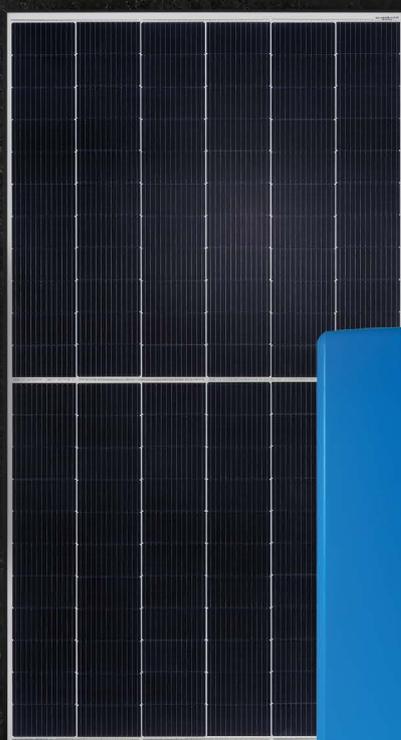


PRODUCT CATALOGUE

Premium High-Performance Solar Modules and Components



YOU PLAY THE MAIN ROLE FOR US WE WANT YOU TO SUCCEED

| | |
|---------------------------|----|
| Intro | 3 |
| Q CELLS Quality | 4 |
| Q.ANTUM Technology | 8 |
| Q.PEAK DUO Solar Modules | 12 |
| Q.MOUNT | 24 |
| Q.FLAT-G5 | 25 |
| Q CELLS Storage Solutions | 26 |
| Q CELLS ROOFTOP PLANNER | 28 |
| Q.HOME EDRIVE-G1 | 30 |
| Q.PARTNER Programme | 32 |
| About Q CELLS | 34 |
| Hanwha Group | 36 |

Dear customer,

Every day you subject our products to strict practical testing, so your needs and requirements are our top priority. We want you to be successful and offer your customers the best products and services.

In this Q CELLS product catalogue you will find everything you need for successful cooperation with your customers, which includes our range of powerful and excellent solar modules, suitable system components such as substructures, scalable battery storage solutions and intelligent energy management software.

Q CELLS is your central contact for all photovoltaic products and services, and our Q PARTNER plays an important role: overseeing the reliable installation of our products.

As a Q.PARTNER, you benefit from a wide range of services to satisfy your customers. Whether in supporting your marketing activities, delivering all components directly to your construction site or supporting your customer acquisition – as a Q.PARTNER you are sure to impress your customers! At www.q-cells.co.uk you can find out more about our current Q.PARTNER program at any time.

We now hope that you enjoy browsing our portfolio, and we look forward to your orders.



Q CELLS SOLAR MODULES THE FOUR QUALITY LEVELS

High quality as standard entails that our products will have a long service life and tremendous technical properties. That means the subject of quality assurance plays a crucial role for us.



LEVEL 1 ASSURING YIELD

Since 2011, Q CELLS yield assurance guarantees resistance to PID (potential-induced degradation) and against LID (light-induced degradation), as well as LeTID (degradation induced by light and elevated temperature), all guaranteed by weekly production checks. To protect against hot-spots, all Q CELLS solar cells are 100% tested.

LEVEL 2 ONE-TIME CERTIFICATION TESTS

The second level comprises international tests for initial certification, for example in accordance with IEC, CSA/UL, MCS, JET and Kemco. They guarantee the electrical safety and construction of the modules in accordance with international standards.

LEVEL 3 VDE QUALITY TESTED

The "VDE Quality Tested" program goes beyond the tests for the IEC initial certification, for example by doubling the number of alternating temperature tests. In addition, monthly repeat tests guarantee consistent quality.

LEVEL 4 Q CELLS QUALITY PROGRAMME

The internal quality program of Q CELLS ensures that all products meet the high standards of our company. Additional tests are then carried out as required by VDE: e.g. 3 x more cycles in the humidity/frost test. 100% high-resolution EL inspection is standard at Q CELLS.



PROVEN QUALITY

Top Performer



In the PV Module Reliability Scorecard published in 2020, DNV GL & PVEL confirmed that Q CELLS modules have now been awarded "Top Performer" status for five consecutive years.



INNOVATIVE TECHNOLOGY

Intersolar Award

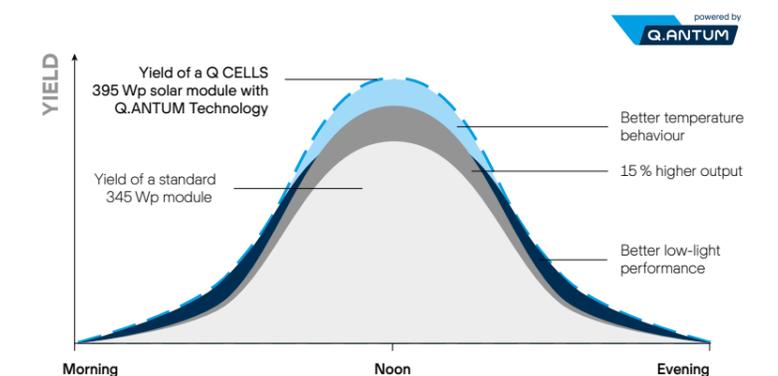


For our innovative solar modules Q.PEAK RSF L-G4.2 and Q.PEAK DUO-G5

Q.ANTUM CELL TECHNOLOGY LOWER POWER GENERATION COSTS AND HIGHER YIELDS

The bottom line is that only one thing counts: How much electricity your PV system produces daily, and how much is produced over the course of the year – and at what cost. Q.ANTUM optimises the innovative, cost-effective crystalline silicon technology to offer you the best price/performance ratio. The combination of high efficiency, high power classes and optimised yields under real conditions guarantees you a profitable business with the sun.

Q.ANTUM AHEAD – MORE YIELD. MORE PROFIT.

