



# PHOTOVOLTAIC SOLUTIONS

# RENEWABLE ENERGY

Due to growing importance of renewable energy sources in Polish energy mix, photovoltaic systems are gaining in popularity. The use of photovoltaics allows to reduce electricity, fuel costs as well as maintenance wherever a diesel generator is the main source of power. Furthermore, integration with CAT® energy stores, cogeneration systems and dedicated Microgrid Master Control allows to build energy systems fully independent from conventional energy sources that may also be used as a backup choice. Moreover, photovoltaic panels are environmentally friendly.

## PHOTOVOLTAIC

Following latest trends in the development of distributed, solar-based energy, **Caterpillar** has introduced photovoltaic panels under its own brand. These high-end CAT® products allows Eneria to provide comprehensive photovoltaic solutions that enable the customers to generate **energy profit**.

### PHOTOVOLTAIC SYSTEMS - HIGH-POWER MODULES



Compliance with standards, certificates:



An illustrative photo. The actual view may slightly vary.

### CAT PVT 405 THIN FILM PHOTOVOLTAIC PANELS

CAT® PVT405 photovoltaic panels with CdTe thin film technology. The modules are eye-catching and aesthetic. By generating more electricity than competing solar modules with the same rating, CAT® PVT405 panels are the perfect choice in terms of performance and reliability.

#### Features:

- 16.4% of maximum efficiency for the PVT405 model
- -0/+5% of power tolerance
- Higher power gain compared to standard c-Si modules
- More power per square meter
- Excellent temperature power factor and spectral response in high humidity and shading.



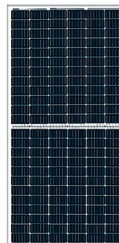
An illustrative photo. The actual view may slightly vary.

### CAT PVC 415 MP MONOCRYSTALLINE PHOTOVOLTAIC PANELS

PERC monocrystalline panels. The module offers great performance even in adverse weather conditions such as low temperature or low lighting. The PVC 415 panel is a single-module, 415 Wp power station with 25-year warranty on electricity production as well as the product itself. The panels provide a great power-to-surface ratio.

#### Features:

- Up to 20.1% efficiency
- -0/+5% of output power tolerance
- Linear shading response
- Reduced operating temperature of the module due to unique BUS system.
- Anti-PID



An illustrative photo. The actual view may slightly vary.

### CAT PVC 435 MP MONOCRYSTALLINE PHOTOVOLTAIC PANELS

Monocrystalline photoelectric PERC module divided in half. The panel has a very high efficiency of up to 19.8%. Reduced current in the circuit results in lower resistance of the module circuits and lower risk of hot spots. High number of individual cells in the modules – up to 144. The modules available also in bifacial version.

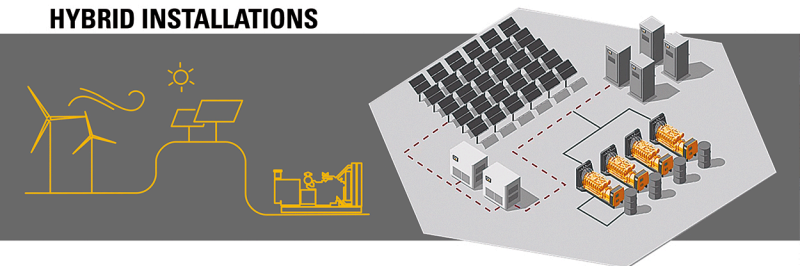
#### Features:

- Up to 19.8% efficiency
- -0/+5 W of output power tolerance
- Reduced sensitivity to shading due to Half-Cut module structure
- Anti-PID
- Bifacial models

## ENERGY STORAGE



## HYBRID INSTALLATIONS



## SOLAR FARM



**Eneria** **CAT**

Please contact us – and check the benefits of Eneria solutions.

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