



2009

V-TAC was founded with the vision of providing energy-efficient LED lighting solutions worldwide

2011

Began our EU expansion by opening the first V-TAC warehouse and office in Sofia, Bulgaria

2013

Started building our distribution network in the UK from our office in Southall, London.

2015

Launched our in-house product testing lab in Sofia, Bulgaria. 2016 Achieved \$100M A

Achieved \$100M Annual Turnover- Manufacturing Joint Venture with DASHER Lighting for decorative lighting. 2017 In-brand partnership with Samsung. Launched the V-TAC

Pro series.



Progressed into the green energy era with our new Solar products range



Centralized warehouse in Bulgaria extended to 42000+ sq mts. • New website launch • Opened new office in Ireland.

2020

2019 Opened new office in Poland.

2018 • Partnership with launched new Sm

Partnership with Tuya and launched new Smart Series
Unveiled the new V-TAC Showroom in Slough, UK



Solar energy is energy derived from sunlight. Whether you realise it or not, the sun already powers our planet, providing the necessary energy to keep the Earth's ecosystem alive and thriving. The amount of sunlight that reaches the earth's atmosphere is enough to power all our needs.

According to the US Department of Energy, 173000 terawatts of solar energy strike the earth continuously, which is more than 10000 times the world's total energy use. The sun is a free, sustainable, clean resource we can utilise in place of conventional electricity to power our day-to-day lives. Solar energy can be used to provide heat, light, and other electricity-dependent needs in residential and commercial buildings.

HOW DO SOLAR PANELS ACTUALLY WORK?

Solar panels are made of highly excitable, conductive materials. When the sun's rays hit the solar panels, the reaction creates direct current (DC) electricity. Do they work even on overcast days? Absolutely, since the sun's rays can still penetrate clouds and reach solar panels.

Since most homes and businesses use alternating current (AC) electricity, your solar-generated DC energy will pass through an inverter to become AC electricity. This energy can be rationed into load for everyday essential appliance use, the rest stored into a battery, reverted back into a grid — entirely dependent on your choice and solar power system goals.

Solar panels enable humanity to maximise solar energy — a free, clean, energy resource. This is a major step in lowering carbon footprint and eventually achieving net-zero. V-TAC's new Energy catalogue aims to promote clean energy access with energy supplies at the best prices, and contributing to economic growth by pushing for energy savings.





WHY SOLAR ENERGY IS IMPORTANT?

There's a reason why so many homeowners and businesses are turning to solar power. The benefits are undeniable, and not just for individuals, but for the planet as a whole. Here are just a few of the many reasons that support the importance of solar energy.

IT'S GOOD FOR THE ENVIRONMENT

The difference between solar energy and conventional electricity is that solar energy does not rely on the use of fossil fuels, does not pollute air or water, and does not contribute to global warming, making it the preferable option for many. Solar energy works with the earth's natural resources, whereas conventional electricity depletes or harms them.

IT'S A RELIABLE, COST-EFFECTIVE ENERGY SOURCE

The sun is a renewable energy source. Fossil fuels will eventually run out, but sunlight won't. For that reason, solar energy is highly reliable. And unlike fossil fuels which are expensive to mine and utilize, it doesn't cost anything to receive sunlight. A one-time installation of solar equipment is all that's needed to reap the benefits.

IT SAVES YOU MONEY IN THE LONG RUN

Though the cost of installing solar panels or a solar electric system has decreased in recent years, some may still find the initial investment in solar energy to be intimidating. However, the key is remembering that installation is a one-time event, whereas paying for conventional electricity is a frequent, ongoing, and an expensive obligation, especially as electric rates continue to rise.

IT PROMOTES ENERGY INDEPENDENCE

Energy independence means not having to rely on the power grid. With no other means of powering your home, you could run into a variety of issues in the event of bad weather or damage to power lines. Using solar energy, especially when paired with a backup battery system, allows you to not be tied to unreliable power grids when you need energy most.