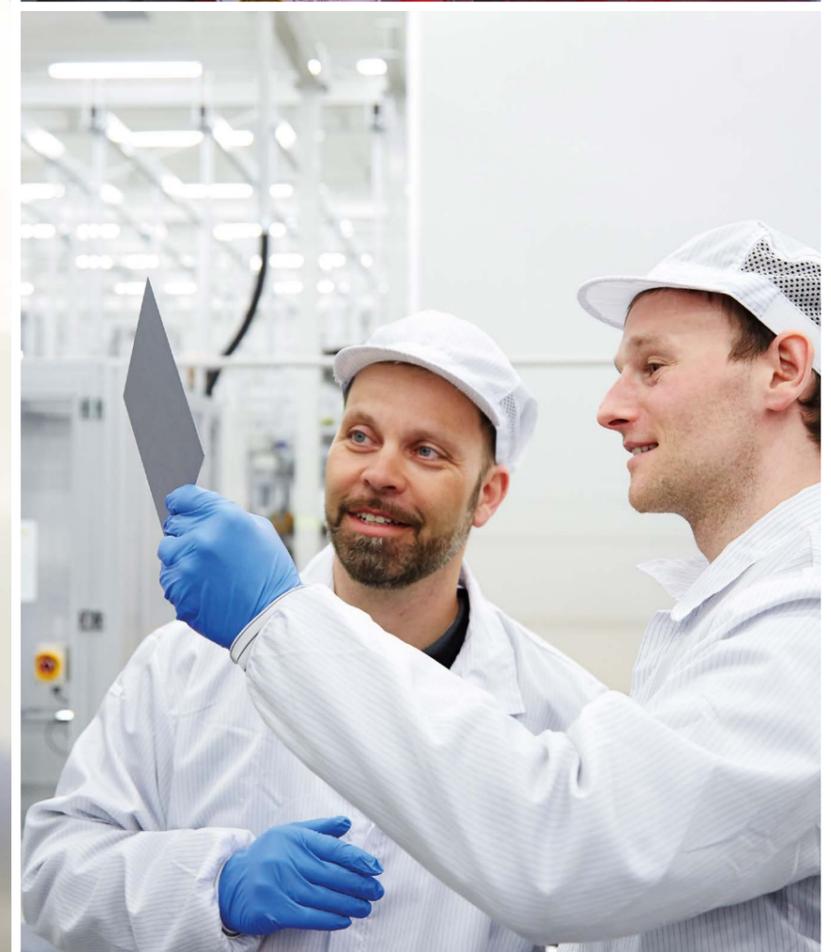
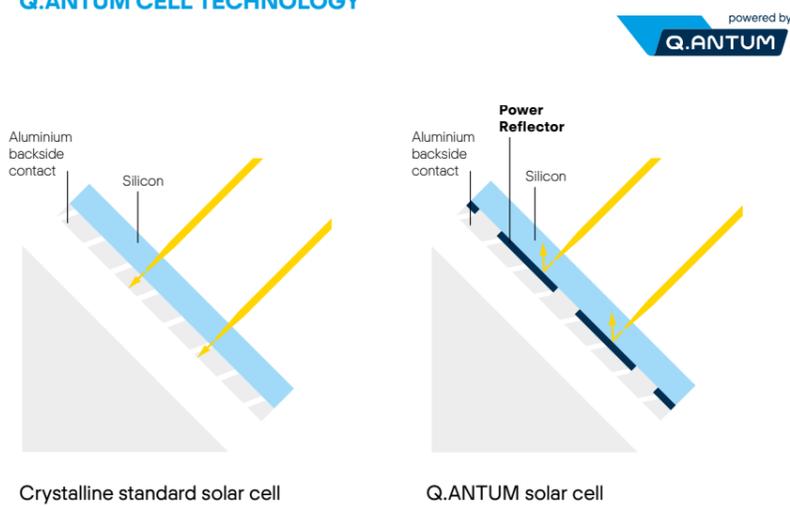


Q.ANTUM CELL TECHNOLOGY

MORE LIGHT.
MORE POWER.
MORE ELECTRICITY.

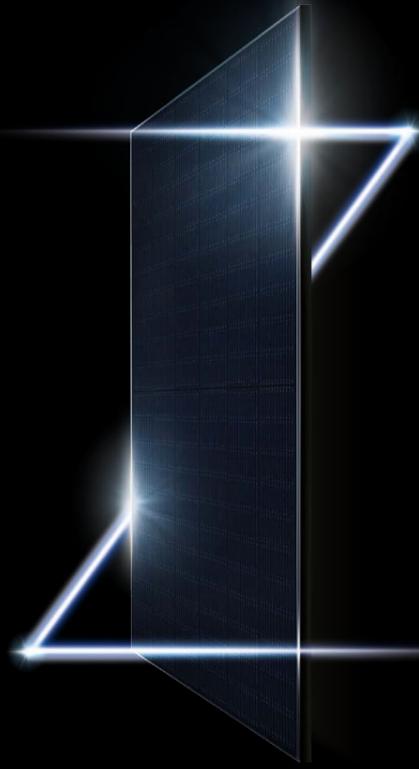
Q.ANTUM combines the best features of all known cell technologies to achieve high performance under real conditions at low power cost (LCOE). The back of the Q.ANTUM solar cells is coated with a special nano-coating, which works like a conventional household mirror. Previously unused sunlight is reflected back into the cell to generate more electricity. This improves the electrical properties and significantly increases efficiency.

FUNCTION PRINCIPLE BEHIND Q.ANTUM CELL TECHNOLOGY



Q.ANTUM DUO Z TECHNOLOGY

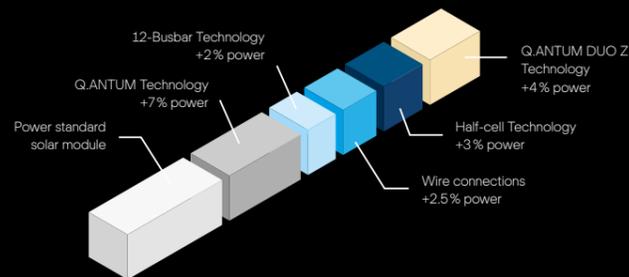
UNCOMPROMISINGLY EFFICIENT



EXCEPTIONAL PERFORMANCE, HIGH EFFICIENCY AND FIRST-CLASS GUARANTEES.

Q CELLS solar modules with Q.ANTUM DUO Z Technology not only deliver impressive performance in real-world conditions, but also offer first-class performance guarantees of 98% in the first year and a full 86% after 25 years. The Q.ANTUM DUO Z Technology combines our Q.ANTUM Cell Technology with the innovative DUO cell separation method: The use of round connecting wires and zero-gap cell interconnection ensure higher power generation not only in the laboratory but also in everyday operation. Q.ANTUM DUO Z also increases the nominal power and improves the reliability of the module thanks to Q CELLS Yield Security consisting of Anti PID, Anti LID / LeTID as well as Hot-Spot Protect and TraQ™. With more than

23 GW of Q.ANTUM solar cells produced, only Q CELLS has the experience and knowledge to drive the development of cell and module technology and launch new technologies such as Q.ANTUM DUO Z.

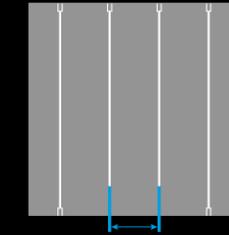


1

12-BUSBAR TECHNOLOGY

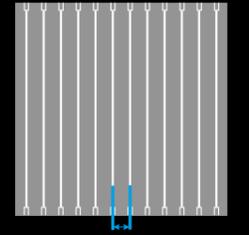
The reduced distance between the busbars and the additional tracks enables a 2% increase in performance. More conductor tracks result in an optimised power flow and thus reduced resistance losses.

