



Perlight PowerPlug 500

PLM-PPM-SPE-500



Simple solar. Made for home.

Plug in. Power on. Start saving.

High-efficiency Perlight modules and APsystems microinverter technology in a flexible home solar kit.



Why PowerPlug

HIGH OUTPUT

500W N-type TOPCon module with 23.10% efficiency

SMART CONTROL

Independent MPPT with Wi-Fi and Bluetooth monitoring

LOW-VOLTAGE DC

Conversion to household AC close to the module

FLEXIBLE

Floor, wall, balcony and facade mounting choices

Four simple steps

1 POSITION

Choose a suitable, unshaded location and fit the selected mount.

2 CONNECT

Connect the module DC leads to the microinverter.

3 PLUG IN

Connect the supplied UK power cord to the appropriate socket.

4 MONITOR

Use the free mobile app to view system performance.

Mounting options

ALL-IN-ONE: Ground, balcony or wall applications.



GROUND

BALCONY

WALL

Includes a 4-metre power cord fitted with a non-rewireable, moulded BS 1363-1 plug and BS 1362 fuse rated at 5A, designed meet the requirements of the UK Plug-in Solar Interim Product Specification





Perlight 500W module

Model	PLM-500DH8N-120
Maximum power	500W
Module efficiency	23.10%
Cell technology	N-type monocrystalline TOPCon
Construction	Bifacial dual glass / black grid
Frame	Anodized Aluminium Alloy
Open Circuit Voltage - Voc	44.22V
Short Circuit Current - Isc	13.94A
Maximum Power Voltage - Vmp	37.14V
Maximum Power Current - Imp	13.48A
Dimensions	1908 x 1134 x 30mm
Weight	27.2kg (+/-4%)
Junction box	IP68, 3 diodes
Connector	Staubli MC4 EVO 2A
Max. system voltage	1500V DC
Operating range	-40°C to +85°C
Mechanical load	5400Pa front / 2400Pa rear

Temperature Parameters

NOCT	45°C (±2°C)
Temperature Coefficient of Voc	-0.25%/°C
Temperature Coefficient of Isc	+0.046%/°C
Temperature Coefficient of Pm	-0.30%/°C

APsystems EZ1-M-SPE

Recommended Module Power	255-760Wp
MPPT Voltage Range	28-45V
Operating Voltage	26-60V
Maximum Input Current	18A
Maximum Input Isc	22.5A
MPPT Channels	1 independent input
Max. Continuous Output	500VA
AC Output Voltage	230V
Maximum Output Current	2.2A
AC Output Frequency	50Hz
Communications	Wi-Fi and Bluetooth
Protection Rating	IP67
Dimensions	263 x 218 x 36.5mm
Operating Temperature	-40°C to +65°C
Peak Efficiency	96.7%
Nominal MPPT Efficiency	99.5%
Monitoring	Free Mobile App
Warranty	12 Years

Kit Specifications

PowerPlug 500 PLM-PPM-SPE-500 | One Module

Item Code	Item	Quantity
PLM-500DH8N-120	Perlight 500W Black Grid	1
APS-131073	Single Input Microinverter, 500VA, 230VAC, 50Hz, WiFi	1
APS-2337206232	4m 5A UK Power Cord (1.5mm ² , H07)	1
APS-2164261007	All-in-One mounting kit Black	1
APS-2310360214	2m DC extension cable	2

Wiring concept



Module DC output is converted to AC by the microinverter, then connected using the supplied power cord.

UK grid and product compliance

GRID CONNECTION: The APsystems EZ1-M-SPE is type-tested to ENA Engineering Recommendation G98 as a 0.5kW single-phase plug-in micro-generator. The supplied Form C includes evidence covering power quality, network protection, anti-islanding and reconnection.

SOLAR MODULE: The Perlight PLM-500DH8N-120 is tested and certified to IEC 61215 and IEC 61730, with additional testing for PID, salt mist, ammonia and sand exposure.

INSTALLATION: Electrical values are measured at Standard Test Conditions (STC): irradiance 1,000 W/m², module temperature 25°C and AM 1.5. Actual energy generation will vary according to location, season, weather, shading, module temperature, orientation and inclination. Product specifications, features and appearance may be updated without notice. PowerPlug must be assembled, mounted, connected and operated in accordance with the supplied instructions, using only the components provided or approved by the manufacturer. Connect only using the manufacturer-supplied power cord and BS 1363-1 plug, to a suitable, undamaged BS 1363-2 socket on an appropriate socket circuit. Outdoor plug and socket connections must provide a minimum IP55 degree of protection. Do not use damaged cables, plugs, sockets or connectors, or modify, extend or substitute any part of the system. Users must observe all applicable electrical, building, planning, property and electricity-network requirements. If there is any doubt about the electrical installation, socket circuit or mounting location, consult an appropriately qualified professional. Incorrect installation, misuse, unauthorised modification or failure to follow the supplied instructions may result in injury, property damage or reduced system performance.