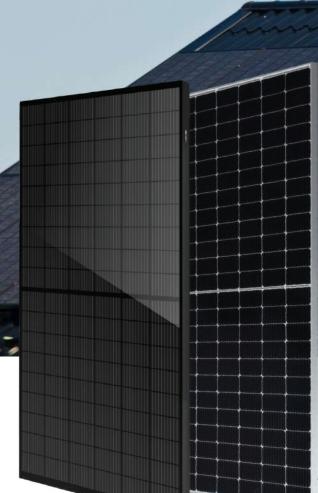


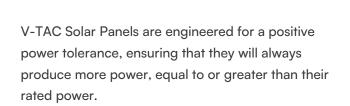






Solar Panels





PID Resistance means our solar panels maintain their power efficiency despite high voltages, high temperatures, high humidity, and other potential factors. With advanced glass and cell surface textured design, excellent performance even during overcast days is possible. The 25-year Linear Output Warranty to guarantees that optimal power output will still be achieved even after decades of installation.









2

HALF-CUT TECHNOLOGY Unique circuit design to reduce temperature heat spots

SIGNIFICANTLY AVOIDING HEAT SPOT

The unique circuit design to reduce the temperature heat spot significantly, so that to reduce the power loss and then increase the output of modules.



LOWER COST Increasing power generation can reduce the cost per kilowatt-hour

EXCELLENT PERFORMANCE OF

Anti PID P

PID RESISTANCE The performance of PID resistance (Potential Induced Degradation) passed the standard of TUV Nord.

CE





Solar Panels







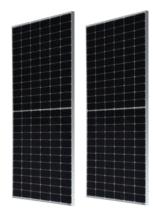
CABLE

MECHANICAL CHARACTERISTICS

	Cell Type	182*91 Mono
	No. of Cells	108 (12*9)
	Dimensions	D:1722*1134*35mm
	Weight	21.50kg
	Junction box	IP67/IP68 3diodes
	Operating Temperature	-40~+85°C
	Qty Per Pallet	31pcs/pallet

ELECTRICAL DATA (STC)

Peak Power(Pmax)	410.00
Maximum Power Voltage(Vmp)	31.46
Maximum Power Current(Imp)	13.04
Open Circuit Voltage(Voc)	37.45±3%
Short Circuit Current(lsc)	13.85±3%
Module Efficiency(%)	20.97



SILVER FRAME SOLAR PANEL 410W VT-410 SKU 11517



SLIM DESIGN

Cell Type 182*91 Mono No. of Cells 108 (12*9) Dimensions D:1722*1134*30mm Weight 21.50kg Junction box IP67/IP68 3diodes Operating Temperature -40~+85°C Qty Per Pallet 37pcs/pallet

MECHANICAL CHARACTERISTICS

ELECTRICAL DATA (STC)

410.00
31.46
13.04
37.45±3%
13.85±3%
20.97



BLACK SOLAR PANEL

410W VT-410 SKU 11519



MECHANICAL CHARACTERISTICS

Cell Type	182*91 Mono
No. of Cells	108 (12*9)
Dimensions	D:1722*1134*35mm
Weight	21.50kg
Junction box	IP67/IP68 3diodes
Operating Temperature	-40~+85°C
Qty Per Pallet	31pcs/pallet

ELECTRICAL DATA (STC)

Peak Power(Pmax)	410.00
Maximum Power Voltage(Vmp)	31.46
Maximum Power Current(Imp)	13.04
Open Circuit Voltage(Voc)	37.45±3%
Short Circuit Current(lsc)	13.85±3%
Module Efficiency(%)	20.97





410W VT-410



CABLE

MECHANICAL CHARACTERISTICS		
Cell Type	182*91 Mono	
No. of Cells	108 (12*9)	
Dimensions	D:1722*1134*35mm	
Weight	21.50kg	
Junction box	IP67/IP68 3diodes	

