



JSM SOLAR
SOLAR, A BRIGHTER FUTURE



Electric Vehicle Charging, Solar & Battery Storage Solutions



Workplace EV Charging grants



Government Funding for Small Businesses & Landlords



Office for Zero Emission Vehicles

From April 2022

Significant changes for the eligibility criteria for the Workplace Charging Scheme (WCS) and Homecharge Grant Scheme (EVHS) schemes came into place in April 2022. The new criteria has implications for homeowners, landlords and small business owners, especially in the accommodation sector.

- From 1 April the WCS will be available to B&Bs, small accommodation businesses, SMEs, charities and owners of commercially let premises. For example, the owner of a holiday cottage can claim up to £350 off the cost of a charging socket, and it can be used by guests staying on the premises; previously they could only claim if the charge point was being used by their own staff.
- Landlords, social housing providers and owners of apartment blocks can also now claim an EVHS grant. This will take away the responsibility for installing a chargepoint in an apartment away from individual flat owners.
- The Homecharge Grant will cease to be available for house owners with off-street parking it can still be claimed by people who rent their homes or those who live in flats.



Up to £350 per available towards the installation of commercial EV charge points for workplaces

Browse our helpful EV guides online at yesss.co.uk/topic/ev

EV Home Charger Buyer's Guide

EV Charger Cable Guide

YOUR ELECTRICAL SUPPLIES, SERVICE & SOLUTIONS

YESSS
ELECTRICAL

YESSS
INDUSTRIAL

YESSS
SECURITY

YESSS
LIGHTING

Budget 2021 - Super-deduction

For expenditure incurred from 1 April 2021 until the end of March 2023, companies can claim 130% capital allowances on qualifying plant and machinery investments.

Under the super-deduction, for every pound a company invests, their taxes are cut by up to 25p. This change makes the UK's capital allowance regime more internationally competitive, lifting the net present value of our plant and machinery allowances from 30th in the OECD to 1st.

The new Capital Allowances offer

As a result of measures announced at this Budget, businesses will now benefit from four significant capital allowance measures:

- The super-deduction – which offers 130% first-year relief on qualifying main rate plant and machinery investments until 31 March 2023 for companies.
- The 50% first-year allowance (FYA) for special rate (including long life) assets until 31st March 2023 for companies.
- Annual Investment Allowance (AIA) providing 100% relief for plant and machinery investments up to its highest ever 1 million threshold, until 31 December 2021. Within Freeport tax sites, companies can access new enhanced Capital allowances (ECA+) and companies, individuals and partnerships can benefit from an increased level of Structures and Buildings Allowance (SBA+) for investments until 30 September 2026.

Why is the government Introducing a super-deduction?

Since the Covid-19 pandemic, existing low levels of business investment have fallen, with a reduction of 11.6% between Q3 2019 and Q3 2020.

Much of the UK's productivity gap with competitors is attributable to our historically low levels of business investment compared to our peers. Weak business investment has played a significant role in the slowdown of productivity growth since 2008. Making capital allowances more generous works to stimulate business investment. As a result, these measures can promote economic growth and counter business cycles.

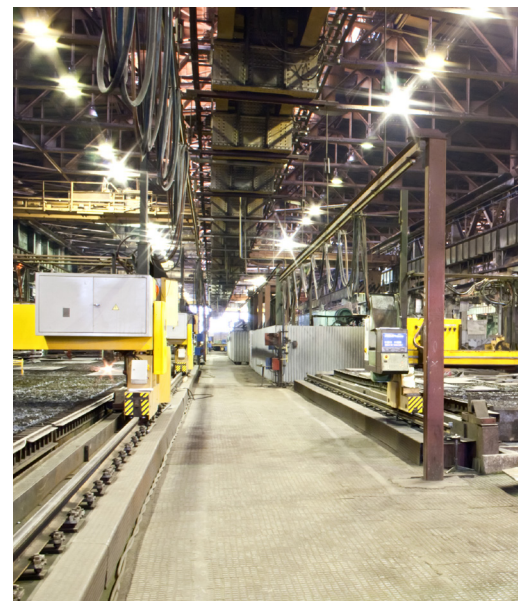
The super-deduction will give companies a strong incentive to make additional investments, and to bring planned investments forward. Capital allowances let tax payers write off the cost of certain capital assets against taxable income. They take the place of accounting depreciation, which is not normally tax deductible. Businesses deduct capital allowances when computing their taxable profits. In translating its accounting profits into taxable profits, a business is usually required to 'add back' any depreciation, but can instead deduct capital allowances. Level of Structures & Buildings Allowance (SBA+) for investments until 30 September 2026.

