



www.abb.com/solar

Capturing the power of the sun ABB portfolio for solar energy applications

ABB portfolio for solar business

Applications, solutions and products

Applications:

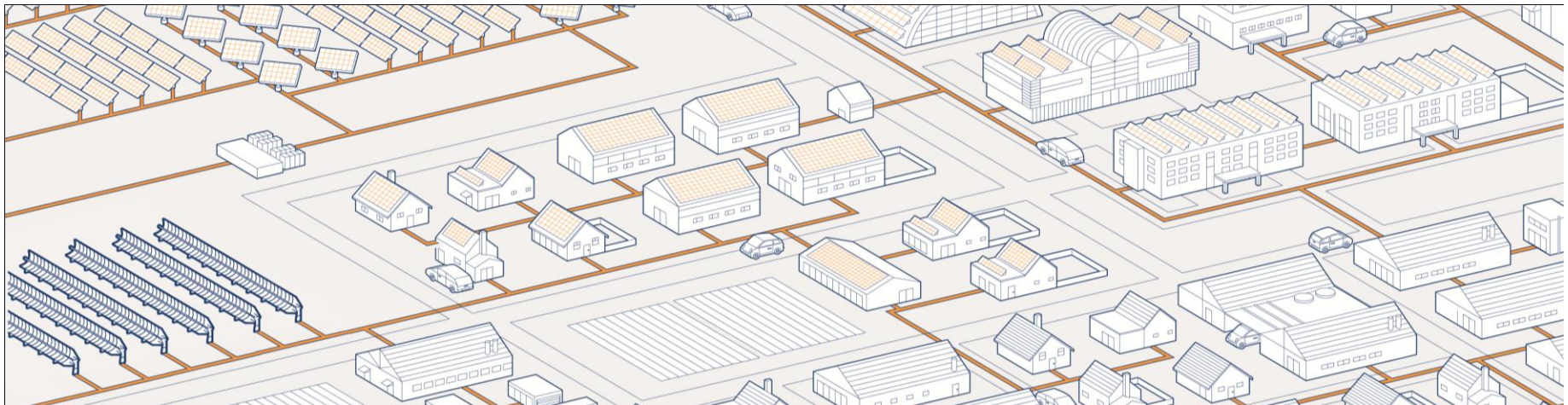
- [Photovoltaic plants](#)
- [Solar thermal plants](#)
- [Roof installations](#)
- [Solar trackers](#)
- [Panels manufacturing](#)
- [Service](#)

Solutions:

- [Modular solutions for turnkey photovoltaic plants](#)
- [eBoP for CSP plants](#)
- [Distributed Control Systems](#)

Products:

- [Solar inverters](#)
- [Megawatt station](#)
- [Transformers](#)
- [PLCs](#)
- [Motors](#)
- [Generators](#)
- [Drives](#)
- [Low voltage products](#)
- [Robots](#)
- [High voltage products](#)
- [Medium voltage products](#)
- [Substations](#)



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ABB portfolio by application

Photovoltaic plants

References

More info (www)

Main menu

ABB solutions for photovoltaic (PV) power plants are designed to maximize plant performance and provide owners with a rapid return on investment and a long plant operating life.

The result is a solution that generates around 15 percent more energy than conventional alternatives.



Systems offering:

- [Modular solutions for photovoltaic plants](#)
- [Distributed Control Systems](#)

Product offering:

- [Solar inverters](#)
- [Megawatt station](#)
- [Transformers](#)
- [PLCs](#)
- [AC Motors](#)
- [AC Drives](#)
- [Low voltage products](#)
- [Substations](#)
- [Medium voltage products](#)
- [High voltage products](#)

ABB portfolio by application

Solar thermal plants

References

More info (www)

Main menu

ABB provides complete power and automation solutions for all the main concentrating solar power (CSP) technologies – parabolic trough, power towers, integrated solar combined cycle, heliostat solar concentrators, Stirling solar dish systems, combined solar-biomass and others.



Systems offering:

- [EBoP for CSP plants](#)
- [Distributed Control Systems](#)

Product offering:

- [Transformers](#)
- [PLCs](#)
- [AC Motors](#)
- [DC Motors](#)
- [Generators](#)
- [AC Drives](#)
- [Low voltage products](#)
- [Substations](#)
- [Medium voltage products](#)
- [High voltage products](#)

ABB portfolio by application

Sun trackers

References

More info (www)

Main menu

With tracking devices the energy production of a photovoltaic plant can be increased up to 30% in optimal locations. With concentrating photovoltaic solar cells tracking devices are a must with high accuracy need. ABB's product portfolio for photovoltaic tracking devices includes all key components, such as drives, motors, PLCs and other low voltage products.

