

**"Provides Professional Services in  
Power Supply & Air Conditioning Business"**





Westindo

## Table of Content

CEO Message	1
About Us & Vision - Mission	2
Our Partners	3
Why Westindo	4
Our Products	5
Power System	6
Air Conditioning	14
Services	18
Customers	19

# CEO Message

Dear Valuable Customers,

Westindo has been providing tailored solutions to our customers for three decades. Throughout our journey, we have received a lot of valuable experiences that made us what we are today.



There were praises and there were also constructive criticisms that helped us to serve our customers better. It made us realize that we are a part of your building blocks and that our objective is to grow your business by providing the best tailored solutions so that you can focus on your core revenue-building business. In our endeavor to achieve this ambition, we continue to build the infrastructure, management, human resources, and competence in order to provide the best customized solutions to solve your most challenging and dynamic needs in the market.

We also believe that by adhering to fair business ethics, Westindo can be a more trustworthy and reliable business partner in the long run. In line with our corporate development and current challenges facing our customers, we have sharpened our efforts in providing a more integrated, efficient, and environmentally friendly solutions. With such focus, in addition to helping our partners to be more competitive, we also would like to contribute in building the national economic resilience and enhance Indonesia's competitiveness as a nation.

We thank you for your trust in the past three decades. Moving forward, we hope that Westindo, as a local company, can always get a chance to prove its commitment to you and to the nation. Our objective is to become your preferred partner, letting both of us to grow together as you build your business.

Best Regards

**Daniel Gozali**

# About Us

Westindo was initiated through the idea of providing electrical products back in 1983. After few years of experience in the field, it led to the establishment of Westindo Esa Perkasa (Westindo) in 1989 which focused on providing products and services mainly for the telecommunication and power & utilities industries. Now, after three decades of experience, we are one of the leading players in our respective industries; power and air conditioning are still at the heart of our activities.

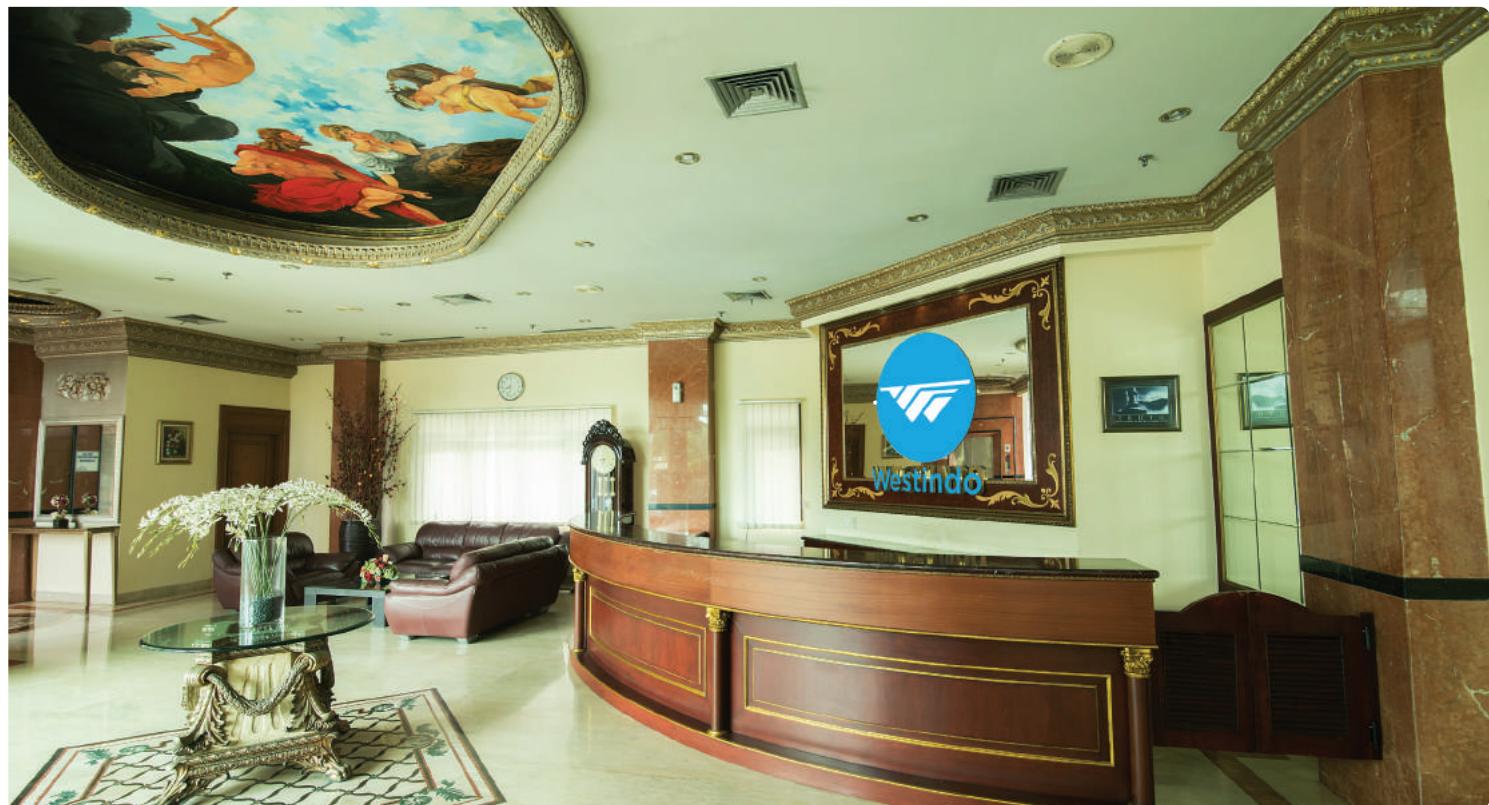
Innovation has led us to pursue and provide an integrated power, monitoring, and air conditioning solutions that cater to your growing needs in multiple industries such as banking, construction, healthcare, railway, aviation, oil & gas, and etc. in addition to our core industries. Channeling our efforts on our core business enables us to help our customers grow their business by providing customized, efficient, and cost-effective solutions.

