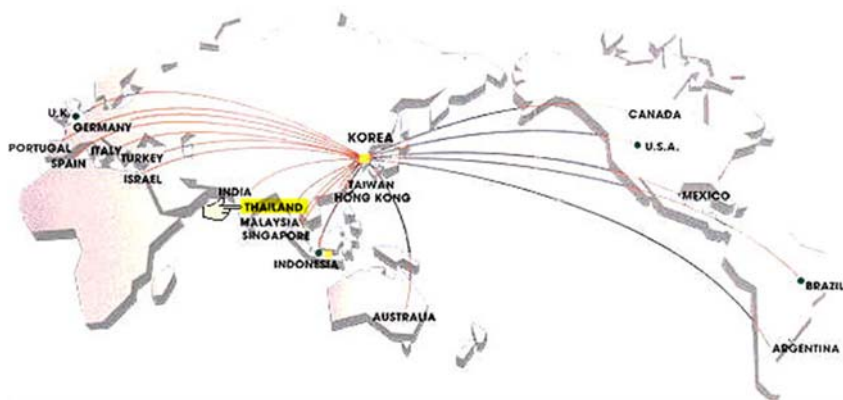




COMPANY PROFILE

WELCOME TO
SAMWHA(THAILAND) CO.,LTD.



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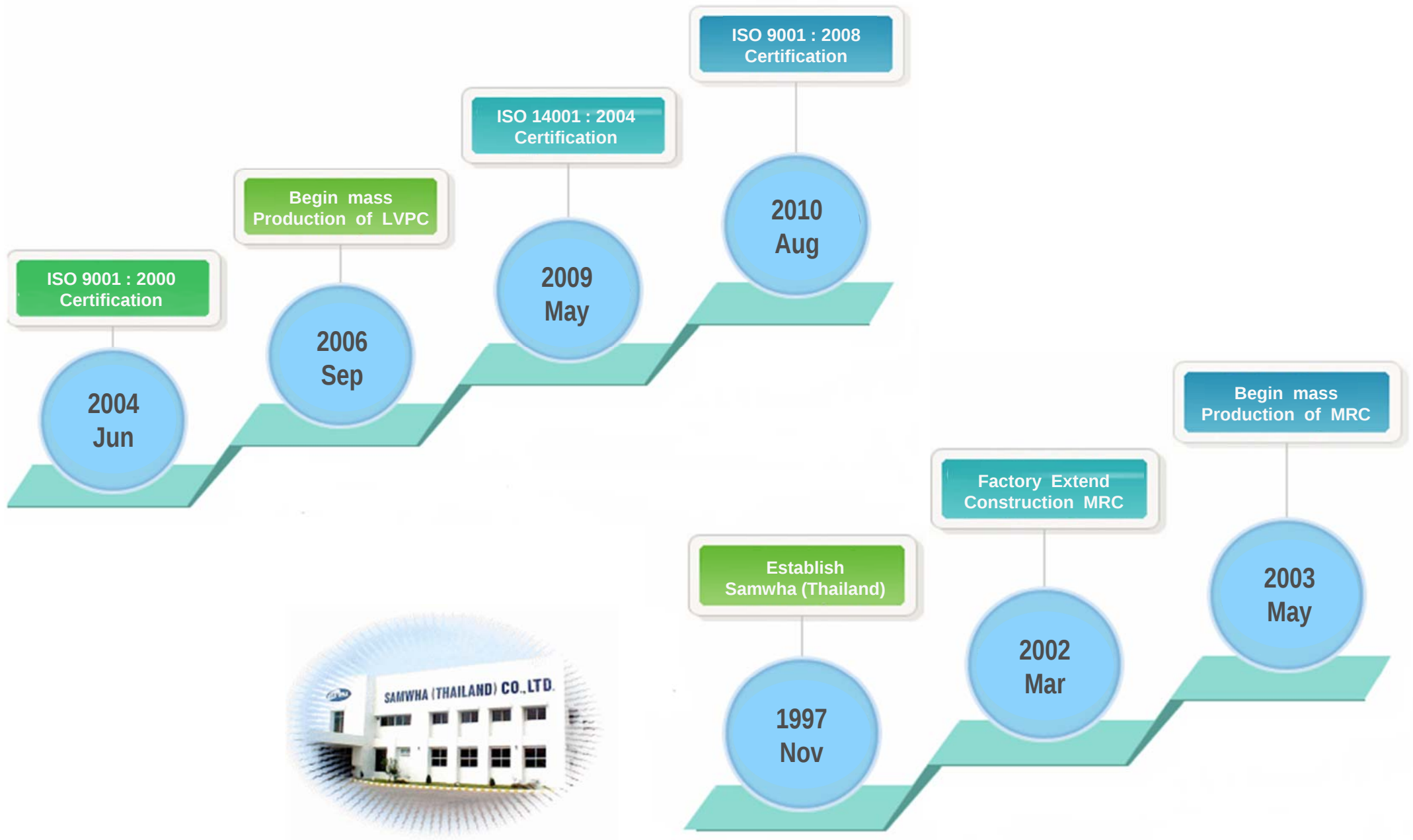
Film Capacitor