The two main types of capital allowances are:

Writing Down Allowances (WDAs) for plant & machinery - covering most capital equipment used in a trade. Structures and Buildings Allowances (SBA) - covering the construction and renovation of non-residential structures and buildings. The 130% super-deduction and 50% first-year allowance are generous brand new capital allowances for investments in plant and machinery assets. Both will allow investing companies to lower their corporation tax bills.

What are capital allowances and What is plant & machinery? Most tangible capital assets used in the course of a business are considered plant and machinery for the purposes of claiming capital allowances. There is not an exhaustive list of plant and machinery assets. The kinds of assets which may qualify for either the super-deduction or the 50% FYA include, but are not limited to:

- **Electric vehicle charge points**
- **Solar panels**
- Computer equipment and servers
- Tractors, lorries and vans
- Ladders, drills and cranes
- Office chairs and desks
- Refrigeration units
- Compressors
- Foundry equipment



Domestic Charging



OPTIONAL COLOURS AVAILABLE:
ANTHRACITE GREY, DARK BLUE, RED, WHITE

easee®

One Home Charging Unit

- Integrated open PEN conductor protection, i.e., no need for earth rod
- Reduced cost and time to install
- Fully dynamic charging power 1.4–7.4kW
- Load balancing of up to 3 units per fuse by integrated wireless communication
- Automatic queuing system
- Offline proof load balancing
- Integrated eSIM in each box, lifetime free subscription
- Possibility of Wi-Fi connection
- Permanent locking of the Type 2 cable
- Integrated earth fault protection (RCD)
- Connector Type: Type 2
- 193 x 256 x 106mm (W x H x D)
- IP Rating: IP54

PART NO.

10512



Easee App

- Check the status of the charger
- Adjust the charging power
- Schedule a charging session



Domestic Charging



Solo Smart Charger (Socketed)

- In-built earth-neutral failure protection (no earth rod or isolation transformer required)
- Load balancing ensures no pre-authorization required from the ENA or DNO
- Every unit is now fitted with 6mA DC leakage protection (no type B RCD required)
- Compatible with all plug-in vehicles
- Wi-Fi enabled
- Over the air software updates for the life of the charger when connected to Wi-Fi
- Connector Type: Universal
- 290 x 330 x 167mm (W x H x D)
- IP Rating: IP54

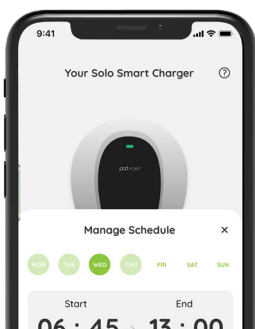
PART NO.	POWER
S7-UC-3	3.6-7kW
S22-UC-3	11-22kW



Solo Smart Charger (Tethered)

- In-built earth-neutral failure protection (no earth rod or isolation transformer required)
- Load balancing ensures no pre-authorization required from the ENA or DNO
- Every unit is now fitted with 6mA DC leakage protection (no type B RCD required)
- Includes standard 7.5m tethered lead
- Pairs with the Pod Point App via Wi-Fi
- Over the air software updates for the life of the charger
- 290 x 330 x 167mm (W x H x D)
- IP Rating: IP54

PART NO.	POWER	CONNECTION
S7-1C-3	3.6-7kW	Type 1
S7-2C-3	3.6-7kW	Type 2
S22-2C-3	11-22kW	Type 2



Podpoint App

- Manage your home charging activity
- Charge on the Pod Point Network
- Access workplace & fleet charging



Domestic Charging



Charging Unit



- Range includes single and 3-Phase 5M Tethered and Non-Tethered Options (7.4kW – 22kW) LCD Display: 11cm black & white screen
- Powder Coated Steel Housing that provides a certified IK10 Impact Resistance
- 4.3" TFT Back Lit Colour LCD Display screen with digital QR Code for MONTA integration
- 4G, Wi-Fi and LAN connectivity to cater for all Smart installation requirements
- Dynamic Load Management Feature via included CT Clamp (ALM Versions)
- OZEV Residential and Commercial approved Charge Points
- Additional Holster & box section accessories available for Floor Mount applications
- Integrated MID Certified Digital Energy Meter (ALM Versions)
- Integrated Earth – Neutral failure protection
- TypeA+DC6ma, over current, Residual current, Surge, Over/Under voltage, Over/Under frequency, Over/Under temperature protections
- Rated Voltage: 230V AC
- Rated Current: 16A/32A
- Frequency: 50Hz+2Hz
- Charge Connector: Type 2 Cable
- Emergency Stop: Yes
- Certification: CE
- Certification Standard: EN 61851-1: 2017, EN 61851-21-2: 2018
- 245 x 350 x 93mm (H x W x D)