Operating Temperature -40~+85°C Qty Per Pallet 31pcs/pallet

ELECTRICAL DATA (STC)

Peak Power(Pmax)	410.00
Maximum Power Voltage(Vmp)	31.46
Maximum Power Current(Imp)	13.04
Open Circuit Voltage(Voc)	37.45±3%
Short Circuit Current(lsc)	13.85±3%
Module Efficiency(%)	20.97

Solar Panels





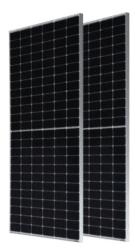


MECHANICAL CHARACTERISTICS

Cell Type	166*83 Mono
No. of Cells	144 (12*12)
Dimensions	2094*1038*35mm
Weight	23.50kg
Junction box	IP67/IP68 3diodes
Operating Temperature	-40~+85°C
Qty Per Pallet	31pcs/pallet

ELECTRICAL DATA (STC)

Peak Power(Pmax)	450.00
Maximum Power Voltage(Vmp)	41.50
Maximum Power Current(Imp)	10.85
Open Circuit Voltage(Voc)	49.30±3%
Short Circuit Current(Isc)	11.60±3%
Module Efficiency(%)	20.70



545W VT-545W SKU 11354

MECHANICAL CHARACTERISTICS

Cell Type	182*91 Mono
No. of Cells	144 (12*12)
Dimensions	2279*1134*35mm
Weight	28.40kg
Junction box	IP67/IP68 3diodes
Operating Temperature	-40~+85°C
Qty Per Pallet	31pcs/pallet

ELECTRICAL DATA (STC)

Peak Power(Pmax)	545.00
Maximum Power Voltage(Vmp)	41.93
Maximum Power Current(Imp)	13.00
Open Circuit Voltage(Voc)	49.90±3%
Short Circuit Current(Isc)	13.92±3%
Module Efficiency(%)	21.08



665W VT-665W SKU 11544

Cell Type	210*105 Mono
No. of Cells	132 (12*11)
Dimensions	2384*1303*35mm
Weight	33.90kg
Junction box	IP67/IP68 3diodes
Operating Temperature	-40~+85°C
Qty Per Pallet	31pcs/pallet

ELECTRICAL DATA (STC)

Peak Power(Pmax)	665.00
Maximum Power Voltage(Vmp)	38.00
Maximum Power Current(Imp)	17.50
Open Circuit Voltage(Voc)	45.80±3%
Short Circuit Current(lsc)	18.58±3%
Module Efficiency(%)	21.40



Solar Panels Sets



V-TAC launches an innovative way to transport our solar panel range: with the usage of especially packed solar panel sets. The sets were designed with homes and small industrial projects in mind, providing a limited number of panels to match customers' requirements. Our state-of-the-art 410W and 450W panels are packed methodically in mini pallets, which can then be easily transported directly on site to provide the exact power and energy required.

Solar Panels Sets











4.92 kW/SET 410W X 12

Half Mono Solar Panel Black Frame D:1722*1134*35MM

SKU 11562



SLIM DESIGN

4.92 kW/SET 410W X 12

Slim Half Mono Solar Panel D:1722*1134*30MM

SKU 11549



4.92 kW/SET 410W X 12

Half Mono Solar Panel D:1722*1134*35MM

1 meter CABLE

4.95 kW/SET 450W X 11

Half Mono Solar Panel D:2094*1038*35MM SKU 11553

Solar Panels Sets







Half Mono Solar Panel Black Frame D:1722*1134*35MM SKU 11563











6.15 kW/SET 410W X 15

Slim Half Mono Solar Panel D:1722*1134*30MM SKU 11551



6.15 kW/SET 410W X 15

Half Mono Solar Panel D:1722*1134*35MM SKU 11552



6.30 kW/SET 450W X 14

Half Mono Solar Panel D:2094*1038*35MM SKU 11554



Solar Inverters are devices that convert the direct current (DC) from the solar panels into alternating current (AC) which is used by domestic and commercial appliances. It is one of the most critical components of the solar power system as it converts power from the sun into useful energy and is often referred to as the brain of a solar system. Solar inverters are a crucial part of a solar system since power from the sun cannot be directly used to run electrical appliances. V-TAC's range of solar inverters have evolved to become much more smart and intelligent units, performing other functions such as data monitoring, advanced utility controls, energy management, and more.