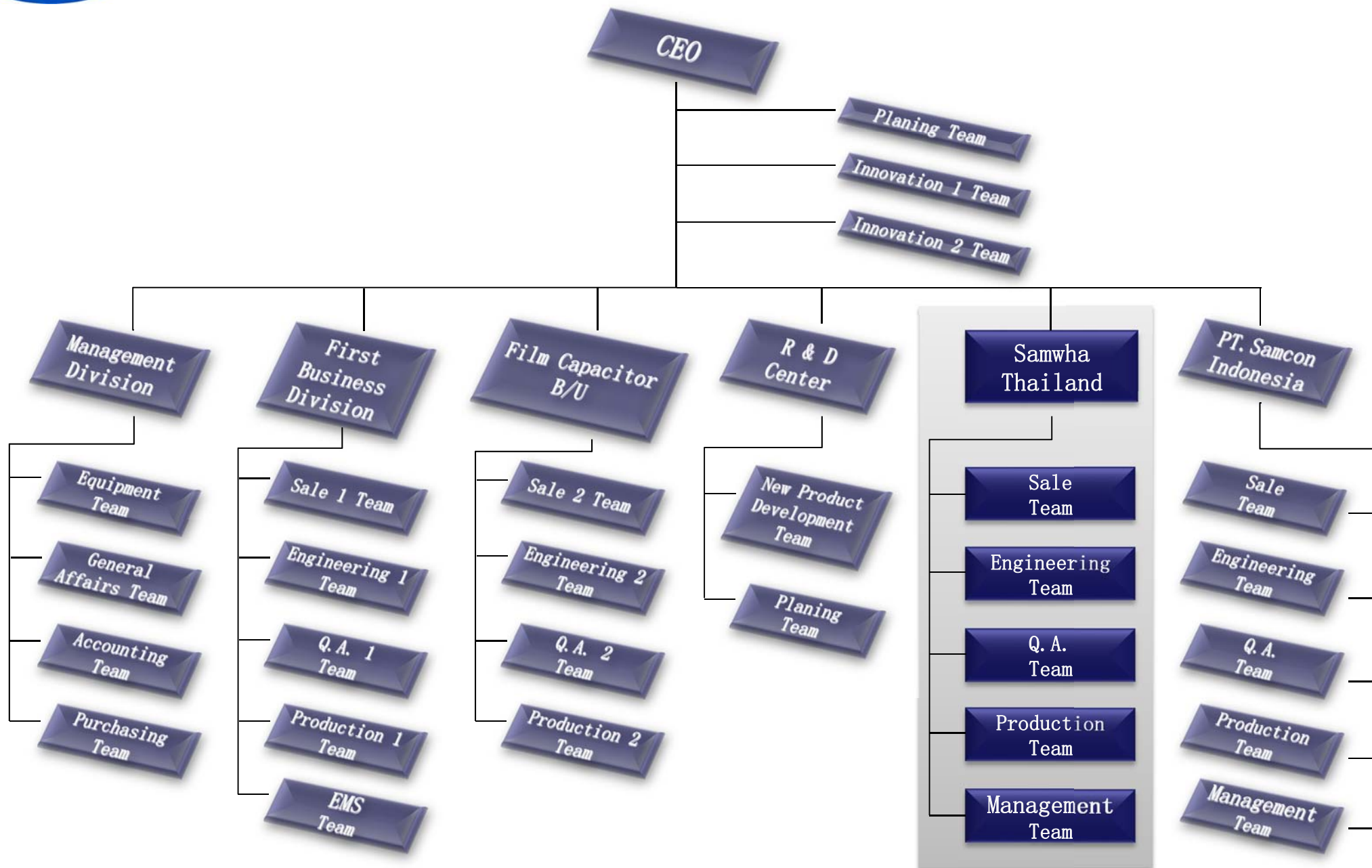
Shunt Power Capacitor



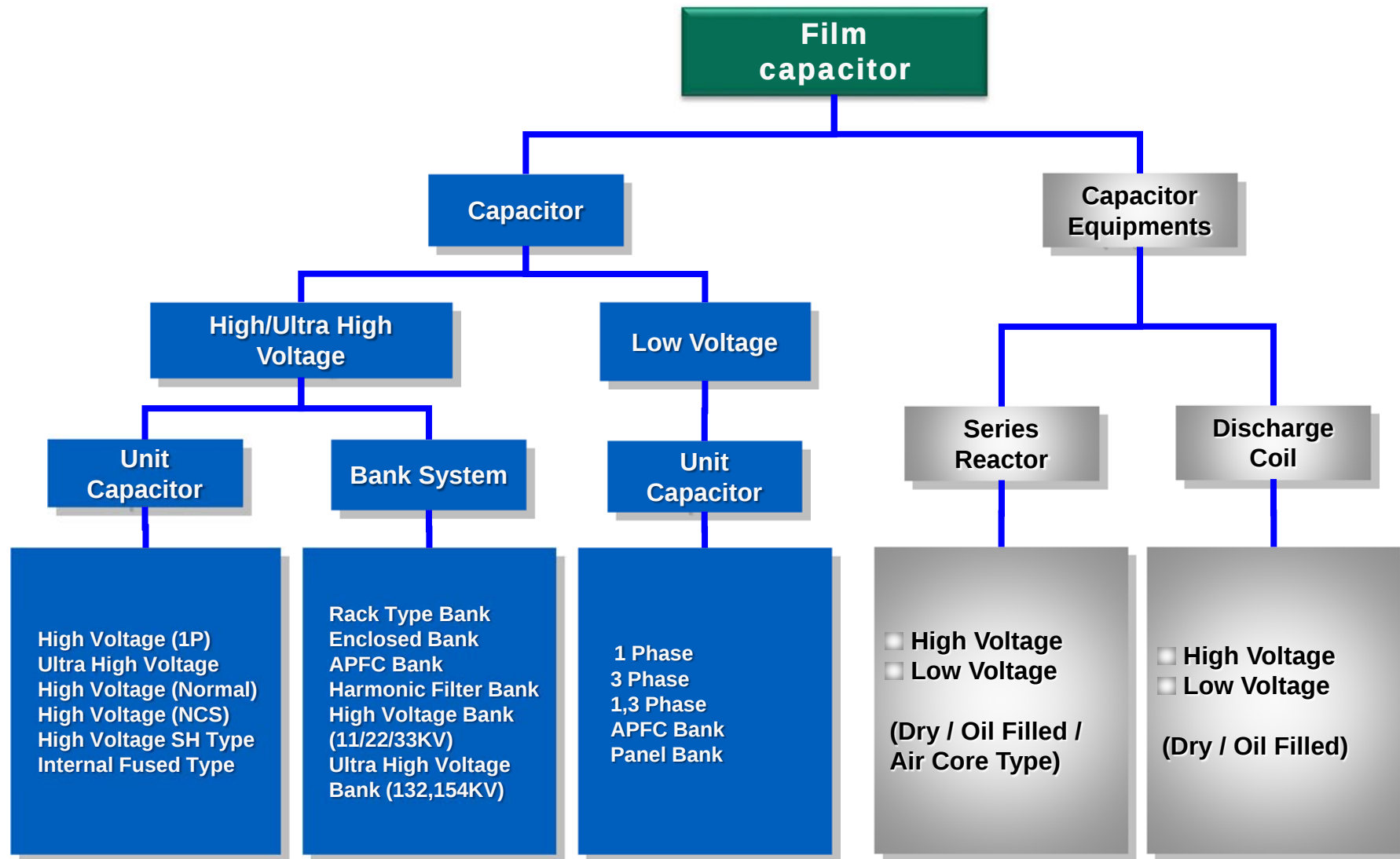


The History of the Company





Product Group for Power Capacitor Division





Low Voltage, Special Capacitor

**Low Voltage
Power Capacitor**

LOW - LOSS

SELF - HEALING

PRESSURE SENSING
INTERRUPTER
(Lead cut)

Special Purpose

Internal
Fuse Type

Low
Frequency
Induction
Furnace

Surge
Absorb

Grounding

Pulse
Power



**POSSIBLE TO
MANUFACTURE
EVERY
SPECIFICATION**

High Voltage Capacitor



**1P Ultra High Voltage
Power Capacitor**



**1P High Voltage
Power Capacitor**



**3P High Voltage
Power Capacitor (NCS)**



**3P SH Type High Voltage
Power Capacitor**



**3P High Voltage
Power Capacitor (normal)**





Dry -Type

Cylinder Type

- Power Range
- Voltage Range
- Frequency
- Applicable Standards

0.2kvar to 30kvar
220V to 1000V