STANDARD 4-BUSBAR TECHNOLOGY



Larger distance between busbars: Electrons must cover a longer distance, the resistance is higher.

ADVANCED 12-BUSBAR TECHNOLOGY

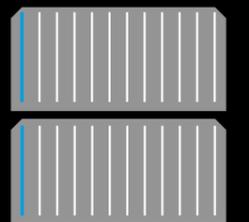
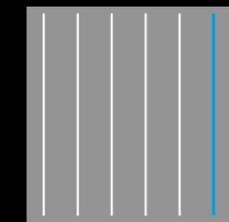


Smaller distance: less resistance and better absorption of the excited electrons.

2

HALF-CELL TECHNOLOGY

Half cells halve the current in the cells themselves. In combination with a module arrangement that reduces the distance the load carriers have to travel, this technology enables a 3% increase in performance.



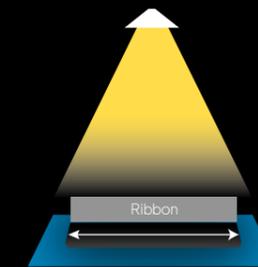
Two half cells with 12 busbars offer the same or even higher performance than a full cell with 24 busbars.

3

WIRE CONNECTIONS

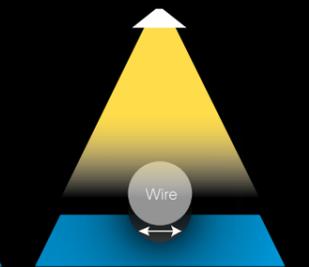
The use of wires instead of flat solder ribbons reduces the actual width as well as the effective shading width. This explains how shading can be reduced by 75% and the performance increased by 2.5%. Another advantage of round wires is that they reflect light back to the module.

CONVENTIONAL TECHNOLOGY



100% of the solder ribbon width has a shadowing effect.

Q.ANTUM DUO TECHNOLOGY

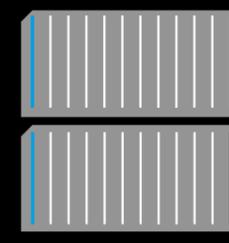


Smaller width and internal reflection reduce shading by 75% in total.

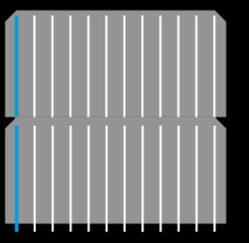
4

ZERO-GAP CELL WIRING

We have bundled our Q CELLS know-how and developed a brand new cell interconnection that enables us to minimise the gaps between Q.ANTUM solar cells. Fewer gaps allow more solar cells in the module, which in turn generate more electricity and increase the efficiency by 4%.



Half-cell technology with distance between the cells



The non-existent spaces between the individual cell rows ensure a higher cell density.

THE NEW Q.PEAK DUO-G9 SOLAR MODULES

WE PAY ATTENTION TO EVERY DETAIL



You can find product videos and more on Q CELLS' YouTube channel. Have a look!

Flatter frame edges prevent moss growth and dirt accumulation

Q.ANTUM DUO Z half cells with 12-Busbar Technology for higher yield per area at low BOS costs

Independent parallel connected cells of the upper and lower half of the module ensure an improved yield in case of partial shading of the modules

High-quality anti-reflective glass for higher yields, homogeneous appearance and long-term stability

New round wire connections, which are narrower than solder ribbons, increase internal reflection and reduce shading by up to 75%

Q CELLS YIELD SECURITY

- Anti PID Technology against power reduction due to potential-induced degradation
- Hot-Spot Protect against the danger from module fire
- Tra.Q™ laser marking for additional protection against counterfeiting
- Anti LID Technology against power reduction due to light-induced degradation

32 mm high-tech frame for wind and snow loads from up to 4000 / 6000 Pa (IEC, UL)

Reliable silicone connection for excellent stability and durability

Optimised junction box design for higher energy efficiency and protection against corrosion

High quality rear for permanent sealing

High quality connector plugs with >1200 mm cable length

Optimally positioned, large drainage holes protect against frost damage

Q.PEAK DUO-G9 MODULE SERIES

UNCOMPROMISINGLY EFFICIENT

WITH Q.ANTUM DUO Z TECHNOLOGY



Q CELLS sets new standards: With the new Q.ANTUM DUO Z Technology, Q CELLS launches an innovative cell interconnection that does not require any gaps in the individual cell rows. Combined with the “market leading” Q.ANTUM cell technology, our Q.PEAK DUO-G9 solar modules achieve a maximum output and thus ensures an increase in yield of your PV system. Benefit from cost-effective green electricity and excellent product quality!

MONOCRYSTALLINE SOLAR MODULES WITH Q.ANTUM DUO Z TECHNOLOGY

The Q.PEAK DUO ML-G9 is perfectly suited to meet the requirements of private homes as well as industrial and commercial buildings: Highest yields on limited areas. The desire for high-quality aesthetics on the roof of the house is also fulfilled: Our compact Q.PEAK DUO BLK-G9 in completely black design helps your roof to generate cheap green electricity while maintaining an excellent appearance.

For large power plants and open space plants we offer the Q.PEAK DUO XL-G9 with up to 465 Wp output per solar module to enable lowest power generation costs. All modules of the Q.PEAK DUO-G9 series feature an innovative cell interconnection with 12 round wires, which ensures less cell coverage and lower internal resistance. The result: The most advanced monocrystalline solar module from Q CELLS.

