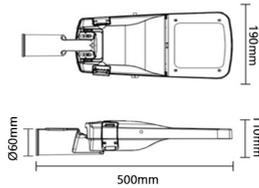




BR-IR500-120W



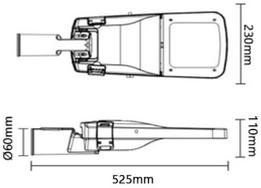
40W/50W



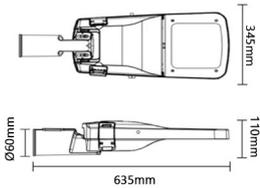
DESCRIPTION:

Pole mounted street light luminaire.
 Body made of die-cast aluminium with electro Polyester powder coating applied after a phospho-Cromate treatment, resistant to corrosive and Saline environment.
 Reflector made of white fiber glass with builtin LED, UV-stabilized.
 Diffuser made of tempered glass.
 Silicon rubber gasket for dust proof & waterproof.
 High lumen LED chip by Bridgelux, Philips, Osram.
 - Heat resistant and solid conduct wiring
 - Ideal for Street lighting, Coastal areas
 - European standard of EN 60598

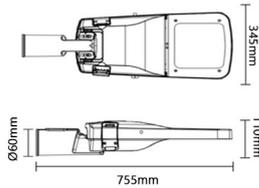
60W/100W/120W



150W/180W/200W



240W/320W



Option:

Photocell Sensor (Order Code: "PH")

Provides automatic dusk-to-dawn operation, enabling the light To switch on at sunset and off at sunrise, ensuring energy savings, Reduced manual intervention, and enhanced convenience For outdoor lighting applications.



Wide lighting cover range



High brightness chip



strong heat dissipation



IP66 waterproof



Easy Maintenance
 Tool-less to open the cover of driver box



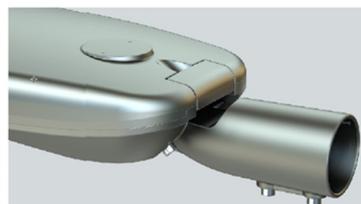
Surge protection device(10KV)
 To provide more reliable guarantee for LED driver, extend the life of the product.



High Lumen efficient upto 150LM/W



Integrated Waterproof LED Driver



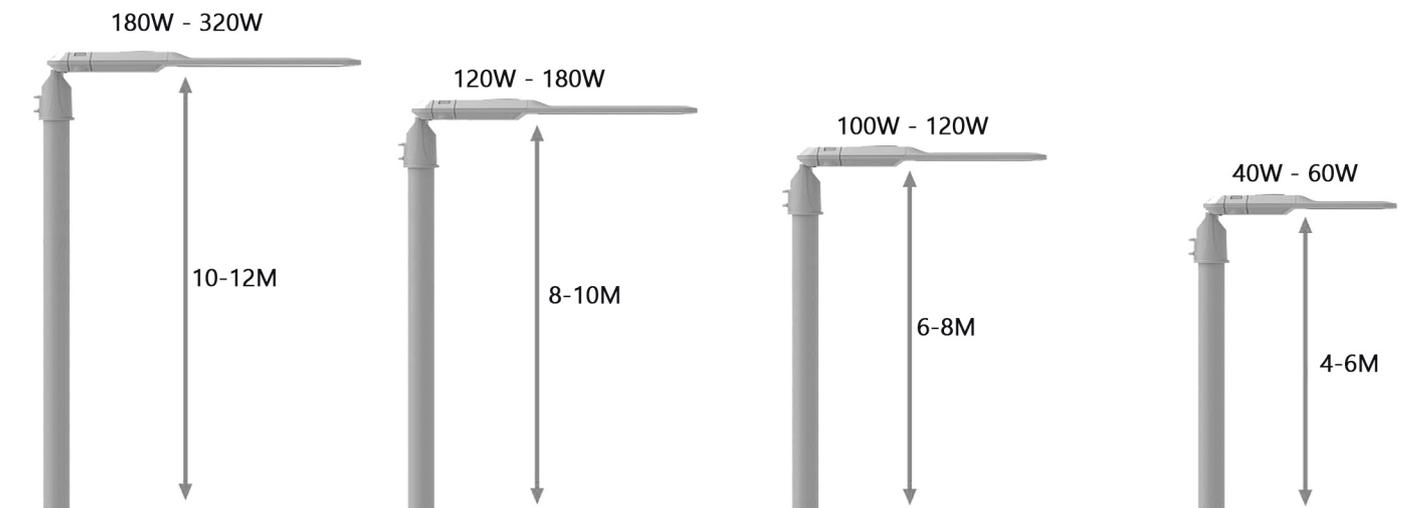
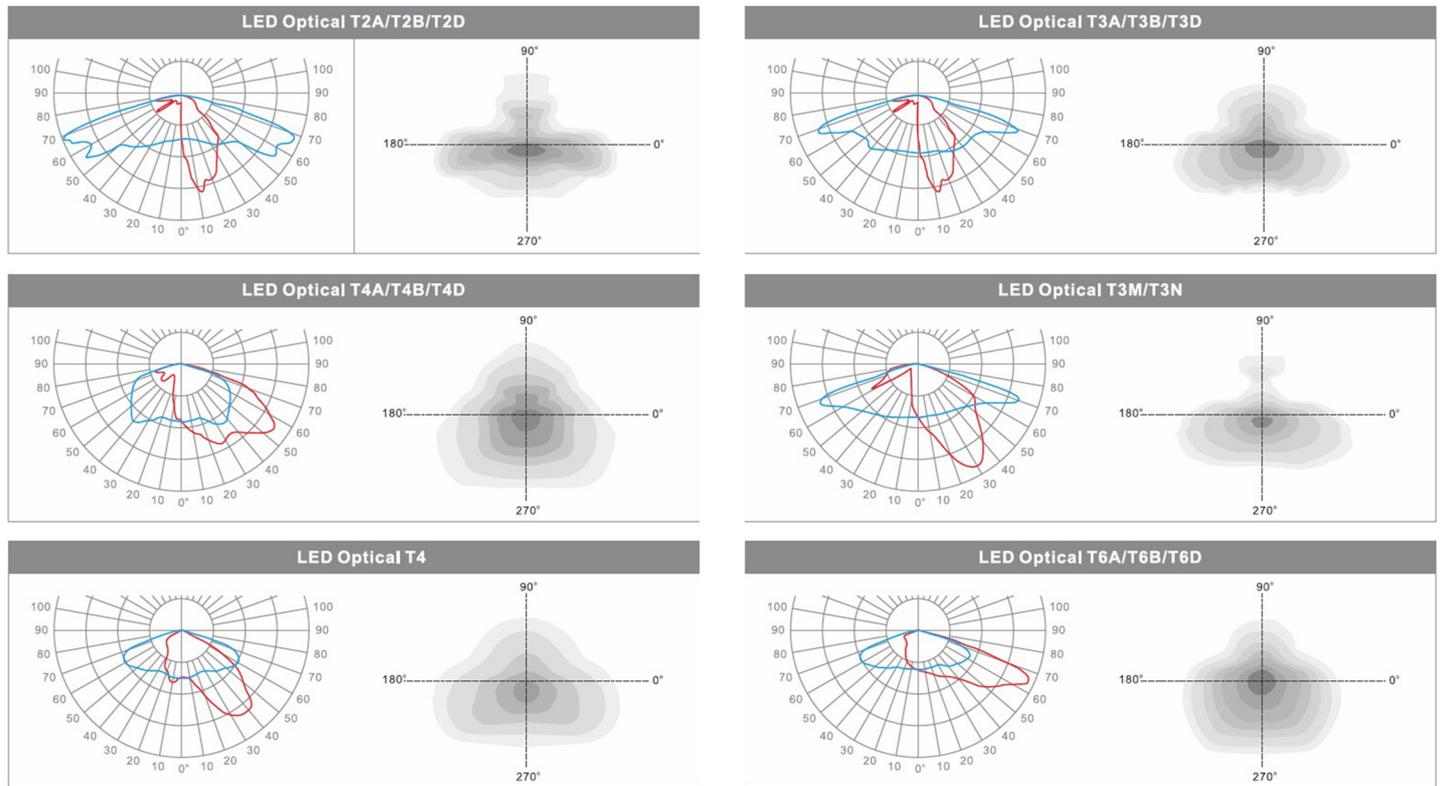
Adjustable & Durable Mounting Bracket



