E-AblePower Technology

LISHUI E-ABLE POWER EQUIPMENT CO., LTD
No.368, Chengbei Road, Liandu District, 323000, Lishui City, Zhejiang, China
www.e-ablepower.com | arthur@e-ablepower.com | WhatsApp +86 153 5558 9600

ALL-IN-TWO SOLAR STREET LIGHT · SERIES DATASHEET

FLYHORSE

All-in-two solar street light · RS-FH100 / RS-FH120 / RS-FH150

The Flyhorse series separates the photovoltaic panel from the lamp head and mounts the LiFePO4 pack inside the sealed head. The panel works as an umbrella over the battery compartment, cutting cell temperature and extending service life, and it can be tilted manually in two axes so the array faces the sun regardless of the road direction. Three models cover collector roads, industrial zones and municipal arterials on 7 m to 10 m poles.

PANEL POWER
100–150 W

LED OUTPUT
30–50 W

LUMINOUS FLUX
5,800–9,300 lm

MOUNTING HEIGHT
7–10 m

Collector roads · industrial estates · logistics yards · municipal arterials · car parks



All-in-two solar street light

SERIES AT A GLANCE

MODELS AND HEADLINE RATINGS

Model	LED output	Luminous flux	Solar panel	LiFePO4 battery	Mounting height
RS-FH100	30 W	5,800–6,100 lm	100 W / 18 V	380 Wh	7–8 m
RS-FH120	40 W	7,500–7,700 lm	120 W / 18 V	460 Wh	7–8 m
RS-FH150	50 W	9,100–9,300 lm	150 W / 18 V	610 Wh	8–10 m

WHY THE FLYHORSE

ENGINEERING CHOICES THAT MATTER ON SITE

Panel as heat shield

The monocrystalline panel overhangs the battery compartment, keeping the cells cooler in high-irradiance sites and extending battery life.

Bat-wing lens

Polarised bat-wing optics spread light across the carriageway instead of a hot spot under the head, allowing wider pole spacing.

Grade A LiFePO4

2,000 cycles with capacity held at 90 %, plus software and hardware dual protection on charge and discharge.

Two-axis manual aiming

Tilt is adjustable from 0° to about 60° in both axes, so the array can be set to site latitude and to true south or north.

Multi-peak MPPT

The controller tracks several power peaks on partly shaded arrays and recovers 15–20 % more energy than a PWM charger.

Remote control, 6 modes

L / T / M / U profiles plus DEMO and OFF are selectable by infrared remote; the setting is retained after power loss.

THE ALL-IN-TWO RANGE

WHERE THIS SERIES SITS

Series	LED output	Luminous flux	Solar panel	Mounting height
AuroraPath	12–50 W	1,800–8,000 lm	30–120 W	3–10 m
SunBeam	60–70 W	9,600–12,800 lm	150–200 W	
Flyhorse ▸	30–50 W	5,800–9,300 lm	100–150 W	7–10 m
Sailing	30–100 W	4,100–14,400 lm	60–150 W	

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ALL-IN-TWO SOLAR STREET LIGHT · TECHNICAL DATA

Flyhorse

All-in-two solar street light · RS-FH100 / RS-FH120 / RS-FH150

TECHNICAL DATA

PER MODEL, FACTORY RATINGS

Parameter	RS-FH100	RS-FH120	RS-FH150
LAMP HEAD			
LED output	30 W	40 W	50 W
Luminous flux	5,800–6,100 lm	7,500–7,700 lm	9,100–9,300 lm
LED chips		150 pcs 5050, Bridgelux	
Chip efficacy		> 190 lm/W	
Beam angle		155° × 50° (X × Y)	
Colour temperature		3,000–6,000 K	
CRI		≥ 70 Ra	
Housing		Die-cast aluminium alloy, anti-corrosion	
Lifespan		50,000 h	
SOLAR PANEL			
Power	100 W / 18 V	120 W / 18 V	150 W / 18 V
Cell type		Monocrystalline silicon	
Cell efficiency		19–20 %	
BATTERY			
Chemistry		LiFePO4, Grade A	
Capacity	380 Wh	460 Wh	610 Wh
Charge cycles		2,000	
SYSTEM			
Controller		MPPT, multi-peak tracking	
Working modes		L / T / M / U / DEMO / OFF via remote	
Autonomy		5–7 rainy days on a full charge	
Operating temperature		−20 °C to +60 °C	
INSTALLATION			
Mounting height	7–8 m	7–8 m	8–10 m
Pole top diameter		76 mm	
Installation spacing		20–40 m	
Recommended elevation		17° for DIALux calculation	

NOTES

- Luminous flux is measured at the rated drive current with a 25 °C ambient; production tolerance ± 5 %.
- Autonomy is stated for a full charge and a 5–7 day overcast period with the default L profile.
- Pole, foundation and anchor bolts are project items and are not part of the luminaire scope unless ordered.