PART NO.	DESCRIPTION
ERWBU7	Untethered 7KW/32A + Load Management
ERWBU7-R4	Untethered 7KW/32A + Load Management + RFID (4G)
ERWBT7-R4	Tethered (Type 2) 7KW/32A + Load Management + RFID (4G)
ERWBU22-R4	Untethered 22KW/32A + Load Management + RFID (4G)
ERWBT22-R4	Tethered (Type 2) 22KW/32A + Load Management + RFID (4G)
CABLE-TIDY	Cable Tidy

Domestic Charging



Zappi Eco E Charging Point

- 1.4-7.4kW
- 3 Charging Modes: ECO, ECO+ and FAST
- Optimises microgeneration Self-Consumption
- Works With Solar PV or Wind Turbine Systems
- Economy tariff sense input
- Programmable timer function
- Charge and event logging
- Pin-code lock function
- OZEV Approved
- Continuously adjusts in response to changes in generation or power consumption elsewhere in the home
- Charging will continue until the vehicle is fully charged, even if power is drawn from the grid
- Charging will pause if there is too much imported power, continuing only when there is surplus free power available
- Built-in RCD protection
- Remote control and monitoring add-on option
- Supplied with clip-on grid current sensor(s)
- Works alongside battery storage systems

PART NO.	DESCRIPTION
ZAPPI-2H07TB	Black Unit, Tethered
ZAPPI-2H07UB	Black Unit, Untethered
ZAPPI-2H07TW	White Unit, Tethered
ZAPPI-2H07UW	White Unit, Untethered



Harvi Power Sensor and Eddi heater load available (see page 32)



MyEnergi App

- Manage and monitor your energy from anywhere using your smartphone



AC Commercial Charging

easee®

Easee Charge

- Easee Charge maximises the available electrical capacity within the building using dynamic load and phase balancing. The ultimate solution for delivering EV-Charging at scale for workplace, apartment blocks, car parks and fleet
- Fully dynamic charging power 1.4 - 22kW (1 and 3 phase charging)
- Reduces capacity requirements by up to 90%
- Load balancing of up to 101 chargers per fuse
- Automatic queuing system
- The load and phase balancing works offline
- Wi-Fi connectivity
- Integrated 4G in each box (e-sim), free subscription included for life
- Connector Type: Type 2
- 193 x 256 x 106mm (W x H x D)
- IP Rating: IP54
- Permanent locking of the Type 2 cable
- Universal, fits all types of electric cars & power supplies

PART NO.
10518



OPTIONAL COLOURS AVAILABLE:
ANTHRACITE GREY, DARK BLUE, RED, WHITE



Easee App

- Check the status of the charger
- Adjust the charging power
- Schedule a charging session



CTEK

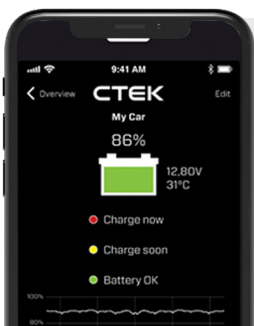
Chargestorm Connected 2

- Charging power 1.4–22 kW
- Adjustable charging power via app or software
- NanoGrid™ dynamic load balancing support
- Built-in fuse, AC and DC ground fault detection, built-in energy meter
- Easy installation and lock protected for maintenance
- Wall or pole mounted
- Ambient operating temperature from -30 °C to +50 °C
- RFID reader
- OCPP 1.5/1.6
- IP54 and IK10

PART NO.
910-17060



Other variations available
Ask a member of staff for further details



CTEK App

- Find available Sevadis EV charge points
- Pay for charging
- Remotely activate charging sessions and monitor usage by time and cost.



