

AVRii

EUROPEAN PV
devices producer
and distributor

CATALOG
2023

avrii.eu



PHOTOVOLTAICS



ELECTROMOBILITY



ENERGY STORAGE

OWN BRAND

AVRii SOL

AVRii INTEGRA

PHOTOVOLTAIC
INVERTERS
MODULES
CARPORTS



AUTHORIZED
DISTRIBUTOR

Budmat.

CWL
ROOF SAFETY MORA SWEDEN

Fronius

GOODWE

HELUKABEL

HUAWEI

KACO
new energy.

PIXII

TigoTM
energy

Webasto



The best partner for renewable energy installers

Avrii is a leading European PV component manufacturer and distributor. We specialize in providing high-quality photovoltaic modules, inverters, carports, and structural solutions. With our roots in a company with 40 years of experience in the construction industry and 12 years of expertise in PV module production, we bring a wealth of knowledge and reliability to the renewable energy sector.

At Avrii, we are committed to driving innovation and advancing the industry. That's why we proudly operate the European Photovoltaic Academy, offering specialized training and education to ensure the highest standards of installation and maintenance.

As your trusted partner, we offer proven technologies, comprehensive technical support, and training programs to empower our customers. We believe in building long-lasting B2B relationships based on trust and mutual success.

Choose Avrii for a wide range of PV solutions, exceptional support, and a dedication to sustainable energy.

INTRODUCING Avrii SOL Our Exclusive Line of PV Solutions

Avrii SOL is your premier choice for photovoltaic modules, inverters, and carports developed based on European technological innovation. With a strong commitment to quality, our products are engineered to deliver superior performance and reliability. Rest assured with our warranty-backed security and dedicated technical support from our experienced team of experts. Choose Avrii SOL to embark on your solar journey with confidence and unlock the full potential of renewable energy.

TRUSTED SUPPLY A Guarantee You Can Count On

As an Authorized Distributor for various renowned brands, we are a verified source for a wide range of solar components and energy management systems. Whether you're in need of photovoltaic modules, inverters, energy storage solutions, electric vehicle chargers, or carports, we've got you covered. Our commitment to quality and reliability ensures that you can trust us as your go-to supplier for all your solar needs. With us, you can rest assured knowing that each product we supply comes with a reliable warranty and the assurance of our commitment to quality.

PREMIUM QUALITY Elevating Standards for Excellence

At Avrii, we prioritize quality when introducing new devices and systems to our product portfolio. We carefully select products based on their quality, functionality, and potential for future development. Each new product undergoes rigorous internal testing, and we thoroughly vet suppliers to ensure their reliability. Rest assured that when you choose Avrii, you're getting products that meet our stringent quality standards and have been carefully evaluated for their performance and longevity.

~ 100 MW
POWER OF DELIVERED
MODULES

~50 000
DELIVERED
INVERTERS

~ 20 000
TRAINING
PARTICIPANTS

6-7

Avrii SOL

European Inverters and N-Type Solar Modules



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Avrii INTEGRA

Solar Solutions Harmonizing with Surroundings



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GoodWe

EcoSmartHome – New Dimension of Photovoltaics 2.0



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Huawei

Smart PV – Smart solutions for businesses



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Kaco

European manufacturer of intelligent inverters



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Pixii

Advanced ENERGY STORAGE for businesses and enterprises



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CWL

Photovoltaic module mounting system



20-21

Budmat

Solar panel mounting structures



22-23 In our offer, you will also find

Kehua - 20-250 kW inverters

Tigo - optimizers

Sinexcel - reactive power compensator

Avrii - AC and DC switchboards

Helukabel - Photovoltaic Installation Cables

Mounting structures

Webasto - Electric Vehicle Charging Stations

Fronius - Inverters and electric vehicle charges

Inverters and electric vehicle charge

rs
Inverters and electric vehicle chargers



If you are looking for a European brand of inverters and photovoltaic modules at a good price while maintaining high quality and durability, Avrii SOL is the perfect choice for you. Our products have a wide range of applications in both residential and commercial installations. Avrii SOL is a European brand designed to provide a quick return on investment with an excellent price-to-quality ratio, along with the assurance of technical support from experienced experts and a warranty from a European producer.