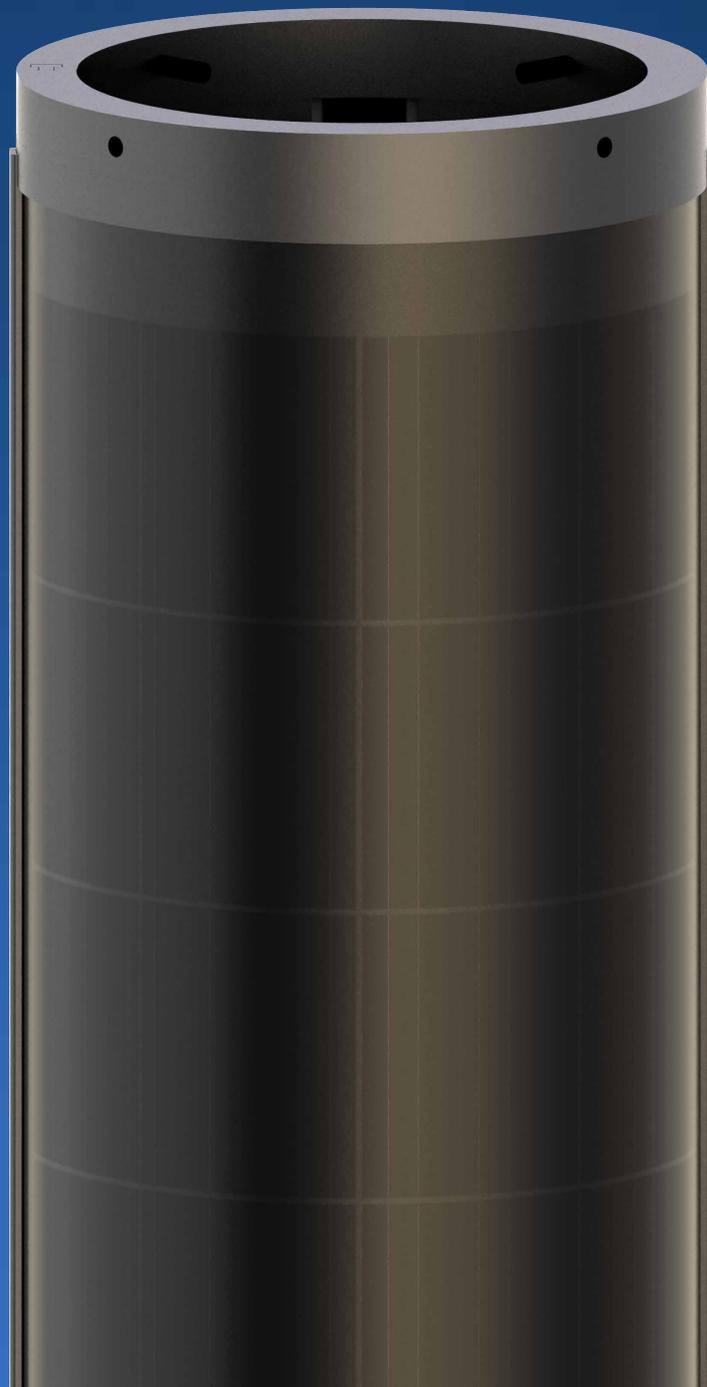
Optional automatic dusk-to-dawn lighting control

Product Code	BR-IR500-40W/50W	BR-IR500-60W/100W/120W	BR-IR500-150W/180W/200W	BR-IR500-240W/320W
Rated Power	40W / 50W	60W / 100W / 120W	150W / 180W / 200W	240W / 320W
LED Source	3030 / 5050	3030 / 5050	3030 / 5050	3030 / 5050
LED Brand	Philips / Bridgelux / osram			
Input Voltage	AC85-305V	AC85-305V	AC85-305V	AC85-305V
Solar Version Input Volt.	DC12.8V / 24V	DC12.8V / 24V	DC12.8V / 24V	DC12.8V / 24V
Frequency	50Hz-60Hz	50Hz-60Hz	50Hz-60Hz	50Hz-60Hz
Power Factor	>0.95	>0.95	>0.95	>0.95
Luminous Flux	150LM/W	150LM/W	150LM/W	150LM/W
CRI	>70/>80	>70/>80	>70/>80	>70/>80
Temp. in Working	-30°~ 60°	-30°~ 60°	-30°~ 60°	-30°~ 60°
Size	500x190x110mm	525x230x110mm	635x345x110mm	755x345x110mm
Protection	IP66/IK10	IP66/IK10	IP66/IK10	IP66/IK10
Life Span	50000Hrs			

Photometric Data



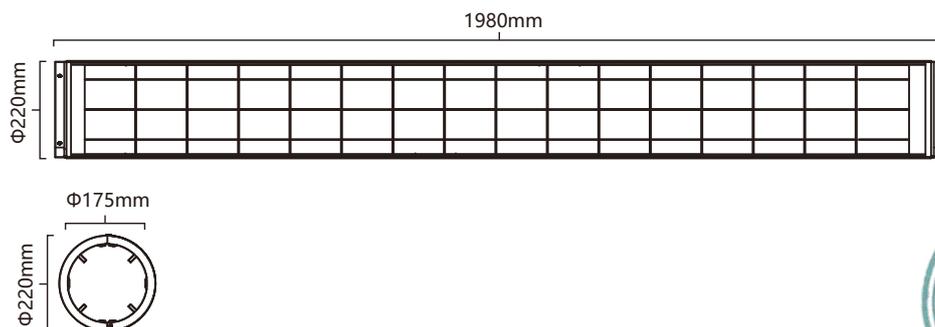
JUNO SOLAR MODULE



JUNO SOLAR MODULE



MODEL NUMBER	ST-PV240-18
PV TYPE	240WP/18V
Power/Pmax(Wp)	240Wp
Open Circuit Voltage/ Voc /V	23.8
Short Circuit current /Isc /A	10.08
Max. Power Voltage/ Vmpp /V	20.3
Max. Power Current/ Impp /A	11.8
Cell type (Mono/Thin film)	sunpower
Cell Efficiency (%)	> 26%
Dimensions (L*OD)/mm	Φ220×1980
PV panel weight(Kg)	17.5
Installation Pole Diameter range /mm	Φ60-Φ168
PV panel module sides	6
Max. parallel connection Qty	5
Environment working temperature/°C	-40°C to 85°C
Junction box IP class	IP66
Wind load	wind speed: 57m/s
Salt Spray Test	1000hrs
System voltage	1000V DC (IEC)/1500 V DC(UL)
Tolerance	-3/+3%
SOLAR PANEL MATERIAL LIST	
Solar cell	Mono cell
Glass	3.2 Cloth super white tempered glass
EVA	High light transmittance, anti-oxidation, anti-corrosion, UV resistance
TPE (black)	High temperature resistance, fatigue resistance, creep resistance, impact resistance
TEMPERATURE CHARACTERISTICS	
Peak Power Temperature Coefficient	-0.47%/°C
Open circuit voltage temperature coefficient	-0.34%/°C
Short circuit current temperature coefficient	0.045%/°C