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AC Commercial Charging



Charging Unit



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CABLE-TIDY	Cable Tidy

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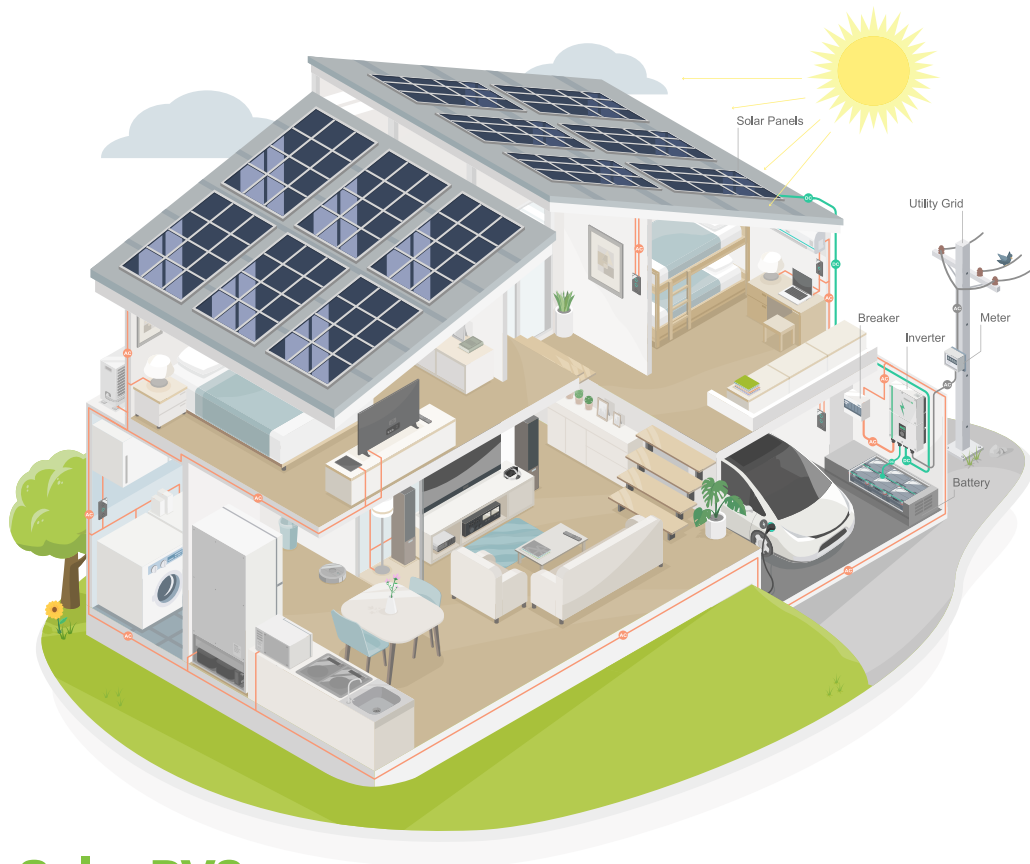
Solar and Battery Storage

Battery & Solar Solutions:

Solar panels require sunlight to create energy, so as soon as its dark you'll be back using power from the grid. Having a battery means the surplus solar energy can be fed into the battery.

The batteries are charged during the day by means of solar energy. The surplus solar energy is fed into the battery rather than being exported to the National Grid. Therefore batteries are always fully charged and can be used on an evening.

In the summer, when there is adequate solar energy, the home can run for much longer without relying on the national grid. Batteries can help home owners and businesses reduce electricity bills while maximising energy independence from the grid.



What is Solar PV?

Solar PV (Solar Photovoltaics) is the generation of electricity using energy from the sun. Modern solar panels produce electricity from daylight and do not require direct sunlight, although more electricity is produced on bright, sunny days.

Enough sunlight falls onto the earth every hour to meet the world's power demands for an entire year, so harnessing and using this free energy can help reduce our reliance on other sources of energy and be beneficial to the environment as well. By installing Solar PV panels you can produce free, green energy for your home or business.

Solar PV panels are normally mounted on the roof of your building although they can also be placed on the ground when a suitable roof is not available. A device called an inverter changes the DC electricity produced by the panels into 'usable' electricity that can then be used to power appliances in your home or fed back into the National Grid if not used.

Feeding energy to the National Grid is no longer compensated for so it is best to make use of the energy you generate before 'exporting' it. The use of an Energy Storage System (Batteries) is the best way to keep your free energy stored for later use when the sun goes down, rather than buying it back from the grid. Batteries can help home owners and businesses reduce electricity bills while maximising energy independence from the grid, including powering essential circuits in the event of a power-cut.

