

# ZPA

*Integrating Tomorrow*



# ZGT

*Z-Power GreenTech*

# A Leading System Integrator for Power, Control and System Solutions

ZPA is a world class integrator for power, control and system solutions. These are delivered through a wide range of in-house capabilities and support to customize solutions for our international clientele base.

With over 45 years of field services, electrical engineering and technology development, our founders transformed the business from a local switchboard supplier to system integrator with strong commercial success in both the marine & offshore and energy sectors globally.

ZPA is a system integrator in energy management system, marine hybrid propulsion control, full electric systems, marine fast charging and energy storage systems.

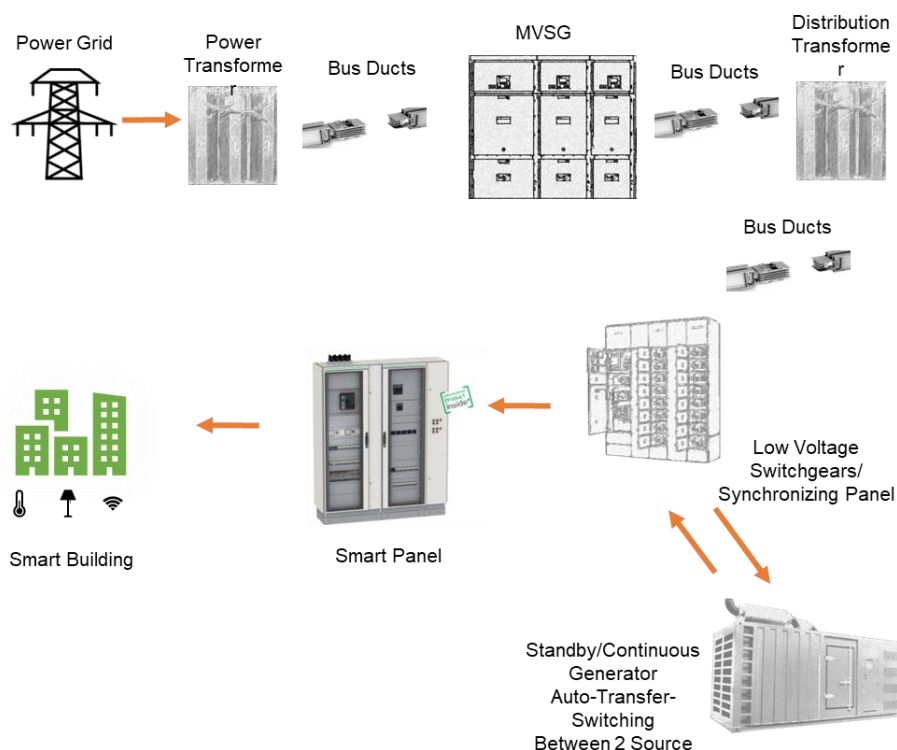
## Our Mission:

“To exceed customer satisfaction by providing innovative and effective system integrated solutions”

## Our Vision:

“To be a world leader in the design, manufacturing and integration of marine & Offshore and energy solutions”

### Power, Control and System solutions



# Solutions

## Purpose

Z-Power Automation focuses on delivering ZPA products to marine & offshore and land-based clients in Singapore and the region. We dedicate ourselves to serve our clients with mutual respect and professionalism.

## Ingenuity

We collaboratively develop power, control and solutions focused at optimizing engineering design, reducing system cost, improving electrical performance, efficiency and enhancing safety and reliability for the plant and the system.