MOUNTING INSTRUCTION





SAFETY NOTICE

Warranty and Installation Conditions

Warranty Compliance

All warranty terms outlined in the warranty letter and/or the material list (ML sheet) must be strictly adhered to.

Operating Parameters

The photovoltaic (PV) panel must be operated within the specified voltage, current, and temperature limits as stated in the product datasheet.

Exclusions from Warranty

The warranty shall not apply in the following cases:

Misuse, abuse, or neglect

Acts of vandalism or accidental damage

Unauthorized alterations, improper installation, repairs, or modifications not in accordance with manufacturer guidelines

Electrical anomalies such as power surges or spikes

Natural events including lightning, flood, fire, or other force majeure events beyond Signify's control

Connector and Cable Integrity

Any cutting or tampering with the connectors and cables will result in immediate voiding of the warranty.

Pole Design Responsibility

The pole used in the system is typically designed and manufactured by external suppliers or customers. These designs may vary based on:

Finite Element (FEN) analysis results

Material selection aligned with local, state, and federal codes and regulations

Prior to integrating the complete system onto the pole, the pole design must be independently validated by the responsible party through the following tests:

Vibration Test: In accordance with ANSI C136.31.

Shock Test: Application of two consecutive 40g, 11ms half-sine wave pulses, resulting in no damage, breakage, or opening of the product.

Regional Requirements: All region-specific standards and customer specifications must be confirmed and validated prior to installation.

COMPONENTS



Module
Qty: 1 pcs



Mounting Instruction
Qty: 1 pcs



M8 screws
Qty: 8 pcs

REMARK:

PV Panel Connection

A 2.5-meter PV panel extension cable must be used to connect the panel to the solar charge controller.

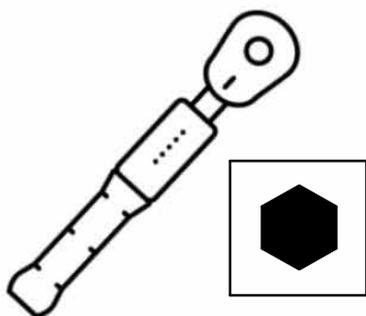
Important Installation Note

Do not connect the male and female MC4 connectors of the last module. These connectors should remain unconnected and left open.

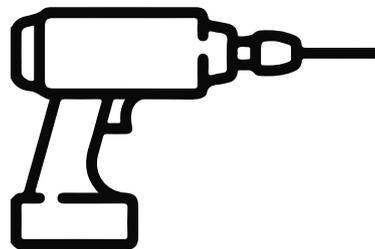




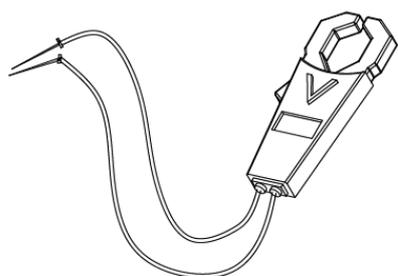
REQUIRED TOOLS



Torquewrench
M8:(8.3N.m)



Drill Machine to drill the pole
($> \Phi 30\text{mm}$) if necessary

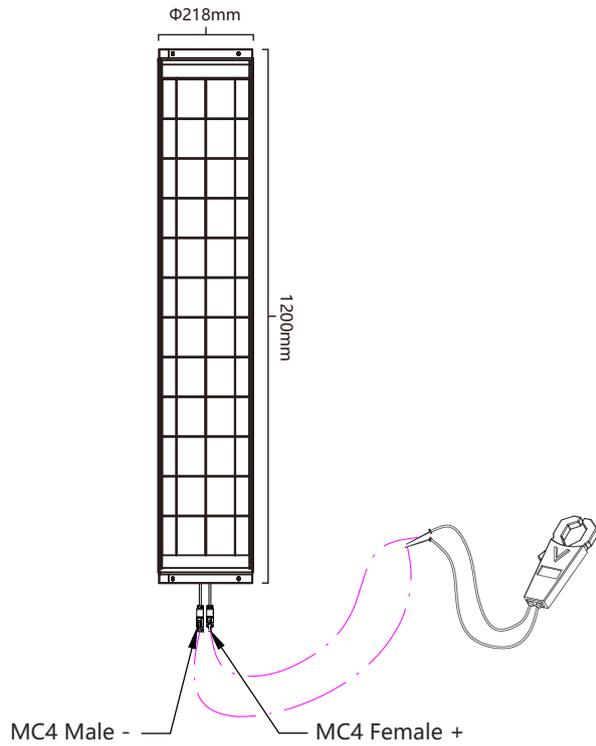


Multimeter



○ PV PANEL DIMENSIONS-Φ218MM

Unit: mm



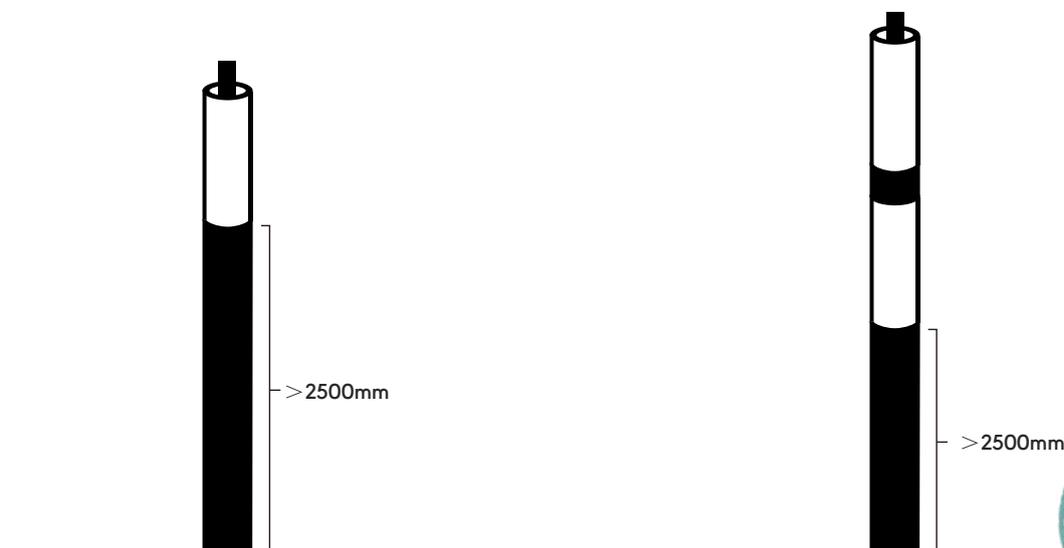
REMARK:

PV Panel Pre-Installation Check

Ensure that the PV panels are exposed to direct sunlight and not obstructed by any objects during the daytime. Measure the output voltage of the PV panels. The voltage must be within the range of 10VDC to 45VDC. If the measured voltage is below 10VDC or above 45VDC, the panel is considered defective and must not be installed.

