



## Company Introduction

# Hatari Group of Companies

**Hatari** ELECTRIC

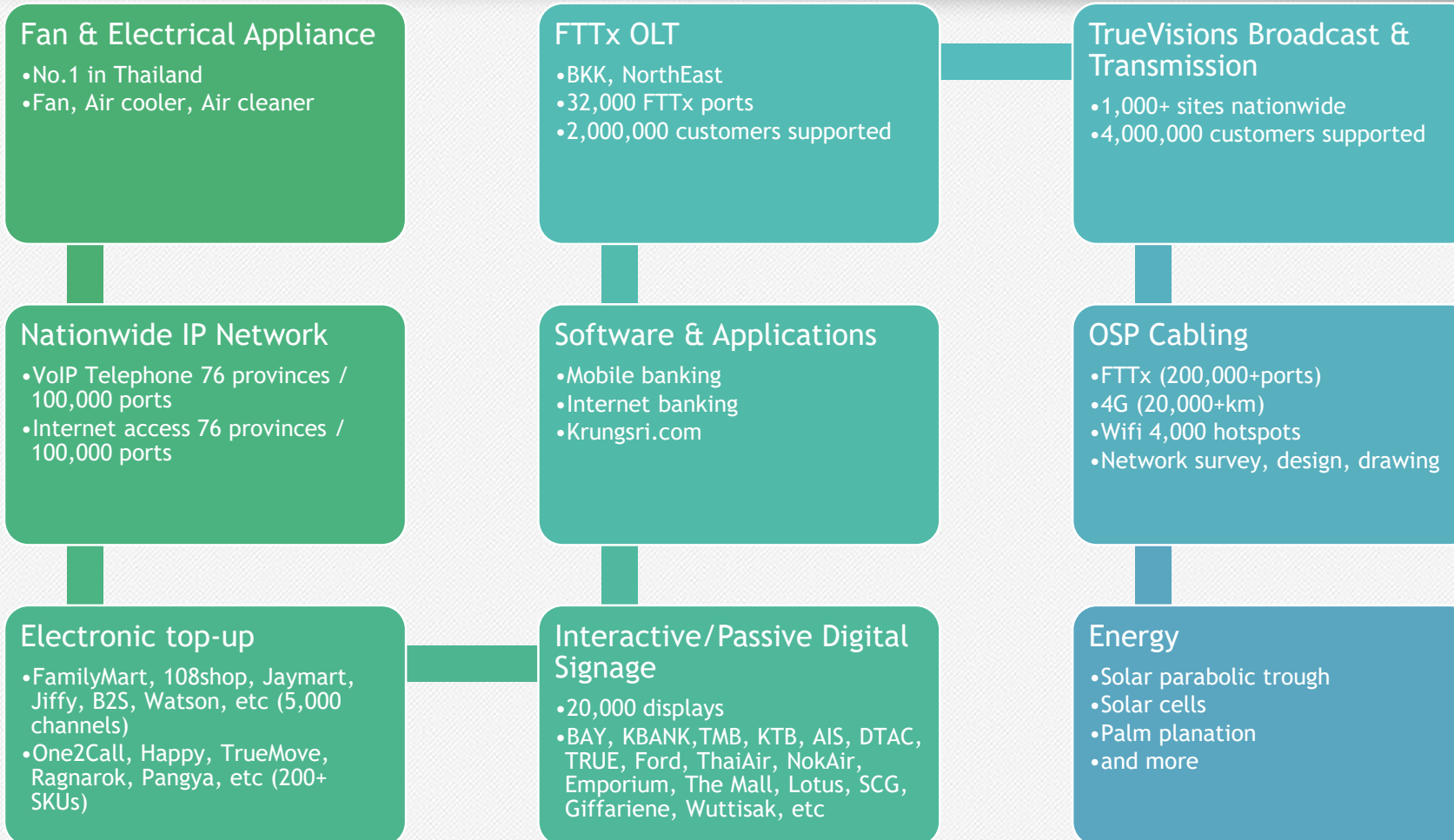
**Hatari** TECHNOLOGY

**Hatari** WIRELESS

**Hatari** MOBILE  
Company Limited



# Group's highlights



## Offerings

FibreX  
CO., LTD.

