

Industrial Power Solutions



Welcome to **Power Elektronik Inc.**
Product Presentation

Who is Power Elektronik Inc.?



Power Electronics Inc., located in Istanbul of Turkey and which has been providing production, sales and after-sales services in the power electronics industry for more than 20 years, is one of the pioneering and innovative companies in the sector that provides product sales and services to more than 50 countries.

Who is Power Elektronik Inc.?



Power Electronics Inc., also supports the development of the power electronics sector with the domestic capital products developing due to its R&D Center.

Power Electronics Inc., does not only sells products, but also provides solutions to the problems of its customers in power electronic sector all around the world.



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Who is Power Elektronik Inc.?



International System Certificates:



ISO 9001 – Quality Management

System Certificate



ISO 14001 – Environmental Management

System Certificate



ISO 18001 – Occupational Health and Safety

Management System Certificate



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Who is Power Elektronik Inc.?



Other International Certificates:

We could also deliver our products with one of certificates written adjacently according to our customers' customs requirement.

- ❖ SGS Certificate
- ❖ SASO Certificate
- ❖ Intertek Certificate
- ❖ Gost-R Certificate

Who is Power Elektronik Inc.?



Power Electronics Inc. has
R&D Centre Certificate issued
by Turkish Industry and
Technology Ministry.



Who is Power Elektronik Inc.?



We have **15 Professional R&D Design and Software Engineers.**

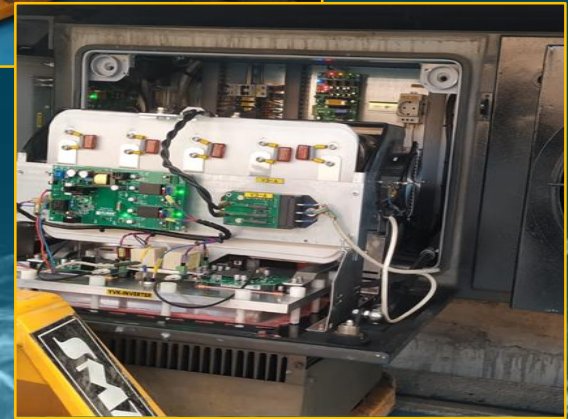
All test and power quality measurements are carried out

by our **R&D and Technical Service** departments

Who is Power Elektronik Inc.?



Railway Projects: We renovated all the electronic parts of the Inverters used in the train wagons manufactured by Turkish Wagon Inc.

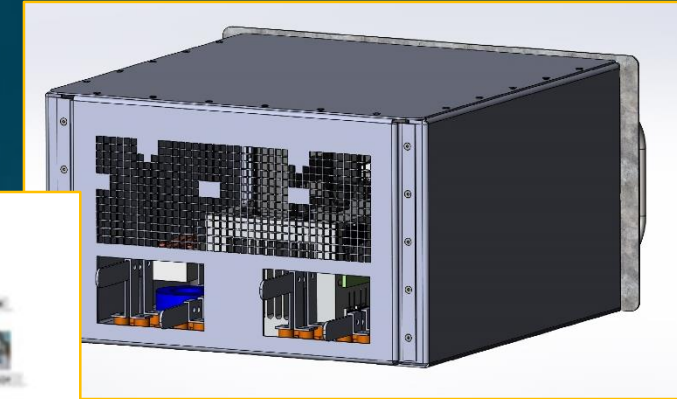
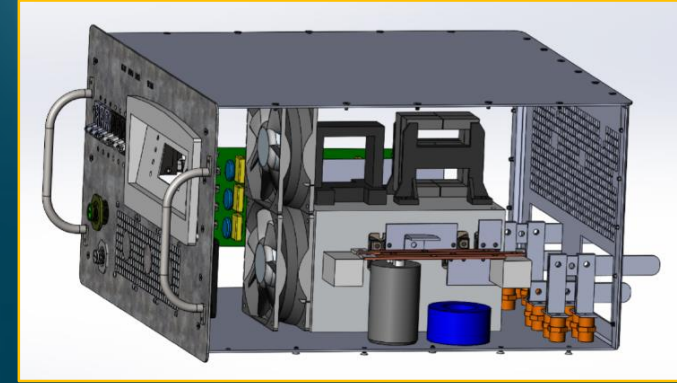


Who is Power Elektronik Inc.?



Military Navy Ship Projects:

The switch mode power supply's of Turkish Navy Ships were designed by our R&D and will be delivered to the corporation, shortly later.



Who is Power Elektronik Inc.?



