# Controller Qulon HELIOS

Solar Power Management Module

Qulon HELIOS provides monitor and control the solar powered stand-alone lighting system's state in the real time. Additional security to pedestrians and vehicle drivers is ensured by keeping pedestrian crossings, bus stops and security light systems in the working condition.

Key Features

- MPPT charge technology (efficiency 97%)
- Optimized 3-step process of the battery charge (bulk charge, absorption charge, float charge)
- Automatic detection of the nominal accumulator voltage (12V/24V)
- Supports three types of batteries (GEL, AGM, Flooded)
- Remote management and configuration via GPRS / SMS
- Integrated LED driver
- Control and monitoring of current supplied to the lamp
- Schedule of events for light control
- Electronic protection against over-load current
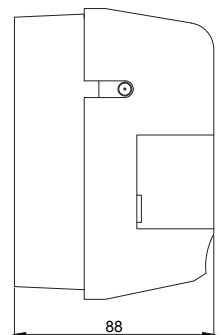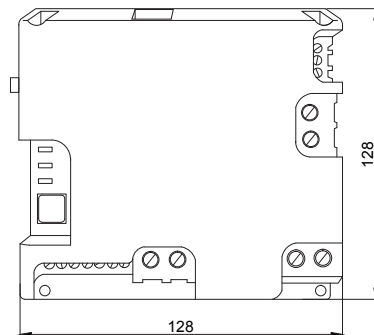
QULON CMS

QULON is a powerful yet extremely flexible Central Management System for street lighting. A combination of software applications and different hardware technologies that will offer you full control over any kind of lighting network enabling activity scheduling, real time faults notification, remote meter reading, performance analysis, custom dimming scenarios creation, maintenance workflow management and much more, increasing efficiency and cutting down costs.

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Technical Specifications

Mechanical

- Housing: Plastic case
- Material: Metal, Plastic
- Dimensions, mm: 128(D) x 88(H) x 128(W)
- Mass: 1.8 kg
- Mounting: Surface

Power & Electrical

- Rated battery voltage: 12-24 V
- Max open circuit voltage of the solar battery: 100 V
- Max current charge: 20 A
- Max power 12/24 V: 240/480 W
- Max load current for connected devices: 5 A

Environmental

- Operating Temperature: -40...+70°C
- Storage Temperature: -50...+80°C
- Operating Relative Humidity (max): 95%
- IP Rating: IP 20
- Certification: CE, RoHS
- Warranty: 36 Month (Return to base)

Inputs / Outputs

- Connectors: Terminal blocks

Interfaces and Protocols

- Serial interface: GSM, RS-485
- Radio Channel: GSM 850/900/1800/1900
- Max length of RS-485 line: 1500 m

Configuration / Indication

- Serial interface: GSM, RS-485
- Radio Channel: GSM 850/900/1800/1900
- Max length of RS-485 line: 1500 m

Battery, Luminaire and Panel

- Accumulator types: GEL, AGM, Flooded
- Solar panel voltage: up to 80 V
- Luminary: LED panel 12/24 V with/without driver

Package Contents

- Qulon HELOIS module
- GSM antenna
- User guide

Product Line

Name	Modification	Product code
QULON HELIOS	RS-485 interface, extra relay, dry contact interface	QUL-SPM

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Solar Power Management Module

Connection Scheme

GSM, GPRS, EDGE

Internet

Operator

SIM

EXTERNAL
CIRCUIT
CONTROL

NC
NO
COM

VLED

"+"
"-"

VBAT

VIN

MODBUS

"+"   "-"   "+"   "-"