Product offering:

- [PLCs](#)
- [Motors](#)
- [AC Drives](#)
- [Low voltage products](#)



ABB portfolio by application

Roof installations

References

More info (www)

Main menu

ABB helps to make the entire process of solar power generation in commercial, industrial and residential applications more efficient, cost effective and safe.

ABB offers a comprehensive range of inverters and low voltage products and systems that are designed specifically for the varying requirements of small, medium and large sized photovoltaic installations.

Product offering:

- [Solar inverters](#)
- [PLCs](#)
- [Low voltage products](#)



ABB portfolio by application

Solar panels manufacturing

References

More info (www)

Main menu

Product offering:

- [Robots](#)

ABB robots and robot-based systems are used throughout the photovoltaic production process, bringing the highest levels of productivity, efficiency, quality and safety to all stages of solar module manufacturing.

ABB electrical and automation products, systems and solutions are used to power and automate the factories and clean rooms that manufacture the solar modules and the silicon that is used to make the solar cells.



ABB portfolio by application

Service

References

More info (www)

Main menu

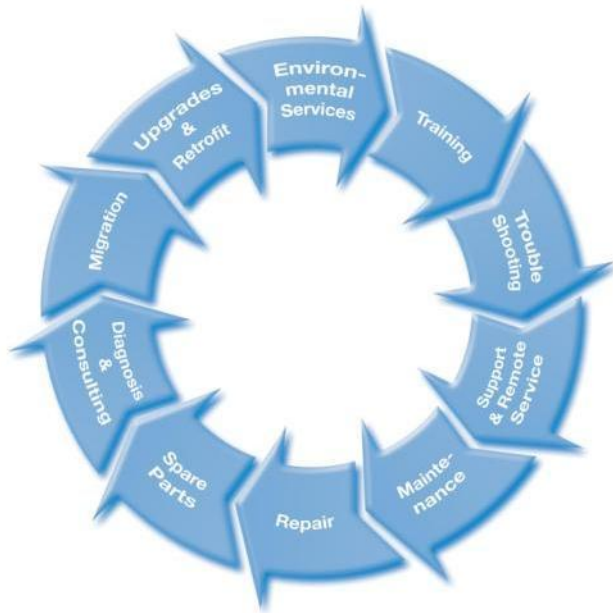


ABB supports its customers with a complete portfolio of lifecycle services to ensure the efficient and cost-effective operation of their solar power plants and photovoltaic assets.

ABB's service portfolio is geared to provide customers with all the support they need across the entire field of lifecycle management – from troubleshooting, spare parts and equipment repair to training, remote monitoring and lifetime extension.

ABB service contracts are tailored to meet every customer need, they are available all over the world, and are supported by a strong network of local service resources.

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Systems offering for solar energy applications

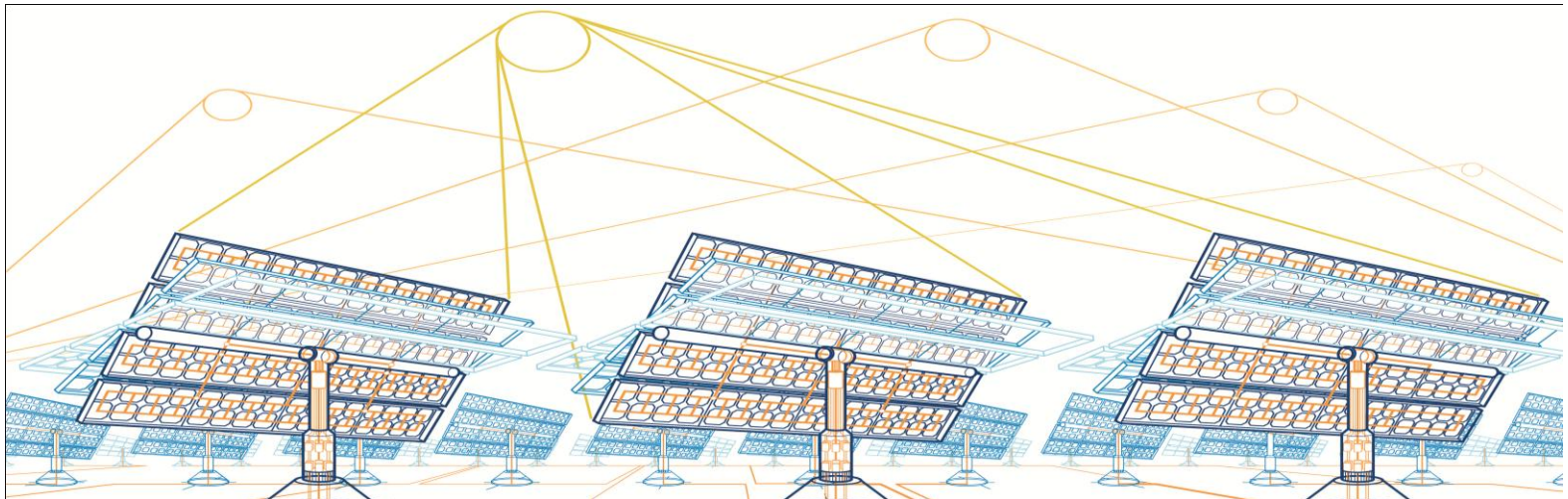
Modular solutions for photovoltaic plants (1)