Why Avrii SOL?



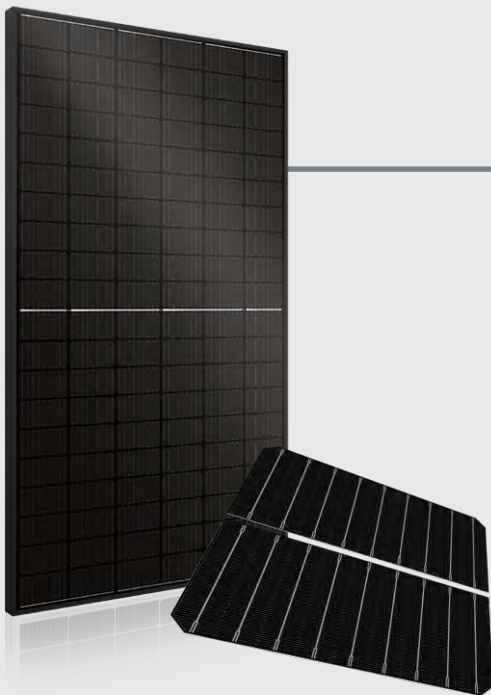
Discover our range of European inverters and modules available at highly competitive prices. We understand the importance of cost-effectiveness in the renewable energy industry, and that's why we offer top-quality products that won't break the bank. With our competitively priced inverters and modules, you can enjoy the benefits of sustainable energy without compromising on affordability



Avrii is a trusted brand supported by the extensive expertise of leaders in the European distribution and production market. With years of experience and a solid reputation, we bring a wealth of knowledge and reliability to the renewable energy sector. Our partnerships with industry leaders ensure that our products meet the highest standards of quality, performance, and innovation



Experience the efficiency and user-friendliness of our solutions designed to cater to everyone's needs. Our products are not only high-performing but also incredibly easy to install and operate. Whether you are an experienced professional or new to the world of renewable energy, our user-friendly solutions will simplify your installation process and provide a seamless experience



Avrii SOL N-Power Modules

Technology based on N-Type cells:

- Higher efficiency - gain more electrical energy compared to standard modules while maintaining the same surface area
- Better heat tolerance - high efficiency even in high-temperature conditions
- Increased resistance to degradation - longer lifespan of photovoltaic modules



Avrii SOL European inverters for home and business use - from 25 to 110 kW

- Exceptional power - up to 10% more power than the inverter's nominal power
- Quality control - each inverter is tested upon leaving the factory
- Certified components from leading manufacturers
- Energy-efficient - it doesn't consume energy when not in operation (it just shuts down)
- Daily operational safety - the inverter performs installation safety tests every day
- User-friendly operation - you can choose whether to control the inverter via an application or display (ease of use for elderly individuals)
- Modern design - compact dimensions and weight, aesthetic appearance
- Compatible with high-current modules



Introducing Avrii INTEGRA - where modernity meets durability in a stunning array of photovoltaic solutions. Our European-made products, including carports, garden fence modules, balcony railings, and solar benches, seamlessly fuse innovation and strength. Embrace a greener future without compromising on style or reliability. Avrii INTEGRA invites you to experience the perfect synergy of renewable energy and design excellence, making them an integral part of home, business, hotel, or educational institution.



Why Avrii INTEGRA?