## Vision

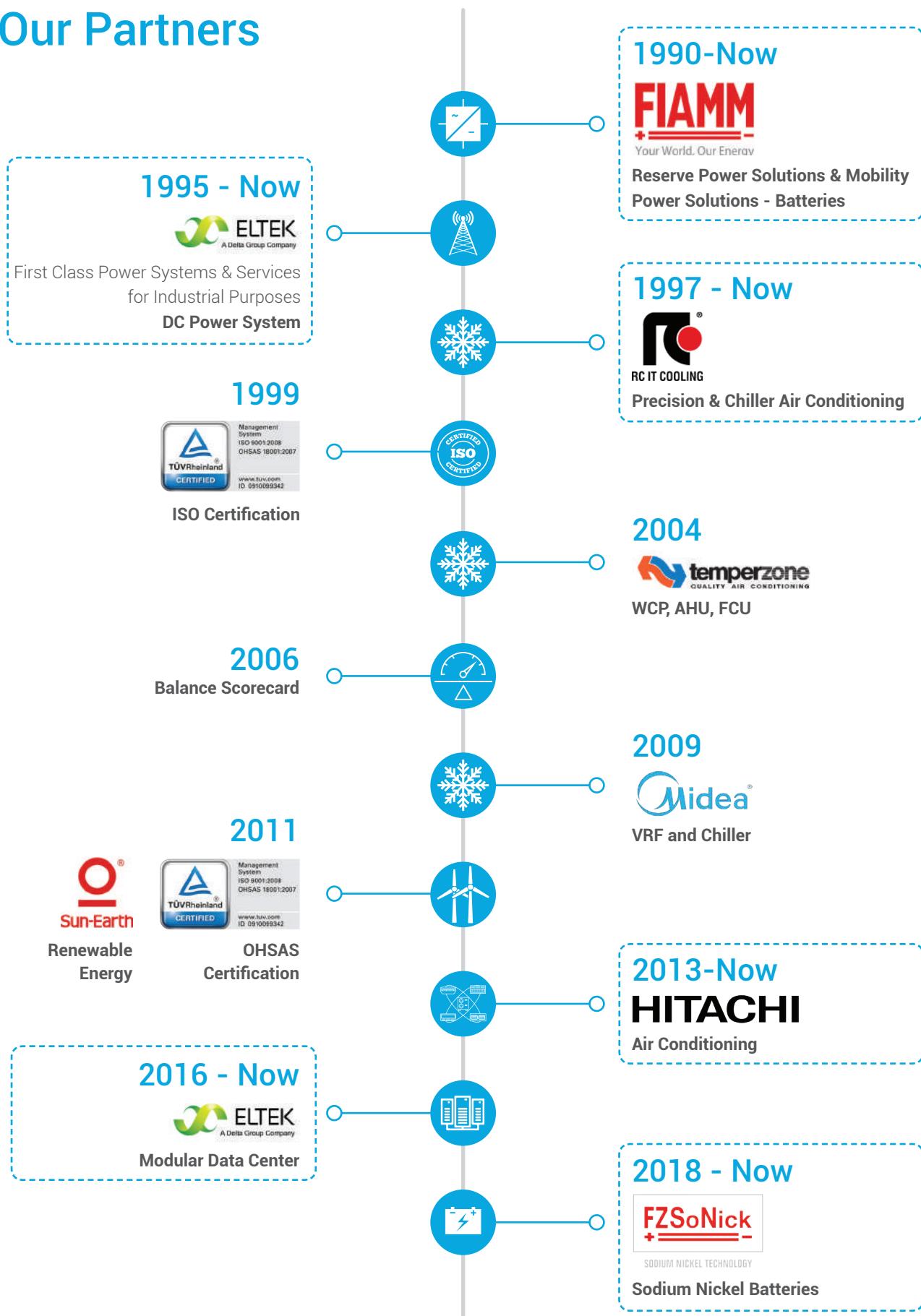
To be the best and outstanding company in providing total solution of power supply and air conditioning business.