## Reliability

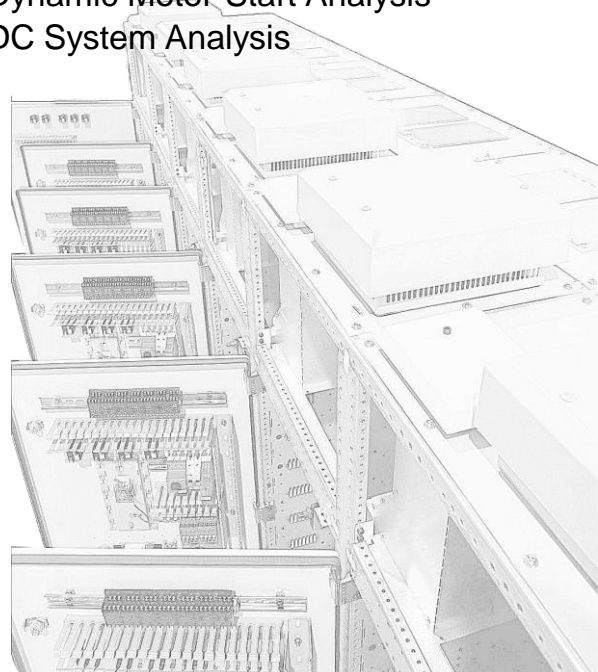
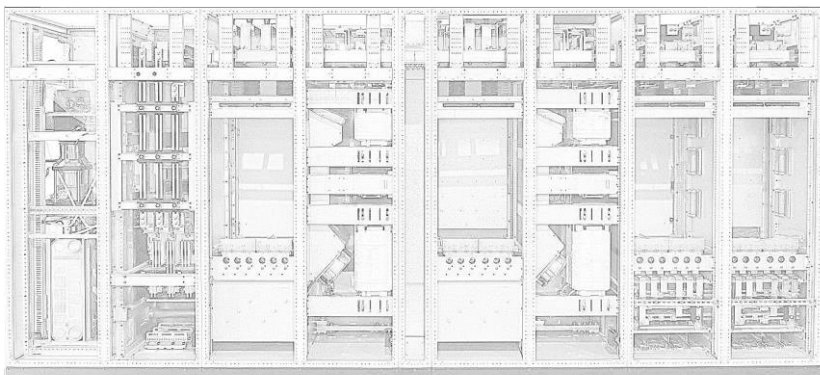
Home to world class products from the worlds' most renowned, ZPA strive to achieve the highest specification given from owners with the most innovative and reliable solution.

## Service Portfolio

- ✦ Engineering and Design
- ✦ Project management
- ✦ In-house manufacturing
- ✦ Maintenance and field services
- ✦ Retrofit
- ✦ Diagnosis

## Engineering

- ✦ Short Circuit Calculation
- ✦ Total Harmonic Distortion (THD Study)
- ✦ Coordination and Selectivity Study
- ✦ Load Flow Analysis
- ✦ Arc Flash Analysis
- ✦ Voltage Drop Analysis
- ✦ Dynamic Motor-Start Analysis
- ✦ DC System Analysis





## Our Facilities

Our manufacturing facility spans over 5000sqm with a strong workforce of 69.

The facility has full in-house capabilities of structural design, wiring, assembly and testing with type tested switchboard and approved busbar systems.



## Our Certifications



## Our Products Marine type approvals



## Our Partners



ABB single and multidrive systems of low voltage motors and drives are suitable for various marine and energy applications.

**ZPA** is the authorized value provider and certified system integrator for the liquid / air-cooled motors, drives and controls.



Siemens SIVACON S8 sets new standards as a power distribution board or motor control centre for both industrial and infrastructure applications.

**ZPA** is the technology partner for the SIVACON S8 switchgears.



Schneider Electric Prisma iPM is the solutions for low voltage electrical distribution switchboards

**ZPA** is the Certified Panel Builder for the Smart Panel.



Løgstrop has over 60 years of history in the design and manufacture of low voltage (LV) modular systems, LV switchgears and control gears solutions.

**ZPA** is the licensed panel builder for the LV distribution switchboard and motor control centres.



Danfoss Power Electronics Drives products are suitable for various marine & Offshore, Hybrid and Electric applications. Products includes VLT, VACON and iC7 products families.

**ZPA** is the certified for the leading system integrator.



Schneider Electric EcoXpert Digital Panel Master recognized partner as competent in digitalizing the fields of power management, building control and energy efficiency

**ZPA** is the certified EcoXpert Digital Panel Master Badge system integrator.

## Our Partners



Niigata Power Systems Co.,Ltd. manufactures power generation products for marine, power generation. It offers diesel engines, marine diesel engines, gas engines, gas turbines, and parts. The company also provides Z-Peller, a propulsion unit for tugboats, passenger vehicles, offshore vessels, and special vessels. Niigata Power Systems Co.,Ltd. operates as a subsidiary of IHI Corporation



Lyngsø Marine are one of the worlds leading suppliers of advanced marine automation equipment, marketed under the Stella® brand name. Founded in the 1950s, Lyngsø Marine have installed over 6,800 systems worldwide and boast an impressive knowledge and expertise that is unrivalled in their market sector.