Single Phase

On-Grid Solar Inverters

Typically used in most new houses and small businesses, single-phase on-grid inverters transport electricity via two wires: active and neutral. The electricity from the grid or your solar PV system will only flow through the one active wire, while the neutral wire is connected to the earth at the switchboard. This setup allows you to generate solar power from panels as well as draw power in from the grid to power your homes or offices.













Zero export function (Optional)



Aluminum





IP65 Rating



Three Phase

On-Grid Solar Inverters

Three-phase power has four wires, three of which are active, in addition to one neutral wire, which is earthed at the switchboard. Three phase electricity is common in both larger homes and businesses, as well as older homes, and allows for smaller and less expensive wiring, and lower voltages.















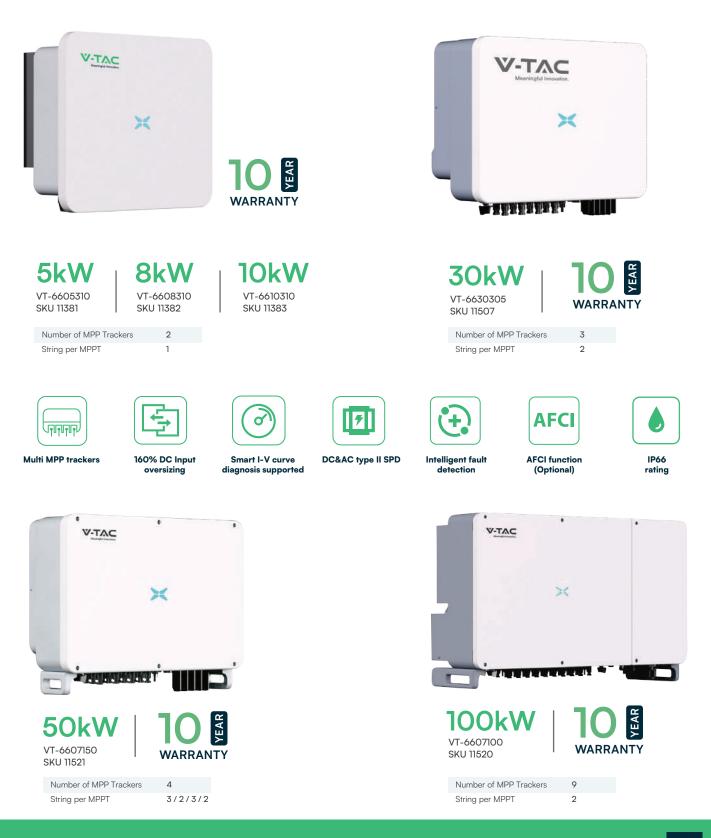
ero export function (Optional) External

Aluminum enclosure Natural cooling low noise IP65 rating



Three Phase

On-Grid Solar Inverters





Single Phase

Hybrid Solar Inverters

Hybrid inverters allows you to generate solar power from panels, draw power from the grid and store excess energy created by the panels into battery packs to be drawn in whenever necessary. The electricity from the grid, solar PV system or the battery will only flow through the one active wire, while the neutral wire is connected to the earth at the switchboard.

