11			500	7055	W

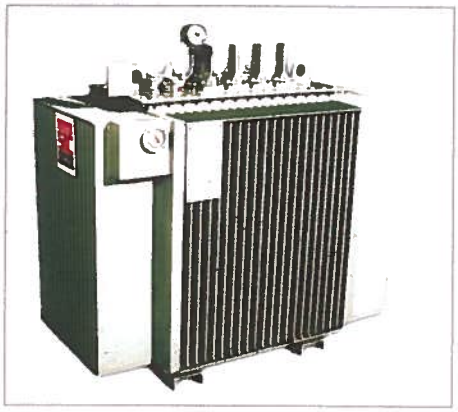
WITNESSED/CERTIFIED

Date SIGN _____

In the test certificate the characteristics of the Transformer, guaranteed values and the measured values are mentioned. The standards of construction and qualification are likewise indicated.

Symbols in use:

Po	:	*No-load losses with rated voltage and frequency*
Pc	:	*Load losses at nominal position of tap changer and rated frequency*
Uk	:	*Impedance voltage in percent of the voltage at the nominal position of tap changer*
POS	:	*Position of the Tap changer*
Io%	:	*No-load current expressed in percent of the nominal current*
U	:	*Voltage in Volt*
I	:	*Current in Ampere*
HV	:	*High Voltage*
LV	:	*Low Voltage*



NO LOAD LOSSES AND CURRENT

Definition:

The no-load losses (iron losses) are equal to the power the Transformer takes when fed by a voltage equal to the rated no-load voltage at the rated frequency provided that the Transformer is not loaded. These losses consist of :-

- *Eddy current losses*
- *Hysteresis losses*
- *Joule losses (negligible)*
- *Dielectric losses (negligible)*

Measurements:

Fig. No.1 Shows the schematic circuit for measuring the No load losses & and no load current.

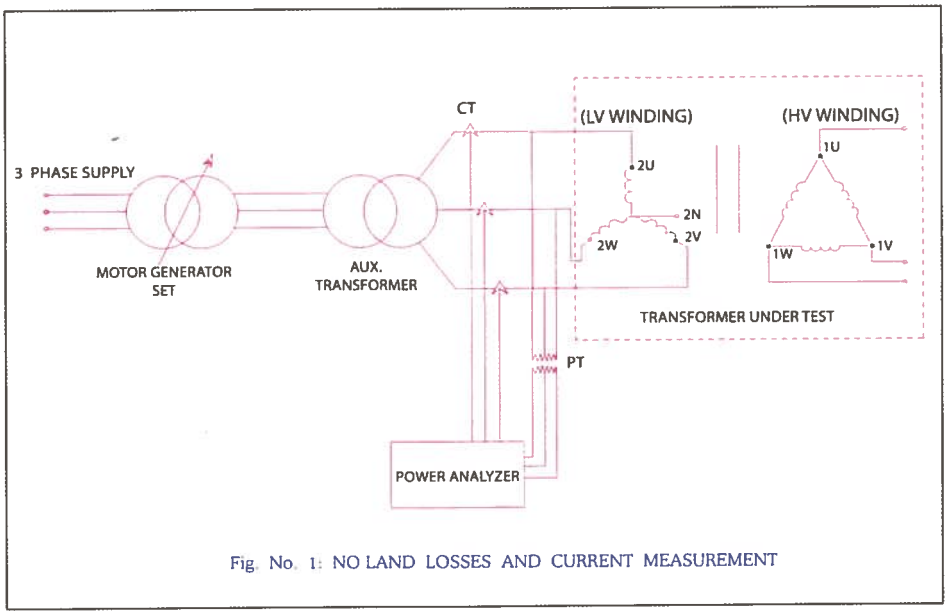


Fig. No. 1: NO LAND LOSSES AND CURRENT MEASUREMENT

No-load losses

	Meas.	Meas.	Meas.	Multiplier	
Uo	46.12	45.91	46.50	5	231 V
Io	0.3309	0.2554	0.3063	15	4.46 A
Io%					0.179 %
Po	13.69			75	1027 W

The above table shows the values indicated by Power Analyzer. The current measured 0.3309 and 0.3063 Amps in the phase U & W and only 0.2554 Amps in phase V. This difference is due to the asymmetry of the magnetic core. We may accept the no-load losses remain constant at all temperatures.

The power factor at no-load can be calculated from the above mentioned measurements. The apparent power is equal to:

$4.46 \times 231 \times \sqrt{3} = 1784$ VA

The active power is 1027 W

Whence, the no load power factor:

$\cos \_ = 1027 / 1784 = 0.576$

LOAD LOSSES AND IMPEDANCE VOLTAGE

Definitions:

The load losses equal the power that has to be supplied and taken on the primary side when the secondary windings are short circuited and the primary side is connected to an alternating voltage of such a value that the rated current flows through the secondary windings. One admits that, when the rated current flows through the primary windings it also does through the secondary windings.

Measurements:

Fig. No. 2 shows the schematic circuit for measuring the load losses and impedance voltage.

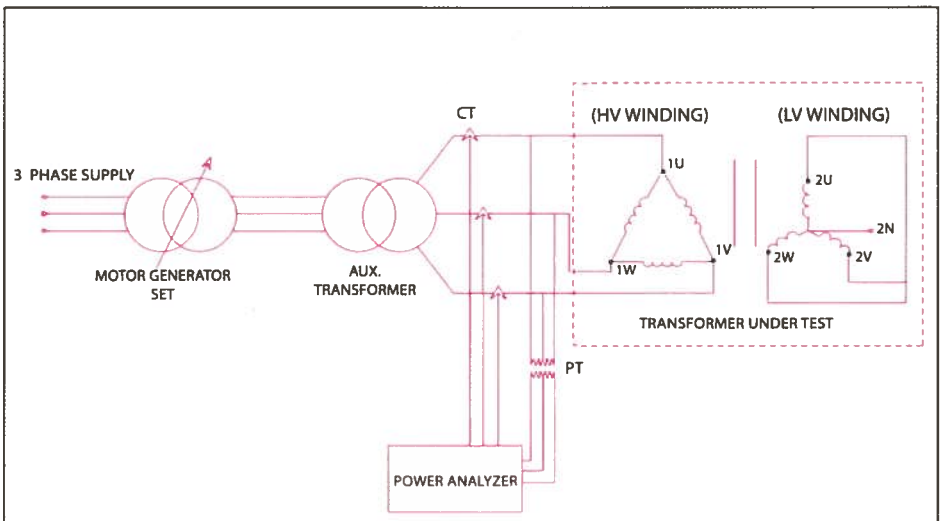


Fig. No. 2: LOAD LOSSES & IMPEDANCE VOLTAGE MEASUREMENT

LOAD LOSSES AT 29 °C

	Meas.	Meas.	Meas.	Multiplier	Corrected
Uc	77.16	75.89	76.83	10	766 V
Ic	0.8301	0.8432	0.8369	50	41.84 A
Pc	14.11			500	7055 W

Three phase values of impedance voltages are recorded as 766V. The current in each of the phases of the HV windings also recorded. The average of the three values is taken into account for the calculation. The algebraic sum of the readings gives us the value of the load losses.

The losses are generally guaranteed at a reference temperature of 75°C. To convert these losses to this reference temperature of 75°C, it is necessary to know the joule losses and the extra losses. Therefore, the ohmic resistance of the windings must be determined.

Remarks:

The load losses can be measured at a current Im ≠ In. The impedance voltage at rated current In will then be:

U_n	=	$U_m\ (I_n / I_m)$
	=	766 (41.84 / 41.837)
	=	**766 V**
And the losses:		
W_n	=	$W_m\ (I_n / I_m)^2$
	=	7055 (41.84 /41.837)^2
	=	**7055 W**

Index 'm' indicates the measured values.
Index 'n' indicates the nominal values.

WINDING RESISTANCE

For measuring the ohmic resistances, the Volt-Ampere meters method is used. Fig. No.3 shows the schematic arrangement.

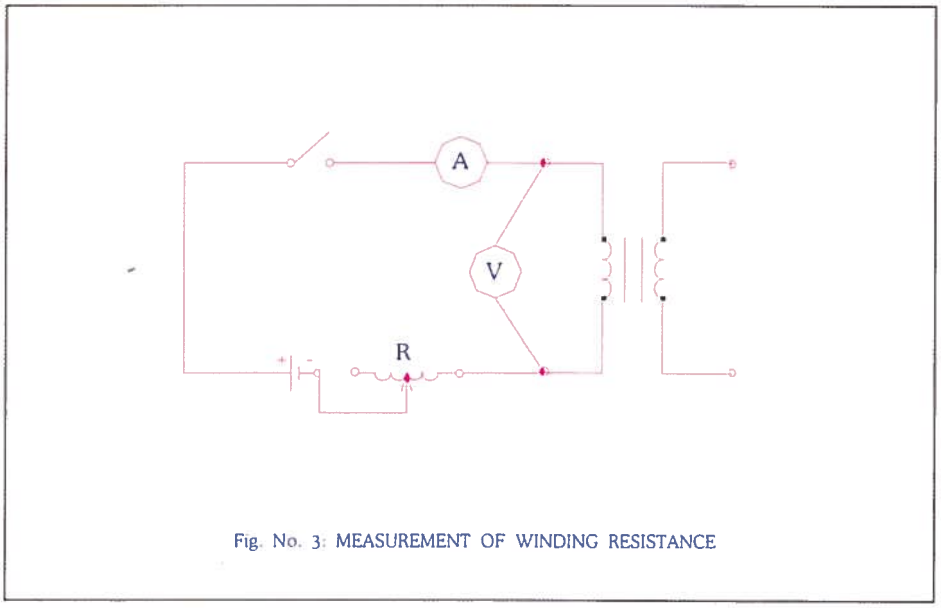


Fig. No. 3: MEASUREMENT OF WINDING RESISTANCE

The voltmeter is connected directly to the terminals of the Transformer. A 24V battery supplies the circuit with a direct current (DC) while a variable resistance R is used for limiting the current.

RESISTANCES at 30 °C							
POS	PHASE	Umeas.	Multiplier	I meas.	Multiplier	Res. _	Avg. Res
LV	u v	3.600	.001	111.70	0.1	0.0001611	
231V	v w	3.700	.001	110.40	0.1	0.0001676	
	w u	3.800	.001	111.10	0.1	0.0001710	0.0001665
HV	U V	8.070	1	75.50	0.1	1.6033	
13.8kV	V W	8.050	1	75.50	0.1	1.5993	
	W U	8.120	1	75.50	0.1	1.6132	1.6052

The values are always measured between lines, no matter what system of connection is used. Column Res. gives the value of the resistance between phases (3 each time). In the last column the average value of the preceding division is given.

CALCULATION AT 75 °C

In general, the characteristics of a Transformer are guaranteed at a winding temperature of 75 °C. Therefore, it is necessary that the load losses, the impedance voltage which are measured at ambient temperature of 29 °C, be converted to 75 °C. One can assume that the no-load losses remain constant at temperature of between – 20 °C and + 120 °C.

We know that the certain load losses (Joule losses) are proportional to the ohmic resistance of the windings $W_{cu} - I^2R$

For pure metals, the relation between resistance and temperature is the following.

$$(Rt_2 / Rt_1) = (T + t_2) / (T + t_1)$$

Where, the value T depends on the metal used. For copper T = 235.
Using the above formula, we can obtain the resistance at 75 °C.

$$R_{75} = R_{29} \ (235 + 75) / (235+29)$$

In addition to the Joule losses, still other losses occur in the copper: the losses due to the skin effect and the losses due to the Foucault currents or losses by hysteresis. These extra losses (CONN) equal $W_{cu} - I^2R$

It is admitted that with a variation in the temperature, the extra losses (CONN) vary in an inverse proportion to the variation in the resistance.

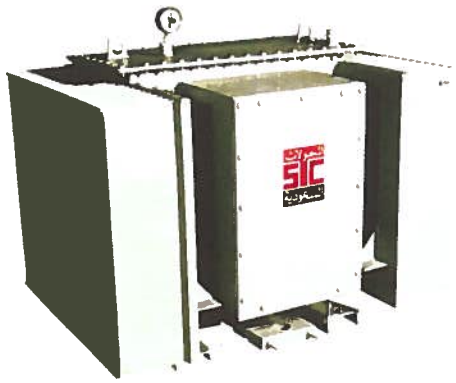
VOLTAGE REGULATION

The general formula for calculating the voltage regulation in % of the line voltage for a given power factor is:

$$\%Ur \cos \_ + \%Ux \sin \_ + (\%\, Ux \cos \_ - \%Ur \sin \_)^2/200$$

Now, we know all the values for the windings at 75°C.

No load losses	:	*1027 W*
Load losses	:	*7915 W*
Impedance Voltage	:	*5.56 %*
Regulation for Cos _ = 0.8 is	:	*4.01 %*



DIELECTRIC TESTS

Two tests are conducted under this caption. The purpose of these two tests is to determine the insulating properties between the windings and the earth.

A) SEPARATE SOURCE VOLTAGE WITHSTAND TEST

Between the primary winding and the secondary winding, an alternating voltage is applied, the value of which depends on the insulation level of the Transformer. Thus, for 13.8 kV Transformers, a voltage of 38 kV is applied for 1 minute on the primary winding while the secondary winding and the tank are earthed. In the LV Side, a 3 kV is applied between the secondary windings and the earthed tank. Fig. No. 4 shows the circuit diagram for Separate Source Voltage withstand test.

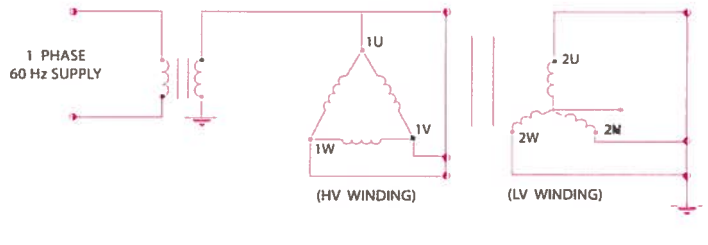


Fig. No. 4: SEPARATE SOURCE VOLTAGE WITHSTAND TEST (FOR HV WINDING)

Separate Source Voltage Withstand Test
HV/Earth + LV 38 kV for 1 minute
LV/Earth+ HV 3 kV for 1 minute
PASSED

B) INDUCED OVER VOLTAGE WITHSTAND TEST

The induced over voltage test is a test of the insulation of the windings. The Transformer is fed twice the nominal voltage at a frequency minimum double the rated frequency and to allow 7,200 cycles to pass through the Transformers as per IEC 60076. So, the Transformer is fed with twice the nominal low voltage at a frequency 150 Hz instead of 60 Hz for a period of 48 seconds. The higher frequency is necessary to limit the no load current. During this test, the voltage between adjacent turns has a value twice as high as under the normal working conditions. Fig. No. 5 shows the circuit diagram for Induced Over Voltage withstand test.

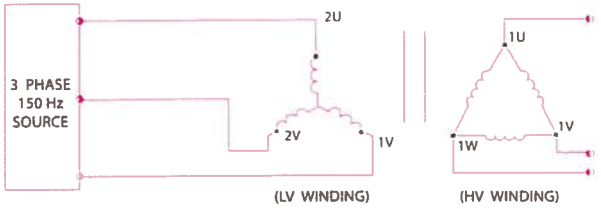


Fig. No. 5: INDUCED OVER VOLTAGE VITHSTAND TEST

Induced Over Voltage Withstand Test
462 V @ 150Hz for 48 seconds
PASSED

INSULATION RESISTANCE

The resistance of the insulation between HV & LV and the tank is measured by Megger of a minimum of 1000 V and is expressed in Mega Ohms.

