



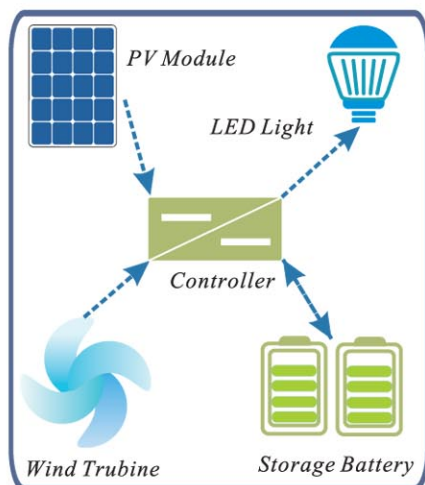
Falcos Series



Optional Luminaires



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- Comprehensive utilization of wind & solar energy
- Overall modular design
- Reliable, safe & quick-installation
- Customizable options: camera, charging port, etc.
- Start-up wind speed: 1.5m/s
- Outstanding performance of solar module
- Graceful appearance for landscape effect

Configuration

Dimension	6m in total & light @ 4m	Pole	5m in total, Galvanized steel
Weight	200 kg	Street Light	White LED, 24W, Epistar chip
Operation Temp.	-20°C ~ 40°C	AD Board	PC, 1m×0.3m, 4pcs, @2.4m
Service Time	10~12 h for 2 rainy days	Controller	12/24V, 20A
Control Strategy	Light-Control & Time-Control	PV Module	150W, DC12/24V
Basement	600*600*700 mm concrete block	Wind Turbine	200W
Spacing	5m ~ 20m	Battery	Gel, 12V/70Ah
Warranty	2 years		
Lifespan	10 years		

* PV module could be changed as special requirement and 150W as default.

* Wind turbine could be changed as special requirement and 200W SAWT as default.

* Surrounding condition, including cable, tree, building, etc., must be investigated carefully before installation.

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Configuration of Wind Turbine (SAWT)



- Comprehensive & integrated design
- Light with little vibration
- Reliable, safe & quick-installation
- Customizable Color options
- Start-up @ 1.5m/s and brake @ 16m/s
- Special treatment for strengthen anti-corrosion
- Graceful appearance for landscape effect

SAWT Wind Turbine

FEWT-S200

Rated Power (W)	200
Max. Power (W)	220
Output Voltage (V)	12/24
Start-up Wind Velocity (m/s)	1.5
Rated Wind Velocity (m/s)	11
Max. Wind Velocity (m/s)	45
Weight (kg)	17
Wheel Diameter (m)	0.46
Wheel Height (m)	0.95
Blades Number	12
Blades Material	Aluminum Alloy
Generator	3-phase permanent magnet AC generator/maglev generator
Control System	Electromagnet
Speed Regulation	Automatically Windward
Operation Temperature (°C)	-40 ~ +80
Warranty	2 years
Lifespan	10 years

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Configuration of PV Module



- Outstanding performance in actual operation
- Excellent mechanical load resistance
- Reliable, safe & quick-installation
- Customizable Color options
- Special treatment for strengthen anti-corrosion
- Graceful appearance for landscape effect

Characteristics

	$P_m(W)$	$V_m(V)$	$I_m(A)$	$V_{oc}(V)$	$I_{sc}(A)$	Eff.(%)	G.W.(kg)	Dim.(mm)
FEPM-150P	150	18.4	8.15	22.5	9.39	15.1	11.5	1480*670*35
Nominal Operating Cell Temperature(NOCT)	45±2°C							
Temperature Coefficient Of P_m	-0.39%/°C							
Temperature Coefficient Of $V_{oc}(\%/C)$	-0.34%/°C							
Temperature Coefficient Of $I_{sc}(\%/C)$	0.09%/°C							
Operating Temperature	-40~+85°C							
Storage Temperature	-40~+85°C							

Materials

Cell Type	Polycrystalline
Frame	Anodized Aluminum Alloy
Glass	Low Iron, Tempered Glass, 3.2 mm
Connector	Cold-pressed Terminal
Cable	RV

