

# **ENERGY SYSTEMS & POWER EPC SOLUTIONS**

## YANMAR FLYING-Y BUILDING

Takeito Yamaoka President Magokichi Yamaoka *Founder* 

Trade Name YANMAR Co. Ltd.	Capital 6M \$ / Annual Turnover 8,7B \$
Head Office YANMAR FLYING-Y BUILDING Osaka, Japonya	Employees (Company Base) 27.000 (2023)

# **ABOUT YANMAR**



With over 100 years of experience, we are working to provide sustainable solutions to the needs that are essential for human life. By focusing on the challenges our customers face in producing food and harnessing power, we enrich people's lives for all of our tomorrows.



The Yanmar logo, inspired by the wing structure of the Dragonfly Beetle, symbolizes the innovative spirit of the brand, its belief in the future and its world-leading technology.



Industrial Engine Since 1933



Marine Pleasure and Commercial Since 1947



Large

Equipments Since 1947 Generations Since 1954



**Energy Systems** Since 1954



Agriculture Since 1963



Construction Since 1966

## YANMAR'S BUSINESS AREAS



Yanmar has seven business fields serving on land, sea, and city. Our engine business offers quality and reliable engines since the founding. In our agricultural business, we expand globally to ensure an abundant food supply. Our marine related business strives to coexist with the marine environment. We offer energy-saving technology in our energy systems business. Our construction business provides an extensive range of construction equipment, and our component business manufactures innovative products.



# OUR BUSINESS DOMAINS ARE THE EARTH ITSELF



# **ABOUT YANMAR TURKEY**

As a full subsidiary of Yanmar in Turkey, we started our operations in Izmir in 2016. Together with our growing business lines, we opened our office in Istanbul in 2022. As Yanmar Turkey, we provide services in agricultural machinery and equipment, energy systems, industrial engines and e-commerce. Since 2017, we have been offering technological solutions in many regions such as Turkey and its neighboring countries, Eastern Europe, Turkic Republics, Arab countries, North Africa.

*Trade Name* YANMAR TURKEY MAKİNE A.Ş. *President* 

Mustafa Kemal Erdoğan Shoshi (Chairman of the Board)

Head Office Ater Tower Konak, İZMİR

*Istanbul Office* Metropol İstanbul Ataşehir, İSTANBUL



# YANMAR ENERGY SYSTEMS & POWER EPC BUSINESS

With our century-old experience and wide range of products, we produce reliable, long-lasting energy solutions.

### YANMAR POWER EPC BUSINESS MODEL IMPLEMENTATION



# What is the Power EPC\* Model?

Power Engineering Procurement Construction

POWER EPC Contracting New Business Model for Energy Systems

# **ENERGY SYSTEMS SOLUTIONS**



# Our Power EPC

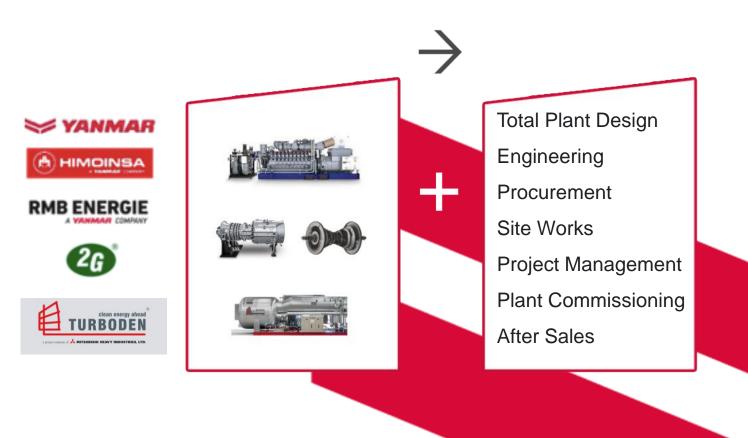
Diesel Generator Sets	Trigeneration	Micro Cogeneration	Medium Speed Engine	Cogeneration	Gas Turbine
					-3000-
Biogas Micro Cogeneration	Gas Engine Heat Pump	Lighting Tower	Biogas & Special Gas Engine	ORC	Steam Turbine

# YANMAR POWER EPC PROJECT IMPLEMENTATION STRATEGY



Yanmar offers a wide range of cogeneration / trigeneration systems with 85-90% efficiency, which can be used as single units or in multi-unit systems, providing excellent solutions for the generation of electrical power, hot water/steam/hot oil and cooling for the whole range of buildings where people live, work and play. Yanmar cogeneration and trigeneration systems are suitable for operation with natural gas, biogas/landfill/associated petroleum gas (flare)/hydrogen as fuel.