Fig. No. 6 shows the circuit diagram for Measurement of Insulation Resistance

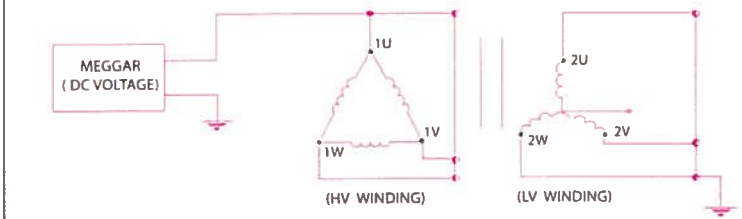


Fig. No. 6: MEASUREMENT OF INSULATION RESISTANCE (BETWEEN HV TO EARTH)

Insulation Resistance
> 2500M _ HV/LV + Earth
> 1000M _ LV/HV + Earth
> 2500M _ HV/LV

VOLTAGE RATIO AND VOLTAGE VECTOR

Definition:

The transformation ratio, taking into account the tapping used, is the ratio between the voltages of HV windings and LV windings. When the Transformer is not loaded, the voltage ratio is generally equal to the turns ratio provided the voltage drop due to no load current neglected

Measurements:

To enable measuring the ratio with great accuracy, there now exists a measuring bridge. This bridge enables us to measure the ratio between two voltages which are in phase and have the same sense vectorially.

The table below gives the results of the turns ratio measurements, taking into account the various positions of the tap changer.

The HV/LV column contains the theoretical values, and the other column produces the real measured values.

Fig. No. 7 shows the circuit diagram for Measurement of Turns Ratio.

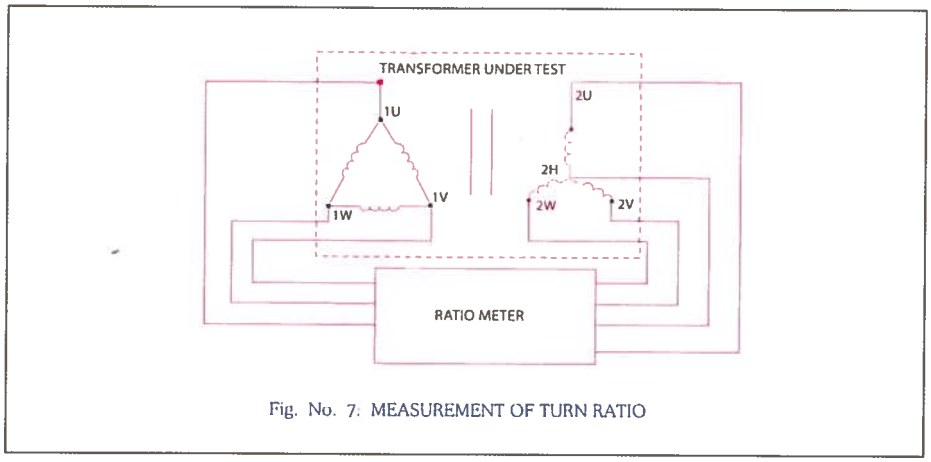


Fig. No. 7: MEASUREMENT OF TURN RATIO

VOLTAGE RATIO / VECTOR GROUP

POS	HV	LV	HV/LV	AB/an	BC/bn	CA/cn
1	14490		108.65	108.62	108.62	108.62
2	14145		106.06	106.09	106.09	106.09
3	13800	231	103.47	103.45	103.45	103.45
4	13455		100.89	100.91	100.91	100.91
5	13110		98.30	98.29	98.29	98.29

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P.O. Box 34673
Jeddah 21478
Tel.: 00966-2-651 2394
Fax: 00966-2-651 2664

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Website : www. sauditransformers.com

شركة المحولات السعودية المحدودة

THE SAUDI TRANSFORMERS CO.LTD

LIST OF MAJOR MACHINERIES

LIST OF MAJOR MACHINERIES

LIST OF MAJOR MACHINERIES

Machine No.	Machine Name	Brand
J-01-1994-A102	CORE CUTTING MACHINE # 1	GEORG
J-01-2007-A103	CORE CUTTING MACHINE # 2	GEORG
J-01-2013-A105	CORE CUTTING MACHINE # 3	GEORG
J-01-2008-A104	SDRI CORE SLITTING MACHINE	SDRI-CHINA
J-02-1981-A201	LOW VOLTAGE WINDING MACHINE # 1	SCHLATTER
J-02-1994-A202	LOW VOLTAGE WINDING MACHINE # 2	STOLLBERG
J-02-2000-A203	LOW VOLTAGE WINDING MACHINE # 3	TUBOLY
J-02-1981-A301	HIGH VOLTAGE WINDING MACHINE # 1	BLUME/REDECKER
J-02-1981-A302	HIGH VOLTAGE WINDING MACHINE # 2	BLUME/REDECKER
J-02-1981-A303	HIGH VOLTAGE WINDING MACHINE # 3	BLUME/REDECKER
J-02-1981-A304	HIGH VOLTAGE WINDING MACHINE # 4	BLUME/REDECKER
J-02-1981-A305	HIGH VOLTAGE WINDING MACHINE # 5	BLUME/REDECKER
J-02-1997-A306	HIGH VOLTAGE WINDING MACHINE # 6	BOBIFIL
J-02-2000-A307	HIGH VOLTAGE WINDING MACHINE # 7	BOBIFIL
J-02-2000-A308	HIGH VOLTAGE WINDING MACHINE # 8	BOBIFIL
J-02-2007-A309	HIGH VOLTAGE WINDING MACHINE # 9	BROOMFIELD
J-02-1981-A401	PRESPHAN CUTTING MACHINE	EDWARDS
J-03-1981-A501	DRYING OVEN # 1	MASSER
J-03-1996-A502	DRYING OVEN # 2	STC MADE
J-03-2000-A503	DRYING OVEN # 3	STC MADE
J-03-2008-A702	O.B.I POWER PRESS, 50TONS	RHINO
J-04-1981-A901	HYDRAULIC SHEARING MACHINE	HACO
J-04-1996-B102	UNIVERSAL METAL WORKER #1 (PEDDIMAX-602)	PEDDINGHAUS
J-04-2006-B103	UNIVERSAL METAL WORKER #2 (HYDRACROP110S)	GEKA
J-04-1990-B201	SHOT BLASTING MACHINE	S & HALSTEAD
J-04-1981-B301	WELDING MANIPULATOR # 1	LASKO
J-04-1981-B302	WELDING MANIPULATOR # 2	LASKO
J-04-1981-B303	WELDING MANIPULATOR # 3	LASKO
J-04-1981-B304	WELDING MANIPULATOR # 4	LASKO

LIST OF MAJOR MACHINERIES

J-04-2003-B306	WELDING MANIPULATOR # 5	STC MADE
J-04-1981-B401	FLOOD PAINTING INSTALLATION	MASSER
J-05-1981-B701	GENERATOR SET # 1	AVK
J-05-1996-B702	GENERATOR SET # 2	AVK / SEG
J-06-1981-B801	OIL TREATMENT PLANT # 1	ARTHUR PFEIFFER
J-06-1998-B802	OIL TREATMENT PLANT # 2	MICAFIL
J-15-2000-B803	OIL TREATMENT PLANT # 3	ARRAS-MAXEI
J-06-2007-B804	OIL TREATMENT PLANT # 4	ARRAS MAXEI
J-14-1981-B901	KONE OVERHEAD CRANE 2TONS CAPACITY	KONE
J-14-1981-B902	KONE OVERHEAD CRANE 5TONS CAPACITY	KONE
J-14-1981-B903	KONE OVERHEAD CRANE 07TONS CAPACITY	KONE
J-14-1981-B904	KONE OVERHEAD CRANE 5TONS CAPACITY	KONE
J-14-2000-B905	KONE OVERHEAD CRANE 3-TON CAPACITY	KONE
J-14-1989-B911	DAVY MORRIS OVERHEAD CRANE 10TONS CAP.	DAVY MORRIS
J-14-2007-B912	DAVY MORRIS OVERHEAD CRANE, 10TONS CAP.	DAVY MORRIS
J-14-1998-B921	KULI OVERHEAD CRANE 5TONS CAPACITY	SAUDI CRANES
J-14-1998-B922	KULI OVERHEAD CRANE 6TONS CAPACITY	SAUDI CRANES
J-14-1999-B931	DAVY MORRIS OVERHEAD CRANE 3TONS CAP.	DAVY MORRIS
J-19-2003-B940	DAVY MORRIS OVERHEAD CRANE 6TONS CAP.	DAVY MORRIS
J-19-2003-B941	DAVY MORRIS OVERHEAD CRANE 8TONS CAP.	DAVY MORRIS
J-19-2003-B942	DAVY MORRIS OVERHEAD CRANE 10TONS CAP.	DAVY MORRIS
J-14-2000-C405	AIR COMPRESSOR (AS47/8.5BAR)	KAESER
J-14-2005-C409	AIR COMPRESSOR # 1(GA75AP-125) 8152326602	ATLAS COPCO
J-14-2005-C410	AIR COMPRESSOR # 2(GA75AP-125) 8152326602	ATLAS COPCO

LIST OF MAJOR MACHINERIES

J-14-1984-C501	AIR DRIER # 1 FD-614	ATLAS COPCO
J-14-1984-C504	AIR AFTER COOLER #1 (TD-16)	ATLAS COPCO
J-14-2003-C505	AIR AFTER COOLER #2 (TD300)	ATLAS COPCO
J-14-2003-C506	AIR DRIER (TD 61)	KAESER
J-14-2005-C507	AIR DRIER #2 (FD-300) 8102215186	ATLAS COPCO
J-06-1997-C702	VACUUM CHAMBER # 1	STC MADE
J-06-2006-C703	VACCUM CHAMBER # 2	STC MADE
J-02-2013-A221	LV WINDING M/C#1, GUNTER SIEBOLD, NMF	STOLLBERG
J-02-2013-A222	LV WINDING M/C#2, GUNTER SIEBOLD, NMF	STOLLBERG
J-02-2013-A321	BROOMFIELD HV WINDING M/C#1, NMF	BROOM FIELD
J-02-2013-A322	BROOMFIELD HV WINDING M/C#2, NMF	BROOM FIELD
J-02-2013-A323	BROOMFIELD HV WINDING M/C#3, NMF	BROOM FIELD
J-02-2013-A324	BROOMFIELD HV WINDING M/C#4, NMF	BROOM FIELD
J-02-2013-A325	BROOMFIELD HV WINDING M/C#5, NMF	BROOM FIELD
J-06-2013-B821	OIL DEGASSING PLANT NO.1, NMF	GHOGQING
J-06-2013-B822	OIL DEGASSING PLANT NO.2, NMF	GHOGQING
J-14-2013-B975	OVER HEAD CRANE 1TON,Bay-B, NMF	EASTERN MORRIS
J-14-2013-B973	OVERHEAD CRANE 3.5TON,BAYB, NF	EASTERN MORRIS
J-14-2013-B974	OVER HEAD CRANE 7TON,Bay-B, NF	EASTERN MORRIS
J-14-2013-B972	OVERHEAD CRANE 7TON BAY-A, NF	EASTERN MORRIS
J-14-2013-B971	OVERHEAD CRANE 7TON,BAY-A, NF	EASTERN MORRIS
J-14-2013-B975	OVER HEAD CRANE 1TON,Bay-B, NF	EASTERN MORRIS
J-06-2013-C721	VACUUM CHAMBER NO.1 NMF	STC MADE
J-03-2013-A521	DRYING OVEN NMF	STC MADE

شركة المحولات السعودية المحدودة

THE SAUDI TRANSFORMERS CO.LTD

BROUCHURES & CATALOGUES

BROCHURES & CATALOGUES

شركة المحولات السعودية المحدودة

THE SAUDI TRANSFORMERS CO. LTD.

Oil Filled
Distribution Transformers
50 kVA-5000 kVA

Manufacturer of Oil Filled Transformers to suit your specific requirement.

THE SAUDI TRANSFORMERS CO. LTD. *can custom design and manufacture Oil-Filled Transformers to suit your specific application.*

THE SAUDI TRANSFORMERS CO. LTD.

Oil Filled *Distribution Transformers*

INTRODUCTION

STC offers three phase, oil immersed, naturally cooled (ONAN) distribution transformers. STC manufactures these transformers under a licensing agreement with Pauwels International Belgium, one of the world's leading manufacturers of transformers. The transformers are manufactured in compliance with IEC 60076 and SASO standards. All technical tolerances are also in accordance with IEC 60076. The standard manufacturing range is from 50 kVA to 5000 kVA with a maximum voltage of 36 kV. The standard kVA ratings are shown in Table I.

CONSTRUCTION

CORE

The core is manufactured from cold-rolled grain oriented, (CRGO) silicon steel. The silicon steel is either conventional or laser treated and the choice depends on the desired loss level. The steel sheets are cut into required dimensions on automated machines thereby ensuring reduced air gap, low exciting current and low noise. Each lamination is insulated from each other to ensure a long trouble-free lifetime of the core. Suitably designed core clamping system ensures vibration free operation.

WINDINGS

The windings are made of high-grade electrolytic copper and are concentrically positioned. Usually copper foil is used for the low voltage windings.

Round shaped, enamel insulated wire is used for the high voltage windings. It is exclusively of layered construction and is wound directly onto the low voltage winding, giving a maximum mechanical strength, rigidity and compactness.

OFF LOAD TAP CHANGER

The off-load tap changer is fixed on the high voltage winding for voltage regulation. It is basically a 5, 7, or 10 position switch, which helps to adjust the voltage at a desired level. The tap changer handle is either on the top cover or sidewall and acts directly on the switching mechanism. As the name indicates, the tap changer must only be operated when the transformer is de-energised.

VOLTAGE SELECTOR SWITCH

The voltage selector switch is incorporated in transformers with dual high voltages. This switch is used to choose the required voltage level at the transformer terminals (as per user requirement).

TANK

The tank is of hermetically sealed design and is made from corrugated steel sheets. This type of construction allows a degree of flexibility that is needed to accomodate the expansion and contraction of oil due to varying service conditions. The tank cover is bolted to the body of the tank.

The surface is shot blasted first to eliminate all signs of rust, welding spatters, greese, oil and mill scale to achieve a good abrasive surface for the paint to hold for a long period of time. The two coats of a primer paint are applied followed by one coat of standard "Cement Gray" color (RAL 7033)[1]. The minimum thickness of the paint exceeds 100 microns.

Other designs with radiators, conventional conservators fitted with breather are also available on request.

INSULATING OIL

The insulating oil generally complies with IEC 60296 Class 1. Both inhibited and uninhibited types can be offered if requested. Transformers with silicon fluid are also available.

OVERLOADING CAPABILITIES

Due to variation in ambient temperature and daily cyclic burdens, the transformers may be loaded above stated conditions in compliance with **IEC 60354.**

BUSHINGS

Several types can be provided depending on the requirement and applications. Porcelain bushings are used on the HV side as a norm while on the LV side porcelain or polyamide bushings are provided. Other types are available on request.

STANDARD ACCESSORIES

THE STANDARD ACCESSORIES INCLUDE:

- Thermometer (with 2 contacts as option)
- Over-pressure vent
- Thermometer pocket
- Oil level gauge (with 2 contacts as option)
- Lifting lugs
- Drain and sampling valve
- Rating plate
- Earthing terminals
- Terminal box (on request)
- Over-pressure relay (on request)
- DGPT-2 relay (on request)

ADDITIONALLY, THE FOLLOWING ACCESSORIES ARE PROVIDED FOR TRANSFORMERS WITH RADIATORS:

- Buchholz relay
- Dehydrating breather
- Conservator

TESTS

All the manufactured units undergo the following tests in the factory as described in IEC-60076 before they are released for dispatch.

1. Transformation ratio and connection
2. Measurement of winding resistance.
3. Measurement of load losses and short circuit impedence
4. Measurement of no-load losses.
5. Induced over-voltage test.
6. Separate source withstand voltage test.

THE FOLLOWING TYPE/SPECIAL TESTS ARE SUBJECT TO SEPARATE AGREEMENT:

7. Temperature rise test.
8. Noise level test.
9. Impulse test.
10. Short circuit withstand test.

TABLE - I

STANDARD RATINGS

Standard power (kVA) ratings offered are: 50, 100, 150, 200, 250, 300, 400, 500, 630, 750, 1000, 1250, 1500, 1600, 2000, 2500, 3000,3500, 4000, 4500 & 5000. Other ratings are available on request. The following table shows the standard voltages.