References

More info ([www](#))

Main menu

- ABB has developed a standard modular concept for all kind of PV plants and for all markets. It is our “one partner, one solution” answer to the needs of customers operating in the global PV market.
- Each part of the solution – trackers, inverters, transformers, control system, etc – is delivered in pre-tested, containerized 1 MW modules for scalability, cost efficiency and rapid installation. Whether the plant has a capacity of 1 MW or 100 MW, the modules are easy to integrate and the solution is repeatable at any site and in any country.



Systems offering for solar energy applications

Modular solutions for photovoltaic plants (2)

References

More info (www)

Main menu

Benefits:

- Record installation and commissioning times
- Easy scalability from 1 MW to several MW.
- Plants with higher rates of efficiency than the market average (more than 15%)



Systems offering for solar energy applications

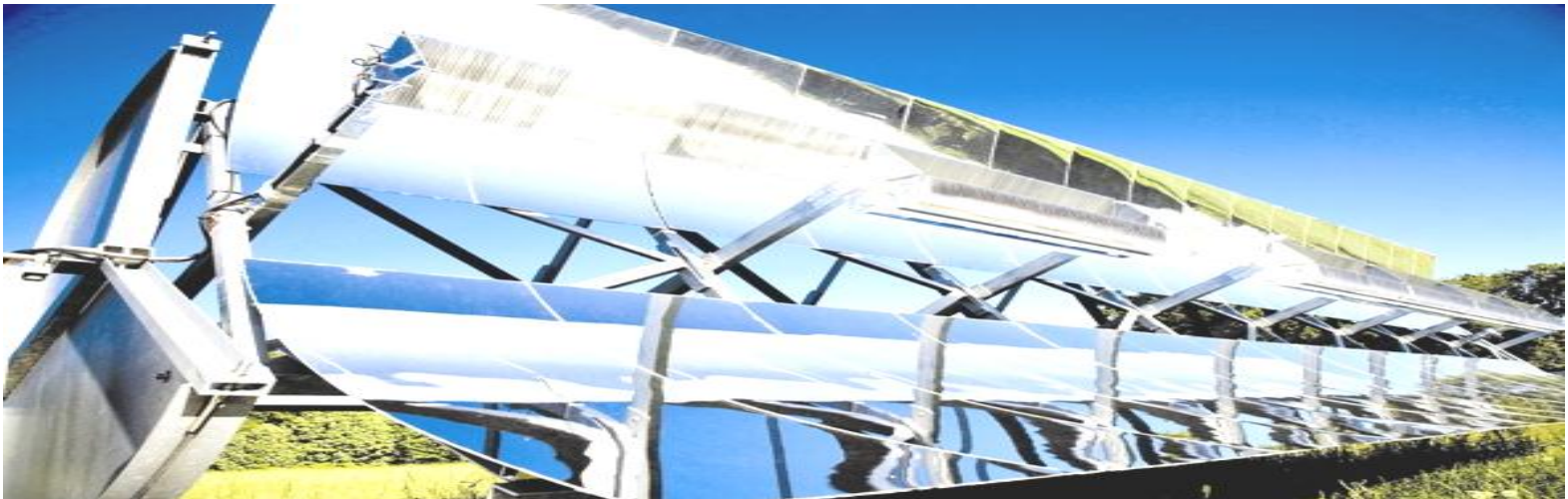
Electrical Balance of Plant for solar thermal plants (1)

References

More info (www)

Main menu

- As one of the world's leading suppliers of power and automation solutions for power generation facilities, ABB provides complete packages of integrated instrumentation, control and electrical equipment to automate and energize the power plant.
- An ABB System 800xA extended automation system can integrate the entire facility – solar field, thermal storage tanks and power block – into a single control, operations and engineering environment. By providing plant-wide visibility and real-time information in a uniform way to the right people at the right time, System 800xA brings measurable improvements to operator efficiency and plant performance.