## Mission

To provide professional services through reliability of products, engineering, project management and after sales service in power supply, air conditioning and related businesses.



# Our Partners



# Why Westindo

## A. Integrated Solution of Power Supply & Air Conditioning

- Professional and skilled engineering, installation, and commissioning teams
- Experienced service team allocated in Jakarta, Central Java & East Java

## C. Training for Customer

We provide technical training for customers

## E. Logistic & Warehouse

- 5000m<sup>2</sup> building & 4.225m<sup>2</sup> land area
- Storage Capacity of 1000 Power and AC systems
- Special room to store 20.000 blocks of battery

## B. Customer Care

Our team of experts will design customized solutions to ensure your needs are met. We are determined to deliver outstanding performance and quality to ultimately achieve the highest customer satisfaction

## D. International Standards

- ISO 9001 ( 2008 series ) implemented since 1999
- Balanced scorecard automation since October 2006
- OHSAS 18001:2007 since October 2011

## F. Spare Parts Availability

Complete spare parts availability for Power Supply & Air Conditioning



# Our Products

## 1. Power System

- AC & DC Power Solution
- Modular Data Center
- Batteries

## 2. Air Conditioning

- Chiller
- Precision Air Conditioning

Partners :



Partners :



## Power System

**CPS: Flexible AC and DC Power - Combined**



**"A service provider's decision to move from 48V to 380V powering"(cost saving, capacity increase changing the transportation voltage in a telecom central).**