The logo for FibreX CO., LTD. features the word "FibreX" in a blue, sans-serif font. A green swoosh underline starts under the "F", goes under "ibre", and then curves upwards to underline the "X". To the right of the "X", the text "CO., LTD." is written vertically in a smaller, blue, sans-serif font.

# FibreX

## Infrastructure

- Fibre Optic
- WiFi
- Coaxial

## Solutions & Devices

- UPS (Uninterruptible Power Supply)
- Battery
- Solar System
- Electrical Solution
- CCTV
- IP TV System/ IP Voice System

Etc.





Energy





# Energy & Power Solutions

- Uninterruptable Power Supply (UPS)
- Dynamic UPS
- Battery
- Electrical Wiring
- Electrical Systems

FibreX



Enerqys



## ACE 500VA-1500VA

Energys

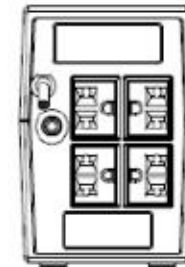
### ACE SERIES



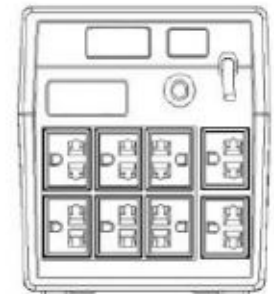
Power Range : 600VA-1500VA  
 Work : Line Interactive  
 Applications : PC, Printer,  
 Work Station, CCTV, ATM etc.

#### Features

- Power Saver Function
- Line Interactive with Stabilizer
- Excellent Microprocessor Control
- Intelligent Battery Management
- Cold Start Function
- Build in Boost and Buck AVR
- Auto Charging at Off-Mode
- Auto Restart Function



Back Side



Back Side

# BRIGHT 800VA-2000VA



## BRIGHT SERIES



Power Range : 800VA-2000VA

Work : Line Interactive

Applications : PC, Printer, Work Station, CCTV, ATM etc.

### Features

- Line Interactive with Stabilizer
- Excellent Microprocessor Control
- Intelligent Battery Management
- Cold Start Function
- Build in Boost and Buck AVR
- Auto Charging at Off-Mode
- Auto Restart Function
- Build in Self Diagnostic Function
- Smart USB Interface for Management



Optional Outlet



1. AC Input
2. Outlet
3. USB & RJ11 (Optional) Communication
4. USB & RS232 (Optional) Communication
5. RJ45 (Optional)

# Challenger SCC 1kVA-3kVA

## CHALLENGER SERIES



Power Range : 1000VA-3000VA  
 Work : True Online Double Conversion  
 Applications : PC, Printer, Work Station,  
 CCTV, ATM, Server etc.

### Features

- True Online Double Conversion Technology (Stabilizer)
- Digitized Microprocessor Control Optimizes Reliability
- Wide Input Voltage Range
- Input Power Factor Correction
- Output Power Factor 0.8
- UPS Start Up without Battery
- Cold Start Function
- Converter Mode Available
- ECO Mode Available
- Generator Compatible
- Smart SNMP Works with Either USB or RS-232 Together
- EPO Function Optional
- Input Line and Neutral Reversed Alarm Function
- Optional Extension Battery Pack
- Comprehensive Display Allows Easy Monitoring and Access of UPS Status
- OVCD Optional
- Can add Extra Charger for Longrun (Optional)




LED & LCD Display



Back Side

# iPower RM SDCRTS 2kVA-3kVA



## iPower SERIES



Power Range : 2000VA-3000VA

Work : True Online Double Conversion

Applications : PC, Printer, Work Station, CCTV, ATM, Server etc.



LED & LCD Display

- On/Off Button
- Self-Test Button
- Mute Button
- Scroll Button
- Normal, Alarm, Abnormal

### Features

- True Online Double Conversion Technology (Stabilizer)
- Fully Digitized Microprocessor Control
- Wide Input Voltage Range
- LCD Display
- Cold Start Function
- Advanced Battery Management
- Automatic Battery Charging in UPS Off Mode
- Fan Speed Adjusted by Load Automatically
- Network/Fax/Modem Surge Protection
- Optional Extension Battery Pack
- Battery Voltage Display
- Load Capacity Display
- EMI/RFI Noise Filter
- Smart RS-232 with Monitoring Software
- Optional SNMP Card Slot
- EPO Function (Optional)
- Input L and N Reversed Alarm Function



Back Side

1. RS-232
2. Fan
3. SNMP Slot
4. Battery Socket
5. Output Socket
6. RJ45
7. Input Socket
8. Input Breaker

SNMP Card



# Dynamic SDC 1kVA-3kVA



## DYNAMIC SERIES



Power Range : 1000VA-3000VA

Work : True Online Double Conversion  
Applications : PC, Printer, Work Station,  
CCTV, ATM, Server etc.