MODE TYPE	L (mm)	OD (mm)	ID (mm)	Pole Range (mm)	Net / kg	Max.Qty for Parallel Connection
ST-PV-100-18	800	Φ230	Φ140	Φ60~Φ168	8	5pcs
ST-PV-150-18	1200	Φ230	Φ140	Φ60~Φ168	12	5pcs
ST-PV-200-18	1600	Φ230	Φ140	Φ60~Φ168	16	5pcs

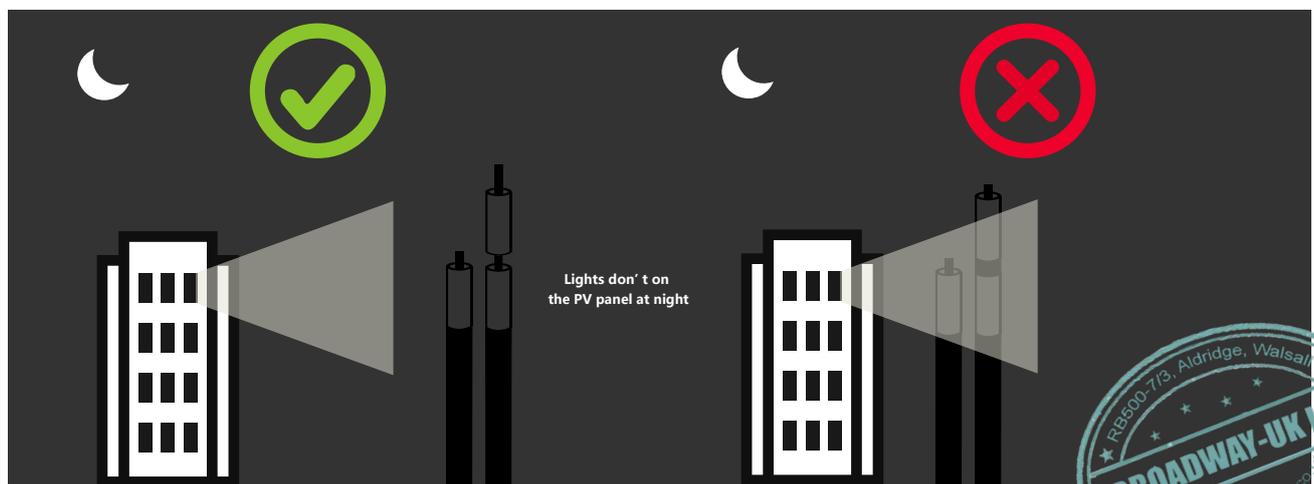
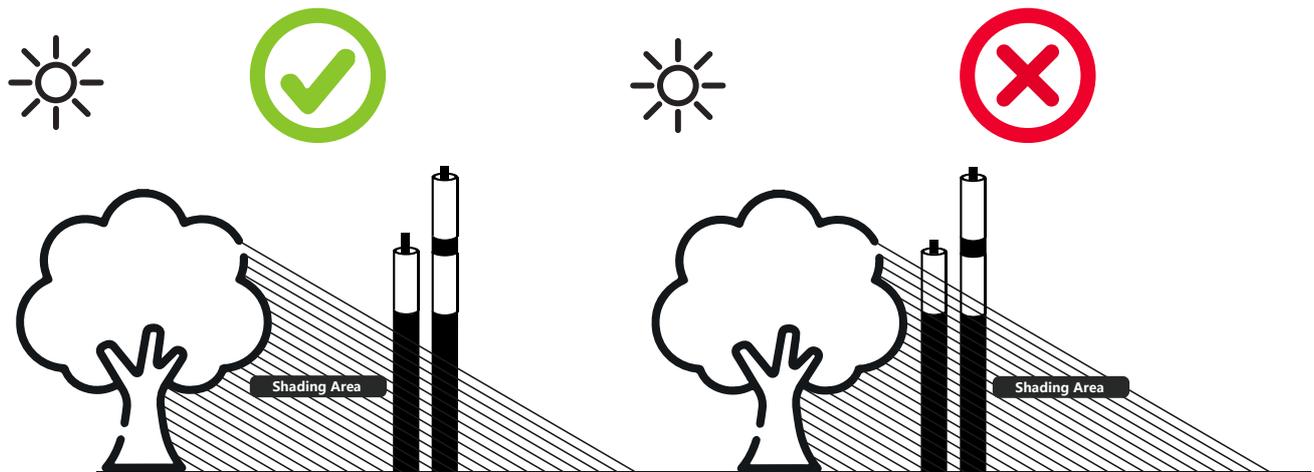
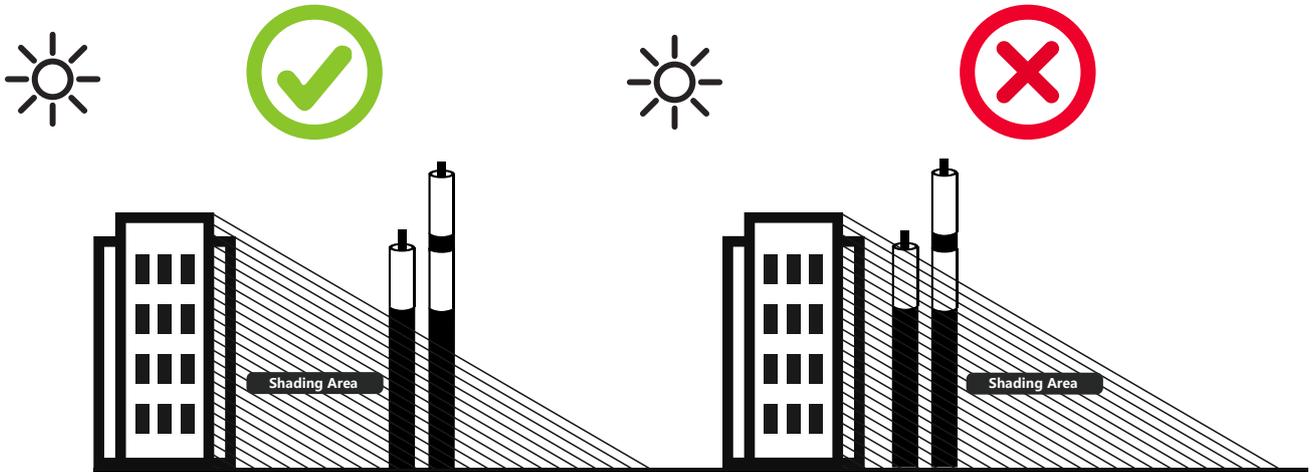
○ PV PANEL INSTALLATION HEIGHT REQUEST