Standard No.	High Voltage	Low Voltage Range	Vector Group	Frequency[4]
1	3.3 kV	0-1000 Volts[2]	Dyn11[3]	60 Hz.
2	4.16 kV[5]			60 Hz.
3	6.6 kV			60 Hz.
4	11 kV			60 Hz.
5	13.8 kV			60 Hz.
6	33 kV			60 Hz.
7	34.5 kV			60 Hz.

1. Other colours are available on request. **2.** Standard LV voltages are110V, 220V, 231V & 400V. **3.** Other connections are available on request.
4. 50 Hz and dual frequency of 50/60 Hz are also available on request. **5.** Available up to 1000kVA

Efficient POWER is our Objective

شركة المحولات السعودية المحدودة

THE SAUDI TRANSFORMERS CO. LTD.

Email: info@sauditransformers.com **Website:** sauditransformers.com

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شركة المحولات السعودية المحدودة

STC

THE SAUDI TRANSFORMERS CO. LTD.

Compact Substations

Compact Substations

Compact Substations are self-contained units available in different designs and dimensions and cater for Power supply requirements for residential and industrial consumers.

Each unit comprises of three individual main assemblies, and a typical substation would include:

1- One hermetically sealed transformer.
2- One metal clad SF_6 insulated Ring Main Unit.
3- One, metal clad low voltage distribution panel.

Construction

- Metal Clad with galvanized Steel Housing.
- Metal Clad with GRP Housing.
- Alu Zinc hot dipped galvanized steel.
- Lockable doors with stainless steel or chrome plated handle.
- Powder coating with excellent finish.
- Sand ingress limiting ventilation louvers.
- Lifting lugs for mounting the sub-stations from the base.
- Maximum degree of protection - IP 54.
- Easy accessibility.

LV Switchgear

- Incoming breaker or isolator upto 5000A (Motorized or manual/drawout).
- Outgoing breakers / Fuse switches.
- Computerized load monitoring relays (on request).
- Instrument transformers / Meters from reputable manufacturers.

Transformer[1]

- Available upto 3150kVA.
- Hermetically sealed with corrugated fins or with radiators.

Salient Features

Compliance

- IEC Standards
- International Standards

HV Switchgear

- SF_6 insulated Ring Main Unit Circuit breaker / Fused Switch.
- Oil insulated Ring Main Unit with Fused Switch.
- Oil / SF_6 insulated isolator.
- Air or Vacuum insulated fused load break switch.

Type tested at international laboratories

Easy to install

Quick Deliveries

Standard Ratings

KVA		300	500	1000	1250	1500	2000	2500
Voltage (KV)		11/13.8/33	11/13.8/33	11/13.8/33	11/13.8/33	11/13.8/33	11/13.8/33	11/13.8/33
Approximate Weight (kg)		3500	4000	6000	6500	7000	8000	9000
Standard[2] Dimensions (mm)	L	3000	3000	3000	3000	3000	3000	3000
	W	2000	2000	2000	2000	2000	2000	2000
	H	2200	2200	2200	2200	2200	2200	2200

1- Please refer to our catalogue of "Distribution Transformers" for details.
2- Units with 4000mm length are also available.

Efficient POWER is our Objective

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THE SAUDI TRANSFORMER CO. LTD.

PAD MOUNTED
DISTRIBUTION TRANSFORMERS

75 kVA - 2000 kVA

ANSI C57.12.90

THE SAUDI TRANSFORMERS *can custom design and manufacture Oil-Filled Transformers to suit your specific application.*

PAD MOUNTED DISTRIBUTION TRANSFORMERS

GENERAL

The transformers are compartmental type, self cooled and tamper resistant for mounting on a pad. The transformers primary side is dead front or live front and arranged for loop or radial feed.

The transformer(s) are rated for continuous operation at full load at 65ºC temperature rise with a 24 hour average ambient temperature of 30ºC without loss of life expectancy.

CONSTRUCTION

Tank

The transformer(s) are supplied with sealed tank construction of sufficient strength. In addition, the minimum tank withstand pressure is in accordance with ANSI standards. The cover is gasketed hand hole.

Compartments

The high and low voltage cable terminating compartments are located side-by-side separated by a rigid metal barrier. Each compartment has a separate door, designed to provide access to the high voltage compartment only after the low voltage door has been opened. The low voltage door has a handle operated, three point latching mechanism designed to be secured with a single padlock. Both doors are equipped with lift-off stainless steel hinges and door stoppers to secure them in the open position. Doors are mounted flush with the cabinet frame.

Compartments are designed for cable entry from bottom and are sized to the minimum dimensions.

Paint Finish

The transformer(s) are thoroughly cleaned prior to painting. The tank and all metal parts are shot blasted and immediately primed with rust inhibiting primer. The finish coat consists of Mat finish alkyds enamel paint. The transformer is painted with RAL 7033 shade. Other colours can be applied on request.

Core and Windings

The core comprises of three legged stacked construction. High grade, grain oriented non-aging silicone coated core steel is utilised. Magnetic flux densities are kept well below saturation to allow for a minimum over voltage excitation.

The core is properly annealed to reduce stresses induced during manufacturing.

The core frame is designed to provide maximum support to the core and coil assembly. The core frame is bolted to ensure maximum short circuit strength.

The transformers are of two winding type, of cylindrical coil construction using foil as low voltage conductor and a round or rectangular wire as high voltage conductor. All windings are made of copper.

The core and coil assembly are designed and manufactured to meet the short circuit requirements of ANSI C57.12.90. Immediately after the drying process, the core and coils are tanked and placed under a full vacuum to be filled with insulating oil.

High Voltage Bushings

High voltage bushings consist of bushing wells and 300 amp load break bushing inserts designed to mate with either Elastimold, 3M or equivalent. The high voltage bushings are covered with a dust cover which remains on it during handling and storage.

Low Voltage Bushings

The low voltage side is provided with moulded epoxy spade terminals with NEMA hole spacing. Porcelain bushings can be supplied on request.

Load Break Switch

The primary switch is oil immersed with hook stick operating handle located in the primary compartment. The two position or four position, gang operated, spring-loaded toggle switch is rated 300A.

Tap changer

The off load tap changer is fixed on the high voltage winding for voltage regulation, operation. The pad lockable tap changer is located within the primary compartment. The tap changer must be operated when the transformer is in the de-energized position.

Expulsion Fuses (Optional)

There are oil immersed expulsion type fuses. These fuses serve to isolate the transformer from the primary system in the event of winding failure and are replaceable through the hand hole cover on the transformer tank.

Bay-O-Net Fuses

Bay-O-Net fuses are housed in externally removable fuse holder and are available with either a fault sensing or an overload sensing device. The fuse holder is hot stick operable and is capable of breaking transformer load current.

Load Break Dry-Well Fuse Holder

The current limiting fuses are housed in load break dry well fuse holders and are used in applications where the fault current exceeds the interrupting capacity of the expulsion type fuse.

Accessories

The unit is supplied with the following accessories as a minimum:

1. Oil Level Indicator
This gauge is located in the low-voltage compartment and indicates oil level variation.

2. Dial Type Thermometer
A thermometer indicates the liquid temperature near the top of the tank. The temperature-sensitive element is mounted in a leak proof well, permitting removal of the device without lowering the liquid level. These devices are usually furnished with an additional pointer (red in colour), to show the highest temperature attained since last reset.

3. Pressure Relief Device
A standard pressure relief device, located on the tank above the liquid level, relieves excessive internal tank pressure automatically and reseals at a lower positive pressure. It can be manually operated by grasping the end-cap and slowly pulling it away from the tank until pressure is relieved.

4. Pressure Vacuum Gauge
A pressure vacuum gauge is located in the low-voltage compartment above the bushings in the air space. The gauge indicates whether the gas space in the tank is under a positive or negative pressure.

5. Drain and Filter Device Valve with sampler device

6. Lifting / Moving / Jacking Ground Pads

7. Bolted Main Cover

8. Bolted Hand hole cover

The following additional accessories may be supplied on request:

10. Winding Temperature Indicator

11. Pressure Relay

12. Thermometer with Alarm & Trip Contacts

Factory Test

Routine test are performed in accordance with standards including ANSI C57.12.90, latest edition. The tests include:

- Resistance Measurement Test
- Ratio Error
- Polarity and Phase Relation
- No-load loss and Excitation Current measurment
- Impedence Voltage and Load Loss measurment
- Applied and Induced Potential Tests

Optional

- Temperature rise Test
- Noise Level Test
- Impulse Test

Certified copies of all test reports shall be provided upon completion of the tests, prior to shipment.

Electrical Characteristics

KVA: 75, 112.5, 150, 225, 300, 500, 750, 1000, 1500, 2000
Phase: 3
Liquid type: ..... Mineral oil uninhibited or inhibited
Temperature rise: .... 65ºC for winding
Cooling: ..... OA
Altitude, above sea level: 1000m.
Frequency: ..... 60 Hz.
Winding conductor: Copper
High voltage: ..... 13.8KV, 7.2KV, 4.16KV @ 95 KV BIL[1]
Low voltage: ..... 208V, 220V, 231V, 380V, 480V, 30 kV BIL[2]
High voltage connection: delta } [3]
Low voltage connection: Star
De energised taps: .. 2*±2.5%
Vetor group: ..... Dyn1[4]

1. 95KV is not applicable for all ratings.
2. Other ratings are available on request.
3. Other connections are available on request.
4. Other groups are available on request.

شركة المحولات السعودية المحدودة
THE SAUDI TRANSFORMERS CO.LTD

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شركة المحولات السعودية المحدودة
THE SAUDI TRANSFORMERS CO.LTD

Slim Transformers

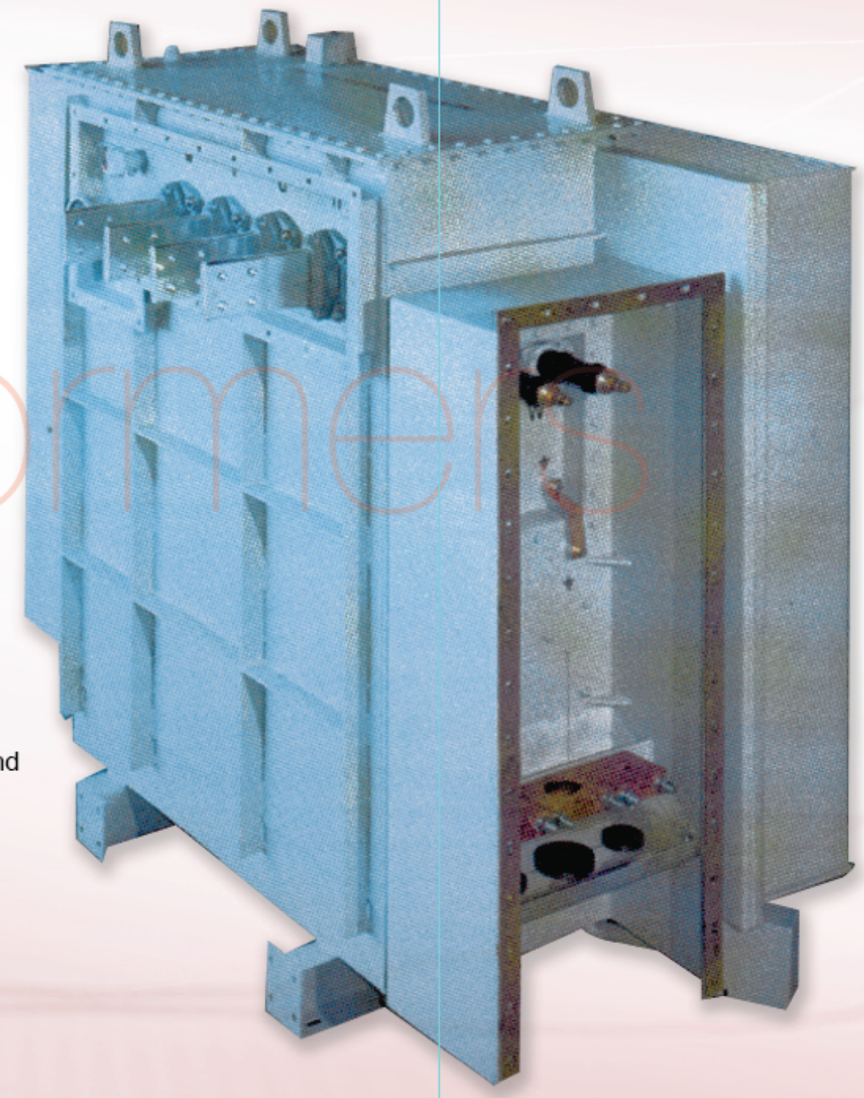
kVa 1500 - 50

Slim Transformers

Efficient POWER is our Objective

Efficient POWER is our Objective

Slim Transformers



Slim Transformers:

- Distribution Transformers with Nomex® Insulation Technology.
- Very compact Design without any compromise on efficiency and reliability.
- Under license of Pauwels N.V.Belgium

Silent Features:

- Liquid immersed (Mineral Oil Silicon fluid, Ester fluid)
- Reduced Size (approx.25% from conventional design)
- Reduced Weight (Approx. 25% from conventional design)
- Capable of operating at high temperature(with silicon fluid or Ester fluid)
- Suitable for high rise building and other congested places where apace is a crucial factor.

Standard Accessories:

- Thermometer (with 2 contacts as option)
- Over-pressure vent
- Thermometer pocket
- Oil level gauge (with 2 contacts as option)
- Drain & Sampling valve
- Over-pressure relay (on request)
- DGPT-2 relay (on request)

Routine Test

- Turn Ratio Test
- Winding Resistance Test
- Load Loss & Impedance measurement
- No – Load loss measurement
- Induce over-voltage test
- Separate source withstand voltage test

Design Test

- Temperature rise test
- Noise level test
- Impulse test
- Short circuit withstand test

Standard Ratings

kVA	HV rating	LV rating	vector Group	Frequency
500-1500kVA	up to 33kV	up to 1000V		50 – 60 Hz

Efficient Power is our Objective!