## A. AC & DC Power Solution



### DC Power System 48 Volt DC



Types of Rectifier Controllers	<ul style="list-style-type: none"> <li>• Smartpack 1</li> </ul> <p><b>Key Features :</b></p> <ul style="list-style-type: none"> <li>• Front panel LCD and buttons for on-site service without PC ( not on basic slave model )</li> <li>• USB-OR RS-232 interface for PC connection locally or remote monitoring and control via modem, ethernet, web or SNMP</li> <li>• Input/Output monitoring : 6/2 user programmable relay outputs for traditional remote monitoring 6/2 user programmable inputs for monitoring of other equipment on site</li> <li>• Battery features Battery monitoring and testing without site attendance Temperature compensated charging for increased battery lifetime</li> <li>• Battery lifetime indication</li> <li>• Security password protected operator access levels</li> <li>• Alarm / event log with time and date</li> <li>• Software Windows - based PC communication</li> </ul>	<ul style="list-style-type: none"> <li>• Smartpack 2</li> </ul> <p><b>Key Features :</b></p> <ul style="list-style-type: none"> <li>• Screen - high contrast, high resolution</li> <li>• Visual leds for local alarms</li> <li>• Ethernet</li> <li>• SNMP Protocol</li> <li>• Programmable multipurpose unit</li> <li>• Comprehensive logging</li> <li>• Backup of critical control features in basic unit</li> <li>• Automatic battery monitoring and test</li> <li>• Battery lifetime indication</li> <li>• Battery used and remaining capacity</li> <li>• Monitoring</li> <li>• User defined alarm grouping</li> <li>• Uploading and downloading of configuration files with SD card or powersuite</li> <li>• SD card slot</li> <li>• Comprehensive generator/hybrid/ DC solar system control and monitoring features</li> </ul>	<ul style="list-style-type: none"> <li>• Smartpack S</li> </ul> <p><b>Key Features :</b></p> <ul style="list-style-type: none"> <li>• Graphical 2.2" TFT high contrast, high resolution color display for easy navigation in user menu</li> <li>• Ethernet for remote or local monitoring and control via WEB Browser</li> <li>• SNMP protocol with TRAP, SET and GET on Ethernet. Email of TRAP alarms</li> <li>• 6 digital programmable relay outputs</li> <li>• 6 programmable multipurpose inputs ("digital inputs" or analog signals)</li> <li>• Comprehensive logging</li> <li>• Automatic battery monitoring and test</li> <li>• Battery quality indication (based on test results)</li> <li>• Battery used and remaining capacity (Ah or %) monitoring</li> </ul>
Types of Rectifier Modules	<ul style="list-style-type: none"> <li>• Flatpack S ( 1000 &amp; 1800 W ) :</li> </ul> <p><b>Key Features :</b></p> <ul style="list-style-type: none"> <li>• Efficiency 95,5% up to 95,8%</li> <li>• Small and short - 217 mm long module</li> <li>• Power density - 47 W/in3</li> <li>• OR-ing protection on output</li> <li>• Hot pluggable</li> <li>• Accepts DC input (DC/DC Converter)</li> <li>• SIL 3 rated output</li> <li>• Over voltage protection</li> </ul>	<ul style="list-style-type: none"> <li>• Flatpack 2 ( 2000 &amp; 3000W ) HE &amp; Non HE :</li> </ul> <p><b>Key Features :</b></p> <ul style="list-style-type: none"> <li>• Efficiency 96,5%</li> <li>• Flexibility and reliability</li> <li>• Plug and play</li> <li>• Global compliance</li> <li>• Patents pending</li> <li>• Power density, Up To 33 W/inCH3</li> <li>• High efficiency</li> <li>• Proven reliability</li> <li>• Application flexibility 2KW-3MW</li> <li>• Global compliance</li> <li>• Patented HE technology</li> </ul>	<ul style="list-style-type: none"> <li>• Flatpack2 SHE</li> </ul> <p><b>Key Features :</b></p> <ul style="list-style-type: none"> <li>• High Power Density – 33 W/in3</li> <li>• Compatible with existing systems</li> <li>• Global Compliance</li> <li>• Patented Technology</li> <li>• Hot Pluggable</li> <li>• Super High efficiency 97,8%</li> </ul>

Applications : Telecommunications, Data Center, & Power Utilities

### Voltage Range :



- 12 VDC
- 24 VDC
- 60 VDC



- 110 VDC
- 380 VDC



- 220 VDC



- 230 VDC

### Types of Module

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>• Flatpack 2 220 VDC, 48KW</li> <li>• Flatpack 2 24 VDC, 48KW</li> <li>• Flatpack 2 24 VDC, 8KW</li> <li>• Flatpack 2 and Micropack</li> <li>• Flatpack 2 and Micropack 24 - 220VDC (Wall box)</li> <li>• Flatpack 2 110 VDC, 16 KW</li> <li>• Flatpack 2 9" 2U8KW ( Power Shelves 24VDC, 48VDC, 110VDC )</li> <li>• Flatpack S 24 VDC, 8KW</li> <li>• Flatpack S 24 VDC, 8KW (Wall box)</li> </ul> | <ul style="list-style-type: none"> <li>• Flatpack S 24 VDC, 2KW (Wall box)</li> <li>• Flatpack S 24 VDC, 3 KW ( Generator Starter )</li> <li>• Flatpack S 19" 3U8KW ( Power Shelves 24VDC &amp; 48VDC )</li> <li>• Flatpack S 19" 1U ( Power Shelves 24VDC &amp; 48VDC )</li> <li>• Flatpack S standalone 24VDC/48VDC, 6 KW</li> <li>• Flatpack S 24 VDC, 6KW ( Portable Emergency Unit )</li> <li>• Rectiverter 115/230VAC, 6KVA</li> <li>• Rectiverter 115/750</li> <li>• Inverter System 230VAC, 10 KVA</li> </ul> |
|--|---|

### Types of Controller

- Smartpack S Controller
- Smartpack 1
- Smartpack 2 (Master & Basic)

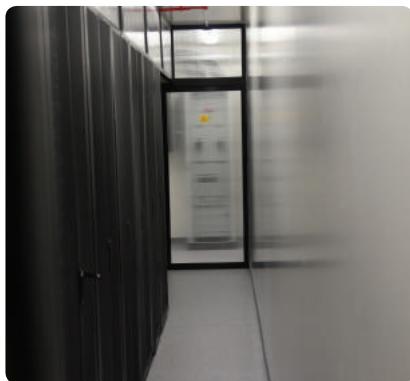
### Key Features :