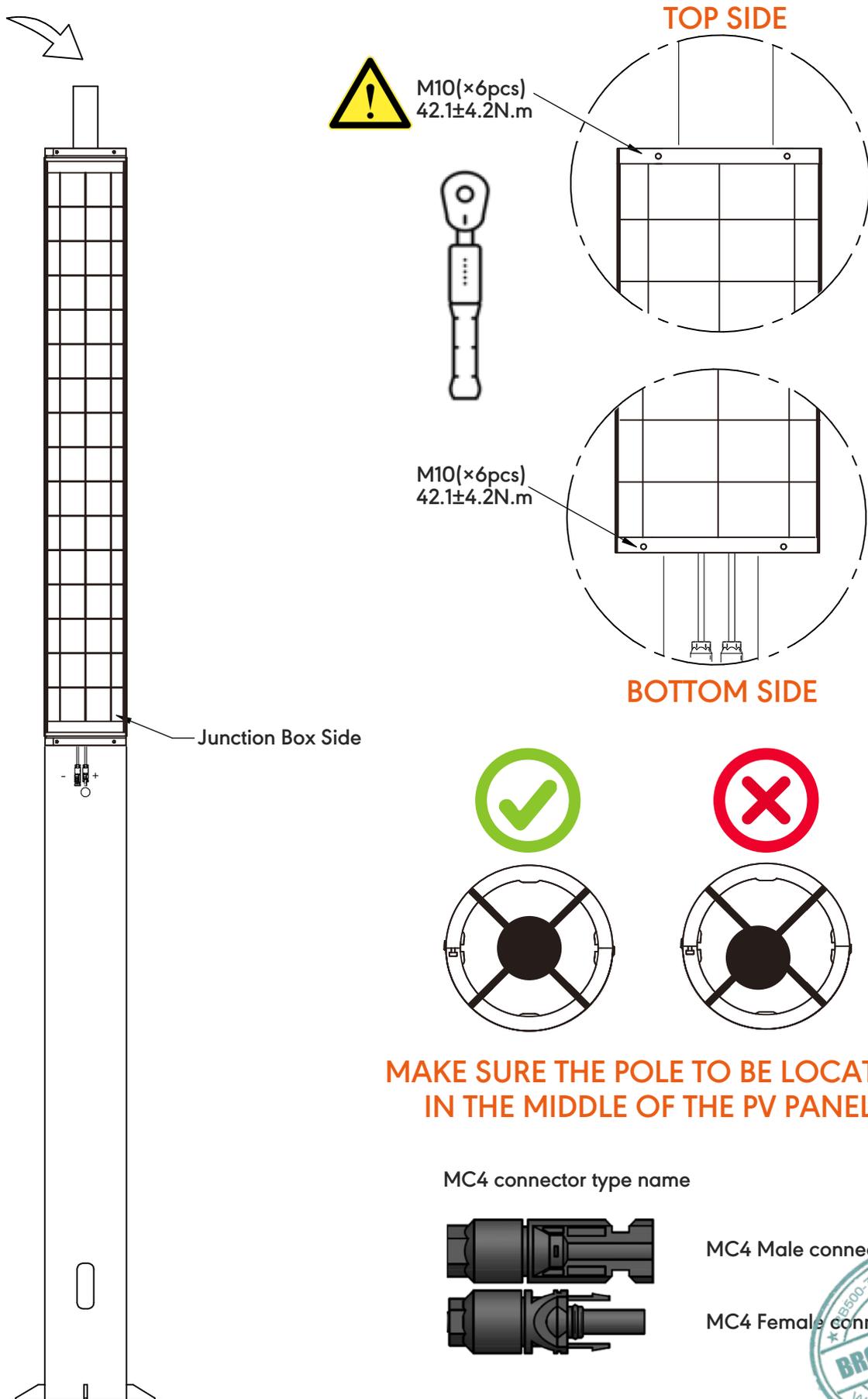
PV PANEL INSTALLATION SITE REQUEST

PV Panel Sunlight Exposure Requirement

Ensure that the PV panels are not shaded by trees, buildings, or any other objects throughout the day. Additionally, the panels must not be illuminated by artificial light sources such as lamps.



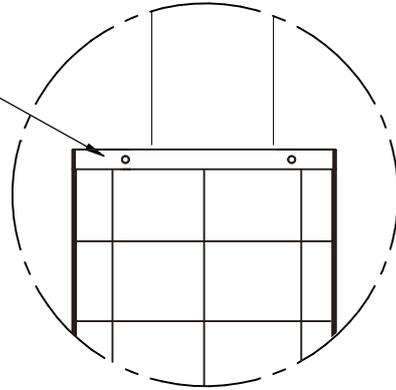
- INSERT THE PV PANEL MODULE FROM THE POLE TOP SIDE AND FIXED IT AT THE RIGHT LOCATION.



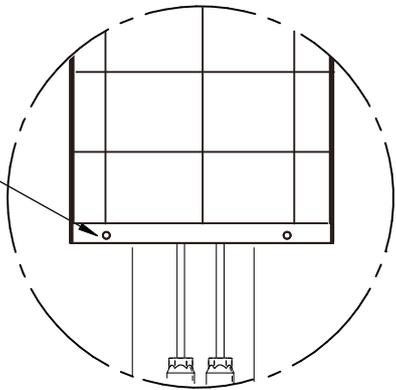
M10(x6pcs)
42.1±4.2N.m



TOP SIDE

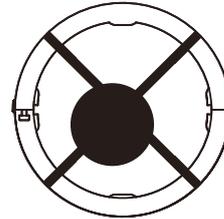
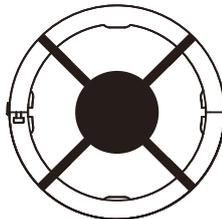