50Hz / 60Hz
IEC, AISI / IEEE, NEMA



Unit Type

- Power Range
- Voltage Range
- Frequency
- Applicable Standards

5kvar to 75kvar
220V to 1000V
50Hz / 60Hz
IEC, AISI / IEEE, NEMA



Film Capacitor Product At Thailand

Definition

This capacitor is installed at low voltage (220V~1,000V) electrical system in parallel for improving power factor and performance of electrical power quality.

Feature

Used advanced technology consists of metallized PP film with extremely low loss factor.

The dielectric system is self-healing and has no liquid impregnant. Capacitor enclosed in cylindrical aluminium cases.

The capacitors have overpressure protection to disconnect it from the supply in the event of its operational life.

The construction described above and the use of high quality materials ensure reliability and longevity.

Application

When the product is connected in parallel the cable used in connection must cover the permissible current of capacitor bank.

And it is mandatory installing circuit breaker and other equipment for protection purpose to prevent the spread of accidents caused by faulty capacitor.

DA Type

- Power Range 0.2kvar to 5kvar
- Voltage Range 220V to 1000V
- Frequency 50Hz / 60Hz
- Applicable Standards IEC, AISI / IEEE, NEMA



DL Type

- Power Range 5kvar to 20kvar
- Voltage Range 220V to 1000V
- Frequency 50Hz / 60Hz
- Applicable Standards IEC, AISI / IEEE, NEMA



G-Base Type

- Power Range 20kvar to 75kvar
- Voltage Range 220V to 1000V
- Frequency 50Hz / 60Hz
- Applicable Standards IEC, AISI / IEEE, NEMA



Definition

This capacitor is installed at low voltage (220V~1,000V) electrical system in parallel for improving power factor and performance of electrical power quality.