Modern and durable: Our European-made products combine modern design aesthetics with robust construction, ensuring both visual appeal and long-lasting performance



Versatile applications: Whether it's carports, garden fence modules, balcony railings, or solar benches, Avrii INTEGRA provides versatile solutions that can be adapted to various architectural styles and environments



Reliability and Comprehensive Warranty: Rest assured in the reliability and longevity of Avrii INTEGRA solutions, backed by our commitment to quality and a comprehensive warranty



Avrii INTEGRA Carports

- Parking shelter customized for photovoltaic module integration
- Two standard parking spaces with flexible expansion options
- Possibility of integrating modules of various sizes
- High-quality components and resistance to wind and snow loads
- Dedicated system ensuring structural integrity and waterproofing
- Generating clean electrical energy using sunlight
- Protecting vehicles from weather conditions such as rain, hail, and sunlight
- Ability to charge electric vehicles using installed photovoltaic modules



Avrii INTEGRA Modules

Photovoltaic modules for use in fences and balustrades:

- Exceptionally weather-resistant
- LID-free (Light-Induced Degradation) with high efficiency
- N-type cells and active front and back surfaces increase module yields
- Space-saving - alternative to popular rooftop or facade installations
- High performance and a guaranteed output for 25 years
- Durable construction for long-lasting reliability
- Easy installation and maintenance
- Environmentally friendly and sustainable energy solution
- Suitable for both residential and commercial

Avrii INTEGRA Bench

Solar benches with exceptional design

- High-quality materials, robust construction
- Wireless device charging capabilities in both private and public spaces
- Modern design
- Comfort and functionality



Modern garden architecture combined with renewable energy sources



Perfect for enhancing the surroundings of hotels, parks, and recreational areas



Products for responsible businesses looking to reduce electricity costs and have a positive impact on the environment



Integrated systems for smart city solutions

GoodWe is a recognized global manufacturer of PV inverters and energy storage systems. With a total of over 3 million devices produced and installed capacity of 35 GW in over 100 countries, GoodWe offers a wide range of PV solutions for homes, businesses, and large-scale projects, ensuring high performance and reliability. With over 4,000 employees and a 700-member R&D team, GoodWe is the most financially stable inverter manufacturer according to the Bloomberg New Energy Finance ranking.

Why Goodwe?

Top 3 in the global market for hybrid inverters

High quality and reliability

Wide range of products

Compact size, easy installation

Proven brand, global presence

String inverters



SDT G2 PLUS

Maximum energy efficiency in high-power rooftop PV installations

Chain inverters with power ratings of 4-20 kW and higher input currents (up to 16 A), making them an ideal choice for 3-phase residential systems and small commercial systems with high-power PV modules



SMT

Efficient and reliable energy generation in commercial rooftop PV installations

Chain inverter 25-60 kW designed for commercial installations. With 6 MPPTs and a maximum input current of 15 A per string, the inverter is perfectly suited for complex roofs and compatible with a wide range of PV modules



HT

Compact and efficient high-power density inverters

Chain inverters with power ratings of 100-250 kW, designed to maximize return on investment in large commercial installations and utility-scale PV projects. The cooling system maintains module temperature difference below 3 °C

Hybrid inverters

- Integrated and advanced backup: switching time standard UPS <10ms
- All-in-one - delivered in one package
- Energy Management System (EMS)
- Asymmetric power distribution across phases
- Wide list of compatible batteries

Energy storage systems

- Comprehensive solution from a single manufacturer
- Easy installation: automatic module recognition
- Reliable LFP cell technology
- Advanced safety standards VDE 2510-50
- Remote diagnostics and updates



ET PLUS (16A)

Optimizing self-consumption in home ecosystems

A versatile 3-phase hybrid inverter that allows for optimizing the level of self-consumption of energy in households

Both series feature advanced functions of hybrid inverters, such as standard UPS emergency power supply with <10 ms switching, integration with Smart Home systems, asymmetrical energy distribution across phases, and wide compatibility with energy storage systems from various manufacturers.