**Power Supply (20 kHz)
of Ultrasonic**

Generator for plastic
injection and for face
mask production

sectors was designed
and manufactured by

Power Elektronik Inc.,

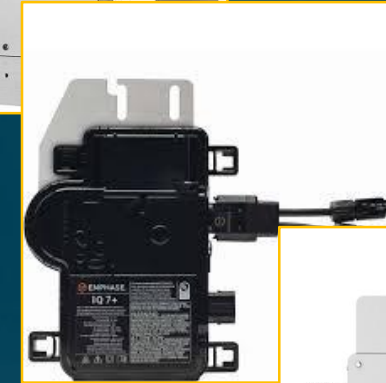
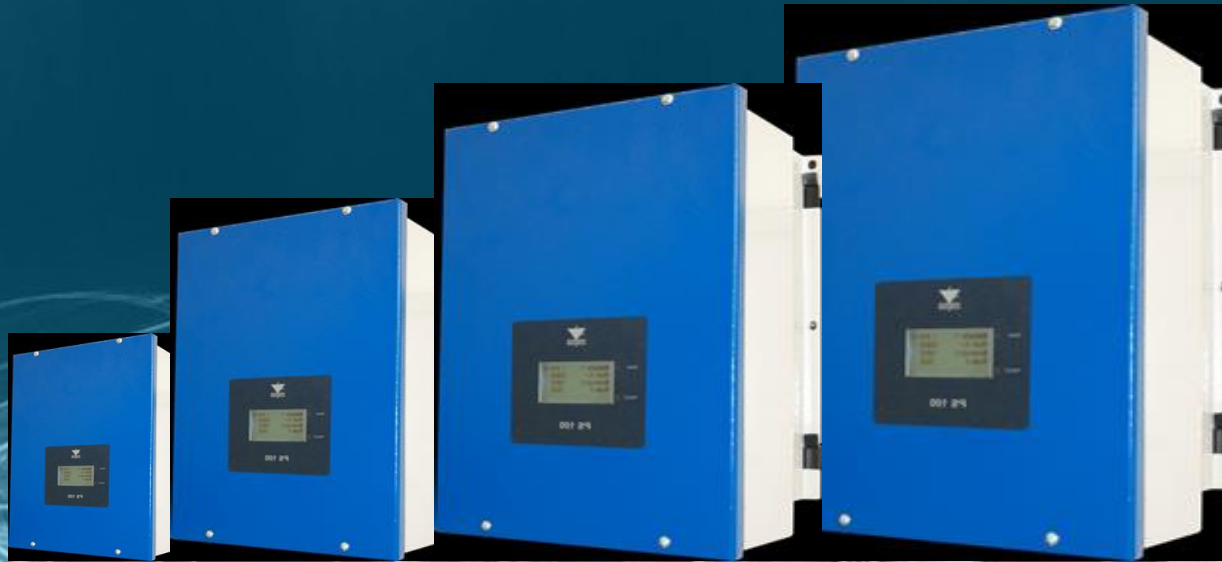


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On-Grid, Off-Grid and Micro Solar Invertors



International References



The ABB logo consists of the letters 'A', 'B', and 'B' in a bold, red, sans-serif font, each with a white vertical bar through its center.

The GE logo is a blue circle containing the letters 'GE' in a white, stylized font. To the right of the logo, the words 'GE GRID SOLUTIONS' are written in a blue, sans-serif font.

The Schneider Electric logo features the word 'Schneider' in a green, sans-serif font above the word 'Electric' in a smaller, green, sans-serif font. A green circular icon with a white lightning bolt is positioned between the two words.

The ANDRITZ logo is in a bold, blue, sans-serif font. Below it, the word 'Hydro' is written in a smaller, blue, sans-serif font.

The SIEMENS logo is in a bold, blue, sans-serif font.

These are some of our international customers to which we supply products for their projects throughout the world.

Solutions of Power Elektronik Inc.?



- ❖ Uninterruptable Power Supplies (UPS)
- ❖ Industrial Battery Charger (Rectifier)
- ❖ Static and Servo Voltage Stabilisers
- ❖ SAG Compansator
- ❖ Inverter
- ❖ Batteries
- ❖ Battery Management Systems
- ❖ Static and Dynamic Convertors
- ❖ Static Transfer Switch
- ❖ APU Inverters (Auxiliary Power Units)
- ❖ Diesel Generator

In fact, all these products constitute one of the components of power electronics. Although they seem to be independent from each other, we can mostly see these product groups while working together in a system.