Warranty



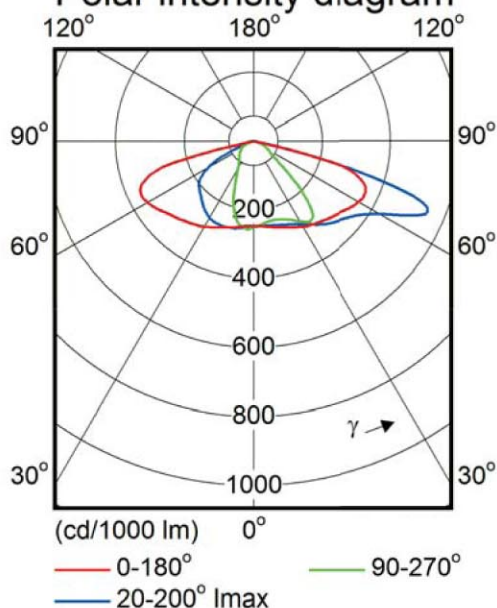
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Configuration of LED Light

Streetlight

Rated Power (W)	24
Input Voltage (V)	12
Power Factor	>0.95
Lamp Luminance (lm)	2400
Color Temperature (K)	
Color Rendering Index (RA)	85
Beam Angle (°)	65*135
Operation Temperature (°C)	
Storage Temperature (°C)	
Operation Humidity (%RH)	
Lifespan (hrs)	
Dimension (L×W×H)(mm)	385×150×50
Weight (kg)	1.4
Warranty	
Chip Brand	Epistar

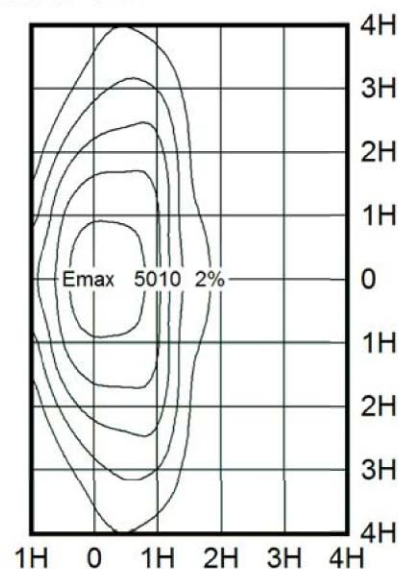
Polar intensity diagram



Relative isolux diagram

Horizontal Illuminance $\angle 0^\circ$

H	E _{max}
(m)	(lux)
3.0	67
3.5	49
4.0	37

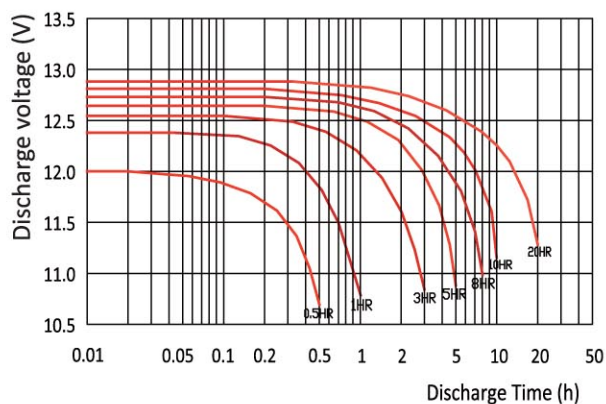


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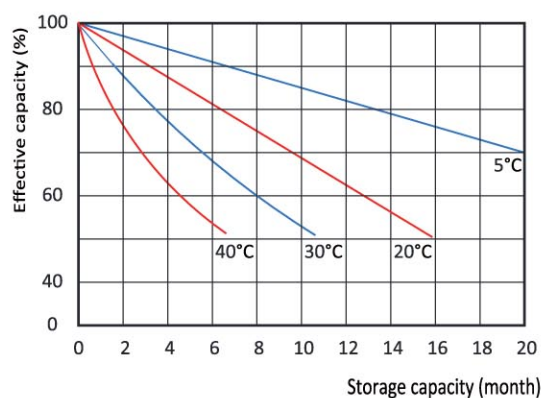
Configuration of Battery