ET 15-30

Safe and practical HV energy storage for backup power supply from PV and even greater energy autonomy

Modern and unique on the market, the 15-30 kW hybrid inverters are perfect for large installations in homes and businesses



Lynx Home F PLUS

Safe and practical HV energy storage for backup power supply from PV and even greater energy autonomy

High-voltage energy storage systems with capacities ranging from 6.6 kWh to 16.4 kWh, featuring reliable LFP cell technology and advanced safety standards compliant with VDE 2510-50. They are an ideal solution for smart energy management and ensuring emergency power supply in photovoltaic installations



Standard warranty

On-grid inverters | **5 years**
Hybrid inverters | **5 years**

Energy storage systems

Product warranty | **5 years**
Performance warranty | **10 years**



GOODWE PLUS+

10 years

Become a GoodWe PLUS+ installer

The GOODWE PLUS program offers exclusive support, professional training, and extended warranty up to 10 years for on-grid inverters up to 20 kW. Join the community of GoodWe PLUS installers and enjoy unbeatable quality and limitless opportunities for solar industry professionals.

Huawei is a leading global provider of smart solutions for the energy sector, including inverters, optimizers, energy storage systems, and transformer stations. The company aims to make digital technology accessible to every individual, home, and organization to create a fully connected and intelligent world. This commitment is reflected in their substantial investments in research and focus on technologies that drive the world forward. At Huawei, innovation is centered around meeting the needs of their customers.



Why Huawei?

AI powered AFCI for safety PV installed

Flexible optimization for better utilization of roof space

High efficiency and 99.5% reliable operation verified by TUV

Remote monitoring of installations through intelligent cloud-based solutions

PID Recovery - a function that extends the lifespan of PV modules

Solutions for homes and businesses

Wide range of inverters from 3 to 100 kW, ensuring maximum safety

- AFCI supported by AI, verified by TUV for compliance with rigorous standards
- Flexibly designed with universal optimization capabilities
- Pioneer of hybrid inverters in the European PV market



Large-scale solutions

**Scalable 330 kW inverter solution
High efficiency and availability guarantee maximum LCOE reduction**

- Increased safety through modern AI-powered technologies
- Universal inverter for high-current and high-voltage modules
- Intelligent I-V curve diagnostics facilitate maintenance and upkeep of the entire farm





Inverters below 30 kW	10 years
Inverters from 30 kW	5 years
Home energy storage	10 years or 16.45 MWh
Optimizers	25 years



Home energy storage 5-30 kWh

Designed for residential applications, it enables increased self-consumption and load profile optimization in households and small businesses. It allows for backup power supply with an additional accessory, the BackupBox

- High battery utilization through parallel connection
- Expandability without compromising efficiency
- 5 levels of protection



Commercial energy storage 200 kWh

A compact containerized solution for outdoor installation, designed to optimize energy costs in businesses. With a modular design, systems up to 800 kWh can be created

- Module-level optimization
- Multi-level safety systems
- Interphase voltage balancing for asymmetrical loads



Industrial energy storage 2 MWh

A robust solution designed for industrial applications, enabling efficient energy management and grid support. It offers high capacity storage for demanding power requirements

- Scalable design for larger energy needs
- Advanced management and control features
- Integration with grid services for enhanced grid stability and demand response capabilities



Avrii, as one of the few distributors in Europe, holds the prestigious Gold Partner Smart PV status awarded by Huawei. This status confirms their high level of product knowledge, exemplary customer service standards, and a wide range of shared accomplishments.



KACO new energy, a company belonging to Siemens AG, is a manufacturer of inverters for photovoltaic installations. Since 1999, this German company has supplied over 900,000 inverters. KACO new energy is the first company in the photovoltaic industry to achieve carbon-neutral production, meaning it has eliminated CO2 emissions from its manufacturing processes.

Why Kaco?