Uninterruptable Power Supplies (UPS)



1 Phase/1 Phase - Monoblock UPS	
OL-Model - Tower Type	1 kVA, 2 kVA, 3 kVA, 6 kVA and 10 kVA
1 Phase/1 Phase - Monoblock UPS	
OL-Model - Rack Mount	1 kVA, 2 kVA, 3 kVA, 6 kVA and 10 kVA
3 Phase/1 Phase - Monoblock UPS	
OL-Model-Tower Type	10 kVA and 20 kVA
3 Phase/3 Phase - Monoblock UPS	
OL-Model-Tower Type	10 kVA, 20 kVA and 30 kVA
3 Phase/ 3 Phase - Monoblock UPS	
Gold DS Model	10 kVA - 800 kVA
3 Phase/ 3 Phase - Monoblock UPS	
Gold DS Model- Input IGBT/Output Isolation Transformer	10 kVA - 600 kVA
3 Phase/ 3 Phase - Modular UPS	
PWR Model	30 kVA - 900 kVA

Uninterruptable Power Supplies (UPS)



OL Model 1/1 UPS



PWR Model 1/1 UPS



Gold DS Model 3/3 UPS



OL Model 3/3 UPS



Modular Uninterruptable Power Supplies (UPS)



PWR 60/30	60 kVA / 2*30 kVA Modules
PWR 90/30	90 kVA / 3*30 kVA Modules
PWR 120/30	120 kVA / 4*30 kVA Modules
PWR 150/25	150 kVA / 6*25 kVa Modules
PWR 240/30	240 kVA / 8*30 kVA Modules
PWR 300/75	300 kVA / 4*75 kVA Modules
PWR 350/50	350 kVA / 7*50 kVA Modules
PWR 450/75	450 kVA / 6*75 kVA Modules
PWR 500/50	500 kVA / 10*50 kVA Modules
PWR 600/75	600 kVA / 8*75 kVA Modules
PWR 800/50	800 kVA / 16*50 kVA Modules
PWR 900/75	900 kVA / 12*75 kVA Modules

As **Power Electronics Inc.**, we could supply modular UPS of which capacity range between **30 kVA up to 900 kVA.**

With modular structure, you could increase the capacity of the UPS while the power consumption of your customer increases, simultaneously. Moreover, you could replace the failed power module with the brand new one without causing energy loss.

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Modular Uninterruptable Power Supplies (UPS)



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Industrial Battery Chargers (Rectifier)

All these battery chargers are the standard bulk manufacturing products of **Power Electronics Inc.**

We could manufacture customized battery chargers such as '**440VAC/125VDC 50A-Andritz-Mexico**' and '**220VAC/24VDC 10A Dual Battery Charger-Portugal**' in order to meet our customers' requirements all around the world.

Single Phase Battery Chargers

220VAC/24VDC

5A-100A

220VAC/48VDC

10A-100A

220VAC/60VDC

35A

220VAC/110VDC

5A-80A

220VAC/220VDC

10A

Three Phase Battery Chargers

380VAC/48VDC

30A-100A

380VAC/110VDC

25A-100A

380VAC/220VDC

60A-90A

Industrial Battery Chargers (Rectifier) Case Study-1



Çan Thermal Power Plant of Çanakkale-Turkey,

GE project 340MW/h

- ❖ 2*400VAC/220VDC 400A 12 Pulse industrial rectifier,
- ❖ 2*300 kVA 12 pulse industrial UPS (6IN)



Industrial Battery Chargers (Rectifier) Case Study-2



Nigeria Petroleum Power Plant Project

- ❖ 2 * REDUNDANT PARALLEL * PWR33 MODEL 380VAC/110VDC 450A BATTERY CHARGER WITH NI-CD BATTERIES 92 X 740AH BATTERY BANK
- ❖ 2 * PWR31 50KVA UPS INDUSTRIAL UPS WITH 210 X 560AH BATTERY BANK 1 HOUR BACKUP
- ❖ 1 * DC DISTRIBUTION SWITCHBOARD AS IP54
- ❖ 1* AC SWITCHBOARD AS IP54



Industrial Battery Chargers (Rectifier) Case Study-2



Nigeria Petroleum Power Plant Project



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Static and Servo Voltage Stabilisers

Static Voltage Stabilisers		Input Voltage Range	Output Voltage	Servo Voltage Stabilisers		Input Voltage Range	Output Voltage
Single Phase	3,5 kVA - 30 kVA	170-260VAC	220VAC- /+%3	Single Phase	1 kVA - 50 kVA	160-260VAC	220VAC
		170-260VAC					
		150-260VAC		Three Phase	7,5 kVA - 1000 kVA	275-435VAC	380VAC
		130-260VAC					
		110-260VAC					
Three Phase	30 kVA - 400 kVA	300-450VAC	380VAC- /+%3	<p>As Power Electronics Inc., we could manufacture the servo voltage stabilisers with aluminium wiring or with copper wiring according to the requirement of our customers</p>			
		300-450VAC					
		260-450VAC					
		225-450VAC					
		190-450VAC					
	500 kVA - 800 kVA	300-450VAC					
		300-450VAC					
		260-450VAC					
	1000 kVA - 3000 kVA	300-450VAC					
		300-450VAC					
		260-450VAC					
		300-450VAC					
		300-450VAC					

Static Voltage and Frequency Converters

60-400Hz, 10-1500kVA

Designed in online system and it feeds the loads it is connected by the stable frequency and voltage produced by itself.