### Features

- True Online Double Conversion Technology (Stabilizer)
- High Power Density
- Output Power Factor 0.9
- Three Segment Charging Mode to Increase Battery Life, Optimize Recharge Time
- Selectable High Efficiency Mode of Operation
- Cold Start Function
- Standard Communication Option : RS-232 Communication Port, and Relay Output Contacts or SNMP Card
- Power Shedding Function may Turn Off Uncritical Load In Battery Backup to Make Longer Backup Time or Critical Load
- Extended Runtime with Up to Four Extended Battery Modules (EBPs) per UPS
- Emergency Shutdown Control Through the Remote Emergency Power Off (EPO) Port
- Versatile LCD Display with Setting Function
- Can add Extra Charger for Longrun (Optional)
- Generator Input Support



1. EPO Port
2. Intelligent Slot for SNMP Card, Drycontact Card
3. External Battery Cabinet Connector
4. Output Slots Including Two Segments
5. Large Current Output Slot
6. Input Slot
7. RJ45 Surge Suppress Port
8. RS-232 Port
9. USB Port



LED & LCD Display

# Dynamic SDCRT 1kVA-3kVA



## DYNAMIC SERIES



Power Range : 1000VA-3000VA

Work : True Online Double Conversion  
 Applications : PC, Printer, Work Station,  
 CCTV, ATM, Server etc.

### Features

- Rack/Tower Convertible Design
- Patented Mimic LCD Display May be Rotate by Simply Pushing Front Button
- True Online Double Conversion (Stabilizer)
- High Output Power Factor at 0.9
- Comprehensive Display Allows Easy Monitoring and Access of UPS Status
- Smart SNMP Works with Either USB or RS-232 Together
- Hot Swappable Battery
- Efficiency up to 92%
- Estimated Remaining Time Displayed on The LCD
- Support Economic (ECO) Operation Mode
- Matching Battery Pack
- Optional Powerful Charger
- Cold Start
- Power Shedding May Turn Off Uncritical Load in Battery Backup
- Emergency Power Off
- Frequency Converter Mode is Settable
- Generator Input Support



Back Side



Battery Pack



Two Directions LCD Display

# Dynamic SDC 6kVA-10kVA



Energys

## Features

- N+K parallel redundancy
- Online double conversion with Stabilizer
- Input current harmonic: <3%
- Optimization battery group, the quantity of battery: 16/18/20 pieces (optional)
- High output power factor at 0.9PF
- Wide input voltage range: 120~276Vac
- Wide input frequency range(50Hz: 45~55Hz / 60Hz: 54~66Hz)
- Support generator input
- Support economic(ECO) operation mode
- Self-testing when UPS startup
- Options: SNMP card/Relay card/ Parallel card
- Cold start

# Dynamic SDCRT 6kVA-10kVA



Energys

## Features

- Online-Double conversion
- Non Transfer Time of output
- PFC technology
- Full digital control (DSP)
- Output power factor: 0.9
- Input current harmonic: 3%
- ECO function
- Charging/Rectifier/Inverter fully digital control technology
- Optimization battery group, the quantity of battery: 16/18/20 pieces (optional)
- Wide input voltage range: 120-276Vac
- Wide input frequency range: 45-55Hz/54-66Hz  $\pm$  0.5Hz
- Self-testing when UPS startup
- Input over/under-voltage protection
- Automatic bypass
- DC start
- Communication port: RS232 , USB
- Options: SNMP card / Relay card