THE IDEAL SOLUTION FOR



Rooftop arrays on residential buildings



Rooftop arrays on commercial / industrial buildings



Ground-mounted solar power plants

Q.PEAK DUO BLK-G9



Q.PEAK DUO ML-G9



Q.PEAK DUO XL-G9



YOUR BENEFITS



Optimum yield in all weather conditions thanks to outstanding low-light and temperature performance (-0.35% / K)



High stability: tested for wind loads up to 4000 Pa and snow loads up to 6000 Pa



The Q.ANTUM DUO Z Technology with seamless cell layout increases module efficiency up to 21.1%

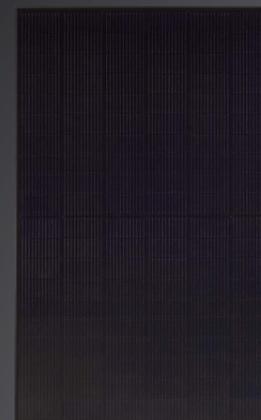


Q CELLS solar modules come with a product guarantee of up to 25 years and a linear performance guarantee of 25 years

Q.PEAK DUO BLK-G9

120 half-cell module

Power: 345Wp
Efficiency: 20.3%
Weight: 17.5 kg



Also available as Q.PEAK DUO BLK-G9+ with 25 year product and performance guarantee

Q.PEAK DUO ML-G9

132 half-cell module

Power: 395Wp
Efficiency: 21.1%
Weight: 19.5 kg



Also available as Q.PEAK DUO ML-G9+ with 25 year product and performance guarantee

Q.PEAK DUO XL-G9

156 half-cell module

Power: 465Wp
Efficiency: 21.1%
Weight: 25.5 kg



Q.PEAK DUO-G8 MODULE SERIES

MAXIMUM PERFORMANCE AND OUTSTANDING EFFICIENCY



The Q.PEAK DUO-G8 solar modules from Q CELLS stand out with their impressive look and the latest generation of innovative Q.ANTUM DUO Technology with outstandingly high area output, plus excellent module efficiency.

MONOCRYSTALLINE Q.ANTUM DUO TECHNOLOGY

The Q.PEAK DUO-G8 module series are our monocrystalline solar modules with outstanding performance classes and an efficiency of up to 20.5%. Thanks to the latest generation of unrivalled cell concept Q.ANTUM DUO, the Q.PEAK DUO-G8 solar module provide uniquely high yields on a small surface area. To this end, half-cells are combined with state-of-the-art circuitry and 12-busbar design. The black half-cells of the Q.PEAK DUO-G8 module series lend even the most exclusive building an aesthetic elegance. The Q CELLS Anti LID Tech-

nology prevents light-induced degradation (LID), which can reduce system performance drastically – or almost totally. Other conventional monocrystalline solar cells lose much of their initial power through insolation. The Q.PEAK DUO-G8 solar modules prevent this with Anti LID Technology. The Q.PEAK DUO-G8 solar modules are also available as especially aesthetic, completely black Q.PEAK DUO BLK-G8 and as 144 half-cell L version Q.PEAK DUO L-G8 for open spaces.

THE IDEAL SOLUTION FOR

- Rooftop arrays on residential buildings
- Rooftop arrays on commercial / industrial buildings
- Ground-mounted solar power plants

| | | |
|-------------------|-------------------------------------|-------------------------------------|
| Q.PEAK DUO-G8 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Q.PEAK DUO BLK-G8 | <input checked="" type="checkbox"/> | |
| Q.PEAK DUO L-G8 | | <input checked="" type="checkbox"/> |

YOUR BENEFITS



Optimum yield in all weather conditions thanks to outstanding low-light and temperature performance (-0.35% / K)



High stability: tested for wind loads up to 4000 Pa and snow loads up to 5400 Pa



Independent parallel connected cells of the upper and lower half of the module ensure an improved yield in case of partial shading



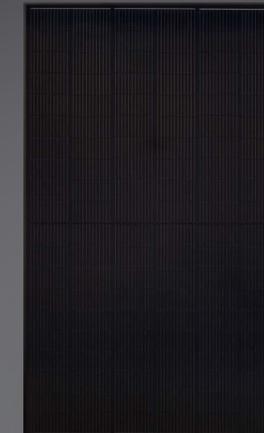
Q CELLS solar modules come with a product guarantee of 12 years and a linear performance guarantee of 25 years

Q.PEAK DUO-G8
120 half-cell module
Power: 360 Wp
Efficiency: 20.4 %
Weight: 19.9 kg



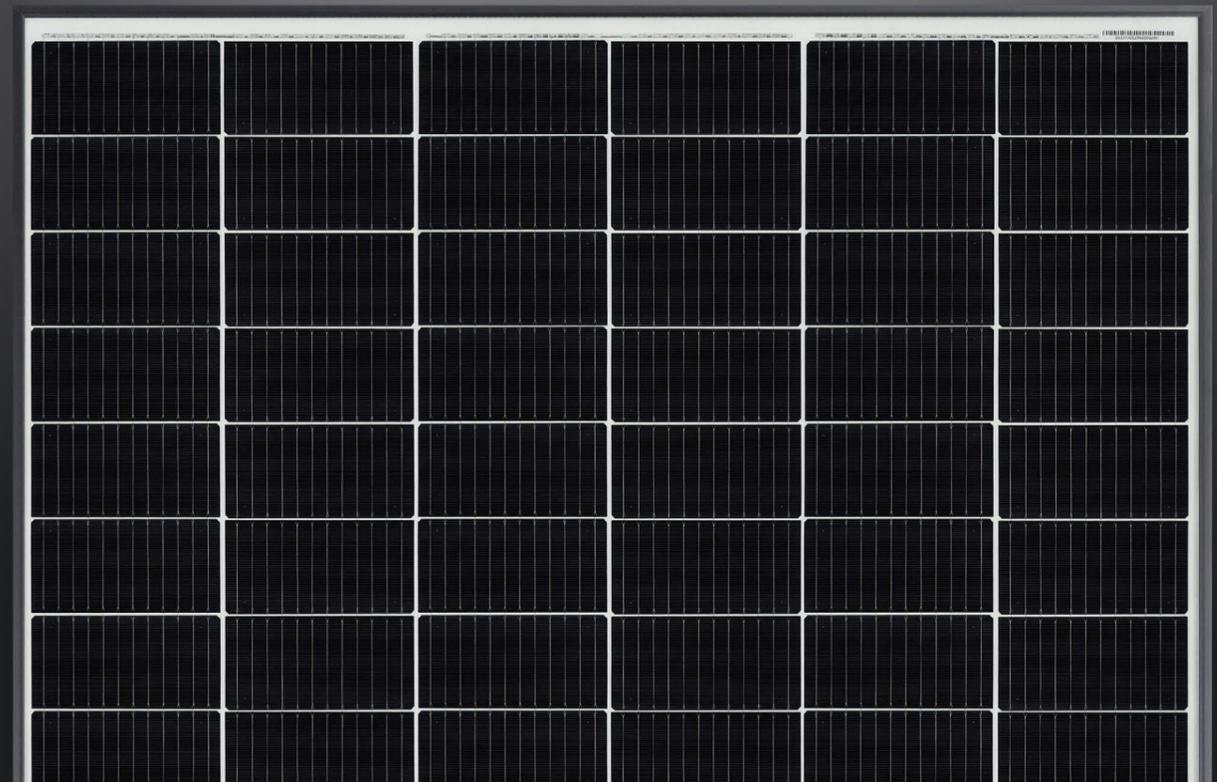
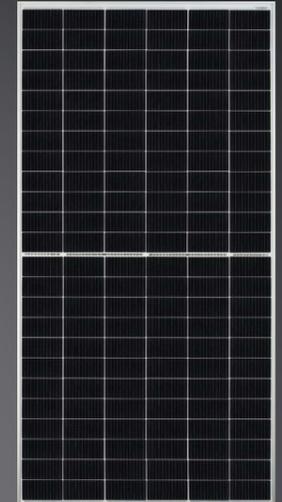
Also available as Q.PEAK DUO-G8+ with 25 year product and performance guarantee