V-TAC







Number of MPP Trackers2String per MPPT1





management



IP66 rating



Battery reverse protection

Lead-acid/ lithium

Battery

Zero export function (Integrated)



Single Phase

Hybrid Solar Inverters





Number of MPP Trackers 2 String per MPPT 1



High DC/AC ratio



EAR

Easy to install



Support battery customization





EAF WARRANTY

Number of MPP Trackers String per MPPT



UPS function

switch time < 10ms





1.5 times pv oversize

2 **мррт** MPPT channels

up to 2 MPPT channels



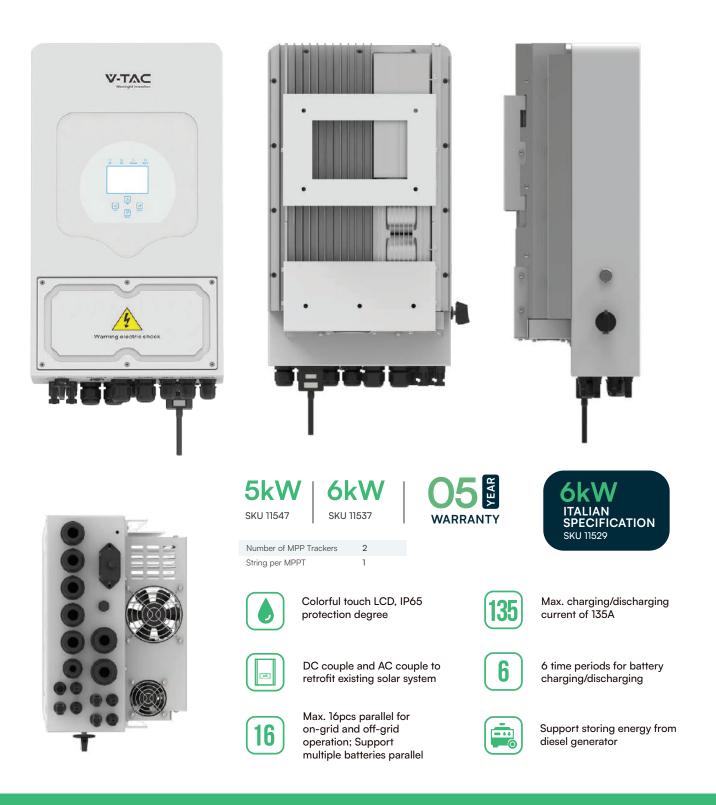
Multiple inputs support generator & wind turbines

VTACEXPORTS.COM



Single Phase

Hybrid Solar Inverters

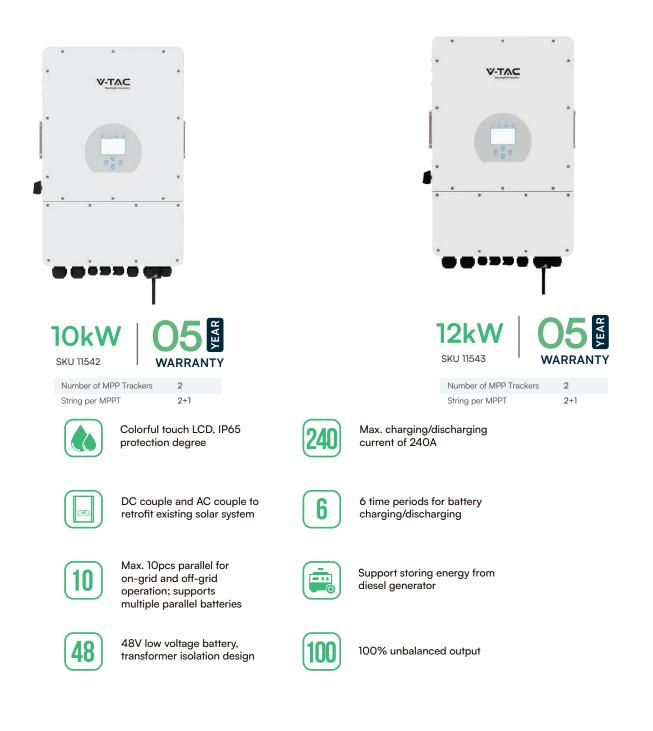




Three Phase

Hybrid Solar Inverters

Three-phase power has four wires, three of which are active, in addition to one neutral wire, which is earthed at the switchboard. Three phase electricity is common in both larger homes and businesses, as well as older homes, and allows for smaller and less expensive wiring, and lower voltages.