E-Pod® Propulsion Pte Ltd is the only homegrown company that designs and manufactures electric propulsions in Singapore. E-Pod offer Electric Stern & Bow Thrusters. A total system integration of the propulsion with flexible solutions in diesel electric, hybrid, full battery operation, hydrogen, and methanol fuel cell. E Pod thrusters are robust and compact. The azimuth provides good maneuvering and higher efficiency as well achieving decarbonization with green energy solutions towards sustainability.

**ZPA** is the OEM manufacturer for their main engine and propulsion remote control system. ZPA is also the authorized service agent for the remote-control system

**ZPA** is the authorized distributor and service agent for Wartsila Lyngsø Marine Marine A/S control Solutions.

**ZPA** is the OEM manufacturer for their e-Pod propulsion control system. ZPA is also the authorized service agent for the control system



EVE is a global lithium battery company which possesses core technologies and solutions for consumer batteries, power batteries and energy storage batteries establishes indicators to guide the design, construction and operation of buildings towards increased energy efficiency and enhanced environment performance.

**ZPA** is the collaborating partner as system integrator for Energy Storage System Solutions for both Marine & Offshore and Industrial applications.



**ZPA** appointed **YGE** exclusive Sales and After Sales Service agent in Taiwan for ZPA's Products ZPA Main Switchboards Distribution Panels, Starter Panels, Motor Control Centres, AMS, Vessel Consoles and Motors & Drives .



**Lilaas** AS Is a technology company, expert on precision mechanical details, maneuvers, and joysticks manufacturing.

**ZPA** is the authorized service agent for the control levers and joysticks.

## Our Products

logstrup



Main Busbar System up to 8500A(IEC 61439-½)

Arc Containment System(IEC/TR 61641)

Withdrawable system  
Up to 630A, 500Kw, 690V

Distribution Busbar System up to 2000A(IEC 61439-½)

### Type Tested LV Switchboard

Modular, Scalable and Compact

Reduced cost of CU for main busbar

Current ratings up to **8500A** and Short circuit tests up to: **lcw 150kA 1/sec, ipk 300kA, Flexibility of ABB, Siemens and Schneider components selections**

Fixed & Withdrawal options with Rear access option



### Intelligent Motor Control Centres (iMCC)

Main Busbar up to **4000A** and Short circuit test up to **100kA/1sec**

Fixed & Withdrawal options with Rear access options

Up to IP55 Rating and Form 1 to 4, A and B Type 7



### Internal Arc Containment (IAC)

Design for **control and safe release** of pressure and gasses caused by arc and for explosion duct **releases overpressure** via the top

Each section is separated to prevent arc spread along the main busbar



## Our Products

# SIEMENS

## SIVACON S8



	Circuit-breaker design	Universal mounting design	In-line design, plug-in
Mounting design	Withdrawable design Fixed mounted design	Withdrawable design Fixed-mounted design with compartment doors Plug-in design	Plug-in design
Functions	Incoming unit Outgoing unit Coupler	Cable feeders Motor feeders (MCC)	Cable feeders
Rated current $I_n$	Up to 6,300 A	Up to 630 A	Up to 630 A
Connection type	Front and rear side	Front and rear side	Front side
Cubicle width	400, 600, 800, 1,000, 1,400 mm	600, 1,000, 1,200 mm	1,000, 1,200 mm
Internal separation	Form 1, 2b, 3a, 4b, 4 type 7 (BS)	Form 3b, 4a, 4b, 4 type 7 (BS)	Form 3b, 4b
Busbar position	Rear, top	Rear, top	Rear, top

Fixed-mounted design	In-line design, fixed-mounted	Reactive power compensation
Fixed-mounted design with front covers	Fixed mounted design	Fixed mounted design
Cable feeders	Cable feeders	Central compensation of reactive power
Up to 630 A	Up to 630 A	Non-choked up to 600 kvar Choked up to 500 kvar
Front side	Front side	Front side
1,000, 1,200 mm	600, 800, 1,000 mm	800 mm
Form 1, 2b, 3b, 4a, 4b	Form 1, 2b	Form 1, 2b
Rear, top	Rear	Rear, top, without



# Our Products

## Intelligent IEC type tested Switchgear

Functional panels for tertiary and industrial buildings

**Schneider**  
Electric

## Prisma iPM... 100% and more than IEC standard!



### Short-circuit withstand capability

- Conditional short-circuit test is passed thanks to full coordination using Schneider Electric's devices associated with Prisma iPM distribution components from incoming to outgoing stages.
- This panel design characteristic allows a much improved service continuity of the switchboard in case of electrical fault.