# Enterprise 3EC 10kVA-40kVA



- Online=Double conversion
- Output transfer time is 0ms
- PFC technology
- Full digital control (DSP)
- Output power factor: 0.9
- Input current harmonic: 3%
- ECO function
- Charging/Rectifier/Inverter fully digital control technology
- LCD/LED double display
- Intelligent charging management
- EPO function
- Optimization battery group, the quantity of battery: 16/18/20 pieces (optional)
- Wide input voltage range: 208~478Vac
- Wide input frequency range: 45~66Hz
- DC start
- Communication port: USB/RS232/RS485/ Parallel port/ dry contact
- Options: SNMP card/Relay card
- Common battery group
- The output can be meet 100% unbalanced load

# Force 3FCM 60kVA-300kVA



## Features

- High frequency and double conversion on-line technology
- Advanced PFC technology
- 3U frame, rack-mounted and tower convertible
- EPO function
- Wide input voltage range
- Fully digitized microprocessor control
- Parallel redundancy
- Advanced battery management
- Lightning and surge protection, short circuit and overload protection
- Multilingual LCD and LED display
- EMI/RFI noise filter
- Smart RS232 communication with monitoring software
- Optional SNMP card slot

# Genius 3GCT<sub>1</sub> 6kVA-40kVA

## Features

### ● High reliability design

- Double Conversion on-line design, which makes the output a pure sine wave source with tracking frequency, phase-lock and voltage regulation, noise suppression, and without power fluctuation interference, providing the load with more comprehensive protection.

- Zero transfer time of output, satisfies high standard power requirements of precision equipment.

- Modular design and dual-CPU control, high reliability and stability ensure the safe operation and high efficiency.

### ● High reliability during operation

- Pure online static bypass technology, provides a strong protection against overload and fault.

- Built-in manual maintenance bypass, further improves the reliability of continuous operation.

### ● Wide input range

- The range of AC input voltage is  $380V \pm 20\%$ .

thereby it reduces the battery using frequency and greatly extending the battery life.

- Wide input frequency range, ensure all types of fuel generators connected work stable.

### ● Optimization of high-performance battery

- Adapt intelligent battery management( ABM ) technology, thus it extends battery life and reduces battery maintenance times.

- Advanced CC(constant current) / CV(constant voltage) auto-conversion charging technology maximizes the activation of cells, thus it saves the charging time and extending the battery life.

### ● Comprehensive and reliable protection

- Self-diagnosis function before start-up, avoid the risks that the failure may lead to.

- The multi-protections such as overload, short-circuit, over-temperature, battery under voltage, battery over-charge and so on greatly ensure the system stability and reliability.

### ● Strong Redundancy/parallel ability

- Some units can be directly connected in parallel, increasing the scalability of the system.



**Enerqys**

# Genius 3GCT3 10KkVA-800kVA

## ● Online double conversion

- Online Double Conversion design helps to output a pure sine wave, which is immune from the UPS input, so that the load can run steadily.

- UPS transfers among different working mode without output interruption, thereby powering the load uninterruptedly.

## ● Full DSP control

- Full DSP Control avoids the risks caused by analog devices failure and makes the control system more stable and reliable.

## ● High power factor

- The output power factor up to 0.9 better matches the load.

- The input power factor 0.98 with filter helps to improve the efficiency, reduce the harmonic pollution to the Grid and lower the UPS running cost.

## ● Wide input adaptability

- The range of AC input voltage is (380V/400V/415V/440V) (-25%/+20%), minimizing transfer to battery mode, thereby greatly prolonging the battery life.

- Wide input frequency ranging from 45Hz to 85Hz, ensures stability of UPS while generator connected.

## ● Optimized battery management

- Intelligent battery management system and advanced battery auto float/boost charge technology, reduces the frequency of battery maintenance, greatly improves the battery efficiency and extends battery life.

- Battery discharge time prediction: the system will display the backup time of battery calculated by discharge current and voltage.

- Battery self-test: battery is automatically tested at regular intervals

- Flexible battery configuration ranging from 300-480VDC.

## ● N+X parallel redundancy

- N+X parallel redundant design, up to 6 units available, makes the configuration more flexible.

Any unit in parallel system fails, the faulty one will automatically cut off the output, and the load will be powered by the remained units.

- It is easy to configure the parallel system just by connecting the parallel cables and doing proper settings.

- Non-fixed Master-Slave relationship: Among several UPS in parallel, the unit startup first is Master UPS, the others are Slave. The master and slave may be exchanged.

## ● Strong overload capability

- 110%/125%/150% overload for 60min/10min/1min.