Yanmar provides turnkey solutions with all the power EPC works required for a project or power plant etc. Yanmar capabilities include all engineering, design, site works, ancillary equipment (fuel tanks, transfer and synchronisation of panels, cables/cable trays, transformers, MV cells...), procurement, electrical and mechanical installations, site operation, services for a power project and necessary construction & contracting works. Yanmar is also able to carry out on-grid/off-grid renewable energy projects, geothermal power plants, combined cycle power plants.



### ELECTRICAL & MECHANICAL SITE INSTALLATION WORKS POWER EPC PROJECTS

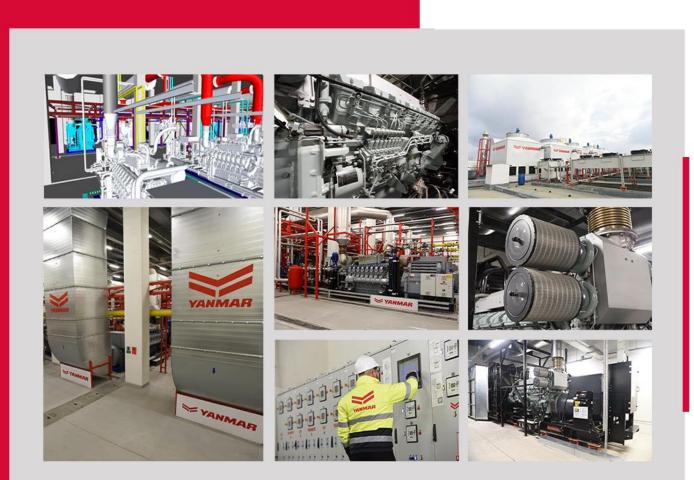


### **ELECTRICAL PRODUCTS**

- INDUSTRIAL AUTOMATION
- SYNCHRONIZATION SYSTEM
- MEDIUM VOLTAGE DISTRIBUTION SYSTEMS
- TRANSFORMER
- LOW VOLTAGE DISTRIBUTION SYSTEMS
- BUSBAR SYSTEM
- CABLES
- NEUTRAL RESISTANCE
- LOAD BANK
- RENTAL EQUIPMENT
- BATTERY CHARGER & UPS

### **MECHANICAL PRODUCTS**

- STANDARD / SPECIAL DESIGN CONTAINERS
- MODULAR TYPE CANOPY
- UNDER / ABOVE GROUND FUEL TANKS
- FUEL AUTOMATION SYSTEM
- EXHAUST SILENCER
- SOUND ATTENUATOR
- RADIATOR
- COOLING TOWER
- HEAT EXCHANGER
- HEAT RECOVERY BOILER
- ABS CHILLER
- SEISMIC EQUIPMENTS