Rated Voltage	12 V	Charge Voltage (25°C)	13.5V ~ 13.8V (Float)
Capacity (10hr)	70 Ah		14.4V ~ 14.7V (Average)
Dimension	259×169×227 mm	Charge Mode (25°C)	2.275±0.025 V/Cell (Float)
Weight	21.5 kg		2.45±0.05 V/Cell (Cycle)
Max Discharge Current	30I10A (3min)	Compensation Coefficient	±3mV/Cell/°C (Float)
Max Charge Current	≤0.25C ₁₀		±5mV/Cell/°C (Cycle)
Self-discharge (25°C)	<3%/month	Operation Temp.	15°C ~ 25°C (Optimal)
Cycle Life	572 times (100%DOD)		-45°C ~ +50°C (Discharge)
	1422 times (50%DOD)		-20°C ~ +45°C (Charge)
	2218 times (30%DOD)		-30°C ~ +40°C (Storage)
Warranty	2 years	Lifespan	>5 years

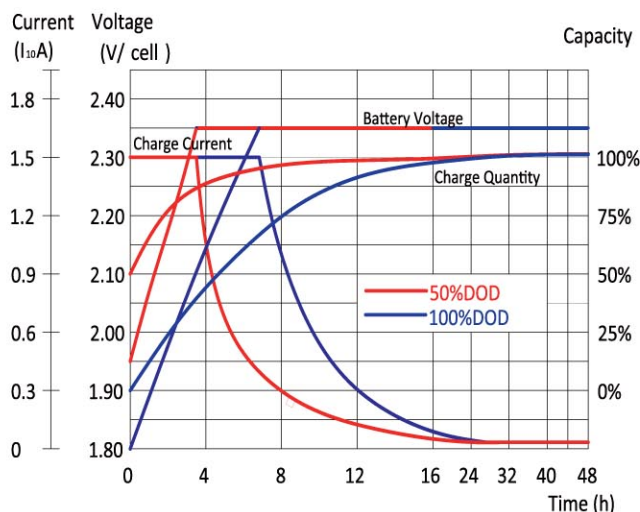
Discharge characteristics at Various Rates (25°C/77°F)



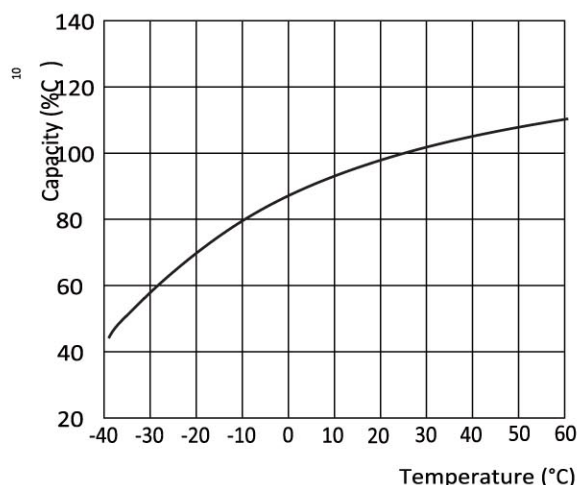
Self-discharge Parameters Characteristics



Constant-potential Charge



Temperature & Discharge Capacity



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Configuration of Controller

CO-B

Operation Voltage (V)	12
Self-consumption (mA)	<20
Over-charge Protection (V)	14.5
Partial-charge Protection (V)	13.5
Over-discharge Protection (V)	10.8
Over-discharge Recovery (V)	12
Wind Turbine Input (W)	200 (300 max.)
PV Input (W)	150
Wind Turbine Auto-brake (A)	20
Control Strategy	Light-Control & Time-Control
Terminal	3 (input) / 2 (output)
Operation Temperature (°C)	-25 ~ +45
Operation Humidity (%RH)	35 ~ 85, without condensation
Dimension (mm)	143×150×84
Weight (kg)	1.8
Warranty	2 years
Lifespan	10 years
Protection	Over-charge, over-discharge, over-load, shorted, polarity reverse, auto-brake & manual brake

Indicator of Light

LCD Indication	Meaning	Soution
 On	Full charged	Normal. None handling needed
 Twinkle	Over-charge	Voltage test & reconnection the battery
 Twinkle	Over-discharge	Charge the battery
 On	Load on	Normal. None handling needed
 On	Load off	Normal. None handling needed
 Twinkle	Over-load	Remove some load
 Twinkle	Load shorted	Check connection and then press ESC key
LCD off	N/A	Check connection and battery voltage