E-AblePower Technology

LISHUI E-ABLE POWER EQUIPMENT CO., LTD
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E-ABLE POWER / SOLAR LIGHTING / SPLIT

Split Solar Street Light

Separate PV, luminaire and battery · 50–100 W · 7–10 m · single / double arm · LiFePO4 · MPPT

In a split system the PV module sits on its own bracket above the luminaire, the LiFePO4 battery is housed separately, and the MPPT controller balances the two. Each part can be oriented, sized and serviced on its own, which is why the format is used where the pole cannot carry an all-in-one head, where the panel has to face a different direction from the road, or where a project wants a conventional street-light look.

The configuration matrix below mirrors the split-series pages on e-ablepower.com: 50 W at 7 m, 60 W at 8 m, 80 W at 9 m and 100 W at 10 m, each in a single or double arm version. Panel and battery are matched to the pole height in the reference configuration and re-sized per site at order.

Product images are representative of the Split series, not of a single model; the ordered pole, arm and PV configuration is confirmed in the order acknowledgement.



50–100 W
luminaire range

7–10 m
pole height

170 lm/W
reference efficacy

3 years
system warranty

WHY A SPLIT SYSTEM

01

Independent PV orientation — the module tilts to the sun path regardless of the road direction.

Sized per site — panel and battery follow the local irradiance and rainy season.

Galvanized structure — Q235 pole and bracket, hot-dip galvanized and powder coated.

Component service — battery, controller and luminaire are replaced separately.

Conventional look — a separate head reads as a normal street light in city schemes.

LiFePO4 and MPPT — 2,000–4,000 cycles, dusk-to-dawn dimming, motion-ready.

CONFIGURATION RANGE

Model	Luminaire	Pole	PV module	Battery	Controller	Arm
SPL-50-7-S	50 W	7 m	100 W	12.8 V / 50 Ah	10 A MPPT	Single
SPL-50-7-D	2 × 50 W	7 m	2 × 100 W	2 × 12.8 V / 50 Ah	2 × 10 A MPPT	Double
SPL-60-8-S	60 W	8 m	120 W	12.8 V / 60 Ah	10 A MPPT	Single
SPL-60-8-D	2 × 60 W	8 m	2 × 120 W	2 × 12.8 V / 60 Ah	2 × 10 A MPPT	Double
SPL-80-9-S	80 W	9 m	150 W	12.8 V / 80 Ah	10 A MPPT	Single
SPL-80-9-D	2 × 80 W	9 m	2 × 150 W	2 × 12.8 V / 80 Ah	2 × 10 A MPPT	Double
SPL-100-10-S	100 W	10 m	200 W	per project	IP68 MPPT	Single

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COMPONENT SPECIFICATION

02

Reference values for the series configurations. The luminaire, PV module and battery of a given project are confirmed in the order acknowledgement.

Component	Reference specification	Design life
Pole	Q235 conical steel, hot-dip galvanized and powder coated; 7–12 m; wall 3.0–3.75 mm; flange 320–350 × 18 mm; single or double 1.5 m arm	> 20 years
LED luminaire	35–150 W, Lumileds SMD3030, 130–200 lm/W by configuration, IP66, 3000–6500 K, Type II / III optic	> 50,000 h
PV module	100–360 W monocrystalline, 18–19 % cell efficiency, separate bracket with adjustable tilt	> 20–25 years
PV bracket	Q235 steel, hot-dip galvanized, adjustable tilt 0–45°	> 20 years
Battery	LiFePO4 12.8 V 50–80 Ah or 25.6 V 40–100 Ah, deep cycle, maintenance free	5–10 years / 2,000–4,000 cycles
Controller	MPPT 10 / 15 / 20 A, dusk-to-dawn, time dimming, motion-ready; IP68 housing optional	5–10 years
Foundation kit	Q235 anchor cage, detachable; 15 kg / 0.01 m³ (7–9 m) up to 75 kg / 0.2 m³ (18 m)	> 20 years
Cables	2 × 1.5 mm² or 2 × 2.5 mm², MC4 connectors, UV-rated	> 20 years



Double-arm head with a six-module PV array: one pole, two luminaires, shared battery and controller banks.



Single-arm configuration: two PV modules on an adjustable bracket above the luminaire.

SYSTEM DATA

System type	**Split: PV module + LED luminaire + LiFePO4 battery + MPPT controller**
Luminaire efficacy	**130–200 lm/W depending on configuration**
Colour temperature	**3000–6500 K, fixed at order**
Ingress protection	**IP66 luminaire, IP68 controller option**
Autonomy	**3–4 overcast nights at the reference battery size**
Certification basis	**CE, RoHS, ISO 9001 (factory declaration)**
Warranty	**3 years, complete system**

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SIZING THE PV AND BATTERY

03

Wattage fixes the luminaire, not the panel. The same 80 W luminaire may run on 180 W of PV at a high-irradiance site and on 360 W where the sun hours are low, with either a 12.8 V / 80 Ah or a 25.6 V / 40 Ah battery — the difference is the site: hours of sun, rainy season and nightly operating profile.