Full range of PV string inverters from 3 kW to 165 kW

Large-scale inverters with technology that ensures higher durability and efficiency

Dedicated PV Generator Sizing Tool

Free monitoring for systems up to 100 kW

Top Brand PV Award Germany in 2021 and 2022



Blueplanet 50.0 TL3

Reliable inverter for commercial photovoltaic applications



blueplanet 3.0 NX3 M2 – 10.0 NX3 M2

10 years

blueplanet 15.0 + 20.0 NX3 M2

5 years

blueplanet 50.0 TL3

5 years



Blueplanet 3.0 NX3 M2 - 20.0 NX3 M2

Modern, user-friendly inverters for residential and small commercial photovoltaic installations

The photovoltaic inverters from the blueplanet NX3 M2 series, with their two MPP trackers, wide operating range, and very low start-up voltage, can be used not only in residential installations but also in systems for micro- and small businesses that prioritize European quality standards. They provide easy installation and safe operation

- Functional and sturdy construction
- User-friendly Wi-Fi configuration and monitoring application (including Wi-Fi card)
- Built-in AC and DC surge protection

In 1999, KACO new energy introduced the world's first transformerless photovoltaic inverter to the market.





Advanced ENERGY STORAGE for businesses and enterprises



The device from a Norwegian manufacturer for flexible energy storage not only reduces energy costs but also ensures stability and safety in case of power outages. Pixii PowerShaper improves grid quality and allows for reactive power compensation. It is an ideal solution, especially for larger industrial facilities, developers, healthcare institutions, and also works well for smaller businesses.

Why Pixii?



Energy savings and grid management

A wide range of autonomous or centrally controlled options available for energy management. Reactive power compensation is also provided



ALL IN ONE

An integrated and comprehensive system ready to work with the grid



Modularity and Scalability

Independent module exchange PixiiBox allows for seamless operation. Possibility of expansion to increase capacity/power



PowerShaper2

Freestanding Cabinet

- Built-in GateWay management module
- Temperature maintenance system
- Fire alarm system
- Built-in AC protections
- Mobile partitions
- Expandable without loss of efficiency
- 5 levels of security



5 years

5-year warranty when purchasing the PowerShaper2 system, Polarium battery modules, and Pixii-Box AC-DC modules



Bidirectional AC/DC energy conversion module

- Charging and handling of multiple battery technologies
- Additional energy-saving features and support for distribution grids
- Galvanic isolation allowing for a physical interruption in power circuits
- Real-time response to changes in electrical grid parameters



Polarium batteries: 4.8 kWh or 12.9 kWh

- Polarium batteries: 4.8 kWh or 12.9 kWh
- LFP (4.8 kWh) or NMC (12.9 kWh) batteries with multiple charging capability
- Reliable backup power for hybrid, off-grid, and grid-connected installations
- Additional protection against dust and moisture for extended lifespan



AVRII

We are one of the few companies in Europe that has partnered with Pixii (official manufacturer from Norway) for the distribution of their innovative devices - Pixii PowerShaper

CW Lundberg is a company with production located in Mora, Sweden. With over 35 years in the roofing industry, they focus on manufacturing and development. They produce PV module mounting systems, protection against falling snow, and fall protection for people on roofs.

Why CWL?



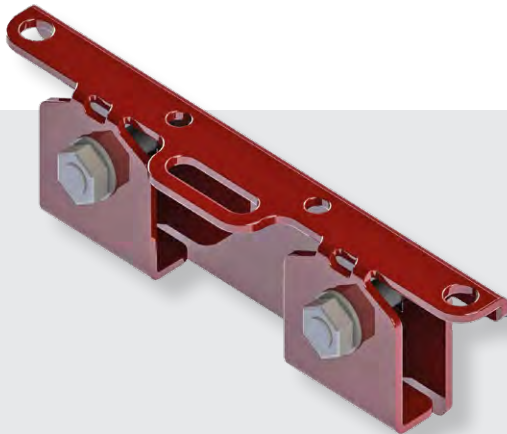
Experience and Competencies



Swedish Quality and Innovation



Long-term competitive warranty



Mounting for solar panels on metal roofs

- Universal product for click-type and standing seam roof coverings
- Wide range of colors available