Feature

This capacitor is impregnated an insulation oil (Non-PCB) of high purify and uses metallized polypropylene film which has self-healing.

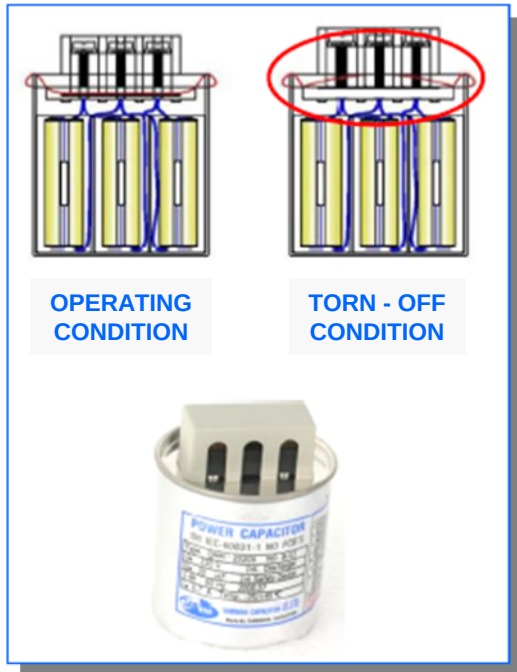
So it is improved an electrical character and low loss , high reliability.

Besides , this capacitor has internal safety device such as lead cut method which cut off the power when capacitor element is broken.

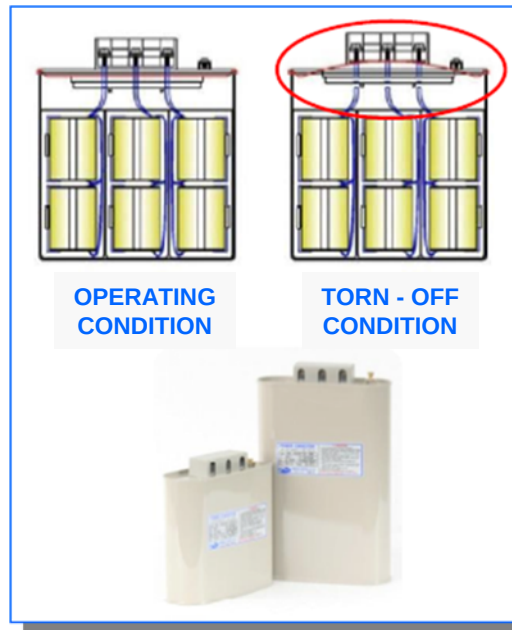
Application

This capacitor is used at low voltage electrical system and must to use a circuit breaker and protection relay together for prevention accidents.

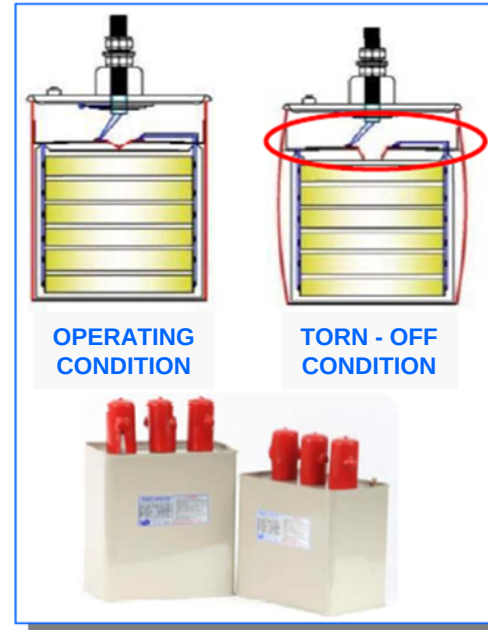
Safety function design



DA - Type



DL - Type



G - Type



Dry - Type

Film Capacitor Process (Dry Type)

WINDING



METALIZING



ASSEMBLY



RESIN FILLING



STOREHOUSE



TESTING



DRY OVEN



SEAMING



Film Capacitor Process (Oil Type)