Q.PEAK DUO BLK-G8
120 half-cell module
Power: 350 Wp
Efficiency: 19.8 %
Weight: 19.9 kg



Also available as Q.PEAK DUO BLK-G8+ with 25 year product and performance guarantee

Q.PEAK DUO L-G8
144 half-cell module
Power: 435 Wp
Efficiency: 20.5 %
Weight: 24.5 kg



Q.PEAK DUO-G7 MODULE SERIES

OUTSTANDING EFFICIENCY AND INNOVATION



Besides its outstandingly high efficiency – thanks to innovative Q.ANTUM DUO Technology – the Q.PEAK DUO-G7 solar module from Q CELLS also stands out with its sleek look.

MONOCRYSTALLINE Q.ANTUM DUO TECHNOLOGY

The Q.PEAK DUO-G7 module series comprises our monocrystalline solar modules with outstanding performance classes and an excellent efficiency of up to 20.3%. Q.PEAK DUO-G7 solar modules provide excellent and reliable yields thanks to the new generation of the unrivalled Q.ANTUM DUO solar cell concept, which is now combined with state-of-the-art circuitry and 12-busbar cell design. The black Q.ANTUM DUO half-cells in the Q.PEAK DUO-G7 module series lend even the most exclusive building a refined look. Our Q CELLS yield security guarantees reliable electricity production over the entire life

cycle of your solar installation. Thanks to integrated Q CELLS Anti LID Technology preventing light-induced degradation (LID), which can reduce system performance drastically – or almost totally – the Q.PEAK DUO-G7 solar modules eliminate slumps in yield. In contrast, conventional monocrystalline solar modules without Anti LID Technology lose much of their initial power through normal insolation. The Q.PEAK DUO-G7 solar modules are also freely available as an especially aesthetic, completely black Q.PEAK DUO BLK-G7 and 144 half-cell L version Q.PEAK DUO L-G7 for open spaces.

THE IDEAL SOLUTION FOR

- Rooftop arrays on residential buildings
- Rooftop arrays on commercial / industrial buildings
- Ground-mounted solar power plants

| | | | |
|-------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| Q.PEAK DUO-G7 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Q.PEAK DUO BLK-G7 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Q.PEAK DUO L-G7 | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

YOUR BENEFITS



Optimum yield in all weather conditions thanks to outstanding low-light and temperature performance (-0.35% / K)



High stability: tested for wind loads up to 4000 Pa and snow loads up to 5400 Pa



Independent parallel connected cells of the upper and lower half of the module ensure an improved yield in case of partial shading



Q CELLS solar modules come with a product guarantee of 12 years and a linear performance guarantee of 25 years

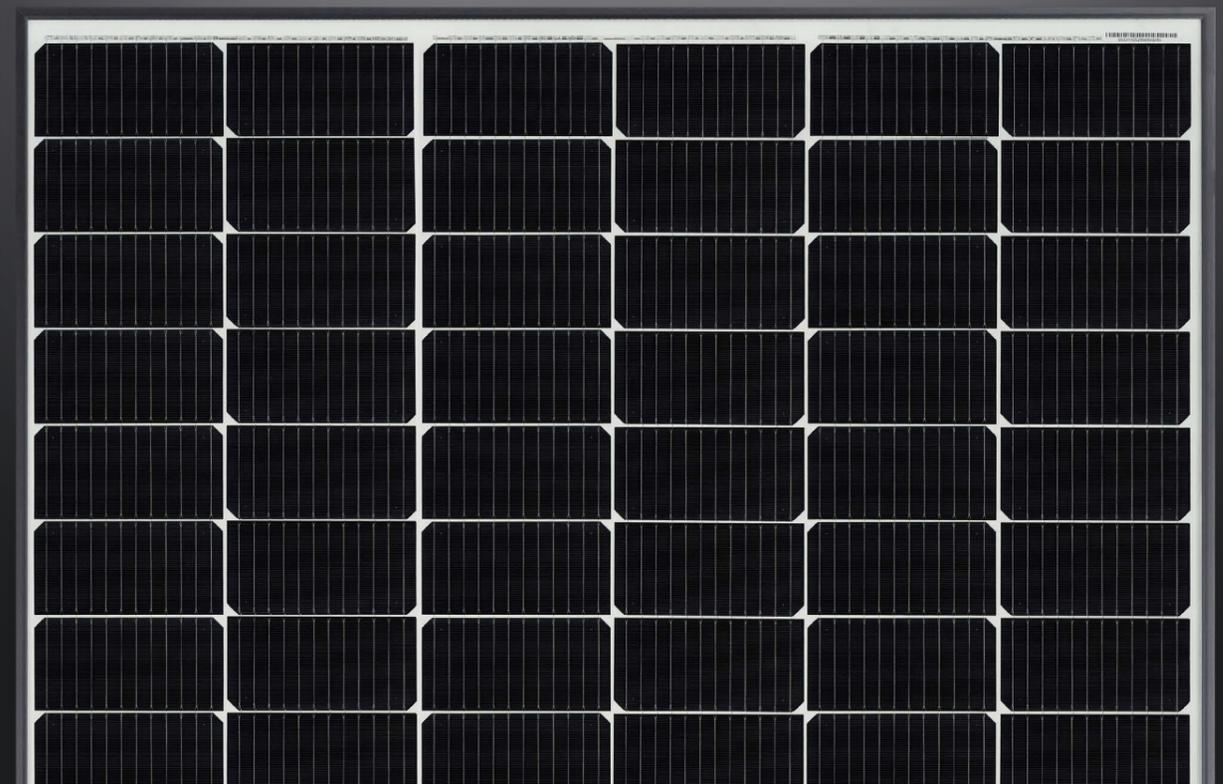
Q.PEAK DUO-G7
120 half-cell module
Power: 335Wp
Efficiency: 20.2%
Weight: 18.7kg



Q.PEAK DUO BLK-G7
120 half-cell module
Power: 325Wp
Efficiency: 19.6%
Weight: 18.7kg



Q.PEAK DUO L-G7
144 half-cell module
Power: 405Wp
Efficiency: 20.3%
Weight: 23kg



Q.PEAK DUO-G6 MODULE SERIES

PERMANENT TOP PERFORMANCE



The Q.PEAK DUO-G6 module series from Q CELLS is impressive thanks to innovative Q.ANTUM DUO Technology with particularly high module output.