Systems offering for solar energy applications

Electrical Balance of Plant for solar thermal plants (2)

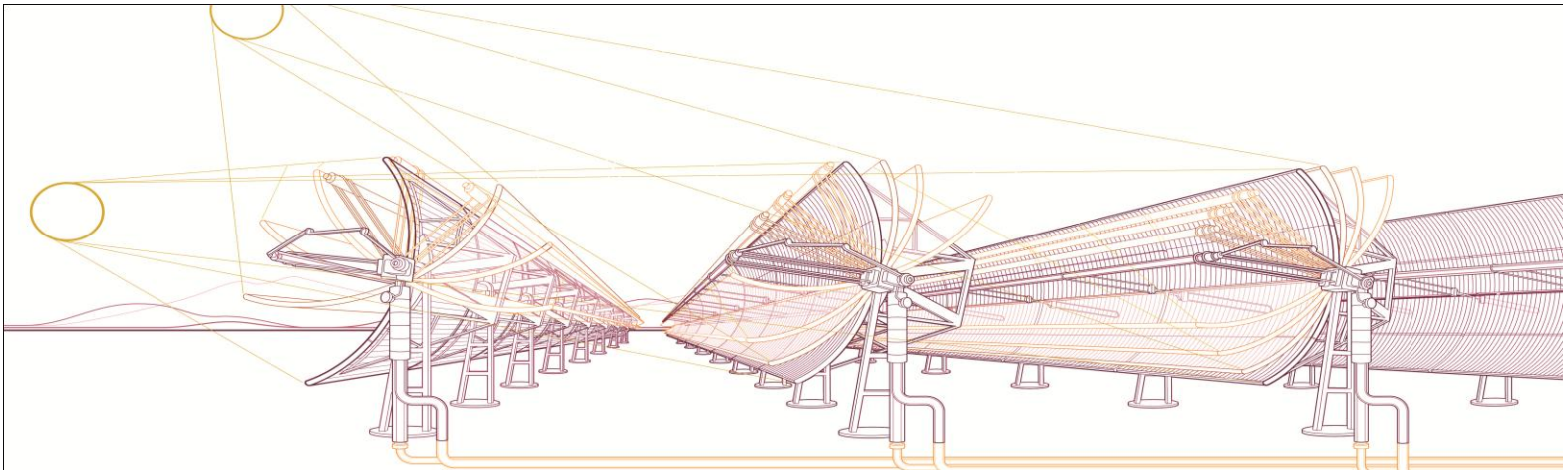
References

More info (www)

Main menu

Benefits:

- Complete project design, engineering and service
- Highly scalable
- Improved reliability, safety and monitoring of the plant



Systems offering for solar energy applications

Distributed Control Systems

References

More info (www)

Main menu



ABB's DCS provides an automation platform with incredible connectivity capabilities that creates one flexible, integrated, collaborative environment. Integration of systems, applications and devices into a powerful information architecture makes all information available for use in the system and provided information to plant personnel in actionable context.

Benefits

- Future oriented platform for process and electrical systems
- Implementation of IEC 61850
- Easy-to-use and consistent user interface
- Simple plant and enterprise-wide access to informations
- Fast analysis of disturbances
- High engineering efficiency and quality
- Low costs of operation and management

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Product offering for solar business

Solar inverters: central inverters (1)

References

More info (www)

Main menu



ABB central inverters raise reliability, efficiency and ease on installation to new levels. The inverters (PVS800 range) are available from 100 kW up to 500 kW, and are optimized for cost-efficient multi-megawatt power plants.

Benefits:

- High efficiency and long operating life
- Modular and compact product design
- Extensive DC and AC side protection
- Power factor compensation as standard
- Fast and easy installation
- Complete range of industrial-type data communication options, including remote monitoring

Product offering for solar business

Solar inverters: central inverters (2)

References

More info (www)

Main menu



ABB small inverters (PVS300) are specially designed for photovoltaic systems installed on residential, commercial and industrial buildings with multiple advantages.

Characteristics:

- Power ratings from 3.3 to 8 kW
- Transformless design with 900 Vdc max input voltage

Product offering for solar business

Solar inverters: megawatt station

References

More info (www)

Main menu



ABB megawatt station is a turnkey solution designed for large-scale solar power generation. It houses all electrical equipment that is needed to rapidly connect a photovoltaic power plant to a medium voltage electricity grid. All components within the new megawatt station are part of ABB's product portfolio.

Benefits:

- Enables operation in harsh temperature and humidity environments
- Designed for at least 25 years of operation.
- The total package weighs only 20 tons
- 15 percent smaller than that of other standard solutions on the market
- High total efficiency
- Modular and redundant system
- Double-stage air pre-filtering for reduced maintenance

Product offering for solar business

Dry transformers

References

More info (www)

Main menu



Vacuum cast coil dry type transformers meet the concrete needs of solar applications due to the multiple factors and advantages that this technology is able to offer:

Benefits:

- Easy installation due to the compact design of the product. This fact also involves important cost savings when adapting the structure to the fire protection systems, which are no necessary with dry technology.
- Reduced requirements of maintenance.
- Environmental friendly, due to the dry technology that avoids the risk of contaminating leakages.
- Safe for installations and people: proved resistance to short circuit currents, high capacity to support overloads and excellent performance in case of seismic events.

Product offering for solar business

PLCs (1)

References

More info (www)

Main menu



ABB's sets the trend in the use of suitable automation components for the sun tracking with PLC AC500, to maximize the effective use of sunlight.