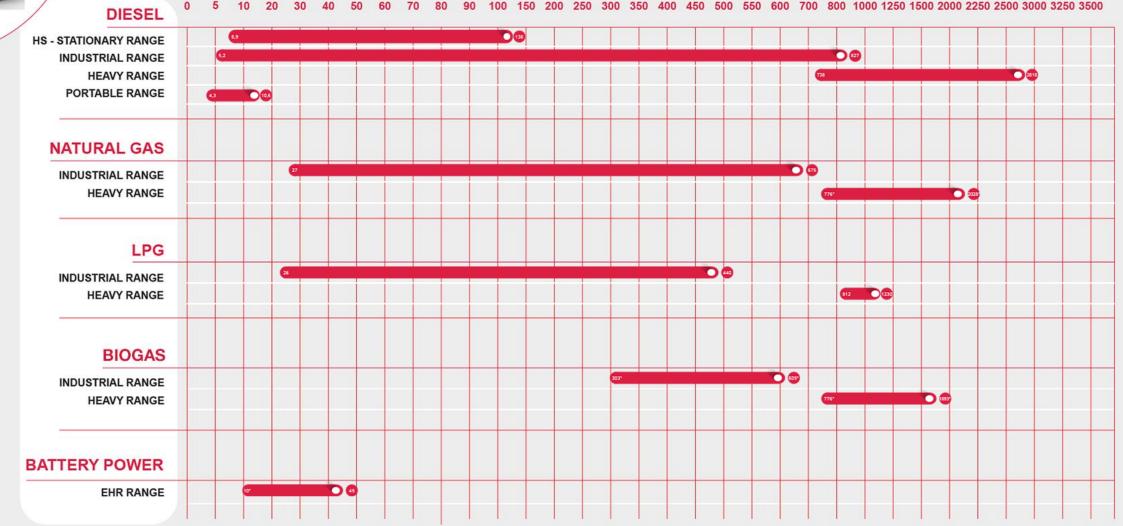




### **Himoinsa Products**



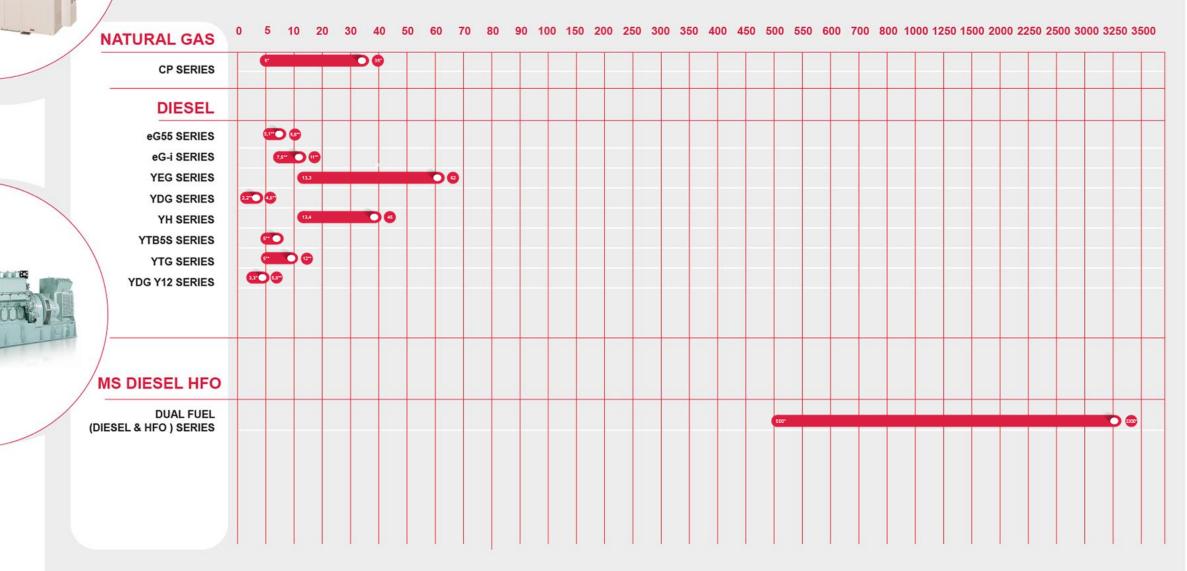
### POWER kVA PRP/ESP/COP/DSP



### **Yanmar Products**







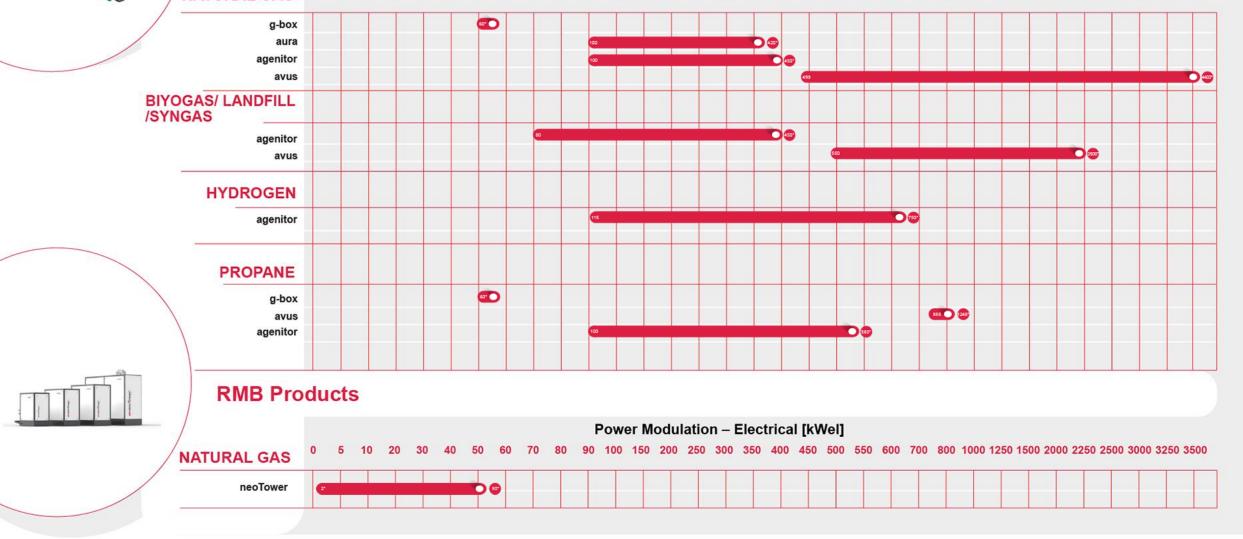


### **2G PRODUCTS**

# YANMAR

### **Output Electrical (kW)**

### NATURAL GAS 800 1000 1250 1500 2000 2250 2500 3000 3250 3500 4400



# COMPLETED & ONGOING TURNKEY POWER EPC PROJECTS



### HEALTHCARE

Given the sensitive nature of hospital environments, we work meticulously on our projects. At Yanmar, we offer special options for mission critical power in parallel power solutions, redundant start systems, generator set controls. 25 x 2.250 kVA / 62,5 MVA Diesel Genset

4 x 2,5 MWe + 1 x 2 MWe 12,5 MWe Trigeneration System



Başakşehir Çam & Sakura Hospital, **TURKEY** 



6 x 2.250 kVA + 3 x 1.350 kVA 17,5 MVA Diesel Generators 2 x 2 MWe / 4 MWe Trigeneration System



### Kütahya Hospital, TURKEY

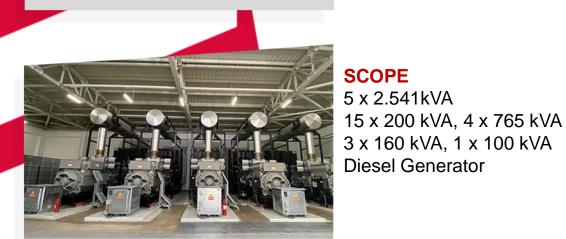


Power EPC Turnkey DL GENSETS

## CONSTRUCTION



International Airport, ALGER



Malatya Airport, TURKEY

SCOPE

1 x 2030 kVA 5 x 1030 kVA / 7,18 MVA Diesel Generator Sets