MONOCRYSTALLINE Q.ANTUM DUO TECHNOLOGY

Our Q.PEAK DUO-G6 module series comprises monocrystalline solar modules with outstanding performance classes and an efficiency of up to 20.1%. The Q.PEAK DUO-G6 module series provides higher yields per surface area thanks to the unsurpassed Q.ANTUM DUO solar cell concept, in which half-cells are combined with state-of-the-art circuitry and 6-busbar design. The integrated Q CELLS yield security guarantees reliable electricity production over the entire life cycle of your solar installation. This also includes the integrated Q CELLS

Anti LID Technology, which prevents light-induced degradation (LID), thus reducing system performance drastically – or almost totally. In contrast, conventional solar modules without Anti LID Technology lose much of their initial power through insolation. Q.PEAK DUO-G6 solar modules prevent this via the system of Q CELLS yield security. The Q.PEAK DUO-G6 solar modules are also freely available as an especially aesthetic, completely black Q.PEAK DUO BLK-G6 and 144 half-cell L version Q.PEAK DUO L-G6 for open spaces.

THE IDEAL SOLUTION FOR

- Rooftop arrays on residential buildings
- Rooftop arrays on commercial / industrial buildings
- Ground-mounted solar power plants

| | | | |
|-------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| Q.PEAK DUO-G6 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Q.PEAK DUO BLK-G6 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Q.PEAK DUO L-G6 | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

YOUR BENEFITS



Optimum yield in all weather conditions thanks to outstanding low-light and temperature performance (-0.36% / K)



High stability: tested for wind loads up to 4000 Pa and snow loads up to 5400 Pa



Independent parallel connected cells of the upper and lower half of the module ensure an improved yield in case of partial shading



Q CELLS solar modules come with a product guarantee of 12 years and a linear performance guarantee of 25 years

Q.PEAK DUO-G6
120 half-cell module
Power: 360 Wp
Efficiency: 20.1%
Weight: 19.9 kg



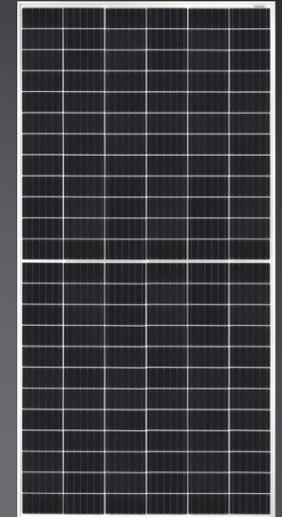
Also available as Q.PEAK DUO-G6+ with 25 year product and performance guarantee

Q.PEAK DUO BLK-G6
120 half-cell module
Power: 345 Wp
Efficiency: 19.5%
Weight: 19.9 kg



Also available as Q.PEAK DUO BLK-G6+ with 25 year product and performance guarantee

Q.PEAK DUO L-G6
144 half-cell module
Power: 425 Wp
Efficiency: 20.1%
Weight: 24.5 kg



Q.PEAK DUO-G5 MODULE SERIES

REVOLUTIONARY AND AWARD-WINNING



The Q.PEAK DUO-G5 module series from Q CELLS is distinguished by its innovative Q.ANTUM DUO Technology, enabling outstandingly high performance on a small surface area. Winning the prestigious Intersolar Award as well as the Solar + Power Award is clear recognition of this excellence.

MONOCRYSTALLINE Q.ANTUM DUO TECHNOLOGY

The monocrystalline Q.PEAK DUO-G5 solar module provides excellent yields on smaller surface areas thanks to high power classes and an outstanding efficiency of up to 20.2%. This is enabled by the unrivalled Q.ANTUM DUO solar cell concept, which combines half-cells with state-of-the-art circuitry and 6-busbar design. The integrated Q CELLS yield security guarantees reliable electricity production over the entire life cycle of your solar installation. This also includes the integrated Q CELLS Anti LID Technology, which prevents light-induced

degradation (LID), thus reducing system performance drastically – or almost totally. In contrast, conventional monocrystalline solar modules without Anti LID Technology lose much of their initial power simply through insolation. Q.PEAK DUO-G5 solar modules prevent this via the system of Q CELLS yield security. The Q.PEAK DUO-G5 solar modules are also freely available as an especially aesthetic, completely black Q.PEAK DUO BLK-G5 and as 144 half-cell L-Version Q.PEAK DUO L-G5 for open spaces.

THE IDEAL SOLUTION FOR

- Rooftop arrays on residential buildings
- Rooftop arrays on commercial / industrial buildings
- Ground-mounted solar power plants

| | | | |
|-------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| Q.PEAK DUO-G5 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Q.PEAK DUO BLK-G5 | <input checked="" type="checkbox"/> | | |
| Q.PEAK DUO L-G5 | | | <input checked="" type="checkbox"/> |

YOUR BENEFITS



Optimum yield in all weather conditions thanks to outstanding low-light and temperature performance (-0.36% / K)



High stability: tested for wind loads up to 4000 Pa and snow loads up to 5400 Pa



Independent parallel connected cells of the upper and lower half of the module ensure an improved yield in case of partial shading



Q CELLS solar modules come with a product guarantee of 12 years and a linear performance guarantee of 25 years

Q.PEAK DUO-G5
120 half-cell module
Power: 335Wp
Efficiency: up to 20.2%
Weight: 18.7kg



Q.PEAK DUO BLK-G5
120 half-cell module
Power: 325Wp
Efficiency: up to 19.6%
Weight: 18.7kg



Q.PEAK DUO L-G5
144 half-cell module
Power: 400Wp
Efficiency: up to 20.1%
Weight: 23kg





Q.MOUNT THE VERSATILE MOUNTING SYSTEM FOR PITCHED ROOFS

Quick and easy installation on pitched roofs.

VARIOUS POTENTIAL APPLICATIONS

Due to the different roof shapes and roof materials, pitched roofs represent a special challenge when installing a solar system. Whether on classic tiled roofs, corrugated sheet metal, trapezoidal sheet metal or metal seam roofs: Q.MOUNT offers easy-to-install elements for fast, efficient and safe installation of solar systems on pitched roofs.

QUICK AND EASY INSTALLATION

Different roof types also create very different requirements for the installation of a solar system. No matter which roof-parallel installation is to be made: With the modular components of our substructure Q.MOUNT the installation is fast, easy and cost-effective.