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SAUDI TRANSFORMERS CO.LTD

LIST OF MAJOR CUSTOMERS

LIST OF MAJOR CUSTOMERS

Government Owned Company

1- SAUDI ELECTRICITY COMPANY ; Eastern Operating Area
P.O. Box 5190, Dammam-22413

Contact Person :	Mr. Sohail Ali
Designation :	Purchasing Manager
Tel. No. :	013-858 6769

2- SAUDI ELECTRICITY COMPANY ; Central Operating Area
P.O. Box 57, Riyadh - 11411

Contact Person :	Mr. Abdullah Sultan Suhaibani
Designation :	Director Materials
Tel. No. :	011 - 403 2222

3- SAUDI ELECTRICITY COMPANY ; Western Operating Area
P.O. Box 9166, Jeddah - 21413

Contact Person :	Mr. Saeed Fallalah
Designation :	Director
Tel. No. :	012 - 650 0005

4- MINISTRY OF DEFENSE AND AVIATION
Dhahran

Contact Person :	Mr. Yousuf Al Hamadan
Designation :	
Tel. No. :	013 - 840 3350

Private Contractors

1- SIEMENS LIMITED
P.O. Box 4621, Jeddah - 21412

Contact Person :	Mr. Abdul Mabood
Designation :	Sales Manager
Tel. No. :	012 - 611 4444

2- JEDAC
P.O. Box 6838, Jeddah - 21452

Contact Person :	Mr. Anthony
Designation :	Contract & Service Manager
Tel. No. :	012 - 636 4340

3- SAUDI SPECIALIST CONSTRUCTION Ltd
P.O. Box 1066, Riyadh

Contact Person :	Mr. P. Deliyiannis
Designation :	Contract Manager
Tel. No. :	011 - 241 2412

4- SAUDI SERVICES OF ELECTRO MECHANICS WORK COMPANY
P.O. Box 6341, Riyadh - 11442

Contact Person :	Mr. Omer Hamzeh
Designation :	General Manager
Tel. No. :	011 - 265 1515

5- SCHNEIDER ELECTRIC
P.O. Box 89249, Riyadh - 11682

Contact Person :	Mr. Mahmood Ghassan
Designation :	Sales Director
Tel. No. :	011 - 265 1515

Private Contractors

6- ALI HAIDER AL YAMI & SONS COMPANY
P.O. Box 4521, Dammam

Contact Person :	Mr. Ibrahim
Designation :	Project Manager
Tel. No. :	013 - 842 0619

7- AL FANAR ELECTRICAL SYSTEM
P.O. Box 22208 , Riyadh - 11495

Contact Person :	Mr. Hariharan
Designation :	Technical Manager
Tel. No. :	011 - 265 1114

8- MUSAID SWITCHGEAR FACTORY
P.O. Box 41977, Riyadh -11531

Contact Person :	Mr. Abdul Rahman Nassan
Designation :	Manager
Tel. No. :	011-498 4063

9- TRADING & DEVELOPMENT PARTNERSHIP
P.O. Box 1327, Riyadh - 11431

Contact Person :	Mr. Akhlaq Hussain Bangash
Designation :	Purchasing Manager
Tel. No. :	011 - 461 4444

10- ABDUL AZIZ AL OMRAN CORP.
P.O. Box 5777, Riyadh - 11584

Contact Person :	Mr. Muwaffaq Al Mulla
Designation :	Factory
Tel. No. :	011 - 241 2462

Private Contractors / Utilities Middle East

1- UNIVERSAL ELECTRO ENGINEERING CO. LTD.
P.O. Box 728, Manama Bahrain

Contact Person :	Mr. Jayashankar
Designation :	
Tel. No. :	00973-826 644

2- DUBAI ELECTRIC & WATER AUTHORITY
P.O. Box 564, Dubai ; UAE

Contact Person :	Mr. S.A. Hameed
Designation :	Sr. Contracts Manager
Tel. No. :	009714-324 4444

3- FADDAN GENERAL TRADING CONTRACTING CO.
P.O. Box 5874, Safat; Kuwait

Contact Person :	Mr. Dhary Al Barges
Designation :	Commercial Manager
Tel. No. :	0065 - 2476 6642

4- ARABIAN CONTSTRUCTION ENGINEERING CO.
P.O. Box 1277 , Doha; Qatar

Contact Person :	Mr. G.W. Shousha
Designation :	General Manager
Tel. No. :	00974 - 4406 3777

5- PUBLIC EST. FOR DISTRIBUTION & EXPLOITATION
OF ELECTRICAL ENERGY
P.O. Box 35199, Damascus; Syria

Contact Person :	Mr. Abdul Haleem Qasim
Designation :	General Manager
Tel. No. :	00936 11-333 7789

6- BIN SALIM ENTERPRISES
Oman

Contact Person :	Mr. Michel
Designation :	Business Dev. Manager
Tel. No. :	00968 99834155

شركة المحولات السعودية المحدودة

THE SAUDI TRANSFORMERS CO.LTD

EXPORT ORDERS REFERENCE LIST

EXPORT ORDERS REFERENCE LIST

Bahrain

Item No.	Customer Name	Country	Order No. and Date	Rating (kVA)	Quantity		Voltge Ratio (kV)	STC Reference	Last Delivery Date
					TRF	SS			
1	Electricity Directorate	Manama, Bahrain	STC/8907/94; Dated 07.04.94	1000	1	-	11/0.433	1-4-042-1	30.09.94
2	Electricity Directorate	Manama, Bahrain	STC/9333/94; Dated 12.10.94	1500	4	-	11/0.415	1-4-137-1	31.03.95
3	Electricity Directorate	Manama, Bahrain	5882-E2-13/95; Dated 11.01.95	2000	3	-	11/0.415	1-5-003-1	30.06.95
				1000	1	-	11/0.480	1-5-003-2	30.06.95
				1500	2	-	11/0.415	1-5-003-3	30.06.95
4	Electricity Directorate	Manama, Bahrain	CSDP/403818/655/09/94 Dated 15.02.95	500	10	-	11/0.415	1-5-023-1	15.07.95
5	Electricity Directorate	Manama, Bahrain	STC/9512/95; Dated 09.04.95	1000	-	30	11/0.415	1-5-045-1	30.09.95
6	Electricity Directorate	Manama, Bahrain	CSDP/TSMB/166/04/65 Dated 01.06.95	1000	-	1	11/0.415	1-5-073-1	30.10.95
7	Electricity Directorate	Manama, Bahrain	CSDP/TSMB/167/04/95 Dated 01.06.95	1000	-	1	11/0.415	1-5-074-1	22.01.96
8	Electricity Directorate	Manama, Bahrain	CSDP/TSMB/168/04/95 Dated 01.06.95	1000	-	1	11/0.415	1-5-075-1	16.12.95
9	Universal Electro-Engineering Co.	Manama, Bahrain	STC/9652/95; Dated 09.08.95	1500	1	-	11/0.415	1-5-131-1	04.09.95
10	Universal Electro-Engineering Co.	Manama, Bahrain	A:95:J3385:08:SPR; Dated 11.10.95	400	1	-	11.5/0.400	1-5-178-1	10.12.95
11	Electricity Directorate	Manama, Bahrain	CSDP/503709/95; Dated 23.11.95	1000	25	-	11/0.415	1-5-212-1	18.04.96
12	Electricity Directorate	Manama, Bahrain	CSDP/503621/95; Dated 23.11.95	1000	-	5	11/0.415	1-5-213-1	21.05.96
13	Electricity Directorate	Manama, Bahrain	STC/U0040/96; Dated 29.02.96	1600	2	-	11.5/0.400	1-6-035-1	29.06.96
14	Electricity Directorate	Manama, Bahrain	STC/0108/96; Dated 06.02.96	2500	2	-	11/0.415	1-6-044-1	17.09.96
15	Electricity Directorate	Manama, Bahrain	U-270/96; Dated 14.05.96	1500	2	-	11/0.400	1-6-072-1	30.07.96
16	Electricity Directorate	Manama, Bahrain	U-0270/96; dated 19.06.96	1500	2	-	11/0.433	1-6-102-1	27.10.96
				1000	1	-	11/0.433	1-6-102-2	01.09.96

Bahrain

Item No.	Customer Name	Country	Order No. and Date	Rating (kVA)	Quantity		Voltge Ratio (kV)	STC Reference	Last Delivery Date
					TRF	SS			
17	Electricity Directorate	Manama, Bahrain	CSDP/602431/96; Dated 10.07.96	1000	20	-	11/0.415	1-6-110-1	14.12.96
	Universal Electro-Engineering Co.	Manama, Bahrain	U-0254/96; Dated 16.07.96	1500	1	-	11/0.415	1-6-112-1	02.11.96
18	Universal Electro-Engineering Co.	Manama, Bahrain	U-0633/96; Dated 16.07.96	1500	1	-	11/0.433	1-6-137-1	04.12.96
19	Electricity Directorate	Manama, Bahrain	CSDP/606624/97; Dated 13.01.97	500	10	-	11/0.415	1-7-013-1	05.04.97
20	Universal Electro-Engineering Co.	Manama, Bahrain	U-1518/97; Dated 15.03.97	1000	1	-	11/0.415	1-7-053-1	11.08.97
21	Universal Electro-Engineering Co.	Manama, Bahrain	BU/2189/96; Dated 24.12.96	1600	2	-	11/0.415	1-7-084-1	02.06.97
				1000	1	-	11/0.415	1-7-084-2	02.06.97
				500	2	-	11/0.415	1-7-084-3	02.06.97
22	Electricity Directorate	Manama, Bahrain	CSDP/701183/97; Dated 30.06.97	500	10	-	11/0.415	1-7-155-1	26.11.97
23	Jawed Textile Mill (through UNEECO)	Manama, Bahrain	U-1679/97; Dated 09.10.97	2000	3	-	11/0.415	1-7-194-1	17.02.98
24	Midal Cables Ltd. (through UNEECO)	Manama, Bahrain	MC/3094/1/97; Dated 11.11.97	1500	-	1	11/0.415	1-7-206-1	18.04.98
25	Electricity Directorate	Manama, Bahrain	CSDP/706045/97; Dated 27.11.97	500	10	-	11/0.415	1-7-233-1	25.04.98
26	Universal Electro-Engineering Co.	Manama, Bahrain	U-1562/98; Dated 17.01.98	1500	2	-	11/0.415	1-8-007-1	14.06.98
27	Midal Cables Ltd. (through UNEECO)	Manama, Bahrain	MC/4589/98; Dated 07.12.98	1500	1	-	11/0.415	1-8-154-1	03.04.99
28	University of Bahrain (through UNEECO)	Manama, Bahrain	A:98:J3780:01:JG; Dated 21.12.98	1600	1	-	11/0.415	1-8-164-1	17.04.99
29	Electricity Directorate	Manama, Bahrain	CSDP/806818/99; Dated 22.03.99	500	-	10	11/0.415	1-9-052-1	18.07.99
30	Electricity Directorate Engineering Co.	Manama, Bahrain	CSDP/808367/99; Dated 24.03.99	1000	20	-	11/0.415	1-9-053-1	18.07.99

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Item No.	Customer Name	Country	Order No. and Date	Rating (kVA)	Quantity		Voltge Ratio (kV)	STC Reference	Last Delivery Date
					TRF	SS			
31	Electricity Directorate	Manama, Bahrain	CSDP/901298/99; Dated 29.06.99	1000	20	-	11/0.415	1-9-110-1	27.09.99
32	Electricity Directorate	Manama,	CSDP/902001/99;	500	15	-	11/0.415	1-1999-167-1	08.12.99
33	Electricity Directorate	Manama, Bahrain	CSDP/902790/99; Dated 19.09.99	1000	25	-	11/0.415	1-1999-168-1	14.12.99
34	Tubli Water Plant (through UNEECO)	Manama, Bahrain	U-3617/1199/ST/OR1; Dated 04.11.99	1000	2	-	11/0.420	1-1999-192-1	23.02.00
35	Tubli Water Plant (through UNEECO)	Manama, Bahrain	U-3617/1199/ST/OR1; Dated 04.11.99	1250	1	-	11/0.420	1-1999-193-1	23.02.00
36	US Navy 2MVA SS (through UNEECO)	Manama, Bahrain	U-4198/0699/STC/OR1; Dated 21.06.99	1000	2	-	11/0.415	1-1999-105-1	07.08.99
37	Electricity Directorate	Manama, Bahrain	CSDP/904570/00; Dated 05.02.2000	1000	25	-	11/0.415	1-2000-017-1	20.06.00
38	Electricity Directorate	Manama, Bahrain	CSDP/905279/00; Dated 12.02.2000	500	10	-	11/0.415	1-2000-024-1	05.06.00
39	Electricity Directorate	Manama, Bahrain	CSDP/906192/2000; Dated 17.04.2000	1000	25	-	11/0.415	1-2000-054-1	20.08.00
40	Electricity Directorate	Manama, Bahrain	CSDP/002151/00; Dated 08.08.2000	1000	20	-	11/0.415	1-2000-136-1	10.12.00
41	Electricity Directorate	Manama, Bahrain	U-5052/0800/stc/OR; Dated 08.08.2000	1000	1	-	11/0.415	1-2000-137-1	08.11.00
42	Electricity Directorate	Manama, Bahrain	CSDP/009397/00; Dated 17.10.2000	1500	5	-	11/0.415	1-2000-192-1	15.01.01
43	Electricity Directorate	Manama, Bahrain	U-6815/1100/stc/OR1; Dated 25.11.2000	1000	4	-	11/0.415	1-2000-217-1	18.02.01
44	Electricity Directorate	Manama, Bahrain	CSDP/006804/682/2000; Dated 20.12.2000	500	10	-	11/0.415	1-2000-236-1	05.05.01
45	Electricity Directorate	Manama, Bahrain	U-6063/04/01/stc/or Dated 01.04.2001	1500	1	-	11/0.415	1-2001-053-1	31.07.01
46	Electricity Directorate	Manama, Bahrain	CSDP/82003726/01 Dated 24.06.2001	1000	-	15	11/0.415	1-2001-145-1	30.12.01

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Item No.	Customer Name	Country	Order No. and Date	Rating (kVA)	Quantity		Voltge Ratio (kV)	STC Reference	Last Delivery Date
					TRF	SS			
47	Electricity Directorate	Manama, Bahrain	CSDP/82004245/842/01 Dated 16.07.2001	1000	-	15	11/0.415	1-2001-146-1	30.12.01
48	Electricity Directorate	Manama, Bahrain	CSDP/82006772/937/01 Dated 07.01.2002	1000	-	15	11/0.415	1-2002-008-1	30.09.02
49	Electricity Directorate	Manama,	CSDP/82006774/948/01	1000	-	15	11/0.415	1-2002-009-1	30.09.02
50	Electricity Directorate	Manama, Bahrain	CSDP/82007180/02 Dated 26.01.2002	500	-	10	11/0.415	1-2002-023-1	31.10.02
51	Electricity Directorate	Manama, Bahrain	CSDP/82006093/01 Dated 12.11.2001 (C.B. type LVP)	1000	-	10	11/0.415	1-2002-045-1	29.11.02
52	Electricity Directorate	Manama, Bahrain	CSDP/82007919/1065/01 Dated 18.03.2002	1000	-	10	11/0.415	1-2002-073-1	15.09.02
53	Electricity Directorate	Manama, Bahrain	CSDP/82007939/1034/01 Dated 18.03.2002	1000	-	10	11/0.415	1-2002-074-1	15.09.02
54	Electricity Directorate	Manama, Bahrain	CSDP/82007303/1017/01 Dated 30.01.2002	1000	-	15	11/0.415	1-2002-117-1	15.11.02
55	Electricity Directorate	Manama, Bahrain	CSDP/82008818/02 Dated 18.05.2002	1000	-	15	11/0.415	1-2002-155-1	30.10.02
56	Electricity Directorate	Manama, Bahrain	CSDP/82008996/1055/01 Dated 20.05.2002	1000	-	15	11/0.415	1-2002-156-1	15.11.02
57	Electricity Directorate	Manama, Bahrain	CSDP/82009443/02 Dated 23.06.2002	1000	-	15	11/0.415	1-2002-157-1	15.11.02
58	Electricity Directorate	Manama, Bahrain	CSDP/82009324/974/02 Dated 12.06.2002	1000	35	-	11/0.415	1-2002-174-1	31.12.02
59	Electricity Directorate	Manama, Bahrain	CSDP/82011117/2002 Dated 24.09.2002	1000	-	20	11/0.415	1-2002-214-1	16.03.03
60	Electricity Directorate	Manama, Bahrain	CSDP/82010176/2002 Dated 18.08.2002	1000	-	10	11/0.415	1-2002-215-1	16.03.03
61	Mohamed Al Mishal Corp.	Jubail	044/LP Dated 16.02.2003	1500	3	-	11/0.415	1-2003-048-1	10.05.03
62	Electricity Directorate	Manama, Bahrain	82011812 Dated 24.02.2003 (With C.B. type LVP)	1000	-	20	11/0.415	1-2003-051-1	20.07.03