> Our generators are designed to meet the demanding requirements of your construction sites and are built to withstand the harshest working environments while being quiet, robust, safe and easy to use.

> > Power EPC Turnkey DL GENSETS

YANMAR

### **POWER PLANTS**

We add value to basic power solutions with our engineering, installation and maintenance services. Our supply can range from the sale of a single engine to a combined heat and power plant, a fully designed power plant or a hybrid or microgrid solution.

Power EPC Turnkey DL GENSETS SCOPE 3 Units 6EY22LW × 1 MW Hybrid Wind-Diesel Microgrid



RusHydro & Sakha Energo, NEDO, **RUSSIA** 



Scope: 9 x 1.785 + 9 x 2200 kVA 35.865 MVA Diesel Generator Set



Power Generation Plant, ANGOLA



# MINING



Gold Mine, **ZIMBABWE** 



Steel Manufacturing, GUINEA

### SCOPE

12 x 1 MWe Prime Diesel Generator, 8 x Containerized 70 m3 Fuel Tanks, Fuel Automation, Pump Stations Design and Installation Works

### SCOPE

12 x 2.250 kVA Diesel Generators, 8 x 40 m3 Fuel Tanks, Fuel Automation, MV Cells, Panels, Transformers Our mining generators feature anti-vibration supports, sound insulation and external connection points with easy maintenance access for all serviceable fluids and consumables, all focused on safety for maintenance technicians.