## ● Power walk in

- Specially designed power walk in function, in which rectifier of each unit in parallel system will be turned on in sequence at intervals to avoid the sudden load on the generator, thereby reducing the cost of the generator required.

## ● Generator mode

- Set the maximum output power of the generator when a smaller one than needed is employed to extend the battery duration time. In this case, the load is supplied by both the generator and battery.



**Energys**

# SNMP Card



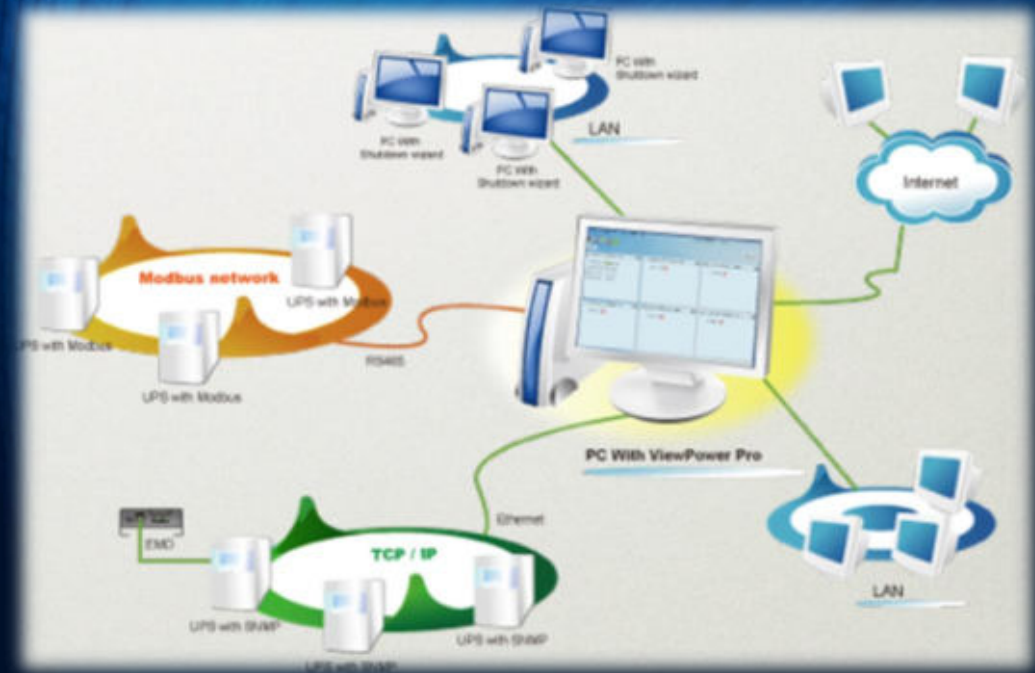
ALLOWS CONTROL AND MONITORING OF MULTIPLE UPSs THROUGH RJ-45 NETWORK CONNECTION

REAL-TIME DYNAMIC GRAPHS OF UPS DATA (VOLTAGE, FREQUENCY, LOAD LEVEL, BATTERY LEVEL)

SCHEDULED UPS ON/OFF, BATTERY TEST, AND SCHEDULED WAKE ON LAN PROGRAM

CENTRALIZED CONTROL AND MONITOR UP TO 1000 UPSs IN LAN, INTERNET, OR SERIAL NETWORKS

ALLOWS SIMPLE REMOTE MONITORING VIA WEB BROWSER



# Software Management

## ViewPower Management Software



- Allows control and monitoring of multiple UPSs via LAN and INTERNET
- User-friendly power analysis graph: event statistics, history data chart export
- Real-time dynamic graphs of UPS data (voltage, frequency, load level, battery level)
- Safely OS shutdown and protection from data loss during power failure
- Warning notifications via audible alarm, broadcast, mobile messenger, and e-mail
- Scheduled UPS on/off, battery test, programmable outlet control, and audible alarm control
- Password security protection and remote access management
- Supports multiple OS: Windows family, Linux, Unix, Mac OS X
- Supports multiple languages