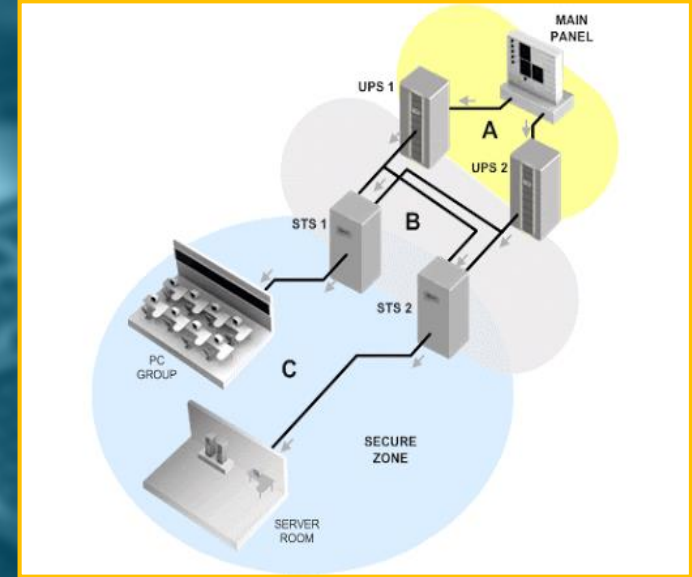
Together with the galvanic isolation transformer it provides a more reliable and noise free clean energy.



Static Transfer Switch (STS)

❖ 2-3-4 Pole

❖ 50-100-250-500-1000-5000A



Ortea Voltage Stabilisers & SAG Compensators



As Power Electronics Inc., we're the distributor of Ortea of Italy.

- Modern industry is becoming more automated and the sensitivity of processes to power quality events is increasing.
- In practice the voltage is never perfect.
- Sensitive industry sectors may incur a Power Quality cost up to 4% of their turnover, with about 60% of those costs caused by voltage sags and short interruptions



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Ortea Voltage Stabilisers & SAG Compensators



What is voltage sag?

A voltage sag is a short-term reduction in, or complete loss of, nominal voltage. Generally voltage sag happens when the nominal voltage decreases between 10 and 90 percent of nominal voltage for one-half cycle to one minute. There are two main causes of voltage sags; starting of large loads either on the affected site or by a consumer on the same circuit and faults on other branches of the network.

The more modern the equipment is and the more electronics is required, the more serious are the problems caused through voltage sag. With the increasing number of regenerative energy sources, energy sags, fluctuations and frequency deviations also increase.

Example of costs due to voltage sags:

- Costs for unproductive personnel due to the sudden termination of the production cycle.
- Costs for raw materials and production lost.
- Costs for damages and/or malfunctions of machineries (repairs to them, temporary hire of new ones).
- Penalties caused by contractual shortcomings.
- Sanctions for damage to the environment.
- Increase in general insurance costs.



Battery Solutions

As the manufacturer of UPS and battery chargers we could supply various type of **lead acid** (2V & 12V) and **Ni-Cd** Batteries, as well. The life expectancy of lead acid batteries could be 5 or 10 year, according to your requirement. If you need life expectancy up to 20 years and moreover the batteries would be operated in a hot environment, it's better to choose the Ni-Cd Batteries.

- ❖ Exide, Yuasa, EnerSys and Hoppecke are for meeting the battery requirement of European originated and with 10 year design life.
- ❖ We supply Alcad, Hoppecke or EnerSys branded batteries for Ni-Cd requirement, too.

Battery Management System



As you know, with passing time, the batteries are getting older and begin to lose their capacity. Even, one battery's failure could cause the others in the same string to get fail after a while.

In order to monitor the condition of each battery remotely one by one, we suggest our customers to use **Battery Management System.**

You could use these systems for both batteries connected to your UPS' and to battery chargers

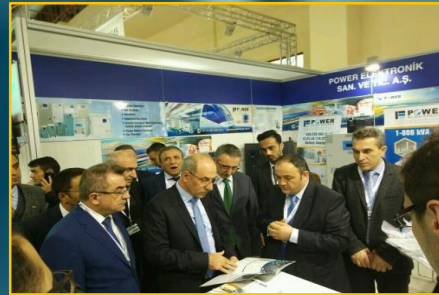
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Worldwide Exhibitions



As **Power Elektronik Inc.**, we attend all of the exhibitions related with power electronic sector all around the world such as Messe Hannover-Germany, Middle East Electricity-Dubai, Elektrix -Egypt, ERA-Algeria ERA 2019 as exhibitor.



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Welcome to Power Elektronik Inc. Product Presentation

Thank You For Attending Our Presentation and Sharing Your Time.



For Your Questions, Please Feel Free to Get Contact With me Via My Below Mail

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