Having batteries in your solar power system gives you more energy self-sufficiency, and helps you achieve your ROI. We offer different types of safe, reliable battery solutions to meet power storage needs depending on a variety of factors — the solar array size, on-grid or off-grid system, backup power requirements, and overnight energy consumption in kWh. Our batteries are modular and scalable to easily build your target load with each usable capacity. IP65 options are available for a weatherproof performance all year round.

Battery Storage Solutions



Rack Mounting Lithium Battery









```
High performance & efficiency
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Easy installation

Perfect compatibility

& expandability



Long-life lithium Battery







Battery Storage Solutions



Indoor

Wall Mounting





Battery Storage Solutions



Weatherproof

Wall Mounting



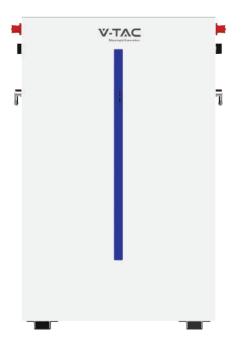




Weatherproof

Wall Mounting







Cobalt Free Lithium Iron Phosphate (LFP) Battery, safety and long lifespan, high efficiency and high-power density. Intelligent BMS, providing complete protection.

Reliable

Support high discharge power. IP65, natural cooling, wide temperature range: -20°C to 55°C.

• Flexible

Modular design, easy to expand, Max. 32 units in parallel, Max. capacity of 196kWh. Suited to residential and commercial applications for increasing the selfconsumption ratio.



Convenient

Battery module auto networking, Automatic IP addressing, easy maintenance, remotely monitoring and upgrade, support USB drive upgrade the firmware.

Eco-Friendly

Use environmental protection materials, the whole module non-toxic, pollution-free.

Wall-Mounted

Flat design, wall-mounted, saving installation space.

Battery Storage



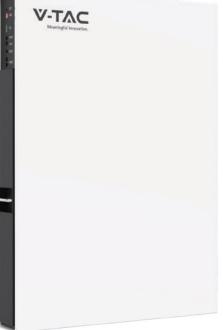
Waterproof

Wall Mounting









	General Parameters	Additional Information
Combination method	15S1P	LiFePO4
Rated capacity	Typical 161Ah minimum 158Ah	0.2°C,@25°C
Rated voltage	48V	
Voltage at end of discharge	42V	Discharge Cut-off voltage
Standard charge current	32A	Charge time : Approx 6h
Limiting current	20A	Software opening



We are dedicated to helping you shift to clean energy — our solar system kits are designed so anyone can easily jumpstart their journey to having a sustainable, solar power system. On-grid and hybrid options are available, so you can either keep your local electric connection or live off-the-grid at your choice. Whether residential, commercial, or industrial, we offer complete solar systems to meet your power needs at your specifications.