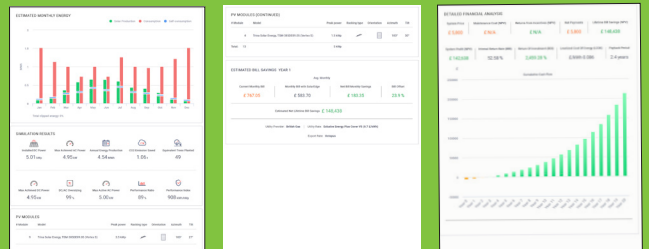
Another place to store surplus electricity is in heat energy, usually in stored hot water tanks, reducing the load on gas or electric boilers.

Solar and Battery Storage



Solar PV Design Service

- Measurement and planning the layout of PV array(s) using Google Maps, site plans and even drone surveys.
- System and electrical design of the most appropriate inverter(s) and/or storage. Discuss the potential paybacks.
- Mounting design including necessary specifications, accreditations and loadings.



Home Solar Panel Project

Financial Overview

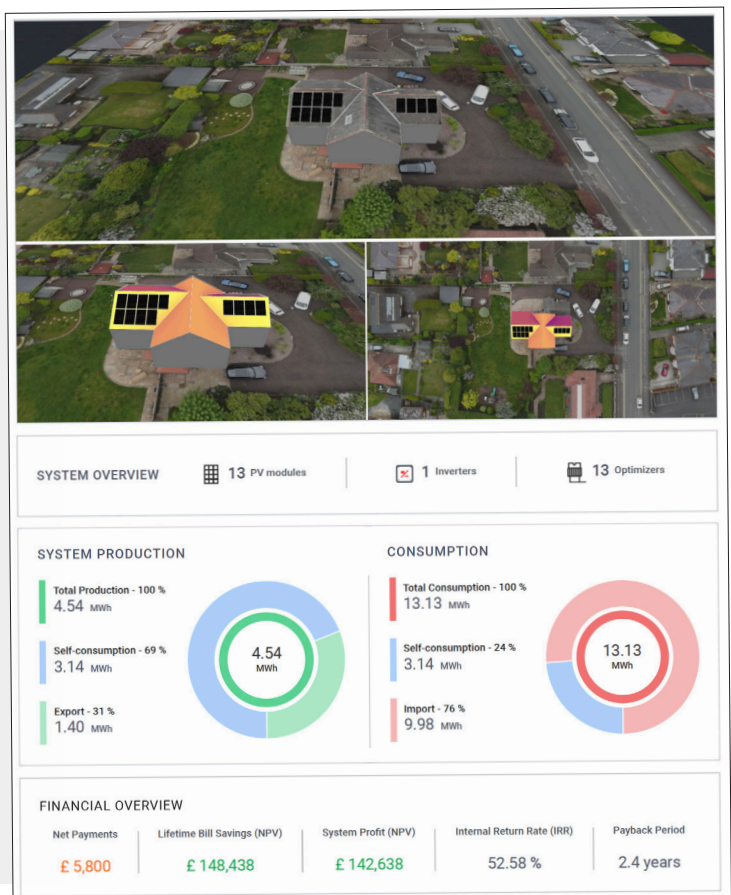
- Net Payments - **£5,800**
- Lifetime Bill Savings (NVP) - **£148,438**
- System Profit (NVP) - **£142,638**
- Internal Return Rate (IRR) - **52.58%**

Payback - R.O.I.

- 2.4 Years

Estimated Savings, Avg. Monthly

- Current Monthly Bill - **£767.05**
- Monthly Bill with Solar - **£583.70**
- Net Bill Monthly Savings - **£183.35**
- Bill Offset - **23.9%**



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Solar and Battery Storage



SUN  SYNK[®]

Battery Storage Solutions

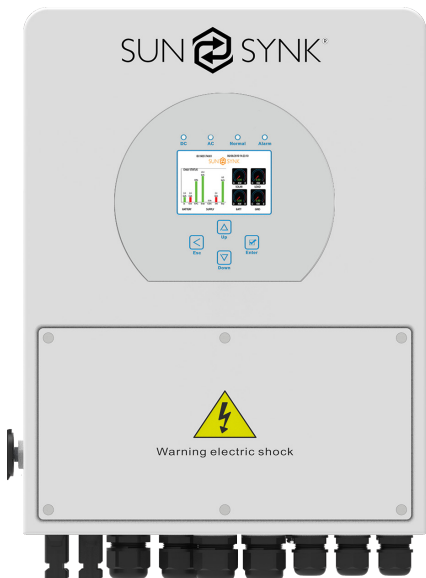
Lithium Batteries

The battery can be expected to remain serviceable for more than 10 years and this takes into consideration that it is charged and discharged once per day at room temperature (25°C). Lithium ferro phosphate batteries provide excellent thermal stability and storage. The module also incorporates a self-monitoring function for the detection of any abnormalities in power storage. Multiple batteries can be connected to the systems to increase storage capacity.