Benefits:

- Calculates accurately the path of the sun
- Registering and assessing the sensors connected (e.g. anemometers, pyranometer, etc.)
- Places the panels in a safe position if weather conditions deteriorate (e.g. during storms or when it snows)
- «Manual positioning» mode
- Remote data transmission and Web server function integrated
- Solar Library for easy programming of solar trackers automation and control

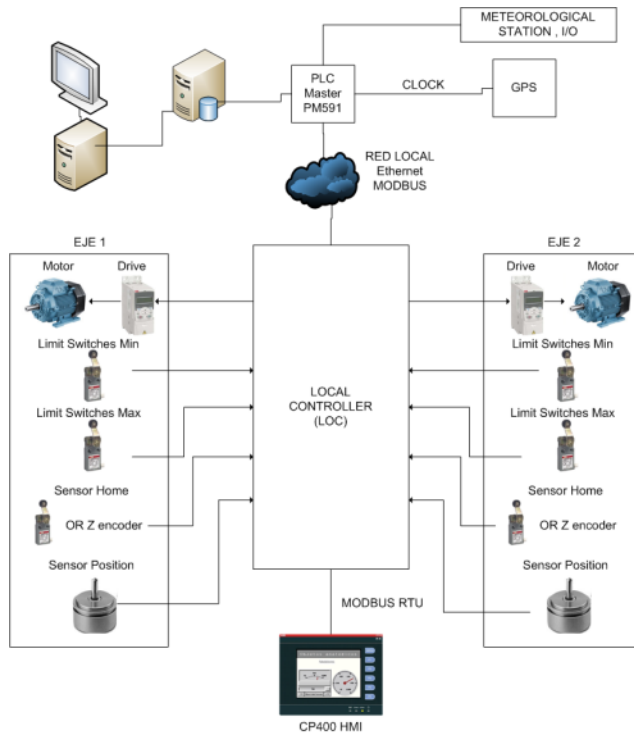
Product offering for solar business

PLCs (2)

References

More info (www)

Main menu



Solar Library for tracker applications

Benefits:

- Offers ready to use FB, providing full tracker automation and control for one and two axes trackers
- Backtracking control to avoid losing power for shadowing
- Simple and easy environmental sensors and electric and hydraulic actuators integration

Product offering for solar business

High efficient motors (1): brake motors

References

More info (www)

Main menu



ABB's brake motors are standard motors modified for braking duties, i.e. three phase induction motors with standard dimensions and output rating. The electromagnetic disc brake is powered, either DC or three phase AC current, from a rectifier located in the motor terminal box.

Benefits:

- Wide terminal box - easy installation
- Hand release (4 x 90°)
- Technical and application support
- Service and support
- With standard motors' dimensions and output ratings, aluminum frame.

Product offering for solar business

High efficient motors (2): DC motors

References

More info (www)

Main menu



The DMI generation of DC motors offers completely new opportunities for improving productivity as a result of the substantially faster speed control. At the same time, the investment costs are lowered. Thanks to the precise optimization of the electrical and mechanical characteristics and the wide speed range, oversizing of motor drives to achieve the desired speed range is unnecessary.

Benefits:

- High output and small dimensions
- High output over a wide speed range
- Smooth running at low speeds and low moment of inertia
- Reduced maintenance

Product offering for solar business

AC drives

References

More info (www)

Main menu



Motorized solar trackers use electric motors and gear reducers to turn the panel. Adding an AC drive to the solar tracker provides a soft-start function to the motor, resulting in smoother rotation and reduced mechanical wear, thereby lowering maintenance costs.

Benefits:

- High reliability
- Simple and flexible
- Improve energy efficiency
- Reduction of cost

Product offering for solar business

Generators

References

More info (www)

Main menu



Solar power production sets special demands on the electric generator. The generator needs to manage the fact that an installation often has limited water supply, is located in severe hot environments, is connected to a sometimes weak network and is operated over a broad load spectrum. Further, the limitation of solar radiation as a source often requires electric generators in solar installations to be started daily. These requirements are not new to ABB; we have long experience in providing optimized generators for installations in severe environments ensuring highest revenue and plant profitability.

Product offering for solar business

Low voltage products

References

More info (www)

Main menu

Offer:

- [Miniature circuit-breakers](#)
- [Moulded-case circuit-breakers](#)
- [Switch-disconnectors](#)
- [Surge arresters](#)
- [Fuse disconnectors](#)
- [Residual current devices](#)
- [Metering devices](#)
- [DC string boxes](#)
- [Insulation monitors](#)
- [Grid connection Relays](#)
- [Motor starters](#)
- [Contactors](#)
- [Switchboards, consumer units and junction boxes](#)
- [Pilot devices](#)
- [Terminal blocks](#)

ABB offers a wide range of low voltage products that protect the inverters and electrical equipment from the potentially devastating effects of lightning and overvoltage.