Modular, high-quality & future-proof power solutions

1. Scalable – expand as your load grows or add redundancy
2. Serviceable – module replacement in seconds
3. Designed to last – design life of 15 years
4. Flexible – for all AC and DC needs
5. Compact – save space
6. Reliable – high MTBF

**Applications :** Railway, Metro, Power utilities, Marine, Oil & Gas, Other industry

## B. Modular Data Center



Eltek's Converged Power Solutions cater for all power needs in the data center. It combines the advantages of modern, modular power technology while meeting all AC and DC load requirements.

### **Key Features :**

1. Rapid deployment
2. Innovative space saving power designs (3 times the power in a 3rd of the footprint)
3. Future proofing power - (AC & DC power for when your IT and power requirements change)
4. Global footprint through partners
5. Eliminate ATS
6. Scalability within our manufacturing set-up
7. Not restricted to build size (width & height) - Add or remove walls, or stack the modules
8. Light weight design that withstands heavy snow loads and hot conditions.
9. Excellent value for money
10. Eltek can offer to negate the need for CAPEX with a financial package
11. Range capacity up to 10 to 12 racks in 1 module

## C. Batteries



### FIAMM Reserve Power Solutions & Mobility Power Solutions



Description	AGM VRLA	GEL VRLA	FLOODED
Technical Specifications			
Positive plate & electrolyte	Flate Plate - Electrolyte absorbed	Flate Plate & Tubular electrolyte in Gel	Flate Plate, Tubular, Plante pure lead (free electrolyte)
Installation	Fit in 19" or 23" rack/cabinet	Fit in 19" or 23" rack/cabinet or Vertical & Horizontal installation for 2V type	Also available dry charged
Design Life	5 or 10 or 15 and > 15 years	12 years, 15 years, 18 years	15, 20 and 25 years
Terminal	Front & Top Terminal	Front & Top Terminal	Top terminal
Nominal Voltage	2V, 4V, 6V, 12V	2V, 12V	2V
Product types	SP, FIT, SLA, SPX, XL	SPX, FTX, XL, SMG 12V, SMG 2V	SD/SDH, LM and SGL/SGH
Eurobat classification	Standard / High Performance	High Performance / Long life	
Capacity range	26 - 2000 Ah	100 - 3000 Ah	80 - 2320 Ah, 100-3500 Ah, 75-2600 Ah
Maintenance	Maintenance free without topping-up	Maintenance free	3 year topping up in float condition
Standard	Eurobat	Eurobat	Eurobat

Applications : Telecom, UPS, Utilities & Industry, Security System & Emergency lighting, Railways, Renewable Energy, Leisure, Light Traction, Oil & Gas

### FZSoNick Sodium Nickel Batteries 48V, 110V, 220 V ( 80 & 200 Ah )



48V Sodium Nickel Chloride module, suitable for telecom, Oil & Gas, Railways, Power Generation.



#### Key Features :

- Zero ambient emission
- Free of highly toxic materials
- No hazardous components
- 100% recyclable stainless steel, nickel, iron, salt, ceramic
- Compact and scalable solution (rack,cabinet, container,in door, out-door)
- Suitable for any place of installation
- Environment temperature range – 20° to +60° C (-4 to 140° F)
- Remote monitoring inside battery unit
- Design life 20 years
- Zero maintenance



#### NorthStar NSB Blue+ Batteries

The NSB Blue+ Battery, delivers ultra fast recharge and exceptional PSoC cycling performance.



#### NorthStar NSB Red Batteries

The NSB Red Battery, delivers long life for reliable and unreliable grid conditions



#### NorthStar NSB Black Batteries

NorthStar Black batteries offer a cost competitive solution for reliable grid conditions in telecom and other standby applications.