Project input	What it changes
Daily sun hours	PV wattage: 3.0 kWh/m²/day sites need roughly 1.8–2.2× the nightly consumption; 5.5 kWh/m²/day sites need 1.2–1.5×.
Rainy season length	Battery capacity: 3–4 overcast nights is the reference, 7 nights doubles the battery.
Nightly profile	Full-night 100 % output needs roughly twice the energy of a dimmed profile (100 % for 3 h, 50 % afterwards).
Wind zone	Pole wall, flange and foundation: 3.0–3.75 mm wall, 320–350 mm flange, anchor cage 15–75 kg.
Pole spacing	20–40 m typical; wider spacing moves to the next luminaire step.

CONTENTS OF ONE SET

Item	Quantity	Delivered as
Pole with arm	1	Conical Q235 steel, hot-dip galvanized and powder coated, single or double 1.5 m arm
LED luminaire	1 per arm	50–100 W, IP66, 3000–6500 K, pre-wired with a quick connector
PV module	1–6	100–200 W monocrystalline, framed, with MC4 leads
PV bracket	1	Galvanized steel, adjustable tilt 0–45°, pole clamps included
LiFePO4 battery	1	12.8 V 50–80 Ah or 25.6 V 40–100 Ah, in its own housing with a fused lead
MPPT controller	1	10 / 15 / 20 A, dusk-to-dawn and dimming program pre-set
Foundation kit	1	Anchor cage with template and bolts, 15 kg (7 m) to 75 kg (18 m)
DC cable set	2 runs	2 × 1.5 mm² or 2 × 2.5 mm², UV-rated, with MC4 connectors

REFERENCE INSTALLATIONS



Coastal boulevard at dusk: split poles with PV array and twin luminaires.



Urban arterial at night: the same pole type along a lit median.

Reference photographs illustrate the application type; they are not a lighting calculation and not a statement of project ownership.

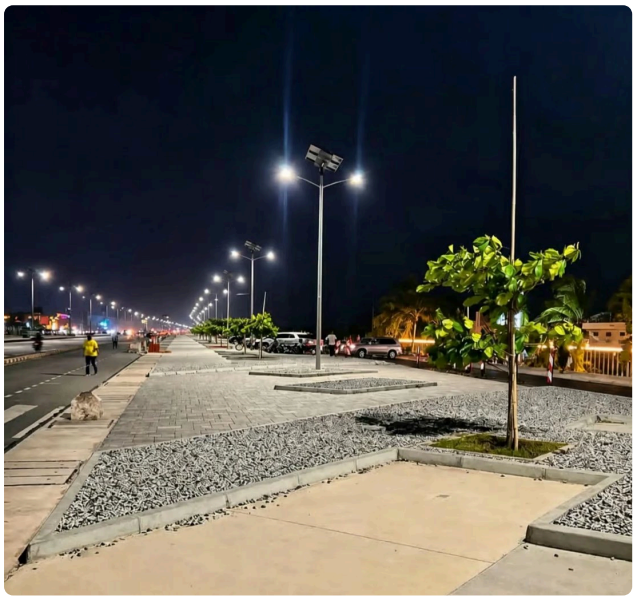
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ORDERING AND SCOPE

04

Order by model code plus the PV and battery size, for example **SPL-80-9-S-360-2540**: the 80 W / 9 m single-arm pole with the PV upsized to 360 W and a 25.6 V 40 Ah battery for a low-sun site.

Code position	**Series – luminaire W – pole m – arm – PV W – battery V/Ah**
Not included	**Civil works, crane or lift, site wiring to the grid, lighting calculation**
Trade term	**EXW Wenzhou (China)**
Production time	**30 days after order confirmation**



Roadside plaza at night: split poles with twin heads and a single PV array.



Coastal road, aerial night view: continuous lighting along the carriageway and around the roundabout.

INSTALLATION SEQUENCE

1. Set the foundation cage and cast the base; cure before erection.
2. Erect the pole, plumb it, and torque the flange bolts.
3. Fit the PV bracket and module, set the tilt for the site latitude.
4. Mount the luminaire and the arm, aim it at the carriageway.
5. Install the battery and controller in their housing, then run the DC cables.
6. Commission: dusk-to-dawn profile, dimming bands, and a night test.

SERVICE, SPARES AND PACKING

- Battery pack, MPPT controller, LED luminaire and PV module are separate items and are replaced individually; the pole and bracket are structural and need no routine service.
- Spare parts are quoted against the model code, so a project can hold one spare controller or battery without ordering a complete light.
- Poles ship as single units; luminaires, PV modules, brackets, batteries and controllers are cartoned separately. Carton data is confirmed in the packing list issued with the quotation.

Sample datasheet prepared from the SPLIT series product data and reference project files. Reference photographs are illustrative. Specifications are nominal and may change without notice; the contractual revision is the one confirmed in the order acknowledgement.