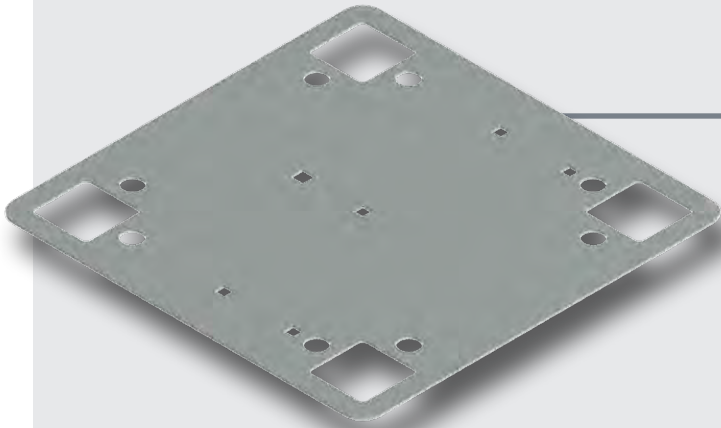
Mounting for profiled sheet metal

- Gold Roofing Product Award at Střechy Praha 2023 Construction Fair
- Universal product for metal tiles, trapezoidal sheets, and sandwich panels
- Installed in the upper profile of the roof covering
- Wide range of colors



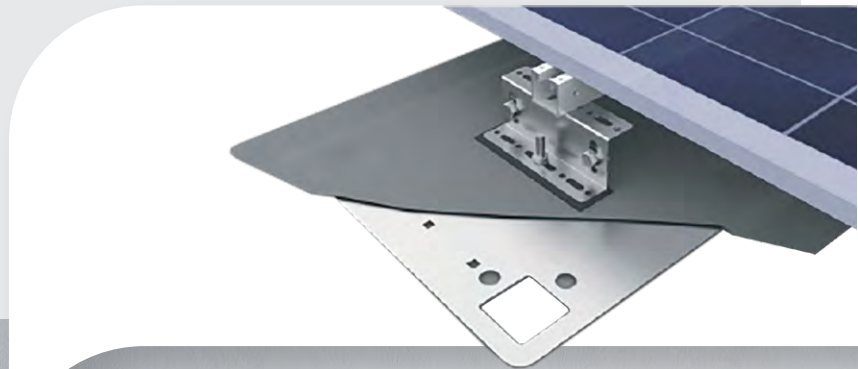
40-year warranty in the C-4
corrosion resistance class


40 years



CWL Mounting Plate

- A product designed for installation on flat roofs - recommended for asphalt and membrane roofing
- Lightweight construction - an alternative to ballast, providing reduced load
- Easy, non-invasive roof installation





Budmat, a company with 30 years of experience in steel processing, offers innovative solutions for the construction industry. Their portfolio includes roofing, facade systems, finishing profiles, and structural elements made of steel. As part of their PV systems, Budmat delivers high-quality products, a comprehensive offering, and engages in creating a better world by providing clean, renewable energy. Their team of experts holds multiple patented technologies, which are the result of their work and experience.

Why Budmat?

Individual approach to each investment - with due attention and care for every detail

Years of experience in the production of steel systems



10 years

warranty against perforation due to corrosion on the structural elements of free-standing supports for photovoltaic modules





Photovoltaic farms

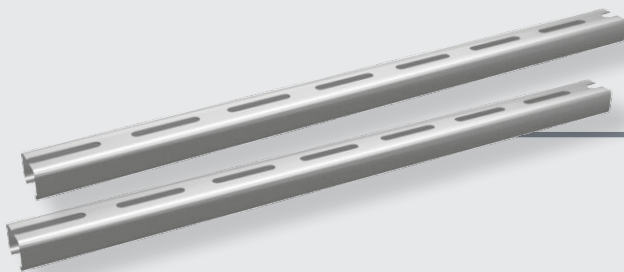
Individual pricing taking into account the PV modules used, considering wind and snow zones, as well as the possibilities of farm foundation



Residential photovoltaic systems

Standard dimensions adapted to the size of the modules in 5 sizes

Driven two-point support structures for ground installation
Vertical or horizontal configuration
Suitable for mono - and bifacial modules