NorthStar NSB Blue + Batteries	NorthStar NSB RED Batteries	NorthStar NSB Black Batteries
Key Features		
<ul style="list-style-type: none"> <li>Exceptional PSoC cyclic performance 2050 cycles @50% DoD</li> <li>Design life 12+ years at 20°C (68°F)</li> <li>EUROBAT design life definition: Very Long Life (12+ years)</li> <li>Ultra fast recharge</li> <li>Lead carbon added to negative electrodes increases power and reduces sulfation High potential fuel savings when used with hybrid genset applications</li> </ul>	<ul style="list-style-type: none"> <li>Pure lead electrochemistry greatly increases temp and corrosion resistance, while reducing component aging</li> <li>Design life 15+ years at 20°C (68°F)</li> <li>EUROBAT design life definition: Very Long Life (12+ years)</li> <li>Fast recharge</li> <li>Thin plates deliver large surface area, high power density and low resistance</li> </ul>	<ul style="list-style-type: none"> <li>Industrial grade grid plate design for long life High level of manufacturing automation ensures</li> <li>10 year float life at 25°C (77°F)</li> <li>Ideal for all reliable grid applications (telecom backup and more)</li> <li>Available in optional flame retardant (FR) plastic</li> <li>High level of manufacturing automation ensures product consistency</li> </ul>
<ul style="list-style-type: none"> <li>Operates even at extreme temperatures of -40°C to +65°C (-40°F to +149°F)</li> <li>Advanced 3 stage terminal design to ensure leak-free operation</li> <li>Non-halogenated, thermally sealed PPOI plastic casing and cove</li> <li>Flame retardant (UL 94 VO) and LOI of at least 28%</li> <li>Integral handles and front access terminals ensure ease of installation and maintenance</li> <li>Approved as non-hazardous cargo for ground, sea, and air transport</li> </ul>		<ul style="list-style-type: none"> <li>Operating temperature range of -15°C to +45°C (5°F to 113°F)</li> </ul>



AGM	Tubular (OPzV)	Lithium
Technical Specifications		
The maximum design life up to 15 years	Service life up to 18-20 years in continuous float operation down to approx 80% capacity	Design life more than 12 years
Special plate design, long cycle lifetime	Very low self-discharge <50% of rated capacity in 2 years at 20 ambient temperature	Good high temperature performance
Using special lead-calcium alloy to boost up the grid anti-corrosive performance and extend the battery using lifetime	High cyclic ability over 600 cycles when discharged at 10 hour rate to an end voltage of 1.8Volt/cell at 20	High cycle times and long service life
Using special separator to boost up the battery performance inside	Can be supplied as a standard vertical installation or by special request, for a horizontal installation.	Environmental Friendly, without any heavy metal
High thermal capacity, reduce the risk of thermal out of control and drying hard, can be used in bad environment	Gel electrolyte	Complete with Battery Management System built-in
Little water losing, no electrolyte stratification phenomenon	Deep discharge protected, a load can be connected to the battery for up to 4 weeks	Easy installation, can be in 19-inch standard cabinet or be wall-mounted
Good deep discharge resilience performance	Completely sealing throughout the batteries life.	Can use most standard VRLA chargers for this system
Using gas silicon dioxide, small granule degree, bigger than surface area	Easy install using cable connectors with insulated terminal covers	High energy density and conversion efficiency



HITACHI

 R407C

RC GROUP



## Air Conditioning

## A. Chiller

**HITACHI**

### Water Cooled Centrifugal Chiller



#### Key Features :

1. Excellent energy saving effect
2. Compact design
3. High reliability
4. High efficiency refrigerant cycle
5. High efficiency compressor
6. High performance heat exchanger

Applications : Banking, Mall, Hotel, Office, Hospital, Restaurant, Airport, Etc

### Water Cooled Screw Chiller



#### Key Features :

1. Energy saving with high efficiency
2. Precise capacity control & better part load achievement
3. High reliability
4. Easy maintenance and better redundancy
5. Protect the unit from abnormal operation for longer life span
6. Very less oil carry over to compressor
7. Free of cost hot water generation

Applicatons: Banking, Mall, Hotel, Office, Hospital, Restaurant, Airport, Etc

### Air Cooled Screw Chiller



#### Key Features :

1. Use of HFC 134a refrigerant has an ozone depletion potential of zero
2. High performance and energy saving
3. Accurate chiller control
4. Adopting Hitachi R134a screw compressor
5. Multiple compressors control

Applicatons: Banking, Mall, Hotel, Office, Hospital, Restaurant, Airport, Etc

## Magnetic Levitation Bearing & Inverter Chiller



### Key Features :

1. Active free cooling
2. Smart thermal energy management
3. Active redundancy
4. Magnetic bearing
5. Oil Free compressor
6. Integration Sequence system

Applications : Mechanical, Electronics, Food, Textile, Pharmaceutical & Chemical Industry, Mall, Etc