Places that provide missioncritical services, such as data centers, telecommunications centers, financial buildings, etc., need reliable power systems. At Yanmar, we design and manufacture diesel and gas generators to provide back-up power for mission-critical applications. 9 x 1930 kW | 18 MW Gas Generator Sets

### **CRITICAL POWER**

SCOPE 1 x 1900 kVA Diesel Generator



West Midlands, UNITED KINGDOM



Palawan Airport, PHILIPPINES



### **DATA CENTER**



Data Center Ali Baba Group, CHINA



Beijing Yongfeng Data Center, CHINA

SCOPE

5 x 3030 KVa 6 x 3100 Kva / 30.650 KVa Diesel Generator Sets



As new applications such as 5G, cloud computing and video platforms drive demand, the data center market continues to grow strongly, and the availability of all these data centers becomes critical. At Yanmar, we provide backup generator solutions for mission-critical data centers.

# **OIL & GAS**

741 kVA Natural Gas Power Generator

SCOPE

To keep your business moving forward, we offer Power EPC solutions where we manage the production, transportation and storage of oil and gas.

**SCOPE** 5 x 975 kW | 5 MW (COP) Natural Gas Power Generator



Brua Project, ROMANIA



Orellana Province, ECUADOR



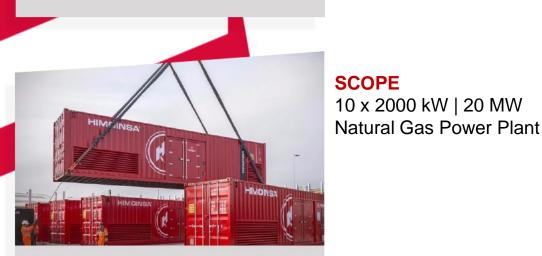


### SUSTAINABILITY



**SCOPE** 54 kWm | 50 kWe Micro Cogeneration

HAVELSAN, TURKEY



Capacity Market, Midlands, UNITED KINGDOM The energy industry is undergoing radical change due to the sudden emergence of recent social and geopolitical factors (pandemics, war, inflation). At Yanmar, we are making even greater efforts to reduce both harmful emissions (NOx, SOx, CO, particulates) and global warming emissions (CO2, CH4, NOx and CO) in the projects we undertake.

> Power EPC Turnkey DL GENSETS





SCOPE 2 x 35 kW / 70 kWe Micro Cogeneration

With our extensive capabilities and proven experience, we provide project development, construction services and turnkey engineering solutions in the field of agriculture to support our clients' goals.

SCOPE 2 x 889 kWel / 2 x 891 kWth Trigeneration



Harster Greenhouses, CANADA



Lemken, GERMANY



Power EPC Turnkey DL GENSETS

### FOOD & BEVERAGE



JBB Meat Company, POLAND



Salmon Farms, NORTHERN NORWAY

**SCOPE** 8.6 MVA Diesel Generator Set

> We provide turnkey engineering solutions for all electrical, mechanical and instrumentation needs in the food and beverage industry to ensure continuous production.





### MANUFACTURING

**SCOPE** 1,200 x 5 kWe / 6 MWe Medium Speed HFO Power Plant

Our Power EPC projects in the manufacturing sector range from plant expansions and upgrades to new brownfield or greenfield facilities. We work in partnership with our customers to deliver valueadded and reliable solutions.

2 x 889 kWe / 1,8 MWe Medium Speed HFO Power Plant



### Clothing Factory, BANGLADESH



Semi Conductor Factory, **PHILIPPINESS** 





We work tirelessly to provide optimal power solutions for every water treatment project, ensuring the power required for critical applications such as drinking water and wastewater treatment plants or desalination plants.

**SCOPE** 1660 kVA Diesel Generator



Water Treatment Plant, ALGERIA



Guzelyurt Waste Water Treatment Plant, **TURKEY** 

### SCOPE

4 x 25 kWe/100 KWe Micro Cogeneration System

### WATER TREATMENT

THANK YOU FOR YOUR TIME

\*

- THE

ARTIN STRUCT