Free download software website: <http://www.power-software-download.com/>

# ISO 9001 Certifications



FibreX







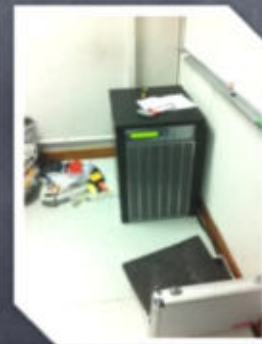
**20kVA**



10kVA



# 20kVA



# 20kVA





10kVA





# Modular 60kVA





# 20kVA





40kVA



160kVA





19" 20kVA



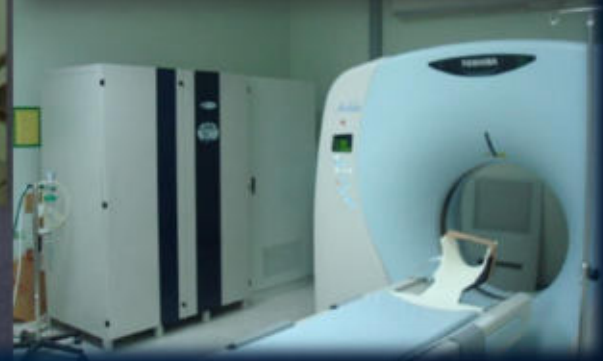
# DAT

## Modular 40kVA





80kVd





80kVA





## BATTERY CHANGING & CARIBATING APC SUA3000RMXLI3U



**BATTERY CHANGING & CARIBATING  
APC (SURTK+SURTD3000)**





## SYNDOME BATTERY CHANGING



## Site References

No.	User	Model	Rating	Q'ty
1	Fujitsu Ten (Thailand) Co.,Ltd.	μPS-SP 3/3	10 kVA	14
2	Cal-Comp Electronics (Thailand) Co.,Ltd.	Power+SA	40 kVA	30
3	Daiichi Jitsugyo (Thailand) Co.,Ltd.	μPS-SP 3/3	40 kVA	5
4	Ramathibodi Hospital	μPS-SP 3/3	200kVA	1
5	Maharaj Nakorn Chiang Mai Hospital	μPS-SP 3/3	160kVA	2
6	Lopburi Cancer Center	μPS-SP 3/3	200kVA	1
		μPS-SP 3/3	160kVA	1
7	Ubonratchathani Cancer Center	μPS-SP 3/3	80 kVA	1
8	Yanhee Hospital	μPS-SP 3/3	100kVA	1
9	Surin Hospital	μPS-SP 3/3	100kVA	1
10	Sungaikolok Hospital	μPS-SP 3/3	80 kVA	1
11	Virajsilp Hospital	μPS-SP 3/3	80 kVA	1
12	CMC Biotech Co.,Ltd.	Power+19	20 kVA	1
13	Nakornping Hospital	μPS-SP 3/3	100kVA	1
14	BTS	μPS-SP 3/3	60 kVA	1
15	Taksin Hospital	μPS-SP 3/3	80 kVA	1

## Site References

No.	User	Model	Rating	Q'ty
16	Summit Capital Co.,Ltd.	Power+SA	10 kVA	1
17	Oction Trade Co.,Ltd.	Power+SA	10 kVA	1
18	Maharaj Nakorn Ratchasima Hospital	μPS-SP 3/3	80 kVA	1
19	Pattalung Hospital	μPS-SP 3/3	80 kVA	1
20	Phramongkutklao Hospital (Army)	μPS-SP 3/3	125kVA	2
21	Mitsumi (Thailand) Co.,Ltd.	μPS-SP 3/3	20 kVA	2
22	Chaiyaphum Hospital	μPS-SP 3/3	80 kVA	1
23	Paolo Memorial Navamin Hospital	μPS-SP 3/3	80 kVA	1
26	Srima Healthcare Co.,Ltd.	μPS-SP 3/3	100kVA	2
		μPS-SP 3/3	80 kVA	1
24	Paolo Memorial Samutprakarn Hospital	μPS-SP 3/3	80 kVA	1
25	Ekkachai Hospital	μPS-SP 3/3	80 kVA	1
27	B Care Medical Center Hospital	μPS-SP 3/3	80 kVA	1
28	Srivichai 2 Hospital	μPS-SP 3/3	80 kVA	1
29	Osotspa Co., Ltd.	Power+ Classic	60 KVA	1
30	Paknumpo Hospital	SRM 75KVA	75 KVA	1

# Site References



# Site References



Thank you