Solar System



Hybrid

Solar System 4.92 kWp



SKU Product **Specification** Quantity 11549 Half Mono Solar Panel 410W with 1 meter cable 12 11547 Single Phase Hybrid Solar Inverter 5kW 1 11448 LiFePO4 Battery Pack AT48-100H 1 **Assorted Accessories**

Whether it is installed on a roof or in a remote location, this 5kW Complete Solar Panel System Kit with Battery and Inverter can be easily connected to any electrical system. PV systems generate electricity during the day, which is initially supplied to loads. Hybrid Inverters will then charge the battery with the excess energy. Lastly, the stored energy can be released when needed.

Solar System



Hybrid Solar System



LiFePO4 Battery

Hybrid Inverter

Half Mono Solar Panels

SKU	Product	Specification	Quantity
11549	Half Mono Solar Panel	410W with 1 meter cable	24
11542	Three Phase Hybrid Solar Inverter	10kW	۱
11447	LiFePO4 Battery Pack	AT48-200H	1
	Assorted Accessories		

With a 10kW solar system, businesses, manufacturing facilities, and offices can operate independently without relying on government power. PV systems generate electricity during the day, which is initially supplied to loads. Hybrid Inverters will then charge the battery with the excess energy. Lastly, the stored energy can be released when needed.

Solar System



On-grid Solar System **4.92 kWp**



Solar Inverter

Half Mono Solar Panels

SKU	Product	Specification	Quantity
11549	Half Mono Solar Panel	410W with 1 meter cable	12
11370	Single Phase On-Grid Solar Inverter	5kW	1
	Assorted Accessories		

On-Grid PV systems are those that utilize utility (grid) power - whether for utility, commercial, residential or stand-alone buildings. On-grid systems are designed to partially or entirely satisfy a user's energy needs, thereby offsetting utility grid energy demand.

Light Industrial Solar System

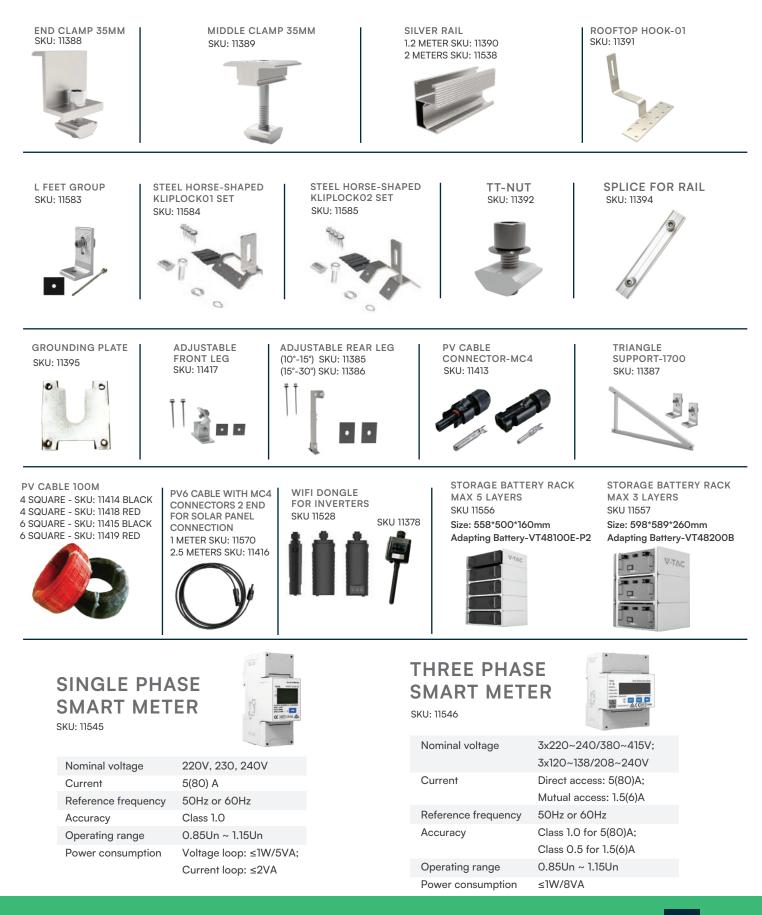




Solar Accessories



Compatible with all V-TAC Solar Systems



Portable Power



Solutions



Travel

Stay powered and connected. Charge your devices anywhere — less time worrying about running low on battery and more time enjoying your trip.



Drone



Camera



Laptop



Leisure

New spot for your hobbies? Or just a new space for the family to hang out in? Power up your new space of comfort and fun.





Electric Grill



Fan

Mini Cooler



Home

Say goodbye to the inconvenience of sudden outages — power up your basic home appliances whenever you need them. Also perfect for those working in flexible setups.







Mobile

•



Professional

Ideal for power tools, workshops, renovations, construction, outdoor house cleaning, and outdoor events.