WINDING



METALIZING



ASSEMBLY



SEAMING



STOREHOUSE



PAINTING



TESTING



IMPREGNATION





Reliability Testing Room



Dissipation Factor and T-T Test
for Low Voltage Power Capacitor



Endurance Test



AC Motor Capacitor



Low Voltage Power Capacitor



Quality System
ISO9001 : 2008



Environment System
ISO14001 : 2004



Product Certificate

TEST REPORT 2007S0219 1/9

CLASSIFICATION Type Test
APPARATUS Low voltage power capacitor
DESIGNATION SM8-45025KT

RATINGS 3 phases 415 V 50 Hz 25 kVar
APPLIED STANDARD IEC 60831-1(2002), 60831-2(1995) and manufacturer's specification
RECEIPT No. TRO0500925 (April 30, 2008)
APPLICANT SAMWHA CAPACITOR CO., LTD.
124, Buk-ni, Namse-myeon, Cheong-gu, Yongin-si, Kyunggi-do, 449-884 Korea
MANUFACTURER SAMWHA THAILAND CO., LTD.
66 Moo 4 T.Talai A.Muang, Chachoengsao, 24000, Thailand

DATE OF TESTS September 09, 2008 – January 19, 2009
DATE OF ISSUE February 03, 2009
The type tests have been carried out in accordance with IEC 60831-1(2002) and 60831-2(1995).
The test results are presented in the records of tests with the performance of the tested apparatus and the observations made during the tests. The oscillograms are attached hereto.
The obtained values and the general performances are considered to comply with the requirements of the above standard for the performed type tests.
The test results apply only to the tested specific samples.
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No. OF PAGES 10
INCORPORATED records (1), photographs (1), circuit diagrams (0), oscillograms (4), drawings & descriptions (0), attachments (0)

Prepared by Jung, Heung-Soo
Jung, Heung-Soo
Verified by Park, Byung-Rak
Park, Byung-Rak
Approved by Park, Sung-Kyun
Park, Sung-Kyun
Power Apparatus Testing & Evaluation Division

KERI KOREA ELECTROTECHNOLOGY RESEARCH INSTITUTE
5a Yiding 1071-19, Songdo-gu, Asan-si, Gyeonggi-do, Korea, 426-170
Tel : +82-31-8500-4114, Fax : +82-31-8500-4669, www.keri1.re.kr
KERI Laboratories are accredited by KOLAS (Korea Laboratory Accreditation Scheme)

Type Test (Oil Type) KERI (KOREA)

**VDE Prüf- und
Zertifizierungsinstitut** **VDE**

WIE Prüf- und Zertifizierungsinstitut • Meyendorfer Str. 4 • 54286 (Bonn)

Samwha Thailand Co. Ltd
Ma. Ruangporn Sappakun
66 MOO 4 T. TALAI A. MUANG 24000
Chachoengsao
THAILAND

Offenbach, 2010-01-27

Your ref. Your letter Our ref. - please include Contact
Baungporn 2009-11-23 418000-4600-0002/126783 Mr. Hogg
Sappakun F032/hp-ref Tel (+49) (0) 63 06-633
Fax (+49) (0) 63 06-636
ewald.hogg@vde.com

Translation: In any case the German version shall prevail

Typ-Prüfbericht
zur Information des Auftraggebers
Type-Test Report for the information of the applicant

Produkt / Product Shunt power capacitor - three-phase unit in delta connection
Typ / Type RMC-525200KT

Dieser Prüfbericht enthält das Ergebnis einer einmaligen Untersuchung an dem zur Prüfung vorgelegten Erzeugnis. Ein Muster dieses Erzeugnisses wurde geprüft, um die Übereinstimmung mit den nachfolgend aufgeführten Normen bzw. Abschriften von Normen festzustellen. Die Prüfung wurde durchgeführt von 2009-08-24 bis 2010-01-10.