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Item No	Customer Name	Country	Order No. and Date	Rating (kVA)	Quantity		Voltge Ratio (kV)	STC Reference	Last Delivery Date
					TRF	SS			
63	Electricity Directorate	Manama, Bahrain	82011832 1000 Dated 24.02.2003		-	20	11/0.415	1-2003-052-1	20.07.03
64	Electricity Directorate	Manama, Bahrain	82011838 Dated 06.11.2002	1000	-	20	11/0.415	1-2003-060-1	31.07.03
65	Electricity Directorate	Manama, Bahrain	82012465 Dated 06.01.2003	500	-	15	11/0.415	1-2003-061-1	31.07.03
66	Electricity Directorate	Manama, Bahrain	CSDP/82014554/1427 Dated 13.07.2003	1000	-	20	11/0.415	1-2003-247-1	31.03.04
67	Lamya Al Jazirah for Bahrain	Riyadh, K.S.A.	MJ/03/066/stc Dated 30.10.2003	1500	1	-	11/0.415	1-2003-254-1	20.01.04
68	Electricity Directorate	Manama, Bahrain	1393/2 Dated 27.03.2004	1000	10	-	11/0.415	1-2004-056-1	21.08.04
				1500	31	-	11/0.415	1-2004-056-2	21.08.04
69	Electricity Directorate	Manama, Bahrain	82015431 Dated 22.03.2004	1500	-	2	11/0.415	1-2004-058-2	30.08.07
				1500	-	9	11/0.415	1-2004-058-3	30.08.07
				1500	-	1	11/0.415	1-2004-058-4	30.08.07
70	Electricity Directorate	Manama, Bahrain	1411/1 Dated 25.04.2004	1250	2	-	11/0.420	1-2004-091-1	10.08.04
71	Electricity Directorate	Manama, Bahrain	1442/1 Dated 26.05.2004	1000	30	-	11/0.415	1-2004-133-1	30.11.04
72	Electricity Directorate	Manama, Bahrain	1567/1 dated 13.10.2004	200	40	-	11/0.415	1-2004-133-2	30.11.04
				1000	1	-	11/0.415	1-2004-216-1	31.12.04
73	Electricity Directorate	Manama, Bahrain	1541/1 Dated 20.09.2004	1000	30	-	11/0.415	1-2004-222-1	20.03.05
74	Electricity Directorate	Manama, Bahrain	1542/1 Dated 20.09.2004	1000	30	-	11/0.415	1-2004-223-1	20.03.05
75	Electricity Directorate	Manama, Bahrain	1608/1 Dated 10.12.2004	1500	1	-	11/0.415	1-2004-251-1	31.01.05
76	Electricity Directorate	Manama, Bahrain	1609/1 Dated 10.12.2004	2500	1	-	11/0.415	1-2004-252-1	30.04.05

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Item No.	Customer Name	Country	Order No. and Date	Rating (kVA)	Quantity		Voltge Ratio (kV)	STC Reference	Last Delivery Date
					TRF	SS			
77	Electricity Directorate	Manama, Bahrain		1000	1	-	11/0.415	1-2005-091-1	01.08.05
78	Electricity Directorate	Manama, Bahrain		1500	-	1	11/0.415	1-2005-099-1	25.07.05
79	Electricity Directorate	Manama, Bahrain		1500	8	-	11/0.415	1-2005-270-1	28.02.06
80	Electricity Directorate	Manama, Bahrain	1909/1 Dated 11.12.2005	1500	3	-	11/0.415	1-2005-325-1	30.04.06
81	Electricity Directorate	Manama, Bahrain		1500	2	-	11/0.415	1-2005-331-1	15.04.06
82	Electricity Directorate	Manama, Bahrain	1946/1 Dated 24.02.06	1500	2	-	11/0.415	1-2006-050-1	31.05.06
83	Amad Al Baeed	Manama, Bahrain		1500	1	-	11/0.415	1-2006-055-1	31.05.06
84	Electricity Directorate	Manama, Bahrain	1967/2 Dated 05.04.2006	1000	30	-	11/0.415	1-2006-089-1	30.08.06
85	Electricity Directorate	Manama, Bahrain	1973/1 Dated 10.05.2006	1000	30	-	11/0.415	1-2006-123-1	30.08.06
86	Amad Al Baeed	Manama, Bahrain	1292/06 Dated 31.05.2006	1500	8	-	11/0.415	1-2006-150-1	30.09.06
				1000	2	-	11/0.415	1-2006-150-2	30.09.06
87	Amad Al Baeed	Manama, Bahrain	1288/06 Rev. 01 Dated 25.05.2006	1500	3	-	11/0.415	1-2006-151-1	30.09.06
				1000	9	-	11/0.415	1-2006-151-2	30.09.06
88	Amad Al Baeed	Manama, Bahrain	1312/06 Dated 25.09.2006	1000 1500	1 1	- -	11/0.415 11/0.415	1-2006-452-1 1-2006-452-2	30.03.07 30.03.07
89	Amad Al Baeed	Manama, Bahrain	1315/06 Dated 25.09.2006	1000	20	-	11/0.415	1-2006-469-1	15.04.07
90	Electricity Directorate	Manama, Bahrain	2110/1 Dated 11.05.2006	1500	3	-	11/0.415	1-2007-005-1	30.04.07

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Item No.	Customer Name	Country	Order No. and Date	Rating (kVA)	Quantity		Voltge Ratio (kV)	STC Reference	Last Delivery Date
					TRF	SS			
91	Electricity Directorate	Manama, Bahrain	2226/1 Dated 24.05.2007	500	-	22	11/0.415	1-2007-084-1	31.01.08
92	Amad Al Baeed	Manama, Bahrain	2035/07 Dated 30.06.2007	1000	9	-	11/0.415	1-2007-118-1	31.01.08
93	Electricity Directorate	Manama, Bahrain	2320/1 Dated 16.09.2007	1000	-	50	11/0.415	1-2007-172-1	31.03.08
94	Electricity Directorate	Manama, Bahrain	2337/1 Dated 08.10.2007	1000	-	40	11/0.415	1-2007-183-1	30.03.08
95	Electricity Directorate	Manama, Bahrain	CSD-PT-2236/05/07 Dated 08.10.2007	1500	-	10	11/0.415	1-2007-184-1	30.04.08
96	Electricity Directorate	Manama, Bahrain	MEW-164/2007/5310-PP Dated 08.10.2007	1500	-	10	11/0.415	1-2007-185-1	28.02.08
97	Electricity Directorate	Manama, Bahrain	CSD-PT-2237/05/07 Dated 11.10.2007	500	-	6	11/0.415	1-2007-188-1	30.04.08
				500	-	4	11/0.415	1-2007-188-2	30.04.08
98	Amad Al Baeed	Manama, Bahrain	2089/07 Dated 28.10.2007	1000	1	-	11/0.415	1-2007-201-1	30.04.08
				1500	3	-	11/0.415	1-2007-201-2	30.04.08
99	Universal Electro-Engineering Co.	Manama, Bahrain	CSD-PT-2318/10/07	1000	30		11/0.415	8510046	30.06.08
100	Universal Electro-Engineering Co.	Manama, Bahrain	2556/1	1500	4		11/0.415	8510125	30.08.08
101	Universal Electro-Engineering Co.	Manama, Bahrain	CSD-PT-2277/06/07	1000	61		11/0.415	8510445	16.09.08
102	Universal Electro-Engineering Co.	Manama, Bahrain	2776/1	1500		21	11/0.415	9510105	30.05.09
103	Saudi Electric Supply Co.	Bahrain	BJ-0048-PN	0		1	11/0.415	1-2010-001-1	30.05.10
104	Universal Electro-Engineering Co.	Manama Bahrain	LOI	1500	4	-	11/0.415	1-2010-025-1	30.05.10
105	Adliya Contracting Est	Manama Bahrain	ACE/JD/10/052	1000	1	-	11/0.415	1-2010-061-1	30.07.10.

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Item No.	Customer Name	Country	Order No. and Date	Rating (kVA)	Quantity		Voltge Ratio (kV)	STC Reference	Last Delivery Date
					TRF	SS			
106	Universal electro-Engineerng Co.	Manama Bahrain	PROTOTYPE	1500	-	5	11/0.415	1-2010-098-1	30.05.11
107	Universal electro-Engineerng Co.	Manama Bahrain	3332/1 Dated 08.062010	1500	1	-	11/0.415	1-2010-165-1	15.07.10
				1500	2	-	11/0.415	1-2010-165-1	15.07.2010
108	Universal electro-Engineerng Co.	Manama Bahrain	3369/1 Dated 04.07.2010	1500	-	145	11/0.415	1-2010-192-1	30.01.2011
				1500	-	5	11/0.415	1-2010-92-2	30.03.2011
109	Universal electro-Engineerng Co.	Manama Bahrain	3369/1 Dated 19.07.2010	1500	7	-	11/0.415	1-2010-208-1	30.11.2010
110	Universal electro-Engineerng Co.	Manama Bahrain	3470 Dated 08.09.2010	1000	1	-	11/0.415	1-2010-233-1	30.12.2010
111	Adliya Contracting Est	Manama Bahrain	ACE/JD/10/404	1000	1	-	11/0.415	1-2010-243-1	28.02.2011
112	Universal electro-Engineerng Co.	Manama Bahrain	3421/1 Dated 09.08.2010	500	-	10	11/0.415	1-2010-280-1	30.12.2010
113	Universal electro-Engineerng Co.	Manama Bahrain	3530/1 Dated 24.10.2010	1500	2	-	11/0.415	1-2010-293-1	28.02.2011
114	Universal electro-Engineerng Co.	Manama Bahrain	3542/1 Dated 31.10.2010	1500	4	-	11/0.415	1-2010-294-1	15.01.2011
115	Universal electro-Engineerng Co.	Manama Bahrain	3471/1 Dated 08.09.2010	1500	2	-	11/0.415	1-2010-347-1	30.12.2010
116	Universal electro-Engineerng Co.	Manama Bahrain	3595/1 Dated 21.12.2010	1500	2	-	11/0.415	1-2011-004-1	15.06.2011
117	Universal electro-Engineerng Co.	Manama Bahrain	3612/1 Dated 03.01.2011	500		1	11/0.415	1-2011-010-1	01.07.2011
118	Universal electro-Engineerng Co.	Manama Bahrain	3705/1 Dated 15.03.2011	1000	20		11/0.415	1-2011-1001	01.07.2011
119	Universal electro-Engineerng Co.	Manama Bahrain	3836/1 Dated 05.05.20111	1500	6	-	11/0.415	1-2011-149-1	19.10.2011
120	Universal electro-Engineerng Co.	Manama Bahrain	3755/1 Dated 20.04.2011	1500	1	-	11/0.415	1-2011-125-1	25.09.2011

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Item No.	Customer Name	Country	Order No. and Date	Rating (kVA)	Quantity		Voltge Ratio (kV)	STC Reference	Last Delivery Date
					TRF	SS			
121	Universal electro-Engineerng Co.	Manama Bahrain	3878/1 Dated 29.06.2011	1500 1000 500	80 55 10	-	11/0.415	1-2011-208-1	25.04.2012 21.05.2012 2/24/2012
122	Universal electro-Engineerng Co.	Manama Bahrain	4043/1 Dated 26.09.2011	1000	1	-	11/0.415	1-2011-231-1	10.01.2012
123	Universal electro-Engineerng Co.	Manama Bahrain	4000/1 Dated 05.09.2011	1000	1	-	11/0.415	1-2011-255-1	02.02.2012
124	CELLMEC	Manama Bahrain	SG/562/2011 Dated 11.10.2011	630 1500	1	-	11/0.415	1-2011-304-1 1-2011-304-2	3/19/2012
125	Universal electro-Engineerng Co.	Manama Bahrain	4000/1 Dated 05.09.2011	1000	60	-	11/0.415	1-2011-333-1	16.06.2012
126	Universal electro-Engineerng Co.	Manama Bahrain	4214/1 Dated 28.12.2011	1000	4	-	11/0.415	1-2012-010-1	16.06.2012
127	CELLMEC	Manama Bahrain	084SGS12 Dated 20.02.2012	500 1500	2 2	-	11/0.415	1-2012-048-1 1-2012-048-2	9/15/2012
128	Universal electro-Engineerng Co.	Manama Bahrain	4791/1 Dated 15.05.2012	1500	1	-	11/0.415	1-2012-144-3	03.02.2012
129	Universal electro-Engineerng Co.	Manama Bahrain	4524/2 Dated 20.06.2012	500	3	-	11/0.415	1-2012-088-1	1/5/2013
130	Universal electro-Engineerng Co.	Manama Bahrain	4523/2 Dated 16.06.2012	1000 1500	3 1	-	11/0.415	1-2012-142-1	1/29/2013
131	Universal electro-Engineerng Co.	Manama Bahrain	4642/2 Dated 08.08.2012	1000		8	11/0.415	1-2012-199-1	3/31/2013
132	Universal electro-Engineerng Co.	Manama Bahrain	5050/1 Dated 01.04.2013	1000	0	4	11/0.415	1-2012-091-1	6/20/2013
133	Universal electro-Engineerng Co.	Manama Bahrain	4720/1 Dated 20.09.2012	1000	230	0	11/0.415	1-2012-232-1	8/30/2013

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Item No.	Customer Name	Country	Order No. and Date	Rating (kVA)	Quantity		Voltge Ratio (kV)	STC Reference	Last Delivery Date
					TRF	SS			
135	Universal electro-Engineerng Co.	Manama Bahrain	4829/1 Dated 21.11.2012	200	10	0	11/0.415	12012-270-1	7/30/2013
136	Universal electro-Engineerng Co.	Manama Bahrain	5201/1 Dated 30.05.2013	1500	15	0	11/0.415	1-2013-078-1	10/31/2013
137	Universal electro-Engineerng Co.	Manama Bahrain	5051/1 Dated 30.05.2013	1000 1500	6 2	0	11/0.415	1-2013-054-1 1-2013-054-2	12/23/2013
			Total Quantity :		**1416**	**689**			

Dubai (UAE)

Item No.	Customer Name	Country	Order No. and Date	Rating (kVA)	Quantity		Voltge Ratio (kV)	STC Reference	Last Delivery Date
					TRF	SS			
1	Dubai Electricity & Water Authority	Dubai - U.A.E.	CE/239/95; Dated 30.01.96	1500	50	-	11-6.6/0.4	1-6-018-1	05.11.96
				1000	125	-	11-6.6/0.4	1-6-018-2	05.11.96
				500	30	-	11-6.6/0.4	1-6-018-3	05.11.96
2	Dubai Electricity & Water Authority	Dubai - U.A.E.	CE/001/96; Dated 18.06.96	500	-	180	11-6.6/0.4	1-6-100-1	17.02.97
				500	-	40 (M*)	11-6.6/0.4	1-6-100-2	02.02.97
3	Dubai Electricity & Water Authority	Dubai - U.A.E.	CE/002/96; Dated 18.06.96	1000	-	130	11-6.6/0.4	1-6-101-1	15.02.97
				1000	-	20 (M*)	11-6.6/0.4	1-6-101-2	10.12.96
4	Jebel Ali Container Glass Factory	Jebel Ali - Dubai	NIL; 29.05.96	2000	4	-	11/0.400	1-6-202-1	11.01.97
				2000	2	-	11/0.400	1-6-202-2	11.01.97
5	Dubai Electricity & Water Authority	Dubai - U.A.E.	CE/353B/96; Dated 15.04.97	500	-	1	11-6.6/0.4	1-7-075-1	23.09.97
				500	-	19	11-6.6/0.4	1-7-083-1	12.03.98
6	Al-Hamas Trading Company	Dubai, U.A.E.	786/AHT/STC/014/97; Dated 30.08.97	1500	1	-	11/0.380	1-7-180-1	09.12.97
7	Dubai Electricity & Water Authority	Dubai- U.A.E.	CE/125/97; Dated 17.12.97	1000	100	-	11-6.6/0.4	1-7-256-1	29.07.98
8	Dubai Electricity & Water Authority	Dubai- U.A.E.	CE/125/97; Dated 17.12.97	1000	30	-	11/0.4	1-7-256-2	29.07.98
9	Dubai Electricity & Water Authority	Dubai- U.A.E.	CE/165/97; Dated 13.01.98	500	30	-	11-6.6/0.4	1-8-006-1	28.07.98
10	Dubai Electricity & Water Authority	Dubai- U.A.E.	CE/037B/98; Dated 15.07.98	1000	-	5	11-6.6/0.4	1-8-082-1	10.01.99
				1000	-	10	11-6.6/0.4	1-8-082-1	06.02.99
11	Dubai Electricity & Water Authority	Dubai- U.A.E.	CE/158C/98; Dated 05.11.98	500	10	-	11-6.6/0.4	1-8-140-1	18.04.99
12	Dubai Electricity & Water Authority	Dubai- U.A.E.	CE/052/99; Dated 31.10.99	1000	90	-	11-6.6/0.4	1-1999-187-1	18.05.00
				1000	30	-	11-6.6/0.4	1-1999-187-2	18.05.00

Dubai (UAE)