M10(x6pcs)
42.1±4.2N.m



BOTTOM SIDE

Junction Box Side



MAKE SURE THE POLE TO BE LOCATED
IN THE MIDDLE OF THE PV PANEL

MC4 connector type name



MC4 Male connector



MC4 Female connector

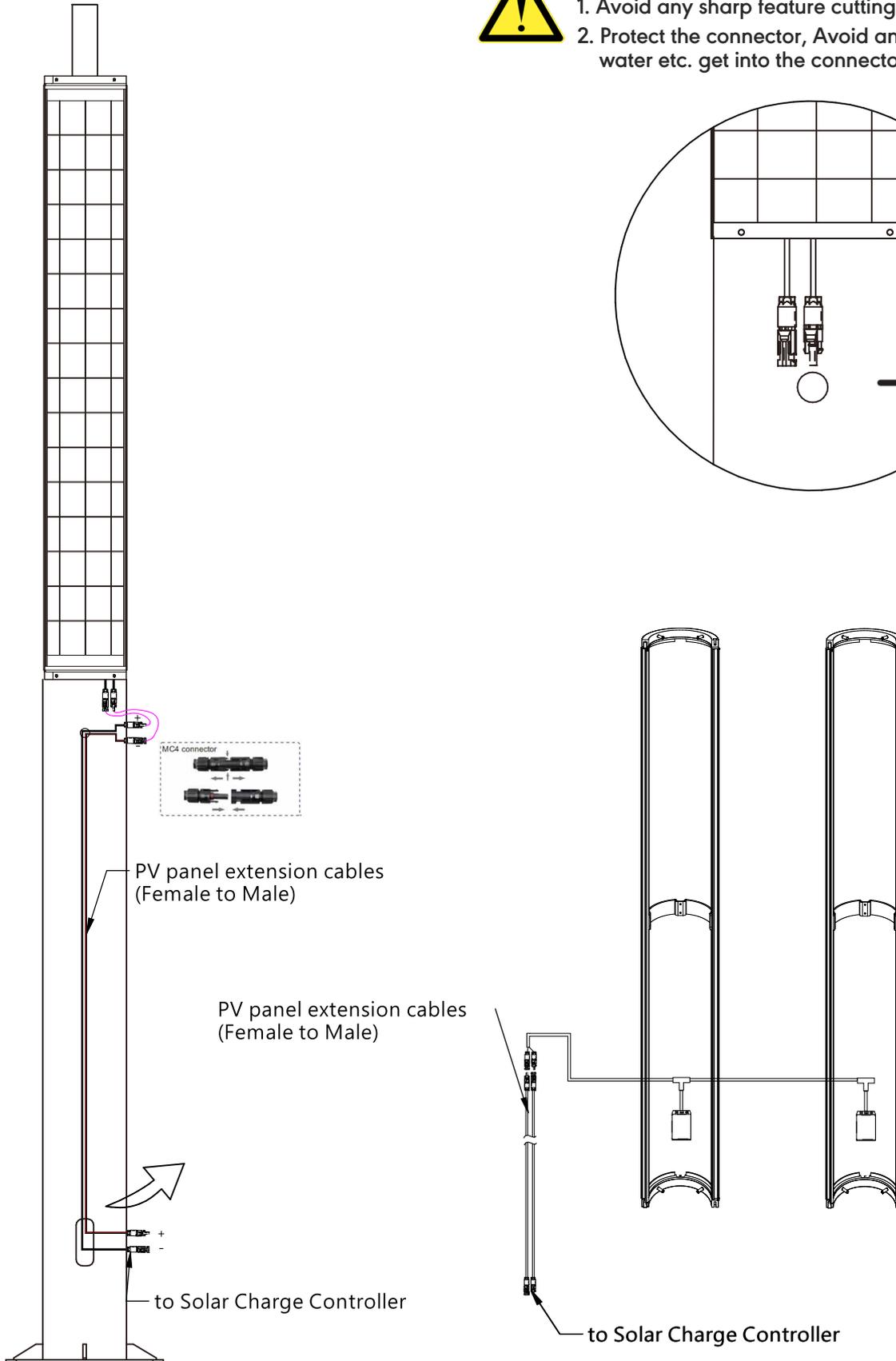
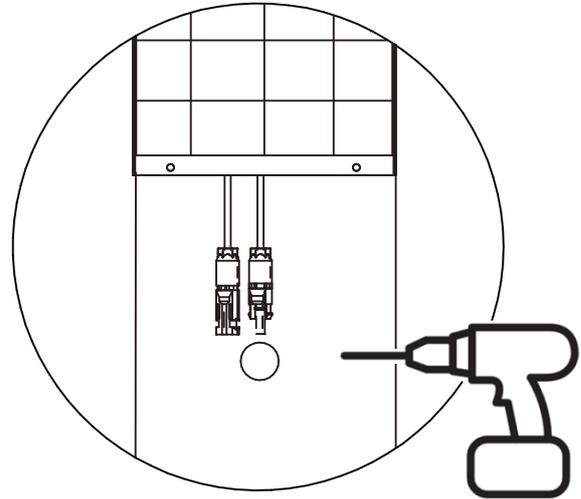


PV PANEL CONNECTION

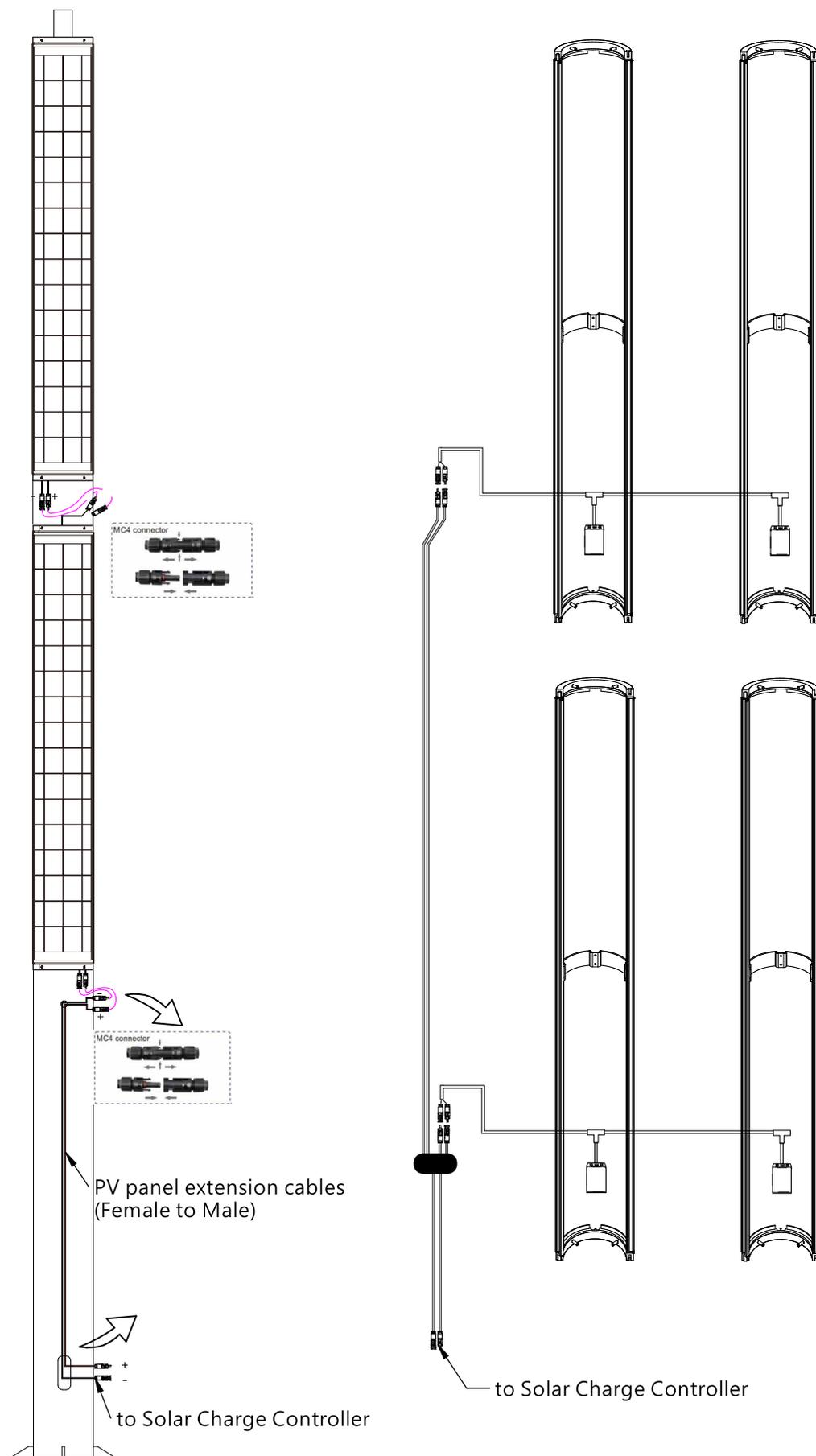


WARNING:

1. Avoid any sharp feature cutting the cable.
2. Protect the connector, Avoid any soil, sand, water etc. get into the connector.