Always ready to meet the demands of the market, ABB has developed a whole range of reliable products dedicated to photovoltaic applications, from the string on the DC side to the equipment that connects the installation to the AC power grid.

ABB also provides a series of plug and play solutions like finished, wired and certified string boxes for a vast range of installations: from individual strings for domestic use to the low voltage equipment in a large photovoltaic power plant.

Product offering for solar business

Low voltage products: circuit-breakers

References

More info (www)

Main menu

Low voltage



▪ Miniature circuit-breakers for DC side

Benefits:

- Can be used in networks up to 1200 V DC
- Safely extinguishes electric arcs even in case of double faults
- Safe disconnection of all poles
- Polarity independent
- Remote control

▪ Miniature circuit-breakers for AC side

Benefits:

- Three different breaking capacities up to 25 Ka
- Available in B, C, D, K and Z characteristics
- 1P, 1P+N, 2P, 3P, 3P+N and 4P configurations
- Sizes up to 63 A
- Compliant to IEC EN 60898 and IEC EN 60947-2 Standards S200 U and S200 UP versions in accordance to UL 489 / CSA-C22.2 N 05 Standards

Product offering for solar business

Low voltage products: moulded-case circuit-breakers

References

More info (www)

Main menu

Low voltage



▪ Moulded-case circuit-breakers for DC side

Benefits:

- 6 different sizes, from the smaller that can be fixed to DIN channel, to the biggest, available in two versions with operating lever and motor control



▪ Moulded-case circuit-breakers for AC side

Benefits:

- Available from 1 A to 800 A in 3 and 4 pole versions
- Complete solutions for protection and isolation inside inverter switchboards
- Three different kind of thermomagnetic trip unit provided for every application need
- Fixed, plug-in, withdrawable versions
- Remote control available for all the sizes

Product offering for solar business

Low voltage products: switch-disconnectors

References

More info (www)

Main menu

Low voltage



Switch-disconnectors

Benefits:

- Available from 16 A to 600 A up to 1000 V DC
- Series from 16 to 40 A are an ideal solution for string boxes in residential applications and/or residential inverters
- Series from 200 to 630 A are a cost-effective solution either for string boxes in commercial/large-scale installations or inside central inverters where they provide reliable isolation while simplifying maintenance and improving overall safety
- Reliable position indication
- Contact opening non-dependent on speed of operation

Product offering for solar business

Low voltage products: surge arresters

References

More info (www)

Main menu

Low voltage



Surge arresters for AC and for DC side

Benefits of surge arresters for DC side:

- A DC PV current withstand up to 100A
- Pluggable cartridges for easy maintenance
- Auxiliary contact with the "TS" option
- "Y" configuration for a better protection
- No risk if the polarity is reversed

Benefits of surge arresters for AC side:

- Installation on the supply side of the residual current protection devices (layouts "3+1" and "1+1")
- Simplified maintenance
- Increased security
- Constant monitoring of the status of the product through the built-in signalling contact (TS versions)

Product offering for solar business

Low voltage products: fuse disconnectors

References

More info (www)

Main menu

Low voltage

Fuse disconnectors E 90 PV

Benefits:

- Handle opening through 90° that allows the horizontal fuse to be easily inserted even when wearing gloves or using the thumb
- Only an additional 17 mm larger in the open position than in the closed position
- 25 mm² terminals with knurled terminal cage to allow the cable to be clamped in a better way
- Fully compatible with electric screwdrivers
- Pozidriv screws for flat-head and cross-point screwdrivers
- Lockable in the open position using the padlocks commonly available on the market, so as to ensure safe maintenance work
- Can be sealed in the closed position to prevent improper use
- Cooling chambers and ventilation slits to facilitate heat dispersion
- Versions with indicator light are available
- Blown fuse indicator allows an easy detection of the pole where the blown cartridge must be replaced



Product offering for solar business

Low voltage products: residual current devices

References

More info (www)

Main menu

Low voltage



Residual current devices

Benefits:

- RCD B type is required on the AC side in case of lack of electrical separation between the AC and DC side
- Save money and improve global efficiency by using PV converters without an internal insulation transformer
- Suitable for international use
- Intended for installation of mono- and three-phase PV converters to protect against fire risks and leakage currents
- Designed for installations of mono- and three-phase PV converters
- In combination with S 200 series MCBs, the protection of people and installations against fire risks, leakage and over current is assured

Product offering for solar business

Low voltage products: metering devices (+ CT current transformers)

References

More info (www)

Main menu

Low voltage

Metering devices ODINsingle and DELTAmix (+ CT current transformers)

Benefits:

- Easily integrable into measuring data collection systems via serial communication adapters
- Approved to the Measuring Instruments Directive (MID) European Directive 2004/22/EC and IEC
- ODINsingle meters
 - 2 DIN modules wide and easy to use (no configuration needed)
 - Prepared for external communication via their serial communication adapter
- DELTAmix meters
 - Available for three phase networks
 - Active energy or combined active and reactive energy measuring
 - Measures in two directions, both import and export of energy
 - Ready for external communication via their built-in communication interface or via a serial communication adapter (SCA)
 - I/O functions and a built-in clock function for data logging and control



Product offering for solar business

Low voltage products: DC string boxes

References

More info (www)

Main menu

Low voltage



DC string boxes

Benefits:

- “plug & play” solutions, i.e. finished, wired and certified switchgear able to suit the requirements of a vast range of installations: from individual strings for residential applications to large photovoltaic plants
- Range of DC string boxes to allow easier selection of the components and the installation of PV systems
- Different versions available based on currents, voltages and number of strings
- All the multi-string DC boxes could be used as part of a bigger system as parallel string box allowing a selective protection of the system

Product offering for solar business

Low voltage products: insulation monitors

References

More info (www)

Main menu

Low voltage



Insulation monitor ISL-A 600

Benefits:

- ISL range allows protection in IT circuits monitoring the insulation to earth downstream the inverter.
- In PV plants, where operational continuity is important insulation monitoring device can be installed in order to prevent faults and reduce maintenance time which affect the overall pay back period on the investment.

Product offering for solar business

Low voltage products: grid connection relays

References

More info (www)

Main menu

Low voltage



Relays

Benefits:

- Undervoltage and overvoltage protection
- Minimum and maximum frequency protection
- Installation on DIN channel, dimension 22 mm
- Configurable connection for the neutral conductor
- 3 LED to indicate the operating status
- Power supply from the circuit under control
- Measurement of the true RMS value
- Could be used for monitoring single-phase systems
- 2 switch contacts (SPDT)

Product offering for solar business

Low voltage products: motor-starters

References

More info (www)

Main menu

Low voltage



Motor-starters

Benefits:

- Overload and short circuit protection (with trip identification) for motors
- Disconnection / isolation by manual switching
- Wide range of accessories is available

Product offering for solar business

Low voltage products: contactors

References

More info (www)

Main menu

Low voltage

Contactors

Contactors A and AF range

Benefits:

- Standard range, all purpose block contactors for reliable remote switching of both AC and DC circuits

Contactors (for grid compliance) AF.T range

Benefits:

- Specially designed for renewable energy AC switching applications; with “Low Voltage Ride Through” function; able to withstand a voltage drop on the control voltage without opening; the built-in drop-out delay circuit provides enough energy for the coil voltage to remain above the drop-out level

Contactors (for DC switching) GAF & bar contactors

Benefits:

- Dedicated to DC switching; when DC voltage and / or current ratings are higher than 1000 V DC, ABB offers bar contactors designed following customer specifications

Mini contactors at 24 V DC

Benefits:

- Electrical remote control of axis systems
- Remote electrical breaking in case of emergency



Product offering for solar business

Low voltage products: switchboards, consumer units and junction boxes

References

More info (www)

Main menu

Low voltage

▪ Switchboards

Benefits:

- IP66 (IEC EN 60529), class II insulation, thermoplastic material moulded in co-injection
- Protection against chemical and atmospheric agents
- Rated service voltage up to 690 V
- DIN 24 to 216 modules
- Snap-on mounting of all components in compliance with safety Standards
- 100% recyclable

▪ Consumer units and Junction boxes

Benefits:

- IP65 protection to be used in outdoor installations, class II insulation, self-extinguishing thermoplastic material
- Rated insulation voltage: 1000 V AC; 1500 V DC
- Easier insertion of pipes and cables



Product offering for solar business

Low voltage products: pilot devices

References

More info (www)

Main menu

Low voltage



Pilot devices

Benefits:

- Complete range of pilot devices; emergency stops, pilot lights, push buttons and selector switches
- Two ranges with high ratings are available
 - Modular range for flexibility and quick assembly
 - Compact range for high quality at low cost by "all-in-one" design
 - Compact range offers high degree of protection with IP67/IP69K

Product offering for solar business

Low voltage products: terminal blocks

References

More info (www)

Main menu

Low voltage



Terminal blocks

Benefits:

- Complete range, from conventional screw-clamp and spring-clamp versions to the most technologically advanced self-stripping connection that provides a quick, safe and reliable connection (ADO) by means of a special tool
- Suitable for photovoltaic applications as they provide a more reliable longterm connection
- SNK series terminal blocks feature a modern design and can be supplied with countless accessories
- Covered by certifications recognized worldwide

Product offering for solar business

Robots and robot-based systems

References

More info (www)

Main menu



ABB robots and robot-based systems are used throughout the photovoltaic production process. They handle the glass and solar modules, wash and dry the PV components, trim the laminate, solder the ribbons, assemble the components, and package and palletize the finished product – all with the highest levels of accuracy and in the shortest possible cycle times.