EXTENSIVE COMPONENT SELECTION

YOUR BENEFITS:

- Q.MOUNT is suitable for all common types of sloping roof
- High quality, durable components
- Fast and safe installation
- Straightforward planning of the solar system and components with the Q CELLS ROOFTOP PLANNER

The Q.MOUNT system from Q CELLS offers an extensive selection of mounting elements, which are customised to the respective roof surface. All Q.MOUNT components are manufactured from high quality, corrosion resistant materials, which are extremely durable and designed for long life. Using the Q CELLS ROOFTOP PLANNER, the system can be designed quickly and easily, all necessary mounting components can be determined in a single step and the structural feasibility can also be checked.

SUITABLE FOR ALL STANDARD SLOPING ROOF TYPES

Q.MOUNT is the ideal system for installing private and commercial rooftop arrays equipped with Q CELLS solar modules, because both the module layout and substructure can be planned easily using the Q CELLS ROOFTOP PLANNER and Q.MOUNT.

Q.FLAT-G5 THE FAST AND RELIABLE SYSTEM FOR FLAT ROOFS

Fewer work steps and time-saving installation thanks to the uncomplicated folding mechanism.

FAST INSTALLATION

The fully integrated base profiles with simple folding mechanism save any laborious pre-assembly and reduce the amount of work required.

ONLY ONE SCREW

The innovative design means that each module requires just one screw to secure it in place.

FEWER INDIVIDUAL COMPONENTS

The Q.FLAT-G5 is mainly supplied pre-assembled and comprises just a base profile, ballast carrier and end clamp. This reduces the storage and logistics costs, as well as the amount of work required on the roof.

LESS MEASURING WORK

The ballast carriers serve as a distance gauge between the base profiles. As soon as the first base profile is aligned, the distances to the following base profiles result by hanging in the ballast carriers. There is no need for further measurement.

KIND TO THE ROOF

Thanks to the installation, the building fabric is protected without penetrating the roof cladding. The ballast remains above the roof surface, thus preventing damage to the roof cladding.

BALLAST

Different ballast stone sizes can be stowed not only in the intended ballast trough, but also directly in the basic profiles.

HIGH YIELDS

The excellent yields are ensured almost independent of the system's alignment, allowing a high degree of flexibility in the rooftop array's design. With a significantly higher power density of over 180 Wp/m² compared to standard systems, Q.FLAT-G5 is the ideal solution for low-cost electricity production.



Q.HOME+ ESS AC-G2 EASY RETROFITTING

Q.HOME+ ESS AC-G2* is our AC coupled energy storage solution for existing photovoltaic systems

| | | |
|-------------------------------|--|--|
| General product information | Dimensions | 539 mm × 1236 mm × 231 mm |
| | Display | LED: Battery SOC, grid connection state, service state |
| | Remote monitoring | Web, mobile |
| | Energy management system | Inclusive and integration friendly |
| Grid data Inverter | Rated power | 3 kW |
| | Rated voltage / Rated voltage range | 230 / 183 ~ 265 V |
| Battery data (direct current) | Battery | Lithium ion, nickel-manganese-cobalt |
| | Rated battery voltage / Rated voltage range | 48 / 42.0 ~ 58.5 V _{DC} |
| Backup power output | Rated apparent power / Rated power | 2 |
| Lithium-ion Battery | Battery capacity | 6.5 kWh |
| | Max. charging current / Max. discharge current | 63 / 63 A _{DC} |

* Availabilities varies depending on the region

AC-COUPLED STORAGE SOLUTION YOUR ADVANTAGES AT A GLANCE



OPTIMISED CAPACITY

The AC-decoupled home storage solution, for integration in new and existing solar installations. The system can be connected directly to PV inverters.



LONG DURABILITY

Thanks to a product guarantee of 10 years and retention of at least 80% of the original battery capacity after 10 years.



INTELLIGENT DESIGN

Lean design for quick and easy installation, system with AC inverter and powerful lithium ion battery.



INTEGRATED ENERGY MANAGEMENT

The integrated energy management system enables a complete overview of energy production and internal consumption.



SAFETY

High-quality lithium ion battery with integrated battery management from LG Chem.



BACKUP POWER FUNCTION

Thanks to the integrated backup power function, the electricity stored at the backup power socket can also be used in the event of a power failure (230V/9A).

RELIABLE HIGH-PERFORMANCE SOLAR SYSTEMS ADAPT TO YOUR ELECTRICITY NEEDS AND ROOF

As different as the roofs of a house are, so individual is the energy demand of a household. Therefore, we offer individually tailored solar packages where you can choose between

different high-performance solar modules, inverters or solar energy storage. Optimise your Q CELLS solar packages according to your customer needs and respective self-consumption rates:

EXAMPLE CALCULATION FOR SOLAR SYSTEMS WITH AND WITHOUT POWER STORAGE (WITH Q.PEAK DUO-G8 360)

| HOUSEHOLD SIZE / ENERGY CONSUMPTION | PV SIZE | MINIMUM AVAILABLE ROOF AREA | SELF-CONSUMPTION WITHOUT STORAGE SYSTEM | SELF-CONSUMPTION WITH STORAGE SYSTEM |
|-------------------------------------|---------|-----------------------------|---|--------------------------------------|
| 2-persons to 3,200 kWh | 5.4 kWp | 26 m ² | 45 % | 73 % |
| 3-persons to 3,800 kWh | 6.5 kWp | 32 m ² | 44 % | 68 % |
| 4-persons to 4,400 kWh | 7.9 kWp | 39 m ² | 41 % | 67 % |
| 5-persons to 5,000 kWh | 8.6 kWp | 43 m ² | 40 % | 65 % |



Q CELLS ROOFTOP PLANNER SYSTEM PLANNING MADE EASY

We offer Q.PARTNER installers a software solution – the Q CELLS ROOFTOP PLANNER – that combines all of the planning stages required in a single program

ALL IN ONE

The planning tool from Q CELLS combines various programs and makes your planning easier. Save time and resources by implementing all configuration steps in a single program.

ENTER ADDRESS – AND GET STARTED

Simply enter the address of the property, and the roof will be displayed instantly via Google Maps. After selecting the roof shapes, the surface areas are displayed automatically – these can then be expanded or shrunk with just a few clicks. Snow and wind load zones are automatically displayed and can also be detailed further.

SELECTING COMPONENTS

After selecting the modules and substructure, an assignment including shadow simulation and cabling overview is performed automatically. The optional visualisation in 3D is a further highlight that is sure to impress your customers.

SIMULATION MADE EASY

After selecting the inverters or the storage solution, you can directly access the simulation, which previously had to be started externally via PVsyst or the PV*SOL software with pre-selected Meteonorm weather data. The local topography such as mountains can be taken into account really easily.