Chainsaw

Tools

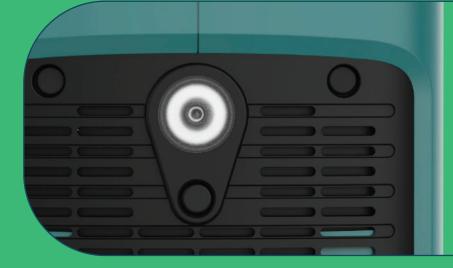
Portable Power Solutions



High Capacity Power

High-performance, high safety and high power lithium iron phosphate cell





LED Light For Camping

A must-have tool when camping or attending outdoor events

Wireless & Faster Charge

Charging wirelessly and supporting QC3.0 quick charging

Portable Power Solutions







500W VT-606 SKU 11442



1000W VT-1001 SKU 11443

MPPT

Solar energy charging maximum power point tracking

SUITCASE DESIGN

A trolley-shaped design makes it easy to carry wherever you go





® ::



2000W

VT-2002

SKU 11445



WIRELESS CHARGE OUTPUT 15W

Flexible & Folding Solar Panels



Compatible with all Portable Power Stations



Flexible Solar Panels

100W VT-10100

SKU 11568

Power Size: Working voltage Working current 100W 980*586*2.7mm 17V 5.88A

210W

VT-10210 SKU 11569

Power Size Working voltage Working current

• Portable, Foldable, and Adjustable

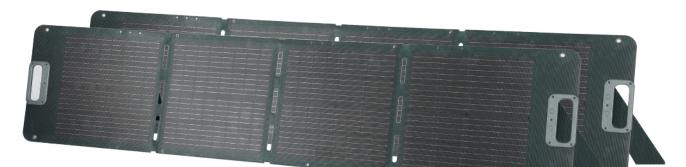
Designed with an adjustable kickstand, seamlessly install the panels and get the best angle while solar charging. When you're done charging, just fold the panels and bring them everywhere you go.

Built to Last

Designed to withstand scratches and poor weather, the ultra-durable solar panels are ideal for the outdoors and come in handy during power outages.



Portable power supply 2in1 SKU 11573



210W

20.5V, 10.24A.

1035*1035*2.7mm

Folding Solar Panels VT-10080

80W

Battery type Folding method Folded size **Expanded Size** Weight (NW) Standard working Voltage Standard Working Current

SKU 11564

17.6V 4.54A

120x2W

Battery type Folding method Folded size **Expanded Size** Weight (NW) Standard working Voltage Standard Working Current

WARRANT

Monocrystalline solar cells 1*4 fold 366*356*54mm±5mm 1670*356*25mm±5mm 4.3KG±0.5KG

VT-10241 SKU 11565 With 2in1 Cable

> Monocrystalline solar cells 1*4 fold x 2pieces 430*540*54mm±5mm 1930*430*25mm±5mm 4.0Kg±0.3Kg 17.6V 12.72

120W

Battery type Folding method Folded size Expanded Size Weight (NW) Standard working Voltage Standard Working Current

160W

Battery type Folding method Folded size Expanded Size Weight (NW) Standard working Voltage Standard Working Current

VT-10120 SKU 11446

> Monocrystalline solar cells 1*4 fold 430*540*54mm±5mm 1930*430*25mm±5mm 4.0Kg±0.3Kg 17.6V 6.36A

VT-10160 SKU 11566 With 2in1 Cable

Monocrystalline solar cells 1*4 fold 680*468*54mm±5mm 1670*680*25mm±5mm 6KG±0 5KG 17.6V 9.08A

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Meaningful Innovation.