CONTROL AND PROTECTION

HOW THE SYSTEM MANAGES ITSELF

Infrared remote, six profiles

L / T / M / U / DEMO / OFF; the last selection is held in memory when power is lost.

Multi-peak MPPT

Tracks several power peaks on a partly shaded array and lifts harvest 15–20 % over PWM.

Three-colour indicator

Separate LEDs report charging, battery state and load state at a glance.

ITC thermal protection

Software cut-off at the upper temperature limit and heating support at low temperature.

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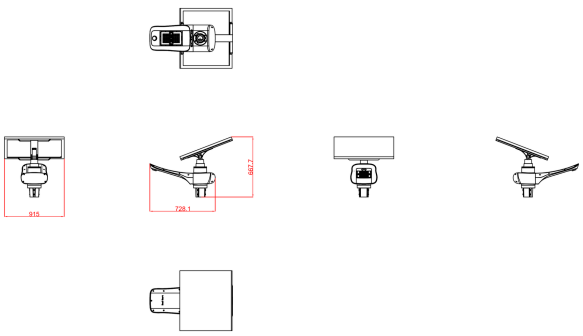
ALL-IN-TWO SOLAR STREET LIGHT · OPTICS, INSTALLATION AND SCOPE

Flyhorse

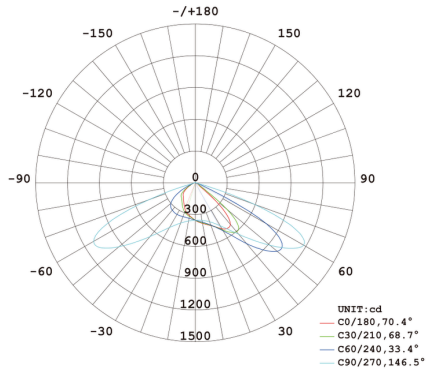
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DRAWINGS AND LIGHT DISTRIBUTION

FACTORY 2D DRAWING AND PHOTOMETRIC REPORT



Outline drawing — lamp head and panel bracket, mm



Beam Angle: X-axis: 158° Y-axis: 62°

Luminous intensity distribution — cd

INSTALLATION

RECOMMENDED PRACTICE

Pole	Straight or tapered steel pole, 76 mm top diameter, hot-dip galvanised
Head fixing	Clamp-on bracket; head and panel are packed separately and assembled on site
Panel orientation	Face the array to true south (northern hemisphere) or true north (southern hemisphere); tilt at site latitude, adjustable 0–60°
Cable	Panel-to-head cable supplied with the luminaire; no trenching required
Commissioning	Set the working mode by remote, confirm the charge indicator, record the serial number

SCOPE OF SUPPLY AND ORDERING

WHAT SHIPS AND WHAT IS QUOTED SEPARATELY

In the box	Lamp head with integrated LiFePO4 battery and MPPT controller, separate monocrystalline panel, mounting bracket, panel-to-head cable, infrared remote
Ordering	Model + quantity + pole height + target mounting height; pole and foundation quoted separately
Documentation	This datasheet, IES photometric file, installation manual, CE / RoHS certificates on request

PROJECT SIZING

Send road width, pole spacing and site coordinates — we return a DIALux layout and a model recommendation.

PHOTOMETRIC FILES

IES / LDT files, 2D drawings and the installation manual for this series are available on request.

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arthur@e-ablepower.com
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Source. Factory technical datasheet “Solar Flyhorse Light” (RS-FH100 / 120 / 150), lamp-head 2D drawing, product renders.
Disclaimer. Values are factory ratings at 25 °C ambient and are subject to the tolerances stated above. Final configuration, pole height and foundation are confirmed in the order acknowledgement. E-Able Power reserves the right to change components without notice provided performance is not reduced. | EAP-DS-20261109-FLYHORSE-R01 | Rev. 1.0