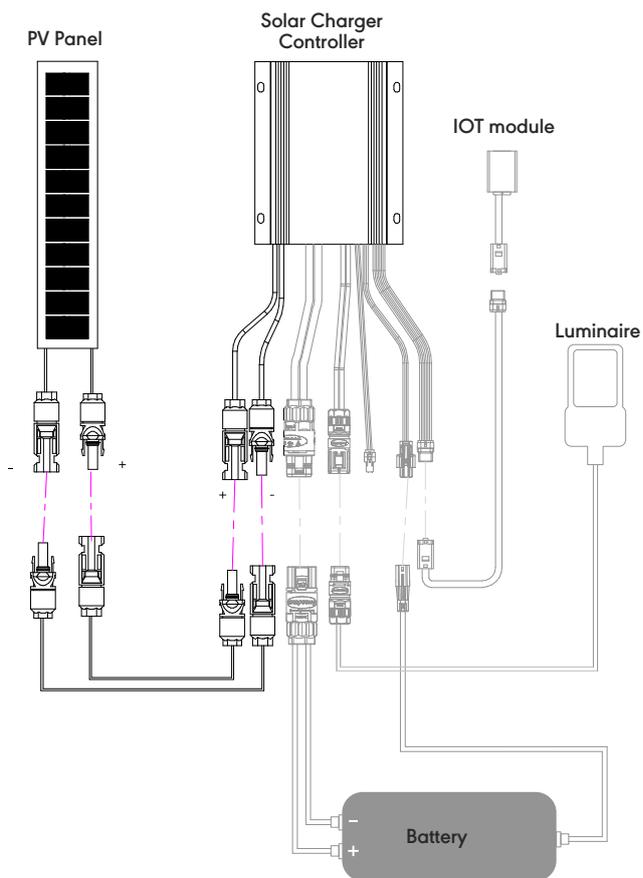


○ CONNECTION BETWEEN TWO VERTICAL PV PANELS

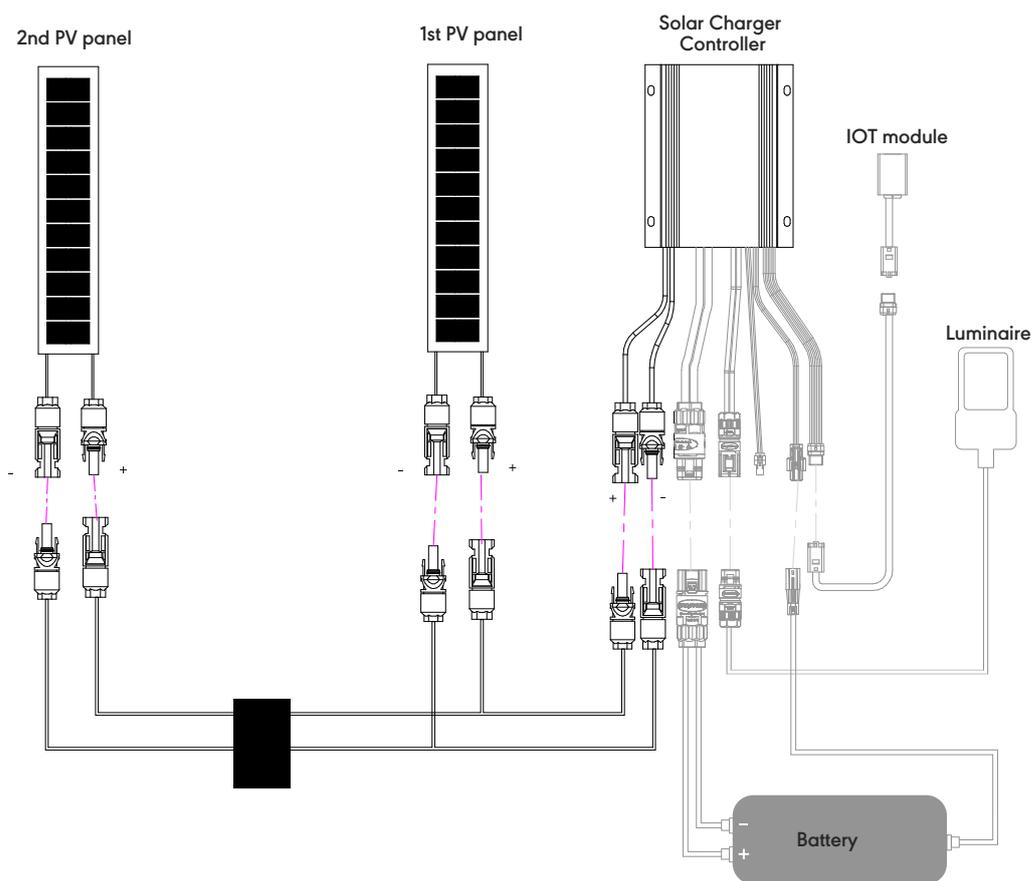


SYSTEM CONNECTION DIAGRAM

ONE PV PANEL



TWO PV PANELS



○ IMPORTANT SAFETY NOTICE

Use gloves to clean PV panel



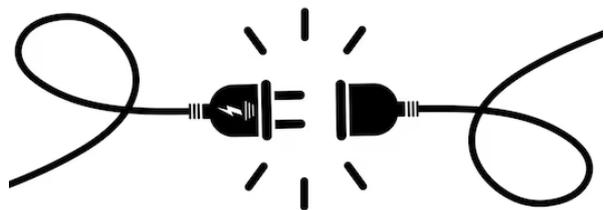
Don't step on the PV panel



Don't hit PV panel with a hammer



Disconnect before cleaning in hybrid



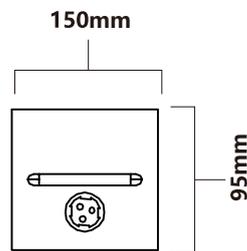
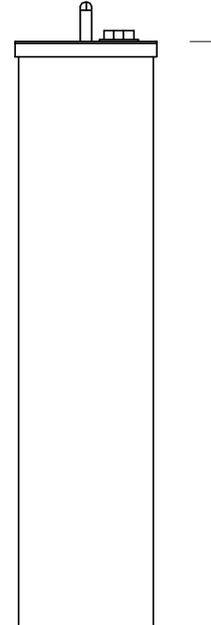
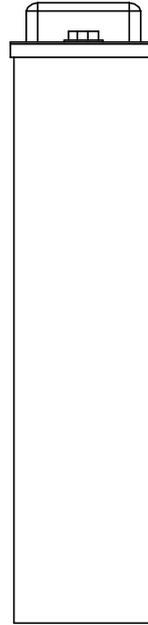
Do not clean broken PV panel