This test report contains the result of a singular investigation carried out on the product submitted. A sample of this product was tested to found the accordance with the thereafter listed standards or clauses of standards resp.
The testing was carried out from 2009-08-24 to 2010-01-10.

Der Prüfbericht berechtigt Sie nicht zur Benutzung eines Zertifizierungszeichens des VDE und berücksichtigt ausschließlich die Anforderungen der unten genannten Regelwerke

VDE VERBAND DER ELEKTROTECHNISCHEN INFORMATIONSTECHNIKE e.V.
Hauptverwaltung
Postfach 101553, 50551 Köln, Germany
Telefon +49 (0) 221 191-2411
Telefax +49 (0) 221 191-2412
E-Mail: info@vde.org
www.vde.org

Type Test (Dry Type) VDE (GERMANY)

สำนักงานส่งเสริมและบริหารวิชาการพระจอมเกล้าลาดกระบัง
(Bureau of Academic Support and Services)
KING MONKUT'S INSTITUTE OF TECHNOLOGY LADKRABANG

รายงานผลการทดสอบค่าประสิทธิภาพ Type: IMB-525750KT
พิกัด 75 kVAR/525 Volt (3 Phase, 50 Hz.)
ที่ระดับแรงดันทดสอบ 15,000 โวลท์
ของบริษัท SAMWHA (THAILAND) CO., LTD.
(PW-ESIRC-HV 001 – November 27, 2010)
พฤศจิกายน 2553

สำนักงานส่งเสริมและบริหารวิชาการพระจอมเกล้าลาดกระบัง
(Bureau of Academic Support and Services)
King Mongkut's Institute of Technology Ladkrabang, Chalongkrong Rd., Bangkok, THAILAND
Tel. 642-7372566, Fax. 642-7372587

Impulse Test (Indoor) KMILT (THAILAND)

DEPARTMENT OF ELECTRICAL ENGINEERING
FACULTY OF ENGINEERING
RAJAMANGALA UNIVERSITY OF TECHNOLOGY THANABURI
39 Rangsit-Nakhonruek Rd., Klong 6, Thanaburi Pathumtani 12110
Tel. +662 549 3420 Fax. +662 549 3422

Cert. No. EE253-05 Page 1 of 11 Pages

Test Certification
For

Equipment Name: **SAMWHA CAPACITOR 75 kVAR**
Specification: **75 kVAR, 525 Volt, 82.5 A**
Serial No.: **EMB-525750KT**
Job No.: **05**
Customer: **SAMWHA (THAILAND) CO., LTD.**
Address: **66 moo 4, T.Talai, A.Muang, Chachoengsao, 24000**

Calibrated By: Pornchai Apinattikul
(Mr. Pornchai Apinattikul : Test Engineer)

Approved Signatory: W. Singsingha
(Dr. Wanchai Singsingha : Head of Department)

Issued Date **November 29, 2010**
The report uncertainty of measurement was based on a standard uncertainty multiplied by a coverage factor of k = 2 providing a level of confidence of approximately 95 %

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Impulse Test (Outdoor) RMUTT (THAILAND)



[3.3kV 3P 50Hz 300kvar]



[10kV 3P 50Hz 700kvar]



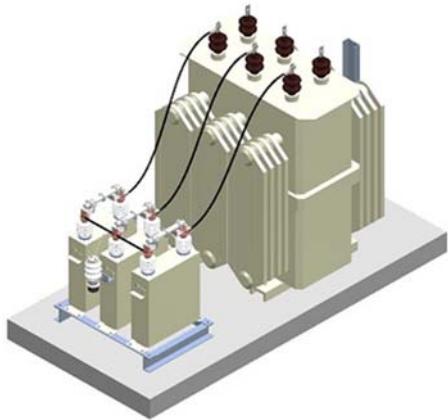
[APFCR with Dry Type Capacitor]