### Protection against electrical shock

- iPM Prisma iPM offers standard components to achieve the right level of electrical protection.
- Terminal block covers
- Terminal shields for devices
- Partitioning for busbar and connections.



### Voltage stress withstand capability

- Cleavage distances and clearance distances: all functional units are designed from an early engineering stage taking into account minimum clearance distance for any type of assembly of Schneider Electric devices configuration.
- For instance the Compact NSX breaker can be installed with a rotary handle or motor control or plug in base with guaranteed clearance distances.
- For oncoming distances all busbar supports are designed to take into account minimum on-approach distances required by the IEC standard.



### Maintenance and modification capability

- Beyond iPM for panel accessibility Prisma iPM functional system has been designed to offer a clear and logical electrical organization. It enables safer and more secure accessibility for maintenance and upgrades.
- Interventions are made quicker with reduced risks of mistakes therefore decreasing down time and improving service continuity.



### Lineray busbar

- Lineray busbar can safely be accessed for installation upgrade by removing a single Form 2 front barrier only.
- All conductors are shifted 25 mm enabling qualified electricians to perform intervention from the front of the cubicle only, no need to dismantle the side partitioning for access.
- Upgrade or maintenance interventions are made faster and more straight forward.



### Capability to operate the electrical installation

- Prisma iPM components are designed to match Schneider Electric's devices with impulse voltage withstand reaching up to 12.8 kV specification.
- Customers are guaranteed to have the right safety margin in case of network transients, increasing safety and installation service continuity over time.

### Capability to be installed on site

- In addition to being IEC tested, Prisma iPM also features handling plinths in order to cover all possibilities for site installations where lifting space is too limited.



\*Using any Schneider Electric device guarantees the compliance with IEC as well as the reliability of installations.

The domain of **power distribution and management** includes integrating digital expertise from design through maintenance of the project lifecycle. Our competencies are better aligned with customer on their site criticalities, applications, and unique solution needs. EcoXpert to further solidify enabling customers to achieve their net-zero ambitions and realize a real ROI on their investments. EcoXpert are competent in the fields of building control, power management and energy efficiency. With a proven track record of delivering best-in-class services and solutions, EcoXpert is committed to delivering intelligent and sustainable solutions that add value and longevity to the success of our shared customers.



Enterprise Performance Management  
Remote Supervision  
Integrated Site Supervision



### Power Management

- > Power measurement
- > Power quality mitigation
- > Local LV/MV protection and control
- > Intelligent power and motor control
- > Renewable energy conversion
- > Electric vehicle recharging



### Process & Machine Management

- > Production management
- > Information management
- > Process automation
- > Advanced process control
- > Machine control
- > Remote site management
- > High availability and safety



### IT Room Management

- > Network connectivity
- > Rack systems
- > Uninterrupted power supply
- > Cooling control
- > Surveillance



### Building Management

- > HVAC control
- > Lighting control
- > Outdoor lighting control
- > Sun blinds control
- > Room control
- > Energy management and metering



### Security Management

- > Video surveillance
- > Emergency lighting
- > Intrusion detection
- > Access control
- > Fire and life safety

