

## UTICA® Wind Solar Hybrid Street Light System-UTL-120A

Unicorn Series - one power source one Ligh

### System Description:

UTICA Unicorn Series hybrid street lighting system is an intelligent, small scale and off-grid LED street light system. Power system composed of a wind turbine and solar modules, AGM deep cycled batteries, controller to power one LED streetlight, this hybrid streetlight takes solar/wind as energy source and utilizes the energy for lights automatically during night by setting of timer or lighter sensor on the smart controller.

### Unicorn Series - Wind Solar Hybrid Street Light System-UTL-120A include

**Wind Power:** UTICA-600W rated power output - 600W Wind turbine, 24V

**Solar Power:** 360W rated power output - 2pcs 180W 24V polycrystalline solar panel

**Light source:** 1pcs 120W ultra bright LED street lights

**Energy Storage:** 2pcs 200AH sealed maintenance free AGM gel deep cycled battery

**main pole (with power system)** - 12m pole for wind turbine & solar panel installation and 2 lamp arms, 8m lamp height, 30m/s wind resistance

### Recommended Application

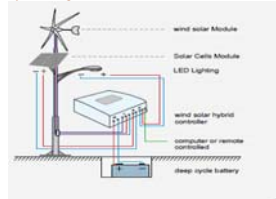
municipal street, residential streets, country road, parking lots, landscape lighting, highway, city main street

Applicable road type: road width max: **8 meters**, lamp distance: **20 meters**

Average illuminance: 10-15 lux depends on road width and lamp distance design

Lamp placement: single sided placement/double sided parallel or cross placement

### System Diagram



Typical Installation

### System Specification

Components	Photo	Model No.	Specification
Wind generator		UTICA-600	600W 24V, 5 blades low wind type rotor diameter: 1.75m net weight: 25kg tower connection: flange or bolt-on clamp start-up wind speed: 2m/s cut-in wind speed: 2.5m/s rated wind speed: 12m/s max. survival wind speed: 50m/s noise level: <40db @50ft distance certificate: CE, ETL, Rohs warranty: 3 years
Solar panel		UTICA-180W	180W 24V polysilicon solar modules size & Weight : 1330 x 992x 35mm/15.4kg max. Vmp & Imp: 33.5V/5.07A open-circuit Voc: 42.48V short-circuit Isc: 5.58A module efficiency: >17% TUV, IEC, CE, CQC, CQC approved 5 years workmanship warranty 25 years power output warranty: 5 years 95%, 10 years 90%, 25 years 80%
Wind & solar hybrid controller		UTICA-24AMX	24V wind solar hybrid charge controller max. input: 1000W wind/360W solar solar charging mode: MPPT wind charging mode: PWM protections: battery over-charge, battery over-discharge, battery reverse-connection, load short-circuit, over-load, lightning etc.
LED lamp		UTICA2-120W	120W, ultra bright LED street light DC24V, Operating voltage range: 20-30VDC Color Temperature(CCT): 5000-6300K IP rating: IP65 Lamp Luminous Efficiency(lm/w): 120 Working Lifetime> 50,000 hours Certification: CE, RoHS
Battery bank		200AH 12V	200AH 12V deep cycled gel battery, maintenance-free
Underground storage battery box		UTICA	Engineering plastics/anti-moisture/anti-corrosion/windproof/waterproof/Totally enclosed/IP65
Lamp post for power system		UTL-12	12 meter high hot-dip galvanized steel pole plating layer: 75-85u coating: sprayed with plastic power paint lamp arm: included lamp height: 10m solar panel bracket: included foundation
Cable		RVV	RVV3*4 <sup>2</sup> , RVV2*1.5 <sup>3</sup> , 1*6 <sup>2</sup> mm