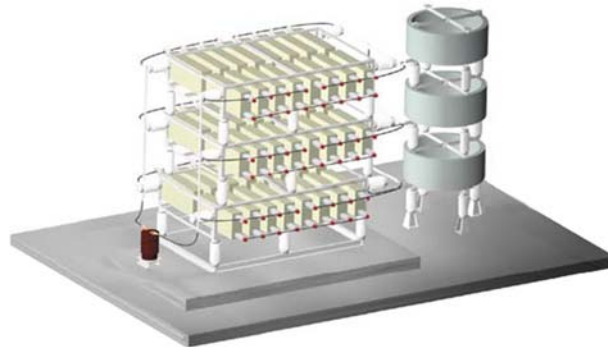
Harmonic Filter Bank 22.9kV 63Mvar



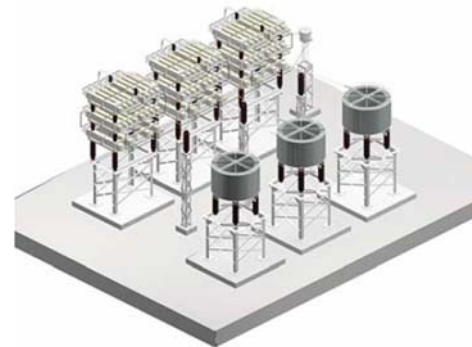
Capacitor Bank 150kV 25Mvar for substation



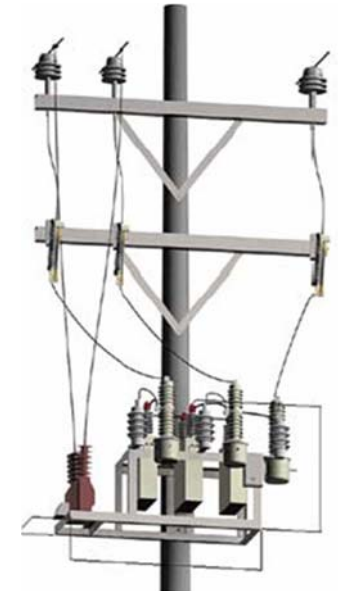
Ungrounded Single Wye Banks



36kV Capacitor Bank with NCT Protection System



110kV 3P 50Hz 50Mvar Open-rack Capacitor Bank



Pole Mounted Capacitor Bank



Main Customer >>>

OVERSEA



SAMWHA CAPACITOR

- Vietnam
- Indonesia
- Bangladesh
- China
- Malaysia
- India
- Brazil
- Colombia
- Chile

LOCAL



CPT



S.I.M.



PORNSANGCHAI

WEELER

KORAT GROUP

SPAC

Overseas Branches



Factory & Sales Office

SAMWHA THAILAND	Address	66 Moo.4 T.Takai A.Muang Chachoengsao 24000. THAILAND
	Tel/Fax	TEL) 66-38-847571~3 / FAX) 66-38-847575 , 847616
	E-Mail	chrislee@samwha.com
PT.SAMCON	Address	JL.Raya Subang Cikumpay Campaka Purwakarta Jawa-Barat Indonesia
	Tel/Fax	TEL) 62-264-216-882~7 / FAX) 62-264-216-901~2
	E-Mail	kskim@samwha.com
Tianjin Samwha Electric	Address	No.22 XingHua Road Xiqing Economic Development Zone Tianjin China
	Tel/Fax	TEL) 86-22-2397-3333 / FAX) 86-22-2397-2333
	E-Mail	sesale1@samwha.com
Qingdao Samwha Electronics	Address	Malan , Pingdu , Qingdao , China
	Tel/Fax	TEL) 86-532-8335-1333 / FAX) 86-532-8436-0130
	E-Mail	exsales@samwha.com
PT.SAMWHA INDONESIA	Address	Cikananga RT 06/02 , Cikumpay Campaka Purwakarta , Jawa Barat , Indonesia 41181
	Tel/Fax	TEL) 62-264-20-0837 / FAX) 62-264-20-1538