Benefits:

- High speed handling and super-fast picking
- Short cycle times
- Maximum precision and repeatability

Product offering for solar business

Medium voltage products

References

More info (www)

Main menu



From circuit breakers or surge arresters, to switchgear applying both, air and gas insulated technologies, ABB offers a complete range of medium voltage products to cover all the needs of the inverter and distribution centers of each type of solar power plant.

Benefits:

- High reliability
- Guaranteed insulation levels
- Increased security for installations and personnel
- Wide range of accessories

Product offering for solar business

High voltage products

References

More info (www)

Main menu



ABB offers its customers a complete range of the most competitive and innovative high-voltage products (50 - 800 kV) on the market to connect efficiently large solar plants with local grids.

Benefits:

- Gas insulated switchgear, environmental friendly, safe and compact.
- Air insulated switchgear of easy integration in substations and low maintenance requirements.
- Wide range of products to cover all connection, protection and power distribution needs.

Product offering for solar business

Substations

References

More info (www)

Main menu



Connecting efficiently, as important as generating efficiently!

Substations are at the core of electrical power transmission. More than 100 years of experience in building and upgrading air and gas insulated substations around the world, have provided ABB with the expertise necessary to deal with all kinds of challenges in the construction of indoor and outdoor substations, irrespective of site conditions.

Air insulated substations:

Benefits:

- Turnkey substations made with ABB's first quality high, medium and low voltage products, transformers and control systems

Gas insulated substations:

Benefits:

- Less space requirements - especially in congested city areas
- Less sensitivity to pollution, as well as salt, sand or even large amounts of snow
- Less operation & maintenance costs

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ABB offer for solar business

Project references (1)

[Main menu](#)



La Robla photovoltaic power plant, Spain

The solution is based on ABB's uniquely efficient concept for PV power plants, an approach that combines a high level of customization, rapid turnkey delivery and system optimization technologies that enable the plant to generate around 15 percent more energy than alternative designs. ABB completed delivery of the turnkey 13.3 megawatt photovoltaic plant within just four months of signing the contract. Project completion: 2010.



ABB rooftop photovoltaic plant, Finland

Located on the rooftop of the ABB Drives factory in Helsinki, Finland, the installation is the largest solar power plant in the Nordic countries. The 181 kW plant generates about 160,000 kWh per year and benefits from the long summer days of its northern latitude. The ABB solution comprises ABB string inverters and one central inverter connected to the building automation system. Project completion: 2010.

ABB offer for solar business

Project references (2)

[Main menu](#)



Hassi R'Mel integrated solar and combined cycle power plant, Algeria

ABB provided a complete electrical balance of plant (EBoP) solution for the 150 megawatt integrated solar and combined cycle power plant at the Hassi R'Mel gas field in northern Algeria. The plant is fired by a combination of natural gas and solar energy harnessed by parabolic troughs. ABB's ability to provide the full EBoP scope of supply – design, engineering, supply, erection and commissioning – and to equip the plant with its own brand of high-quality products, resulted in a more efficient workflow and shorter project execution time than would otherwise have been possible. ABB scope of supply also included power generators for gas turbines. Project completion: 2010.

ABB offer for solar business

Project references (3)

[Main menu](#)



eSolar thermo-solar plant, United States

The eSolar thermo-solar plant, using power tower system, counts with a control system completely designed, engineered and implemented by ABB. This system includes the supervisory control of the steam turbine and interface to patented eSolar heliostat farm control system.

ABB also supplied a facet control solution that monitors and evenly distributes the solar light reflected by each of the farm's 24,000 dual-axis heliostats to maximize the performance and operating life of the two thermal receivers. Project completion 2009

ABB offer for solar business

Project references (4)

[Main menu](#)

Manchasol 1 & 2 concentrating solar power plants, Spain

Both 50 megawatt units of the Manchasol 1 & 2 concentrating solar power plants in Spain are equipped with extensive ABB automation solutions, including System 800xA for Power Generation control systems, solar field communications systems and solar field control systems. The order follows on similar successful ABB solutions for Manchasol's two sister projects, Andasol 1 & 2 and Extresol 1 & 2, each unit of which produces 50 MW of solar energy. Project completion: 2010.

ABB offer for solar business

Project references (5)

[Main menu](#)



Saint-Gobain solar mirror production plant, Portugal

The Saint-Gobain plant in Covilis, Portugal, is the world's largest and most efficient production unit for tempered glass mirrors for solar thermal power plants. The plant is equipped with ABB robotics systems throughout the production process. The repeatability, precision, and reliability of the ABB robot-based systems ensure higher productivity, consistent product quality, and greater efficiency and safety on the production line. Project completion: 2009

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