Magnelis strip

An alternative to aluminum strip. The use of Magnelis strip helps maintain the warranty on roofing materials offered by Budmat



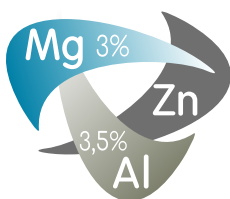
DURABLE COATING FOR PHOTOVOLTAIC STRUCTURES:

Budmat structures for photovoltaic farms are made of steel with a metallic coating called Magnelis® - the best in terms of anti-corrosion protection

BENEFITS:

- Corrosion resistance - three times higher than galvanized steel*
- Self-healing effect provides high edge protection
- Optimal cost compared to hot-dip galvanized steel

**Data based on exposure test results*



In our offer, you will also find:



20-250 kW inverters

Chain inverters for medium and large-scale installations equipped with 2 to 12 independent MPPT inputs, intelligent I-V diagnostics, reverse DC polarity protection, and built-in AC-side short-circuit protection. Depending on the model, inverters may have built-in AFCI function, PID protection and PID recovery function. Remote monitoring is available through the KEHUA WISE ENERGY application.



Optimizers

We offer universal Tigo TS4-A-O optimizers for photovoltaic modules, allowing for minimizing energy losses and diagnosing issues in both small and large-scale installations when used with a CCA device. Tigo optimizers provide the following benefits:

- Increased module output power
- Reduced O&M costs through module-level monitoring
- Enhanced safety with module-level shutdown capabilities



Reactive power compensator

The reactive power compensator devices are designed to compensate for both inductive and capacitive reactive power using a single module. With a fast response time of below 10 ms to dynamic changes in the power factor ($\cos \phi$) value, it ensures absolute maintenance of the desired power factor parameter individually in each phase.

The modular construction allows for rapid and convenient expansion in case of increased power demand. The built-in display enables device parameterization, monitoring of network parameters, compensator, and system load. These compensators find application in companies and enterprises where reactive power issues significantly impact their utility bills.



AC and DC switchboards

At Avrii, we offer comprehensive electrical switchboards for both AC and DC sides. You can choose from pre-configured sets composed by our experts or purchase individual components. We provide ETI, EATON, NOARK, Hagel, and Hensel protection devices, as well as fire breakers.



Photovoltaic Installation Cables

Cables and wires are one of the crucial components of a photovoltaic installation - the quality of these components determines not only the lifespan but also the efficiency of the system. Therefore, we have established a partnership with Helukabel, a German manufacturer of electrical cables and wires, for their distribution. These products meet the highest quality and safety standards, as evidenced by numerous certifications and industry norms.



Mounting structures

Our offer also includes universal components of mounting structures for flat roofs, sloped roofs, and ground installations. This includes aluminum profiles, hooks, brackets, mounting triangles, clamps, washers, and seals. All products are made from high-quality materials to ensure durability and reliability of the system.



Electric Vehicle Charging Stations

Convenient and durable electric car chargers with power capacities of 11 kW or 22 kW are an ideal choice for electric vehicle users. These products are suitable for both home and business use. The compact design and the option to choose between a 4.5 m or 7 m cable provide greater flexibility in installation. Models include:

- **PURE** – a simple and affordable charging station with adjustable charging power, maximum safety, and high convenience.
- **NEXT** – a more advanced charger that allows access to real-time charging data, remote load management, integration with energy management systems, and additional safety features such as integrated residual current device (RCD) protection and theft protection.



Inverters and electric vehicle chargers

In our offer, we have technologically advanced inverters and car chargers, including the Gen24 Plus, Tauro series inverters, which provide flexibility and efficiency in photovoltaic systems, as well as the OHMPILOT and WATTPILLOT car chargers, which enable fast and safe charging of electric vehicles. Fronius is known for the high quality of its products and innovation, and their solutions are used in various sectors, including commercial, industrial, and residential.



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