SENSOR
DOOR

IN 2

IN 1

D- D+ 0V +V

RS-485
(MODBUS)
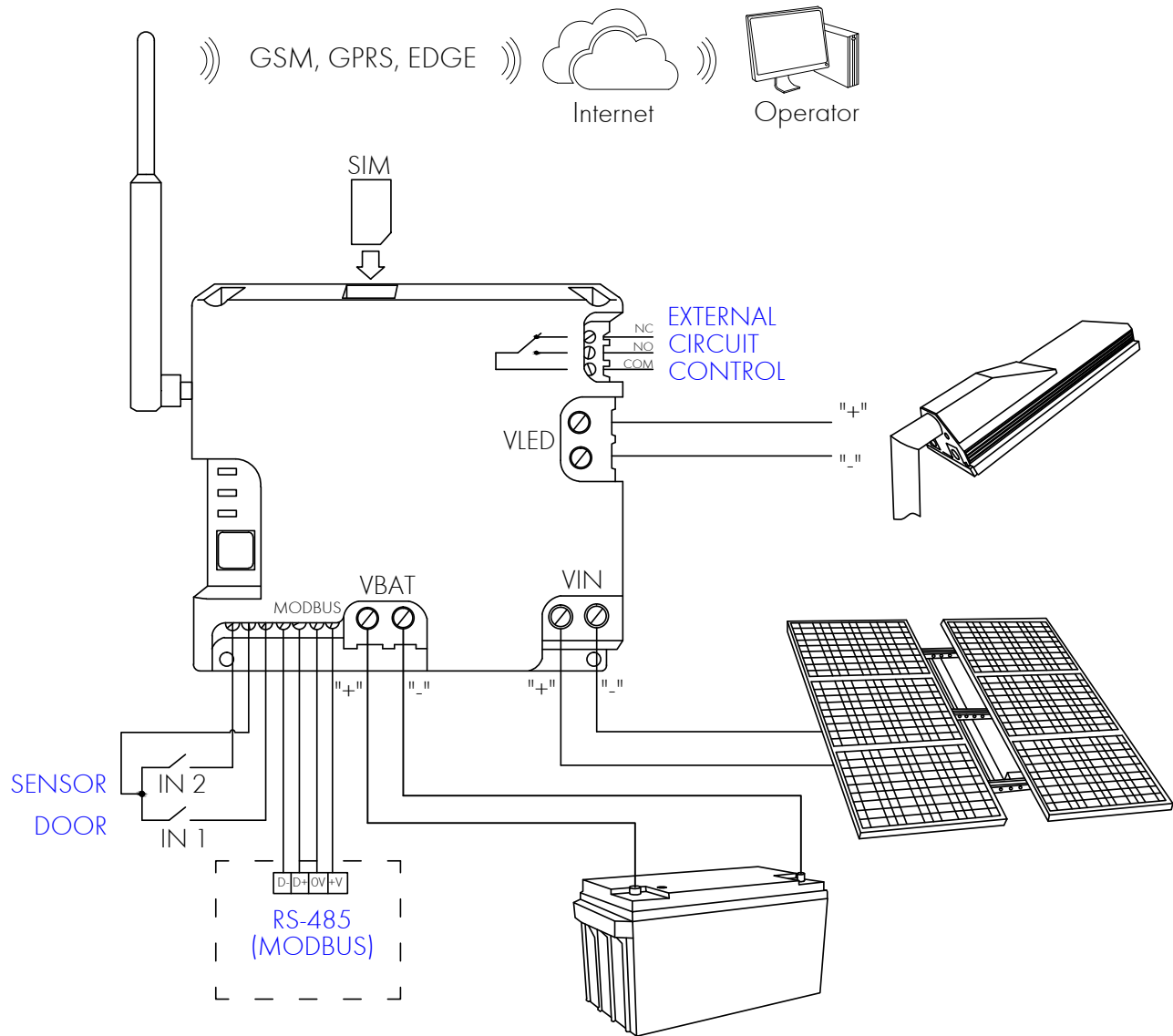
Accessories

Name	Product code
Enhanced signal quality GSM antenna	QUL-ACC-GSM-401
Vandal-proof GSM antenna	QUL-ACC-GSM-402
Antenna Cable 5m	QUL-ACC-ANT-0500
Antenna Cable 10m	QUL-ACC-ANT-1000