Item No.	Customer Name	Country	Order No. and Date	Rating (kVA)	Quantity		Voltge Ratio (kV)	STC Reference	Last Delivery Date
					TRF	SS			
13	Dubai Electricity & Water Authority	Dubai-U.A.E.	CE/028C/2000; Dated 13.06.00	1000	-	112	11-6.6/0.4	1-2000-089-1	07.12.00
14	Al-Hamas Trading Company	Dubai, U.A.E.	786/AHT/C-260/2001 Dated 19.11.2001	1500	21	-	11/0.4	1-2001-249-1	20.05.02
				1000	14	-	11/0.4	1-2001-249-2	20.05.02
15	Wade Adams Contr. Company	Dubai, U.A.E.	EM 50500258 Dated 02.10.2002	2500	2	-	11/0.4	1-2002-205-1	30.11.02
				500	1	-	11/0.4	1-2001-205-2	30.11.02
16	Dubai Electricity & Water Authority	Dubai-U.A.E.	CE/210C/2002 Dated 05.04.2003	1500	55	-	11-6.6/0.4	1-2003-077-1	03.01.04
				1000	180	-	11-6.6/0.4	1-2003-077-2	03.01.04
				1000	30	-	11-6.6/0.4	1-2003-077-3	03.01.04
17	Dubai Electricity & Water Authority	Dubai-U.A.E.	CE/210C/2002 Dated 05.04.2003	1500	1	-	11-6.6/0.4	1-2003-110-1	19.07.03
				1000	1	-	11-6.6/0.4	1-2003-110-2	19.07.03
18	Dubai Electricity & Water Authority	Dubai-U.A.E.	CE/135A/2003 Dated 30.07.2003	1000	-	170	11-6.6/0.4	1-2003-162-1	12.05.04
				1000	-	140	11/0.4	1-2003-162-2	09.06.04
				1000	-	25	11-6.6/0.4	1-2003-162-3	14.04.04
				1000	-	10	11/0.4	1-2003-162-4	21.01.04
19	Al-Hamas Trading Company	Dubai, U.A.E.	786/AHT/C-535/2003 Dated 19.06.2003	2000	8	-	11/0.4	1-2003-165-1	31.12.03
20	Dubai Electricity & Water Authority	Dubai-U.A.E.	CE/247/2004 Dated 26.07.2004	1000	-	50	11-6.6/0.4	1-2004-155-1	11.04.05
				1000	-	35	11/0.4	1-2004-155-2	11.04.05
21	Dubai Electricity & Water Authority	Dubai-U.A.E.	CE/117B/2004 Dated 01.09.2004	1000	-	127	11-6.6/0.4	1-2004-186-1	15.07.05
22	Dubai Electricity & Water Authority	Dubai-U.A.E.	CE/069A/2004 Dated 30.11.2004	1500	25	-	11-6.6/0.4	1-2004-247-1	30.08.05
				1500	20	-	11/0.4	1-2004-247-2	30.04.05
				1500	65	-	11-6.6/0.4	1-2004-247-3	30.08.05
				1500	75	-	11/0.4	1-2004-247-4	30.08.05

Dubai (UAE)

Item No.	Customer Name	Country	Order No. and Date	Rating (kVA)	Quantity		Voltge Ratio (kV)	STC Reference	Last Delivery Date
					TRF	SS			
22	Dubai Electricity & Water Authority	Dubai-U.A.E.	CE/069A/2004 Dated 30.11.2004	1500	25	-	11-6.6/0.4	1-2004-247-1	30.08.05
				1000	35	-	11-6.6/0.4	1-2004-247-5	30.08.05
				1000	55	-	11/0.4	1-2004-247-6	30.08.05
				1500	45	-	11/0.4	1-2004-247-7	30.10.05
23	Al-Hamas Trading Company	Dubai, U.A.E.	786/AHT/C-109/2005 Dated 13.11.2005	2000	2	-	11/0.4	1-2005-301-1	13.03.06
24	Mahmoud Al Hamoud Gen. Contr. Co.	AlKhobar K.S.A.	RPOO-NAS-ELEC Dated 27.12.2005	1600	10	-	11/0.4	1-2005-337-1	28.02.06
25	Dubai Electricity & Water Authority	Dubai-U.A.E.	CE/356A/2005 Dated 05.04.2006	1000	-	250	11-6.6/0.4	1-2006-087-1	31.07.07
26	Dubai Electricity & Water Authority	Dubai-U.A.E.	CE/441B/2005 Dated 19.07.2006	1500	85	-	11/0.4	1-2006-240-1	24.05.07
				1000	40	-	11/0.4	1-2006-240-2	31.12.06
27	Dubai Electricity & Water Authority	Dubai-U.A.E.	CE/019/2007 Dated 25.02.2007	1500	28	-	11/0.4	1-2007-036-1	30.09.07
28	Dubai Electricity & Water Authority	Dubai-U.A.E.	CE/082/2007 Dated 25.02.2007	1000	-	62	11-6.6/0.4	1-2007-038-1	31.05.08
29	Dubai Electricity & Water Authority	Dubai-U.A.E.	CE/402C/2006 Dated 01.03.2007	1000	-	15	11-6.6/0.4	1-2007-040-1	30.06.08
				1000	-	100	11/0.4	1-2007-040-2	30.12.08
30	Dubai Electricity & Water Authority	Dubai-U.A.E.	CE/396D/2006 Dated 01.03.2007	1500	100	-	11/0.4	1-2007-041-1	31.03.08
				1000	50	-	11-6.6/0.4	1-2007-041-2	31.03.08
31	Dubai Electricity & Water Authority	Dubai-U.A.E.	CE/408B/2007 Dated 23.04.2008	1000	330		11/0.4	8510236	30.04.10
32	Dubai Electricity & Water Authority	Dubai-U.A.E.	CE/408B/2007 Dated 23.04.2008	1000	70		11-6.6/0.4	8510235	24.11.10
33	Dubai Electricity & Water Authority	Dubai-U.A.E.	CE/371A/2007 Dated 23.04.2008	1000		356	11-6.6/0.4	8510242	30.05.10
34	Dubai Electricity & Water Authority	Dubai-U.A.E.	CE/402C/2006 Dated 01.03.2007	1500	36		11/0.4	8510280	15.01.09

Dubai (UAE)

Item No.	Customer Name	Country	Order No. and Date	Rating (kVA)	Quantity		Voltge Ratio (kV)	STC Reference	Last Delivery Date
					TRF	SS			
35	Dubai Electricity & Water Authority	Dubai- U.A.E.	CE/371A/2007 Dated 23.04.2008	1000		999	11/0.4	9510235	02.02.11
36	Dubai Electric & Water Authority	Dubai U.A.E	CE/0072A/2010 Dated 09.03/2011	1000	-	10	11/0.400	1-2011-093-1	12/31/2012
						10		1-2011-093-2	2/28/2013
						10		1-2011-093-3	4/30/2013
			Total Quantity :		**1886**	**2886**			

Abu Dhabi

Item No.	Customer Name	Country	Order No. and Date	Rating (kVA)	Quantity		Voltge Ratio (kV)	STC Reference	Last Delivery Date
					TRF	SS			
1	Water & Electricity	Abu Dhabi	1019, WED-198344;	1500	30	-	11/0.433	1-6-058-1	08.09.96
	Directorate, Abu Dhabi	U.A.E.	Dated 14.04.96						
2	Water & Electricity	Abu Dhabi	1018, WED-198343;	1500	20	-	11/0.433	1-6-059-1	05.09.96
	Directorate, Abu Dhabi	U.A.E.	Dated 14.04.96						
				1000	20	-	11/0.433	1-6-059-2	02.09.96
3	Water & Electricity	Abu Dhabi	1017, WED-198345;	1500	30	-	11/0.433	1-6-060-1	28.11.96
	Directorate, Abu Dhabi	U.A.E.	Dated 15.04.96						
4	Water & Electricity	Abu Dhabi	1045;	1500	8	-	11/0.433	1-8-002-1	07.06.98
	Directorate, Abu Dhabi	U.A.E.	Dated 12.01.98						
5	Water & Electricity	Abu Dhabi	1046;	1500	20	-	11/0.433	1-8-013-1	29.06.98
	Directorate, Abu Dhabi	U.A.E.	Dated 28.01.98						
6	Al Barrak Elect.	Abu Dhabi	WED/PD/S-INST-852;	1500	5	-	11/0.433	1-8-099-1	30.01.99
	Contracting Co.	U.A.E.	Dated 07.09.98						
7	Water & Electricity	Abu Dhabi	1066;	1500	15	-	11/0.433	1-9-019-1	15.07.99
	Directorate, Al Ain	U.A.E.	Dated 15.02.99						
	(WEA, Al Ain)								
8	Water & Electricity	Abu Dhabi	1064;	1500	15	-	11/0.433	1-9-020-1	17.07.99
	Directorate, Al Ain	U.A.E.	Dated 15.02.99						
	(WEA, Al Ain)								
9	RAW General	Abu Dhabi	RAW/1564/Mar-99;	1500	10	-	11/0.433	1-9-049-1	29.07.99
	Contracting Co.	U.A.E.	Dated 15.03.99						
				1000	15	-	11/0.433	1-9-049-2	29.07.99
				500	25	-	11/0.433	1-9-049-3	10.08.99
				200	15	-	11/0.433	1-9-049-4	10.08.99
10	RAW General	Abu Dhabi	RAW/1563/Mar-99;	1500	104	-	11/0.433	1-9-050-1	26.08.99
	Contracting Co.	U.A.E.	Dated 15.03.99						
	(WEA, Abu Dhabi)								
11	Heliopolis Elect. Co.	Abu Dhabi	HE-00-C-0129/ORD/225;	1500	12	-	11/0.433	1-2000-094-1	21.10.00
	(ADWEA/TI/D/99/0129)	U.A.E.	Dated 04.05.00						
12	Emirates Trading	Abu Dhabi	PP/1410/26756/SKA/SM	1000	4	-	11/0.433	1-2002-056-1	09.07.02
	Agency	U.A.E.	Dated 03.07.2001						
13	Abu Dhabi Water &	Abu Dhabi	A/01/8176.1.02	1000	-	150	11/0.433	1-2003-026-1	03.09.03
	Electricity Directorate	U.A.E.	Dated 05.01.2003						

Abu Dhabi

Item No.	Customer Name	Country	Order No. and Date	Rating (kVA)	Quantity		Voltge Ratio (kV)	STC Reference	Last Delivery Date
					TRF	SS			
14	Site Technology	Abu Dhabi	PDA/2983/2559/06	1500	2	-	11/0.433	1-2007-020-1	30.04.07
		U.A.E.	Dated 30.08.2006						
				2000	7	-	11/0.433	1-2007-020-2	30.04.07
				2000	2	-	11/0.380	1-2007-020-3	30.04.07
15	Space age Technology	Abu Dhabi	SPACE /MO/C/AG/3008	1500	78	-	11/0.415	120082131	28.02.09
			Total Quantity :		**437**	**150**			

Iraq

Item No.	Customer Name	Country	Order No. and Date	Rating (kVA)	Quantity		Voltge Ratio (kV)	STC Reference	Last Delivery Date
					TRF	SS			
1	Al Takaful Co.	Iraq	Nil;	630	1	-	11/0.416	1-2004-224-1	15.12.04
2	ITECH Ltd. Jordan for	Iraq	ITEC/SN/2004/1; Dated 12.12.2004	1000	3	-	11/0.416	1-2004-253-1	31.01.05
3	ITECH Ltd. Jordan for	Iraq	ITEC/SN/2004/3; Dated 18.12.2004	1000	4	-	11/0.416	1-2004-265-1	18.01.05
				630	4	-	11/0.416	1-2004-265-2	18.01.05
3	Quality light & Heavy equipment	Iraq	JC/STC/19012005A; Dated 19.01.2005	250	33	-	11/0.416	1-2005-022-1	30.01.05
				250	1	-	11/0.416	1-2004-265-2	30.01.05
4	Euro Tech Sharjah, UAE for	Iraq	348/1; Dated 10.01.2005	400	18	-	11/0.416	1-2005-025-1	10.02.05
				630	15	-	11/0.416	1-2005-025-2	10.02.05
				1000	9	-	11/0.416	1-2005-025-3	10.02.05
				630	-	12	11/0.416	1-2005-025-4	10.02.05
				1000	-	12	11/0.416	1-2005-025-5	10.02.05
				400	18	-	11/0.416	1-2005-025-6	10.02.05
5	Al Rasikh Co.	Iraq		250	50	-	11/0.416	1-2005-032-1	09.03.05
				400	30	-	11/0.416	1-2005-032-2	09.03.05
6	Al Rasikh Co.	Iraq		250	1	-	11/0.416	1-2005-049-1	05.03.05
7	Euro Tech	Iraq		400	38	-	11/0.416	1-2005-052-1	30.05.05
				630	32	-	11/0.416	1-2005-052-2	30.05.05
				400	40	-	11/0.416	1-2005-052-3	30.03.05
				630	20	-	11/0.416	1-2005-052-4	29.03.05
8	Al Quraishi Bureau, Baghdad	Iraq		250	40	-	11/0.416	1-2005-054-1	15.05.05
				250	10	-	11/0.416	1-2005-054-2	15.05.05
9	Al Rasikh Co.	Iraq		630	20	-	11/0.416	1-2005-063-1	24.03.05
				630	1	-	11/0.416	1-2005-063-2	24.03.05

Iraq

Item No.	Customer Name	Country	Order No. and Date	Rating (kVA)	Quantity TRF	Quantity SS	Voltge Ratio (kV)	STC Reference	Last Delivery Date
10	Al Quraishi Bureau, Baghdad	Iraq	AB05030101; Dated 01.03.2005	250	50	-	11/0.416	1-2005-064-1	19.03.05
				250	50	-	11/0.416	1-2005-064-2	15.05.05
10	Al Quraishi Bureau, Baghdad	Iraq		250	100	-	11/0.416	1-2005-067-1	11.06.05
11	FPS Intl, Kuwait for	Iraq		250	10	-	11/0.416	1-2005-306-1	31.03.06
				400	60	-	11/0.416	1-2005-306-2	31.03.06
				250	50	-	11/0.416	1-2005-306-3	31.03.06
12	Al Takaful Co. Baghdad	Iraq		400	2	-	11/0.416	1-2005-334-1	30.04.06
				630	4	-	11/0.416	1-2005-334-2	30.04.06
				1000	13	-	11/0.416	1-2005-334-3	30.04.06
13	FPS Intl, Kuwait for	Iraq		250	100	-	11/0.416	1-2006-044-1	30.05.06
				400	50	-	11/0.416	1-2006-044-2	30.05.06
14	FPS Intl, Kuwait for	Iraq	2422/06; Dated 19.04.2006	250	130	-	11/0.416	1-2006-097-1	15.07.06
				250	50	-	11/0.416	1-2006-097-2	15.06.06
				400	140	-	11/0.416	1-2006-097-3	30.09.06
15	FPS Intl, Kuwait for	Iraq	2480/06; Dated 25.05.2006	1000	-	10	11/0.416	1-2006-141-1	30.08.06
				1000	-	37	11/0.416	1-2006-141-2	10.02.07
				1000	-	13	11/0.416	1-2006-141-3	30.10.06
16	FPS Intl, Kuwait for	Iraq	STC/AQ/ZZ-349; Dated 21.12.2006	630	45	-	11/0.416	1-2007-019-1	15.04.07
				1000	35	-	11/0.416	1-2007-019-2	15.05.07
17	FPS Intl, Kuwait for	Iraq	2903/07; Dated 16.05.2007	630	25	-	11/0.416	1-2007-096-1	15.09.07
				1000	25	-	11/0.416	1-2007-096-2	15.09.07
18	FPS Intl, Kuwait for	Iraq	2975/07 Dated 05.07.2007	630	-	28	11/0.416	1-2007-127-1	31.05.08