EVERYTHING YOU NEED

After completing the project, a structured list of all the materials you need is compiled, which you can easily export as an Excel document or project report in PDF format.





SMART FUNCTIONS YOUR ADVANTAGES AT A GLANCE



INTELLIGENT CHARGING

The intelligent binding of the Q.HOME EDRIVE-G1 to the electricity price exchange makes ecological and economical loading possible for you. The device informs about the current charge, shows the charging history and has an adapter and type 2 cable recognition. It is also possible to preset the charging time with start and stop, weekday.



CONVENIENT INSTALLATION

The quick release wall bracket allows the charging station to be disassembled very quickly. The integrated RCD switch saves expensive FI Type B (RCCP) retrofitting in the building electrics and thanks to protection class IP54 the Q.HOME EDRIVE-G1 is suitable for permanent outdoor operation.



UNBEATABLE HARDWARE

The Q.HOME EDRIVE-G1 enables a high charging capacity of up to 22 kW with a suitable type 2 plug, the connection of type 1 plugs is possible via an adapter. In addition, various adapters for single-phase and multi-phase charging are available and there is also the possibility of charging at the household socket. A mechanical cable interlock with the car and charging station is integrated and requires approval by the owner.



SMART CONTROL

The connection to the Q.HOME EDRIVE-G1 is made via the Internet or directly via a hotspot, a free app is available for detailed settings. Personalised access is via standard RFID-enabled cards or chips; personalisation is possible via a user account with monthly consumption overview and RFID card management.

Q.HOME EDRIVE-G1 THE SMART CHARGING STATION

The Q.HOME EDRIVE-G1 enables you to save energy by linking to the electricity price exchange in an ecologically and economically effective way.

The Q.HOME EDRIVE-G1 offers not only the benefits of a high-end charger but also the option of mobile charging. And this with standard Premium functional scope. The charging station can do everything a permanently installed charging station can do, but is extremely compact and universal in use. The Q.HOME EDRIVE-G1 lets you charge everywhere, at any socket and almost any electric car. The quick release wall bracket included in the scope of delivery ensures mobility. At home, the charging station can be comfortably attached to the wall bracket and with a flick of the wrist the Q.HOME EDRIVE-G1 becomes a mobile charging station. With the

Q.HOME EDRIVE-G1 it is possible to charge everywhere where alternating and three-phase current is available. Thanks to the integrated type 2 socket of the charging station, the Q.HOME EDRIVE-G1 is extremely compact, because it uses the type 2 cable which is available in the car anyway. Farewell cable jungle. Our charging stations can be used for almost all cars registered on the European market: for example Renault Zoe, Mercedes-Benz EQC, Nissan Leaf, Hyundai Ioniq, Kia Niro, eGolf, BMW i3, all Tesla vehicles, also including the Model 3. You only need this charging station and you can charge any electric model of any car brand.



TOGETHER, WE WILL TAKE ONE GIANT LEAP FORWARD

Premium programme

Did you know that In our Premium Program all Q.PARTNER installers collect status points from different areas? Our best customers are awarded Premium status and enjoy numerous benefits that go far beyond the usual service. Your Q CELLS sales representative will be happy to give you an insight and discuss your current status and future development opportunities with you!

OUR Q.PARTNER PROGRAMME MORE SERVICE, MORE SUCCESS

Are you a believer in our products, and want to show it? Would you like to become our brand ambassador? Then choose a partnership with Q CELLS and become our Q.PARTNER.

Besides attractive special conditions for our Q.PARTNER installers, we offer our installers a wide range of attractive services and support as part of a strong partnership. Our Q.PARTNER portal enables you to access all tools and services centrally. A download area also offers you exclusive content for dealing with your project.

- ✓ Extensive planning software
- ✓ Exclusive online portal
- ✓ Professional sales documents
- ✓ Individual marketing and sales support
- ✓ Attractive pricing
- ✓ Individual contacts
- ✓ Technical customer service on site
- ✓ Product and online training
- ✓ Lead generation
- ✓ Fast and direct product enquiries
- ✓ Special terms of delivery

How to become a Q.PARTNER



INTERESTED?

Contact us:
partner@q-cells.com



WE CAN VISIT YOU

Our sales representative will be pleased to visit your company and complete a partnership agreement with you.



BENEFIT

Get access to our Q CELLS Q.PARTNER portal and our marketing materials and benefit from attractive purchasing and delivery conditions.

Q CELLS

GERMAN QUALITY MEETS KOREAN FINANCIAL STRENGTH

For Q CELLS, photovoltaics is more than just a product. It is the key technology for a reliable, efficient and sustainable energy supply – today and for future generations.

Q CELLS is one of the world's largest and most recognised photovoltaic manufacturers due to its high-quality and highly efficient solar cells and modules. The corporate headquarters are located in Seoul, South Korea (Global Executive HQ) and Thalheim, Germany (Technology & Innovation HQ), the production sites in South Korea, the USA, Malaysia and China. Q CELLS offers the full range of photovoltaic products and solutions. As a subsidiary of the Hanwha Group with a working capital of over 185 billion USD, Q CELLS is a highly respected and financially strong solar partner for our customers worldwide. Our solar cell production capacity of 9.6 GW (end of 2020) makes us one of the largest solar cell manufacturer and one of the largest solar module manufacturers in the world. We have a Bloomberg Tier 1 rating and are top tier module providers at BNEF.





HANWHA GROUP VALUE ADDED IN SOLAR BUSINESS

The Hanwha Group is vertically integrated into the entire value chain of the photovoltaic sector – from silicon to large solar power plants.

As part of the Hanwha Group, one of South Korea's seven largest corporations, Q CELLS can rely on a strong partner with a proud 68-year history. The Group ranks 261 among the Fortune Global 500 companies worldwide and operates 361 networks around the world. At the heart of all this is our belief in the Group and our desire to take a leading role in a sustainable future for humanity and the planet. Everything that grows and flourishes on earth owes its existence to solar energy – a clean, economical and infinite source of energy. True to our corporate philosophy of giving and earning trust and loyalty, we are able to meet the energy needs of people and institutions in various markets. Our entry into the photovoltaic sector in 2010 was a natural consequence of this mission, enabling us to offer a world-leading range of sustainable solar products and services for future generations.



REVENUE 2020 (E)
56.6 BILLION USD



FOUNDED
1952



ASSETS
178.4 BILLION USD



FORTUNE® GLOBAL 500 RANK
261

HANWHA Q CELLS GMBH

OT Thalheim
Sonnallee 17 – 21
06766 Bitterfeld-Wolfen
Germany

TEL +49(0)3494 6699 – 23222
FAX +49(0)3494 6699 – 23000
EMAIL sales@q-cells.com
WEB www.q-cells.co.uk