

**SOTECA**  
electric

# Smart City & infrastructure



# Hakim *Group*

1994

**SOTECA**  
electric

Electrical works,  
Wiring & Automation

🌐 [www.soteca-electric.com](http://www.soteca-electric.com)

1998

  
**ADEM**  
*Grow together*

Realization of cattle  
feed factories

🌐 [www.adem.tn](http://www.adem.tn)

2005

**SOTECA**  
export

Manufacturing & Exporting  
of Electrical Panels

🌐 [www.soteca-export.tn](http://www.soteca-export.tn)

2005

**ISTITHMAR**  
équipement

Wholesale of Electrical  
Products

🌐 [www.ie.com.tn](http://www.ie.com.tn)

2007

**= SFPE =**

Electrical Product Manufacturing  
Plastic Injection

🌐 [www.sfpe.com.tn](http://www.sfpe.com.tn)

2008

**HAKIM**  
electric

Electrical Works  
& Installations in Algeria

🌐 [www.hakim-electric.com](http://www.hakim-electric.com)

2013

**iTM**

Sheet Metal & Metal  
Engineering

🌐 [www.itm.com.tn](http://www.itm.com.tn)

2017

**Water**  
engineering

Study and realization  
of pumping stations  
and water treatment plants

🌐 [www.water-eng.com.tn](http://www.water-eng.com.tn)

## +25

Years of experience



## +250

Employees



## 42% Qualified

project management staff



SOTECA Electric, is a Tunisian company, was founded on 1994. It is specialized in electrical works, wiring and automation and it covers the following activities:

- ▶ Electrical works
- ▶ Electrical panels
- ▶ Transformation stations
- ▶ Automation & Instrumentation
- ▶ Smart traffic lights
- ▶ Intelligent public lighting
- ▶ Water treatment & Industrial pumping
- ▶ Maintenance & Technical assistance

SOTECA Electric is a Schneider Electric approved panel builder, as well as a Siemens solutions integrator and distributor.

We are certified ISO 9001:2015, ISO 45001:2018 & ISO 14001:2015, and our switchboards carry the CE mark (European conformity).

## Fields of activities:

- ▶ Smart City & Infrastructure Industry
- ▶ Agri-Food Industry
- ▶ Oil & Gas Industry
- ▶ Building Industry
- ▶ Chemical & Other Industries
- ▶ Water & Environment Industry