PART NO.	DESCRIPTION	LENGTH (W X H X D)
SUN-BATT-IP65	100Ah Battery (BYD) SUN-BATT-5.12	440 x 640 x 140mm

Solar and Battery Storage

SUN SYNK[®] Inverters



Hybrid 3.6kW Inverter

- Length: 62.2cm Width: 46.9cm Height: 35.0cm
- Colourful touch LCD, IP65 protection degree
- DC couple and AC couple to retrofit existing solar system
- Max.16 inverters in parallel; support multiple batteries parallel
- Max. charging/discharging current of 90A
- 6 time periods for battery charging/discharging
- Support storing energy from diesel generator
- Warranty included

PART NO.

SUNSYNK-3.6K-SG01LP1



3-Phase 12kW Hybrid Inverter

- Compatible with 48V low-voltage battery
- Isolation transformer design
- 6 time periods for battery charging/discharging
- Maximum charging/discharging current of 240A
- Frequency control
- Up to 10 inverters in parallel
- DC and AC couple to retrofit the existing solar system
- Support storing energy from diesel generator
- Interactive display
- Warranty included

PART NO.

SUNSYNK-12K-SG04LP3

Other sizes and specifications available on request.
Ask a member of staff for further details

Cable Accessories available

ask a member of staff for further details



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Solar and Battery Storage



Building Your Trust in Solar

All Black Module - 420 Watt

Key Features

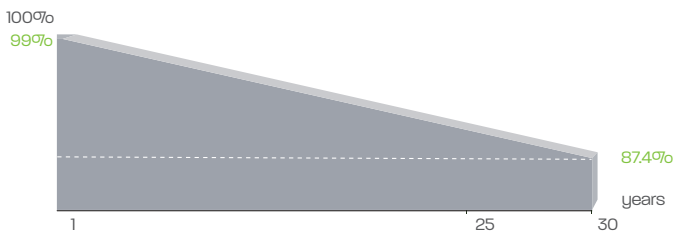
- SMBB Technology - Better light trapping and current collection to improve module power output and reliability
- PID Resistance - Excellent Anti-PID performance guarantee via optimised mass-production process and materials control
- Durability against extreme environmental conditions - high salt mist and ammonia resistance
- Hot 2.0 Technology - The N-type module with Hot 2.0 technology has better reliability and lower LID/LETID
- Certified to withstand: wind load (2400 Pascal) and snow load (5400 Pascal)

Mechanical Characteristics

- Cell Type - N type Mono-crystalline
- No. of cells - 108 (6x18)
- Dimensions - 1722 x 1134 x 30mm
- Weight - 22kg
- Front Glass - 3.2mm, Anti-Reflection Coating, High Transmission, Low Iron, Tempered Glass
- Frame - Anodised Aluminium Alloy
- Junction Box - IP68 Rated
- Output Cables - TUV 1x4.0mm² (+): 400mm, (-): 200mm or Customised Length

Linear Performance Warranty

- **25 YEAR** Product Warranty
- **30 YEAR** Linear Power Warranty
- **0.40%** Annual Degradation Over 30 years



MODULE TYPE - JKM420N-54HL4-B		
	STC	NOCT
Maximum Power (Pmax)	420Wp	316Wp
Maximum Power Voltage (Vmp)	32.04V	29.97V
Maximum Power Current (Imp)	13.11A	10.54A
Open-circuit Voltage (Voc)	38.15V	36.24V
Short-circuit Current (Isc)	13.80A	11.14A
Module Efficiency STC (%)	21.51%	
Operating Temperature(°C)	-40°C~+85°C	
Maximum system voltage	1000VDC (IEC)	
Maximum series fuse rating	25A	
Power tolerance	0~+3%	
Temperature coefficients of Pmax	-0.30%/°C	
Temperature coefficients of Voc	-0.25%/°C	
Temperature coefficients of Isc	-0.046%/°C	
Nominal operating cell temperature (NOCT)	45±2°C	

	IRRADIANCE	CELL TEMP	AM	WIND SPEED
STC	1000W/m ²	25°C	1.5	-

	IRRADIANCE	AMBIENT TEMP	AM	WIND SPEED
NOCT	800W/m ²	20°C	1.5	1m/s