Iraq

Item No.	Customer Name	Country	Order No. and Date	Rating (kVA)	Quantity		Voltge Ratio (kV)	STC Reference	Last Delivery Date
					TRF	SS			
19	FPS Intl, Kuwait for	Iraq	3008/07 Dated 30.07.2007	250	300	-	11/0.416	1-2007-136-1	31.07.08
				250	100	-	11/0.416	1-2007-136-2	31.10.07
20	FPS Intl, Kuwait for	Iraq	3008/07 Dated 30.07.2007	400	550	-	11/0.416	1-2007-137-1	30.09.08
				400	100	-	11/0.416	1-2007-137-2	31.10.07
21	FPS Intl, Kuwait for	Iraq	3008/07 Dated 30.07.2007	630	50	-	11/0.416	1-2007-138-1	28.02.08
22	FPS Intl, Kuwait for	Iraq	3008/07 Dated 30.07.2007	1000	80	-	11/0.416	1-2007-139-1	30.04.08
23	FPS Intl, Kuwait for	Iraq	3008/07 Dated 30.07.2007	400	100	-	11/0.416	8510357	04.08.08
24	FPS Intl, Kuwait for	Iraq	3008/07 Dated 30.07.2007	400	50	-	11/0.416	8510362	15.07.08
25	Barakat Al Ashoor Shipping Co.	Iraq	3008/07 Dated 30.07.2007	400	26	-	11/0.416	8510358	15.07.08
26	Barakat Al Ashoor Shipping Co.	Iraq	3008/07 Dated 30.07.2007	400	24	-	11/0.416	8510359	15.07.08
27	Barakat Al Ashoor Shipping Co.	Iraq	3008/07 Dated 30.07.2007	400	25	-	11/0.416	8510364	15.07.08
28	Barakat Al Ashoor Shipping Co.	Iraq	3008/07 Dated 30.07.2007	200	20	-	13.8/0.231	8510437	15.09.08
29	Barakat Al Ashoor Shipping Co.	Iraq	3008/07 Dated 30.07.2007	250	5	-	13.8/0.231	8510438	15.09.08
30	TDE Co.	Iraq	Contract agreement	250	60	-	11/0.416	8510501	31.01.09
32	TDE Co.	Iraq	Contract agreement	250	50	-	11/0.416	8510502	30.12.08
33	Barakat Al Ashoor Shipping Co.	Iraq	Email	400	44	-	11/0.416	8510569	25.01.09
34	Barakat Al Ashoor Shipping Co.	Iraq	Email	400	23	-	11/0.416	8510570	25.01.09

Iraq

Item No.	Customer Name	Country	Order No. and Date	Rating (kVA)	Quantity		Voltge Ratio (kV)	STC Reference	Last Delivery Date
					TRF	SS			
35	Sherrif Ezzat	Iraq	Meeting Dated-11.02.09	400	52	-	11/0.416	8510575	31.03.09
36	Barakat Al Ashoor Shipping Co.	Iraq	Email	400	54	-	11/0.416	8510537	30.12.08
37	Barakat Al Ashoor Shipping Co.	Iraq	Email	400	37	-	11/0.416	8510538	30.12.08
38	Barakat Al Ashoor Shipping Co.	Iraq	Email	400	100	-	11/0.416	9510019	15.04.09
39	Barakat Al Ashoor Shipping Co.	Iraq	Email	250	75	-	11/0.416	9510020	15.03.09
40	Karma Al Madinah Trading & Cont.	Iraq	Email	400	30	-	11/0.415	9510059	15.04.09
41	Karma Al Madinah Trading & Cont.	Iraq	Email	250	30	-	11/0.416	9510060	15.04.09
42	Sherrif Ezzat	Iraq	Meeting Dated-11.02.09	250	50	-	11/0.416	9510066	31.03.09
43	Barakat Al Ashoor Shipping Co.	Iraq	Nil	400	50	-	11/0.416	9510072	30.03.09
44	Sherrif Ezzat	Iraq	Contract agreement	400	50	-	11/0.416	9510188	30.05.09
45	Sherrif Ezzat	Iraq	Contract agreement	250	50	-	11/0.416	9510189	30.05.09
46	Dandal Trading	Iraq	Email	250	50	-	11/0.416	9510260	15.10.09
47	Dandal Trading	Iraq	Email	400	30	-	11/0.416	9510261	15.09.09
48	Dandal Trading	Iraq	Email	100	20	-	11/0.416	9510262	15.09.09
49	Al Nokhba Co.	Iraq	Email Dated 04.10.2009	400	38	-	11/0.416	9510444	15.09.09
50	Al Nokhba Co.	Iraq	Email Dated 04.10.2009	250	20	-	11/0.416	9510439	12.10.09
51	Al Nokhba Co.	Iraq	Email Dated 04.10.2009	400	12	-	11/0.416	9510440	12.10.09
52	Sherrif Ezzat	Iraq	Contract Dated 14.10.2009	250	50	-	11/0.416	9510467	30.12.09
53	Top al Fanar	Iraq		400	15		11/0.416	9510466	29.12.09

Iraq

Item No.	Customer Name	Country	Order No. and Date	Rating (kVA)	Quantity		Voltge Ratio (kV)	STC Reference	Last Delivery Date
					TRF	SS			
54	Ardh Al Sudoor	Iraq	Email Dated 16.11.2009	630	2	-	11/0.416	9510514	15.02.10
55	Ardh Al Sudoor	Iraq	Email Dated 16.11.2009	1000	2	-	11/0.416	9510515	15.02.10
56	Ardh Al Sudoor	Iraq	Email Dated 16.11.2009	250	10	-	11/0.416	9510517	15.02.10
57	Ardh Al Sudoor	Iraq	Email Dated 16.11.2009	400	10	-	11/0.416	9510518	15.02.10
58	Sherrif Ezzat	Iraq	Contract agreement	400	50	-	11/0.416	9510462	05.12.09
59	Sherrif Ezzat	Iraq	Contract agreement	250	40	-	11/0.416	9510463	06.02.10
60	Sherrif Ezzat	Iraq	Contract agreement	630	10	-	11/0.416	9510464	06.02.10
61	Sherrif Ezzat	Iraq	Contract agreement	1000	10	-	11/0.416	9510465	06.02.10
62	Middle East Beverages Co Ltd	Iraq Baghdad	PO Dated 28.12.2009	1000	-	1	11/.0400	1-2010-007-1	15.06.2010
				2000	-	4	11/0.400	1-2010-007-2	15.06.2010
				2000	-	1	11/0.400	1-2010-007-3	15.06.2010
63	Ardh Alsudoor Company	Iraq	E-mail Dated 26.01.2010	400	0	-	11/0.416	1-2010-036-1	30.05.2010
64	Al Nokhba	Iraq	E-mail Dated 02/2010	250	15	-	11/0.416	1-2010-060-1	30.04.2010
				400	20	-	11/0.416	1-2010-060-2	30.04.2010
				250	10	-	11/0.416	1-2010-060-3	30.04.2010
				1000	1	-	11/416	1-2010-060-4	30.04.2010
				1000	1	-	11/416	1-2010-060-5	30.04.2010
65	Al Rushdi Co	Iraq	E-mail Dated 19.09.2010	250	9	-	11/0.416	1-2010-242-1	25.09.2010
				400	25	-	11/0.416	1-2010-242-2	25.09.2010
66	Al Najah Al kabeer	Iraq	E-mail Dated 28.11.2010	630	3	-	11/0.416	1-2010-239-1	05.12.2010
				1000	3	-	11/0.416	1-2010-239-2	05.12.2010
				630	2	-	11/0.416	1-2010-239-3	05.12.2010

Iraq

Item No.	Customer Name	Country	Order No. and Date	Rating (kVA)	Quantity		Voltge Ratio (kV)	STC Reference	Last Delivery Date
					TRF	SS			
67	Al Najah Al kabeer	Iraq	E-mail Dated 28.11.2010	630	1	-	11/0.416	1-2010-323-1	05.12.2010
				1000	2	-	11/0.416	1-2010-323-2	28.11.2010
68	Yaum Al Warood Company Basra	Iraq	E-mail Dated 23.12.2010	400	12	-	11/0.416	1-2010-349-1	30.12.2010
				250	1	-	11/0.416	1-2010-349-2	30.12.2010
				250	0	-	11/0.416	1-2010-349-3	30.12.2010
				250	10	-	11/0.416	1-2010-349-4	06.01.2011
				400	0	-	11/0.416	1-2010-349-5	30.12.2010
69	Al Waleed Co.For Generel Cont	Iraq	9041 Dated 10.11.2010	250	90	-	11/0.416	1-2010-310-1	30.12.2010
				250	10	-	11/0.416	1-2010-310-2	15.12.2010
				250	240	-	11/0.416	1-2010-310-3	30.02.2011
				250	25	-	11/0.416	1-2010-310-4	28.02.2011
				250	10	-	11/0.416	1-2010-310-5	15.12.2010
70	Al Najah Al kabeer	Iraq	E-mail Dated 23.12.2010	250	24	-	11/0.416	1-2010-350-1	30.03.2011
				400	6	-	11/0.416	1-2010-350-2	30.03.2011
				630	6	-	11/0.416	1-2010-350-3	30.03.2011
				1000	6	-	11/0.416	1-2010-350-4	30.03.2011
71	Al Nukhba	Iraq	Email Dated 26.05/2011	250	50	-	11/0.416	1-2011-185-1	21/08/2011
72	Al Najha Al Kabeer	Iraq	Email Dated 26/05/2011	250	24	-	11/0.416	1-2011-207-1	10/10/2011
				400	24	-	11/0.416	1-2011-207-2	10/10/2011
73	Energy Sciences Group	Iraq	P.O. # 274 Dated 14/08/2011	250	30	-	11/0.416	1-2011-237-1	30/10/2011
				400	30	-	11/0.416	1-2011-237-2	30/10/2011
74	Al Nukhba	Iraq	23/2011 Dated 10/09/2011	250	50	-	11/0.416	1-2011-261-1	15/11/2011
				400	10	-	11/0.416	1-2011-261-2	15/11/2011
75	Al Nukhba	Iraq	23/2011 Dated 04/10/2011	250	30	-	11/0.416	1-2011-293-1	30/11/2011
76	Adwaa ZamZam	Iraq	Email Dated 19/07/2011	250	40		11/0.416	1-2011-224-1	1/12/2011
				400	8		11/0.416	1-2011-224-2	1/12/2011

Iraq

Item No.	Customer Name	Country	Order No. and Date	Rating (kVA)	Quantity		Voltge Ratio (kV)	STC Reference	Last Delivery Date
					TRF	SS			
77	Al Nukhba	Iraq	23/2011 Dated 04/10/2011	250	30		11/0.416	1-2011-293-1	22/11/2011
78	Trade of Electricity	Iraq	Email Dated 05/09/2011	1600	2		33/0.400	1-2011-260-1	14/01/2012
				2000	2		33/0.400	1-2011-260-2	14/01/2012
				400	2		11/0.416	1-2011-260-3	14/01/2012
				250	2		11/0.416	1-2011-260-4	14/01/2012
79	Al Waleed	Iraq	Email Dated 05/09/2011	250	50		11/0.416	1-2011-330-1	19/12/2011
				400	30		11/0.416	1-2011-330-2	19/12/2011
				250	100		11/0.416	1-2011-330-3	4/2/2012
80	Al Nukhba	Iraq	Email Dated 30/11/2011	250	24		11/0.416	1-2011-332-1	12/2/2012
				630	6		11/0.416	1-2011-332-2	12/2/2012
				1000	6		11/0.416	1-2011-332-3	12/2/2012
81	Al Waleed	Iraq	Email Dated 12/03/2011	250	11		11/0.416	1-2011-362-1	29/02/2012
				400	1		11/0.416	1-2011-362-3	29/02/2012
82	Adwaa ZamZam	Iraq	Email Dated 30/11/2011	250	50		11/0.416	1-2011-334-1	19/05/2012
				400	10		11/0.416	1-2011-334-2	20/05/2012
				1000	2		11/0.416	1-2011-334-3	30/05/2012
83	Al Waleed	Iraq	Email Dated 03/01/2012	250	11		11/0.416	1-2011-362-1	29/02/2012
				400	6		11/0.416	1-2011-362-2	17/05/2012
				400	5		33/0.400	1-2011-362-4	17/05/2012
84	Al Waleed	Iraq	Cont. Agreement Dated 20/03/2012	250	100		11/0.416	1-2011-069-1	30/10/2012
85	Al Waleed	Iraq	Cont. Agreement Dated 20/03/2012	250	250		11/0.416	1-2011-070-1	30/10/2012
86	Energy Sciences Group	Iraq	P.O. # NIL Dated 14/08/2011	250	16	-	11/0.416	1-2013-108-1	7/15/2013
				400	6	-	11/0.416	1-2013-108-2	7/15/2013
87	Al Waleed	Iraq	Cont. Agreement Dated 16/09/2012	250	56		11/0.416	1-2012-224-1	9/1/2013
				400	14		11/0.416	1-2012-224-2	9/1/2013
			Total Quantity :		**5501**	**118**			

Kuwait

Item No.	Customer Name	Country	Order No. and Date	Rating (kVA)	Quantity		Voltge Ratio (kV)	STC Reference	Last Delivery Date
					TRF	SS			
1	Ministry of Electricity & Water	Kuwait	7918-F; Dated 08.07.95	150	400	-	11/0.433	1-5-113-1	19.11.95
2	Ministry of Electricity & Water	Kuwait	FGTC/96/1096; Dated 21.08.96	150	400	-	11/0.433	1-6-133-1	05.04.97
3	Ministry of Electricity & Water	Kuwait	FGTC/96/1121; Dated 31.10.96	250	40	-	11/0.433	1-6-177-1	13.04.97
4	Ministry of Electricity & Water	Kuwait	FGTC/96/1125; Dated 12.11.96	1250	50	-	11/0.433	1-6-181-1	01.05.97
				1600	50	-	11/0.433	1-6-181-2	08.05.97
5	Al Maqbool Est. (Saudi Arabian Texaco - Kuwait)	Kuwait	SA1; Dated 27.04.99	1000	2	-	11/0.433	1-9-065-1	14.08.99
6	Al Maqbool Est. (Saudi Arabian Texaco - Kuwait)	Kuwait	SA1; Dated 27.04.99	1000	1	-	11/0.433	1-9-080-1	14.08.99
7	Faddan Gen. Trad. & Cont. Co. (Ardh Al Jazeera Co)	Kuwait	FGTC/99/1503; Dated 29.11.99	300	-	1	11/0.433	1-1999-214-1	29.02.00
8	SESCO, Al Khobar (Order from Kuwait)	Kuwait	5A-0141-PN; Dated 09.07.00	1600	1	-	11/0.433	1-2000-112-1	07.11.00
9	Ministry of Electricity & Water	Kuwait	FGTC/00/1548; Dated 19.08.2000	300	-	3	11/0.433	1-2000-145-1	13.11.00
10	Faddan Gen. Trad. & Cont. Co.	Kuwait	Nil - Prototypes for an expected order	1250	1	-	11/0.433	1-2002-149-1	31.03.03
				1600	1	-	11/0.433	1-2002-149-2	31.03.03
				1250	1	-	11/0.433	1-2002-149-3	31.03.03
				1600	1	-	11/0.433	1-2002-149-4	31.03.03
11	Faddan Gen. Trad. & Cont. Co.	Kuwait	DB/02/287 Dated 03.09.2002	1250	2	-	11/0.433	1-2002-242-1	31.03.03
12	Faddan Gen. Trad. & Cont. Co.	Kuwait	DB/03/016 Dated 15.01.2003	1000	8	-	11/0.433	1-2003-028-1	30.06.03