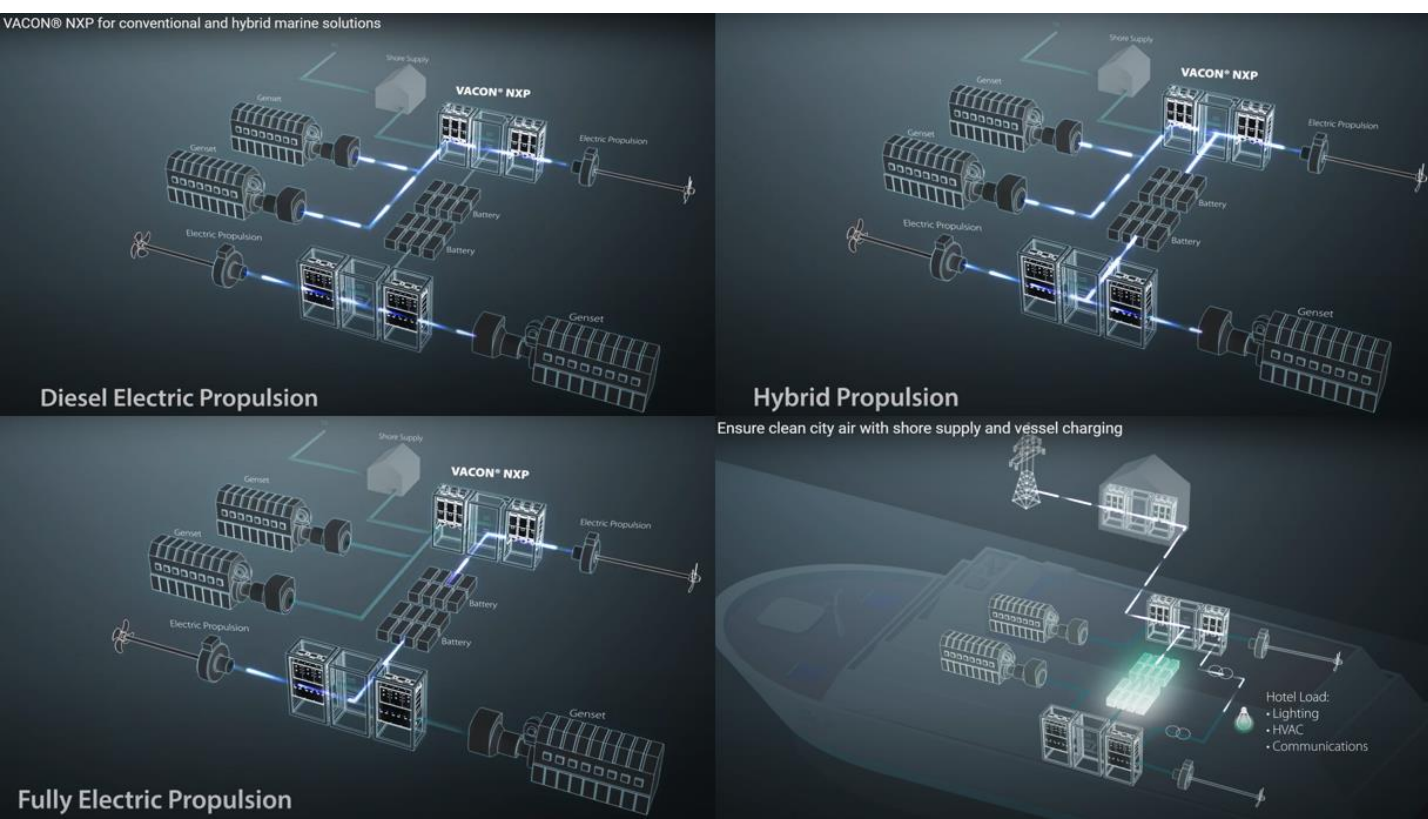
# Our Products Drive Panels



Low-voltage drives up to 6.0 MW				
VACON® 20	VACON® 20 Cold Plate	VACON® 100 INDUSTRIAL	VACON® 100 FLOW	VACON® NXP Air Cooled
VACON® NXP Air Cooled Enclosed Drives	VACON® NXP Liquid Cooled Drive	VACON® NXP Liquid Cooled Enclosed Drive	VACON® NXP System Drive	VACON® NXP Common DC Bus
VACON® NXP Liquid Cooled Common DC Bus	VACON® NXP Grid Converter	VACON® NXP DC/DC Converter	Harmonic products	Decentral drives up to 37 kW
			VACON® NXP Low Harmonic	VACON® 20 X
VACON® 100 X	VACON® 3000 Drive Kit	VACON® Software	VACON® NXP Low Harmonic	VACON® 20 X
Medium-voltage drives		Software		

## ENGINEERING TOMORROW

VACON® NXP for conventional and hybrid marine solutions





## Our Products Drive Panels



ZPA is appointed by ABB Finland as Authorized Value Provider (AVP) for ABB Drives up to 5MW 690VAC in Singapore for a third year running.

ZPA is able to provide Full Inhouse Engineering, Design, manufacturing, FAT, Testing and commissioning at site for Low Voltage Low harmonics Variable Frequency Drives.



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