BATTERY



BATTERY-40AH-DIMENSIONS

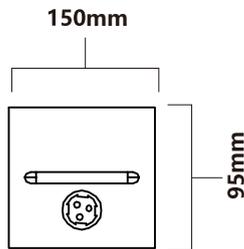
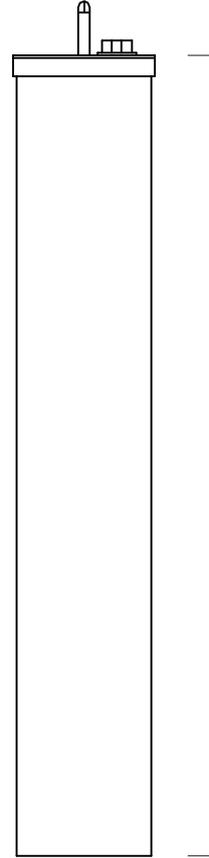
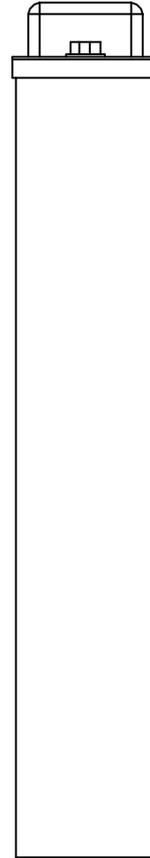


BATTERY SPECIFICATION

Model Number	ST-LV-512Wh
Application	Battery
Battery Type	Lithium iron phosphate (LiFePO4)Battery
Housing Material	Aluminum Alloy
Size	95mm×150mm×200mm
Cycle Life - DOD	DOD @ 90% ---- 1500 cycles DOD @ 80% ---- 2500 cycles DOD @ 50% ---- 5000 cycles
Operating Temperature	-20°C to 70°C
Efficiency	> 90%
Max. Capacity	40AH/12.8V (512Wh)
Maximum DOD setting	75% (The battery will stop discharging when the power level reaches 25% of its capacity)
Nominal Capacity	40 Ah
Minimum Capacity	38 Ah
Nominal Voltage	12.8 V
Shipment Voltage	13.2 V
Battery internal Impedance	< 94mΩ
Standard Charging Current	25A
Max Charging Current (Quick)	40A
Standard Charge	CC - CV
Over Current Protection	50A
Continues Discharging Current	40A
Over Charge Voltage	14.2±0.1V
Over Discharge Voltage	10.5±0.2V
Weight	/
Cycle Life	Residual capacity > 80%
IP & IK Grade	IP67 IK10
Storage Temperature	-20°C to 70°C
Warranty	3000 cycle
Standards	IEC 60050-482, IEC 60086-1 , IEC/EN 60896



BATTERY-80AH-DIMENSIONS

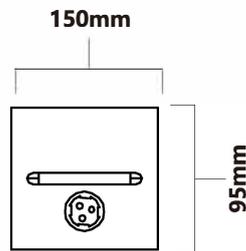


BATTERY SPECIFICATION

Model Number	ST-LV-1024Wh
Application	Battery
Battery Type	Lithium iron phosphate (LiFePO4)Battery
Housing Material	Aluminum Alloy
Size	984mm×78mm×76mm
Cycle Life - DOD	DOD @ 90% ---- 1500 cycles DOD @ 80% ---- 2500 cycles DOD @ 50% ---- 5000 cycles
Operating Temperature	-20°C to 70°C
Efficiency	> 90%
Max. Capacity	80AH/12.8V (1024Wh)
Maximum DOD setting	75% (The battery will stop discharging when the power level reaches 25% of its capacity)
Nominal Capacity	80 Ah
Minimum Capacity	76 Ah
Nominal Voltage	12.8 V
Shipment Voltage	13.2 V
Battery internal Impedance	< 94mΩ
Standard Charging Current	25A
Max Charging Current (Quick)	40A
Standard Charge	CC - CV
Over Current Protection	50A
Continues Discharging Current	40A
Over Charge Voltage	14.2±0.1V
Over Discharge Voltage	10.5±0.2V
Weight	/
Cycle Life	Residual capacity > 80%
IP & IK Grade	IP67 IK10
Storage Temperature	-20°C to 70°C
Warranty	3000 cycle
Standards	IEC 60050-482, IEC 60086-1 , IEC/EN 60896



BATTERY-120AH-DIMENSIONS

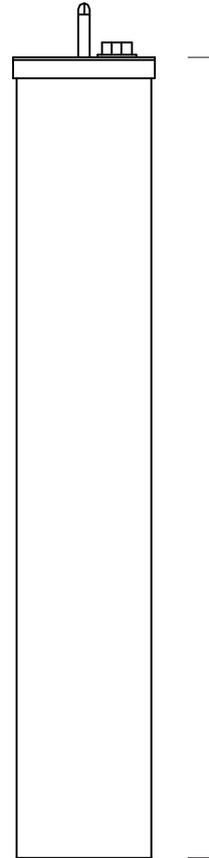


BATTERY SPECIFICATION

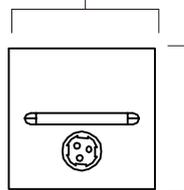
Model Number	ST-LV-1536Wh
Application	Battery
Battery Type	Lithium iron phosphate (LiFePO4)Battery
Housing Material	Aluminum Alloy
Size	95mm×150mm×530mm
Cycle Life - DOD	DOD @ 90% ---- 1500 cycles DOD @ 80% ---- 2500 cycles DOD @ 50% ---- 5000 cycles
Operating Temperature	-20°C to 70°C
Efficiency	> 90%
Max. Capacity	120AH/12.8V (1280Wh)
Maximum DOD setting	75% (The battery will stop discharging when the power level reaches 25% of its capacity)
Nominal Capacity	120 Ah
Minimum Capacity	115Ah
Nominal Voltage	12.8 V
Shipment Voltage	13.2 V
Battery internal Impedance	< 94mΩ
Standard Charging Current	20A
Max Charging Current (Quick)	40A
Standard Charge	CC - CV
Over Current Protection	50A
Continues Discharging Current	40A
Over Charge Voltage	14.2±0.1V
Over Discharge Voltage	10.5±0.2V
Weight	/
Cycle Life	Residual capacity > 80%
IP & IK Grade	IP67 IK10
Storage Temperature	-20°C to 70°C
Warranty	3000 cycle
Standards	IEC 60050-482, IEC 60086-1 , IEC/EN 60896



BATTERY-160AH-DIMENSIONS



150mm



95mm



BATTERY SPECIFICATION

Model Number	ST-LV-2048Wh
Application	Battery
Battery Type	Lithium iron phosphate (LiFePO4)Battery
Housing Material	Aluminum Alloy
Size	95mm×150mm×700mm
Cycle Life - DOD	DOD @ 90% ---- 1500 cycles DOD @ 80% ---- 2500 cycles DOD @ 50% ---- 5000 cycles
Operating Temperature	-20°C to 70°C
Efficiency	> 90%
Max. Capacity	160AH/12.8V (2048Wh)
Maximum DOD setting	75% (The battery will stop discharging when the power level reaches 25% of its capacity)
Nominal Capacity	160 Ah
Minimum Capacity	155 Ah
Nominal Voltage	12.8 V
Shipment Voltage	13.2 V
Battery internal Impedance	< 94mΩ
Standard Charging Current	20A
Max Charging Current (Quick)	40A
Standard Charge	CC - CV
Over Current Protection	50A
Continues Discharging Current	40A
Over Charge Voltage	14.2±0.1V
Over Discharge Voltage	10.5±0.2V
Weight	/
Cycle Life	Residual capacity > 80%
IP & IK Grade	IP67 IK10
Storage Temperature	-20°C to 70°C
Warranty	3000 cycle
Standards	IEC 60050-482, IEC 60086-1 , IEC/EN 60896