## B. Precision Air Conditioning



### Key Features :

1. Smart integration of the most advanced technologies
2. Reduced operating cost
3. Complete reliability and extended lifetime
4. Widest use of the available power capacity
5. Optimized footprint
6. Increased sustainability
7. 50 years experience in the smart integration of premium technology
8. Indoor & outdoor inverter types
9. Capacity from 9 kw to 102 kw

Applications : Telecommunications, Data Center, Banking, Critical Applications, Etc

# Services

## A. Technical Assistance for Design

- Expert engineering team who are dedicated for power supply and air conditioning.
- Giving the best solution by considering the time, quality, and cost factor.
- Continuous innovation to provide the best and comprehensive solution

## C. Installation and Testing Commissioning

- Supporting infrastructure to ensure that each Power Supply and Air Conditioning product will be installed as per the right procedure, through factory standard testing and commissioning process.
- Experience installation & commissioning team.

## E. Battery Charging Facilities

More than 100.000 blocks of battery testing processes every year

## B. Local Assembly, Calibration & Testing for DC Power System

- Production facility
- Assembly
- Calibration & testing
- Quality control process

## D. After Sales Services

- Local repair capabilities
- On site support
- Maintenance warranty period
- Maintenance contract



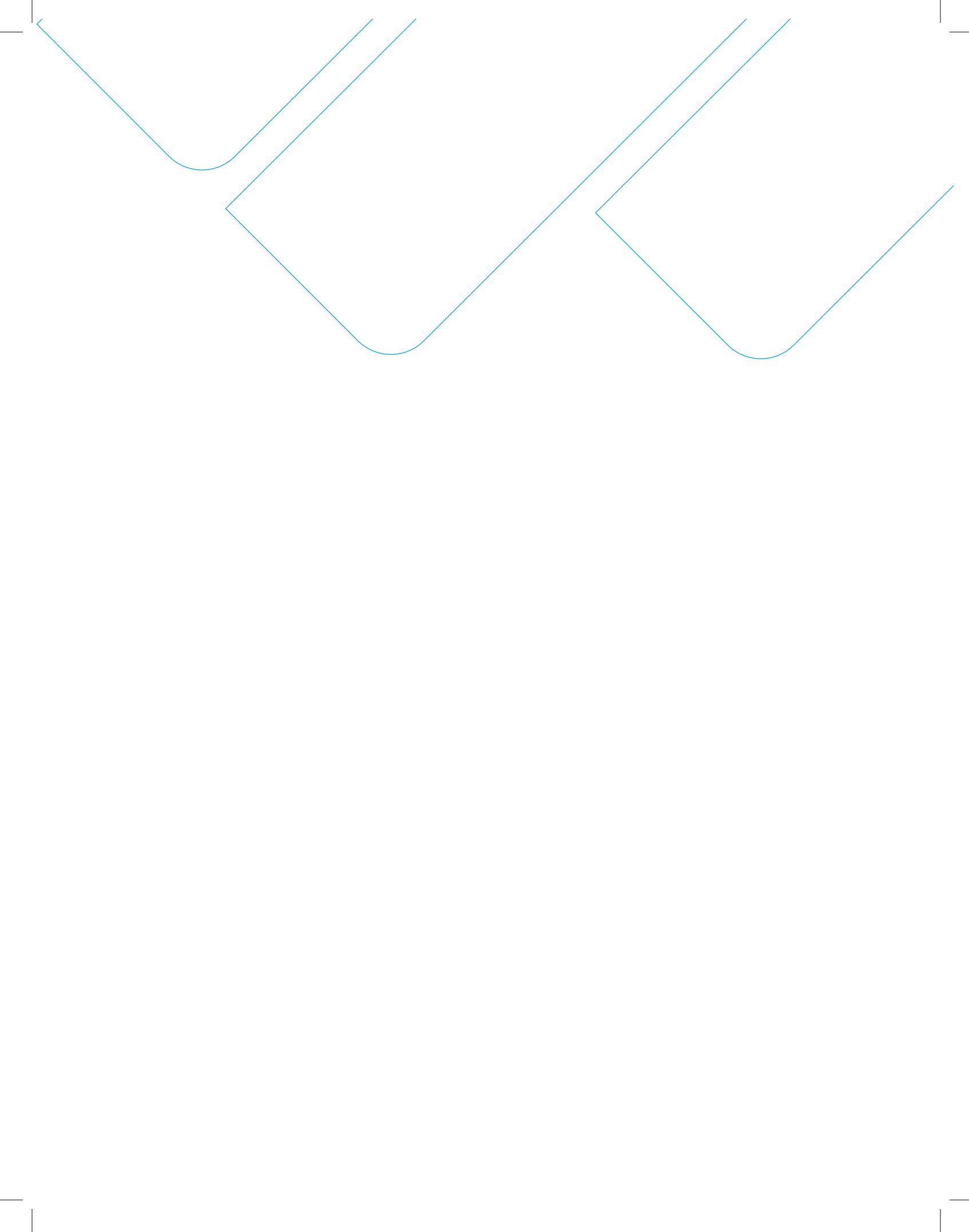
# Customers

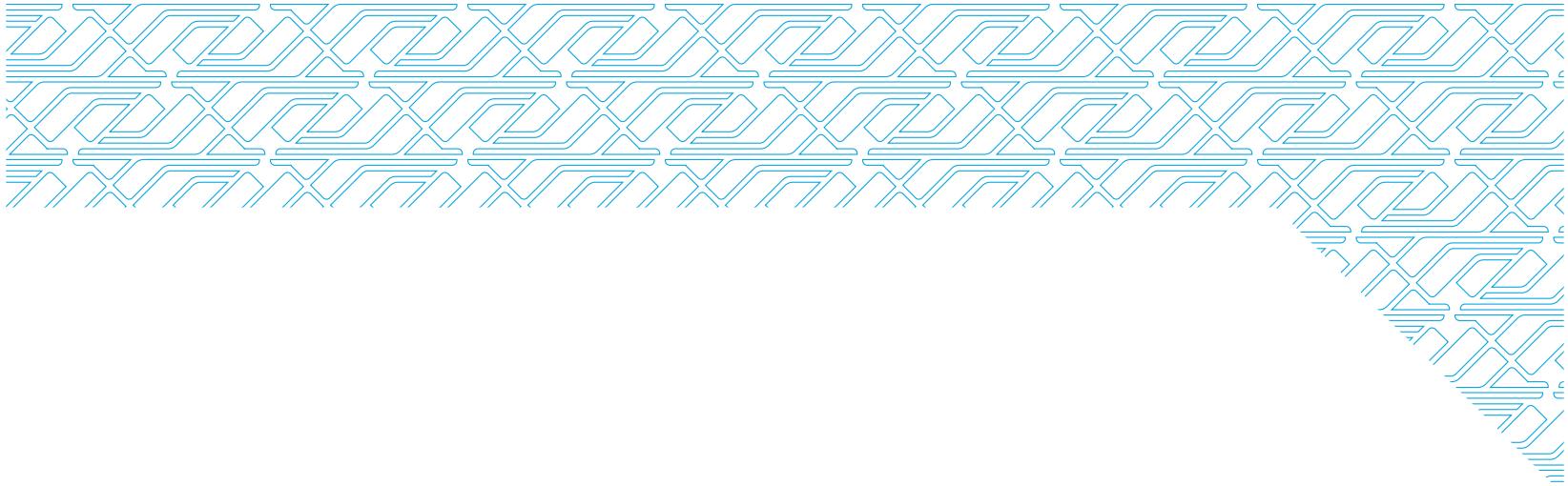
"Your Satisfaction is OUR PRIDE"



## **"We Continuously Improve and Innovate"**

to provide the best reliable and professional services for every customer. Integrity is our foundation in every work we do. We believe that our customers are an integral part of our business and growing together is our objective.





**Westindo**

---

**PT. Westindo Esa Perkasa**

**Head Office Jakarta**

Jl. Gaya Motor Raya No.8 Kav M-N, Sunter  
(Next to ASTRA International)  
North Jakarta 14330  
Indonesia  
T : +62 21 6518775  
F : +62 21 65832666 , +62 21 6518685  
E : [westindo@westindo.com](mailto:westindo@westindo.com)

---

**Technical Branch Office**

**East Java (Branch Office)**

Perkantoran Rungkut Megah Raya  
Jl. Kali Rungkut 5 Blok B37  
Surabaya 60293  
Indonesia  
T : +62 31 8793773, +62 21 6518775  
E : [wepsby@westindo.co.id](mailto:wepsby@westindo.co.id)  
[westindo@westindo.com](mailto:westindo@westindo.com)

**Central Java (Branch Office)**

Jl. Supriyadi Ruko Artha Mas No.12 K-12 L  
Semarang 50198  
Indonesia  
T : +62 24 6725354 (Hunting), +62 21 6518775  
E : [wepsmg@westindo.co.id](mailto:wepsmg@westindo.co.id)  
[westindo@westindo.com](mailto:westindo@westindo.com)