Kuwait

Item No.	Customer Name	Country	Order No. and Date	Rating (kVA)	Quantity		Voltge Ratio (kV)	STC Reference	Last Delivery Date
					TRF	SS			
13	Ministry of Electricity & Water	Kuwait	MEW/96-2001/2002 Faddan PO # 1165F Dated 16.02.2003	1250	150	-	11/0.433	1-2003-040-1	30.09.03
				1600	150	-	11/0.433	1-2003-040-2	30.09.03
14	Faddan Gen. Trad. & Cont. Co.	Kuwait	DB/03/213 Dated 15.06.03	1250	1	-	11/0.433	1-2003-131-1	25.06.03
15	National Co. for M/E works	Kuwait		1600	20	-	11/0.433	1-2003-147-1	15.01.05
16	Ministry of Electricity & Water	Kuwait	FGTC/03/1803 Dated 07.08.2003	1250	1	-	11/0.433	1-2003-171-1	15.03.03
17	Al Fanar Electrical Systems	Riyadh, K.S.A.	FM/03-1573 Dated 14.09.2003	1000	1	-	11/0.433	1-2003-203-1	30.01.04
18	Faddan Gen. Trad. & Cont. Co.	Kuwait	FGTC/03/1803 Dated 07.08.2003	1250	1	-	11/0.433	1-2004-016-1	28.01.04
19	Faddan Gen. Trad. & Cont. Co.	Kuwait	FGTC/03/1817 Dated 22.10.2003	1250	1	-	11/0.433	1-2004-024-1	15.02.04
20	Faddan Gen. Trad. & Cont. Co.	Kuwait	FGTC/03/1825 Dated 03.12.2003	1250	4	-	11/0.433	1-2004-025-1	31.05.04
21	Faddan Gen. Trad. & Cont. Co.	Kuwait	FGTC/04/1840 Dated 21.03.2004	1000	2	-	11/0.433	1-2004-053-1	31.12.04
22	Faddan Gen. Trad. & Cont. Co.	Kuwait	FGTC/04/1843 Dated 25.04.2004	1250	1	-	11/0.433	1-2004-088-1	31.05.04
23	National Co. for M/E works	Kuwait		1600	17	-	11/0.433	1-2004-189-1	15.01.05
24	Faddan Gen. Trad. & Cont. Co.	Kuwait	FGTC/05/1883 Dated 03.01.2005	1600	1	-	11/0.433	1-2005-004-1	13.01.05
25	Faddan Gen. Trad. & Cont. Co.	Kuwait	FGTC/05/1883 Dated 03.01.2005	1600	1	-	11/0.433	1-2005-083-1	06.04.05
26	National Contracting Co.	Kuwait	NCC-T&D/ME/EW/3498/ PC-11 Dated 28-.03.2007	150	60	-	11/0.433	1-2007-156-1	31.03.08
				250	6	-	11/0.433	1-2007-156-2	31.03.08

Kuwait

Item No.	Customer Name	Country	Order No. and Date	Rating (kVA)	Quantity		Voltge Ratio (kV)	STC Reference	Last Delivery Date
					TRF	SS			
27	Top Al Fanar Company	Kuwait	PO DTAED 07.04.2010	250		-	11/0.416	1-2010-106-1	30.04.11
				400	1	-	11/0.416	1-2010-106-2	30.04.11
				1000		-	11/0.416	1-2010-106-3	30.04.11
28	Simens EES K.S.C.C	Kuwait	520P-19/PO#02/SD	1000	20	-	11/0.433	1-2010-265-1	28.02.2011
				1000	1	-	11/0.433	1-2010-265-2	30.07.2011
				1000	42	-	11/0.433	1-2010-265-3	28.02.2011
29	Faddan Gen. Trad. & Cont. Co.	Kuwait	PROTOTYPE	150	1	-	11/0.433	1-2010-169-1	30.12.2010
30	Faddan Gen. Trad. & Cont. Co.	Kuwait	FGTC/11/2141 Dated 25/05/2011	250	1		11/0.433	1-2011-194-1	30/10/2011
31	Faddan Gen. Trad. & Cont. Co.	Kuwait	FGTS/12/2163 Dated 08/04/2012	1250	10		11/0.433	1-2012-081-1	7/25/2012
32	Faddan Gen. Trad. & Cont. Co.	Kuwait	1450/11-12 Dated 25/05/2011	1250	500		11/0.433	1-2011-167-1	30/10/2012
33	Faddan Gen. Trad. & Cont. Co.	Kuwait	11/12/2055 Dated 25/05/2011	1250	1000		11/0.433	1-2011-305-1	4/30/2013
			Total Quantity :		**2951**	**4**			

Qatar

Item No.	Customer Name	Country	Order No. and Date	Rating (kVA)	Quantity		Voltge Ratio (kV)	STC Reference	Last Delivery Date
					TRF	SS			
1	Ministry of Electricity and Water	Doha - Qatar	169/94-95; Dated 03.12.95	500	-	28	11/0.433	1-5-215-1	14.07.96
				800	-	28	11/0.433	1-5-215-2	01.06.96
				1250	-	10	11/0.433	1-5-215-3	08.05.96
2	Ministry of Electricity and Water	Doha - Qatar	ACEC/COM/574/96; Dated 07.10.96	1250	7	-	11/0.433	1-6-163-1	20.02.97
				1000	7	-	11/0.433	1-6-163-2	20.02.97
3	Ministry of Electricity and Water	Doha - Qatar	03/97; Dated 28.07.97	500	1	-	11/0.433	1-7-114-1	13.11.97
				800	1	-	11/0.433	1-7-114-2	13.11.97
				1000	1	-	11/0.433	1-7-114-3	13.11.97
				1250	1	-	11/0.433	1-7-114-4	13.11.97
				1600	1	-	11/0.433	1-7-114-5	13.11.97
				500	158	-	11/0.433	1-7-172-1	25.04.98
4	Ministry of Electricity and Water	Doha - Qatar	03/97; Dated 28.07.97	800	155	-	11/0.433	1-7-172-2	09.05.98
				1000	113	-	11/0.433	1-7-172-3	22.05.98
				1250	19	-	11/0.433	1-7-172-4	26.02.98
				1600	7	-	11/0.433	1-7-172-5	03.03.98
5	Ministry of Electricity and Water	Doha - Qatar	02/97; Dated 07.06.97	1250	-	40	11/0.433	1-7-130-1	24.12.97
6	Ministry of Electricity and Water	Doha - Qatar	ACEC/COM/751/2001 Dated 17.09.2001	1600	30	-	11/0.433	1-2001-185-1	31.01.02
7	Arabian Const. Engineering Co.	Doha - Qatar	DC 65180140 Dated 24.12.2001	1250	1	-	11/0.433	1-2001-257-1	31.03.02
8	Arabian Const. Engineering Co.	Doha - Qatar	ACEC/COM/LPO-104/03 Dated 26.08.03	1600	2	-	11/0.433	1-2003-186-1	02.12.03
9	Arabian Const. Engineering Co.	Doha - Qatar	ACEC/COM/LPO-105/04 Dated 30.11.2004	1600	1	-	11/0.433	1-2004-257-1	18.12.04
10	Arabian Const. Engineering Co.	Doha - Qatar	ACEC/COM/209/2005 Dated 31.03.2005	1600	2	-	11/0.433	1-2005-092-1	18.04.05

Qatar

Item No.	Customer Name	Country	Order No. and Date	Rating (kVA)	Quantity		Voltge Ratio (kV)	STC Reference	Last Delivery Date
					TRF	SS			
11	Arabian Const. Engineering Co.	Doha - Qatar	ACEC/COM/658/2005 Dated 15.11.2005	800	1	-	11/0.433	1-2005-300-1	30.04.06
12	Saudi Electric Equipment Co. for Qatar	Dammam K.S.A.	SE/PO/029/05-Rev 1; Dated 08.02.2005	1000	-	1	11/0.415	1-2005-037-1	15.06.05
				1000	-	1	11/0.415	1-2005-037-2	15.06.05
				1000	-	1	11/0.415	1-2005-037-3	15.06.05
				1000	-	1	11/0.415	1-2005-037-4	15.06.05
				1000	-	1	11/0.415	1-2005-037-5	15.06.05
				1000	-	1	11/0.415	1-2005-037-6	15.06.05
				500	-	1	11/0.415	1-2005-037-7	15.06.05
				1000	-	1	11/0.415	1-2005-037-8	15.06.05
				1000	-	1	11/0.415	1-2005-037-9	15.06.05
12	Saudi Electric Equipment Co. for Qatar	Dammam K.S.A.	SE/PO/029/05-Rev 1; Dated 08.02.2005	1000	-	1	11/0.415	1-2005-039-1	15.06.05
				1000	-	1	11/0.415	1-2005-039-2	15.06.05
				1000	-	1	11/0.415	1-2005-039-3	15.06.05
				500	-	1	11/0.415	1-2005-039-4	15.06.05
				500	-	1	11/0.415	1-2005-039-5	15.06.05
				500	-	1	11/0.415	1-2005-039-6	15.06.05
				500	-	1	11/0.415	1-2005-039-7	15.06.05
				1000	-	1	11/0.208	1-2005-039-8	15.06.05
13	Midmac Contracting Co.	Doha, Qatar	520/26 12 00 01/STC/07 Dated 17.09.2007	1600	1	-	11/0.433	1-2007-181-1	30.10.07
14	Arabian Const. Engineering Co.	Doha - Qatar	ACEC/COM/PO-002/2009 Dated 02/03/2009	500	1		11/0.433	12009-0781	30.10.09
15	Arabian Const. Engineering Co.	Doha - Qatar	ACEC/COM/PO-003/2009 Dated 04/05/2009	800	1		11/0.433	120091371	30.10.09
16	Arabian Const. Engineering Co.	Doha - Qatar	ACEC/COM/E-232/2007 Dated 30.11.2004	200	350	-	11/0.433	9510248	06.12.2009
17	Arabian Const. Engineering Co.	Doha Qatar	QS/22614/04-55/2009	2000	2	-	11/0.420	1-2010-036-1	30.07.2010
			Total Quantity :		**863**	**123**			

Jordan

Item No.	Customer Name	Country	Order No. and Date	Rating (kVA)	Quantity		Voltge Ratio (kV)	STC Reference	Last Delivery Date
					TRF	SS			
1	Irbid District Electricity Co. (IDECO)	Jordan	3/95; Dated 13.08.95	250	35	-	33/0.415	1-5-132-1	08.02.96
				400	7	-	33/0.415	1-5-132-2	21.11.95
				630	5	-	33/0.415	1-5-132-3	21.11.95
				630	9	-	11/0.415	1-5-132-4	10.02.96
				630	-	6	11/0.415	1-5-132-5	17.02.96
2	Irbid District Electricity Co. (IDECO)	Jordan	15/95; Dated 15.10.95	1000	3	-	33/0.415	1-5-181-1	27.03.96
				1000	-	2	11/0.415	1-5-181-2	27.03.96
3	National Electric Power Co. (NEPCO)	Jordan	B/12/95-37; Dated 25.12.95	500	1	-	33/.415	1-5-232-1	24.02.96
				250	1	-	33/.415	1-5-232-2	24.02.96
4	Al Bawadi Trading Company	Jordan	B/1/96-003; Dated 01.02.96	100	1	-	33/0.415	1-6-017-1	27.03.96
				250	1	-	33/0.415	1-6-017-2	27.03.96
5	National Electric Power Co. (NEPCO)	Jordan	B/9/96-11; Dated 07.09.96	100	12	-	33/0.415	1-6-145-1	23.12.96
				50	32	-	33/0.415	1-6-145-2	24.12.96
				50	5	-	11/0.415	1-6-145-3	24.12.96
6	Irbid District Electricity Co. (IDECO)	Jordan	361200411355 Dated 07.03.2005	100	50	-	33/0.415	1-2005-071-1	25.08.05
				250	75	-	33/0.415	1-2005-071-2	25.08.05
				400	20	-	33/0.415	1-2005-071-3	25.08.05
				630	15	-	33/0.415	1-2005-071-4	25.08.05
				630	15	-	11/0.415	1-2005-071-5	25.08.05
				250	6	-	11/0.415	1-2005-071-6	25.08.05
				2000	2	-	33/0.415	1-2005-071-7	25.08.05
7	Irbid District Electricity Co. (IDECO)	Jordan	36/2005 Dated 15.12.2005	250	100	-	33/0.415	1-2005-324-1	31.07.06
				630	25	-	33/0.415	1-2005-324-2	31.07.06
				1000	12	-	33/0.415	1-2005-324-3	31.07.06

Jordan

Item No.	Customer Name	Country	Order No. and Date	Rating (kVA)	Quantity		Voltge Ratio (kV)	STC Reference	Last Delivery Date
					TRF	SS			
8	Electricity Dist Co. (EDCO)	Jordan	EDCOPO/200462007 DATED 04/12/2007	100	15	-	11/0.415	120072411	30.06.08
				250	15	-	11/0.415	120072412	30.06.08
				400	10	-	11/0.415	120072413	30.06.08
				250	40		33/0.415	120072414	30.06.08
9	Electricity Disraibution Co.	Jordan	EDCOFPO/ 200200252010	250	55	-	33/0.415	1-2010-180-1	15.04.2011
				250	13	-	33/0.415	1-2010-180-2	15.04.2011
10	Tawareq for Storing & Gen	Jordan	E-mail	2000	4	-	11/0.416	1-2010-232-1	30.12.2010
			Total Quantity :		**584**	**8**			

Syria

Item No.	Customer Name	Country	Order No. and Date	Rating (kVA)	Quantity		Voltge Ratio (kV)	STC Reference	Last Delivery Date
					TRF	SS			
1	Al Hamwi Trading & Contracting Co.	Damascus, Syria	P. O. dtd 28.09.99	1000	3	-	20/0.4	1-1999-175-1	07.12.99
2	Public Electricity for Distribution & Exploitation of Electrical Energy (PEDEEE)	Damascus, Syria	5600-224-2-EXT Dated 11.10.2001	1000	1	-	20/0.4	1-2001-147-1	12.06.03
				1000	1	-	20/0.4	1-2001-147-2	12.06.03
				1000	998	-	20/0.4	1-2001-147-3	12.06.03
			Total Quantity :		**1003**	**0**			

Yemen

Item No.	Customer Name	Country	Order No. and Date	Rating (kVA)	Quantity		Voltge Ratio (kV)	STC Reference	Last Delivery Date
					TRF	SS			
1	Saudi Cable Co., (For Yemen)	Jeddah K.S.A.	56702/2; Dated 21.01.95	800	1	-	11/0.433	1-7-039-1	14.08.97
				200	8	-	11/0.433	1-7-039-2	14.08.97
				150	11	-	11/0.433	1-7-039-3	14.08.97
				100	7	-	11/0.433	1-7-039-4	14.08.97
				50	5	-	11/0.433	1-7-039-5	14.08.97
				150	4	-	33/0.433	1-7-039-6	14.08.97
				100	4	-	33/0.433	1-7-039-7	14.08.97
				1000	-	1	11/0.433	1-7-039-8	16.08.97
2	Saudi Cable Co., (For Yemen)	Jeddah K.S.A.	56702/2; Dated 21.01.95	500	-	2	11/0.433	1-7-039-9	16.08.97
				15	9	-	11/0.250	4-7-001-1	16.08.97
3	Alashwal For Electric	Yemen	PO Dated 01.09.2010	1000	-	3	11/0.415	1-2010-260-1	28.02.11
				75	-	2	11/0.415	1-2010-260-2	28.02.11
				1000	-	3	11/0.415	1-2010-260-3	28.02.11
				750	-	2	11/0.415	1-2010-260-4	28.02.11
			Total Quantity :		**49**	**13**			

Other Countries

Item No.	Customer Name	Country	Order No. and Date	Rating (kVA)	Quantity		Voltge Ratio (kV)	STC Reference	Last Delivery Date
					TRF	SS			
1	Wartsila Diesel	Finland	2008406; Dated 22.11.95	2500	2	-	13.8/0.400	1-5-233-1	01.09.96
2	Bharat Heavy Electricals Ltd.	Hyd., India.	T7/95/GP5P0035PSI; Dated 16.10.95	2000	1	-	33/0.400	1-7-021-1	14.04.97
3	Ministry of Electricity and Dams	Sudan	0830/0094 Dated 08/06/2011	1000 1000 1000 500 500		15 40 20 15 60	11/0.433 11/0.433 11/0.433 11/0.433 11/0.433	1-2011-184-1 1-2011-184-5 1-2011-184-6 1-2011-184-3 1-2011-184-7	30/12/2012
			Total Quantity :		**3**	**150**			

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