# Certificates



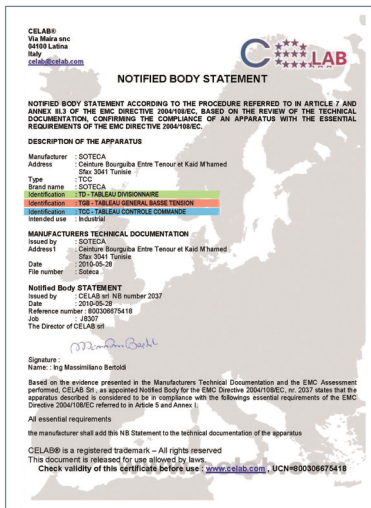
ISO 9001:2015 Certificate



ISO 14001:2015 Certificate



ISO 45001:2018 Certificate



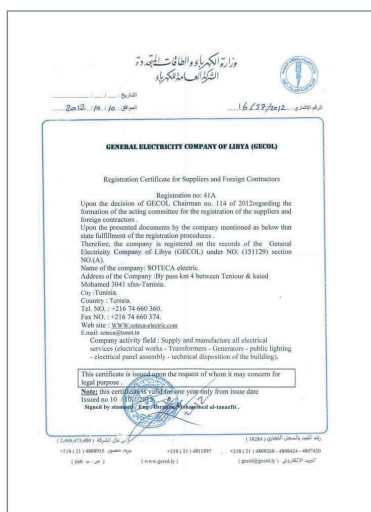
CE Marking Certificate



Esavior Certificate



Siemens Integrator & Distributor



Gecol Certificate



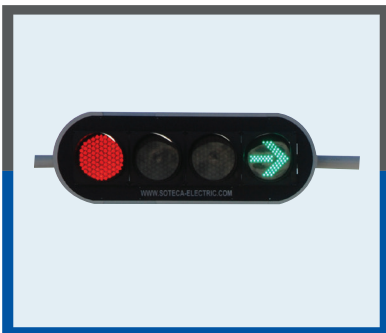
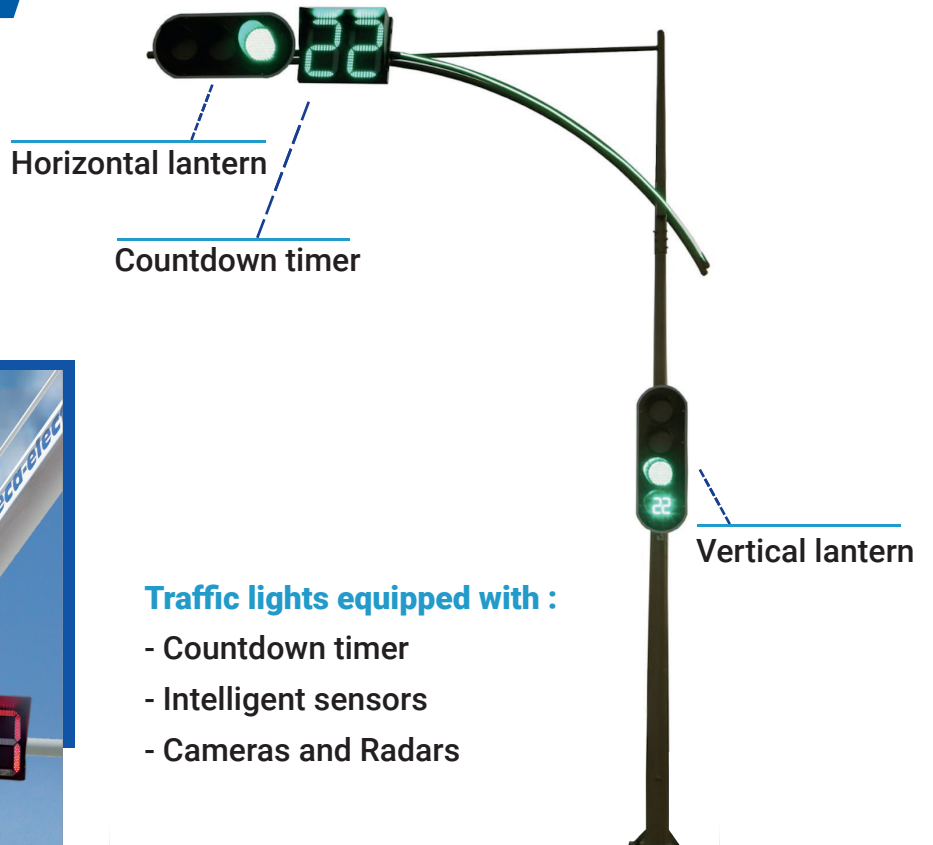
Comeca Certificate



Schneider Panel Builder



# Traffic lights



Horizontal lantern



Pedestrian lantern



Vertical lantern

## Three-colour lantern:

- Horizontal and vertical mounting with diameter 300 mm and 200 mm
- LED signalling with high luminosity
- Low energy consumption
- Guarantees 24 / 7 operation in the most difficult conditions
- Fixed and animated pedestrian lantern

# Traffic lights



Gabes Road (Sfax - Tunisia)



Soukra Road (Sfax - Tunisia)



El Ain Road (Sfax - Tunisia)



Soukra Road (Sfax - Tunisia)



(El Marj - Libya)



(Benghazi - Libya)

## The countdown timer

- Self-learning cycle timing
- Three-colour LED lighting
- High brightness
- Low energy consumption
- Allows road users to know the remaining time
- Easy and possible integration even in old intersections



# Traffic lights

## Intelligent vehicle presence detector

### Technical advantages:

- Improved quality and speed of traffic flow
- Flexibility and ease of use
- Easy and flexible remote programming
- Possibility of census and statistics in the use of the road
- Automatic adjustment of traffic light cycle times according to traffic pressure

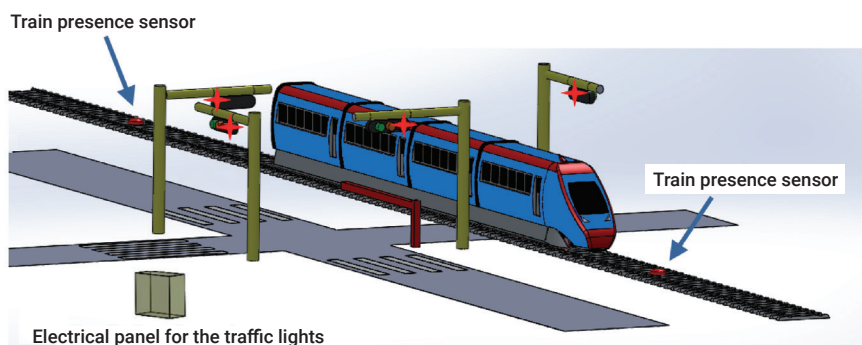
### Environmental advantages:

- Allowing users to save energy by reducing waiting time
- Reduction of gas emissions



**Crossroads traffic light equipped with car presence detector**  
**Bypass Kaied Mohamed - Sfax**

## Synchronisation with the passage of the train and/or the metro

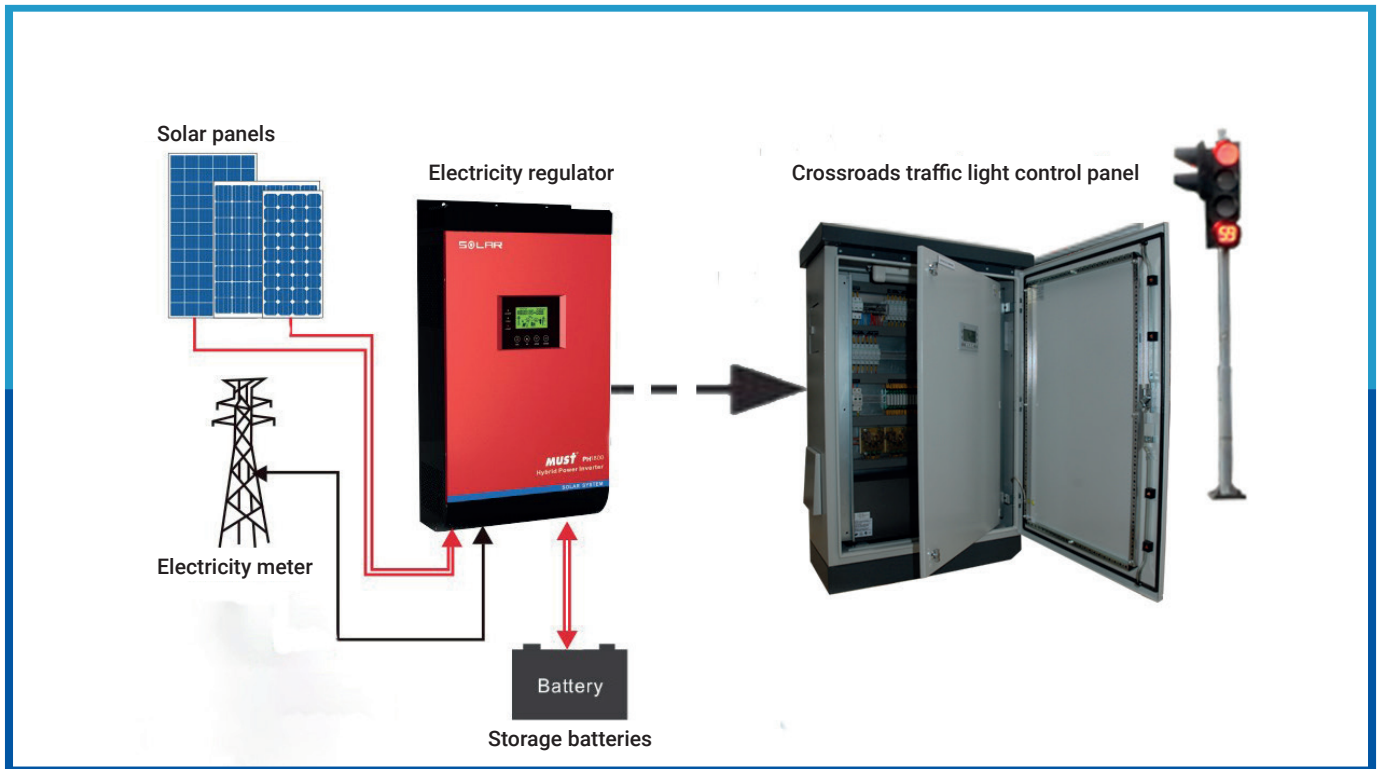


In case of an intersection with railway tracks, whether metro or train, the automatic traffic light system can adapt and automatically change the traffic system when trains and metros pass by in order to ensure the safety of the users of the traffic light intersection.

### References:

Crossroads lights Sakiet Ezzit road, Mahdia road, Ben Achour road (Sfax)

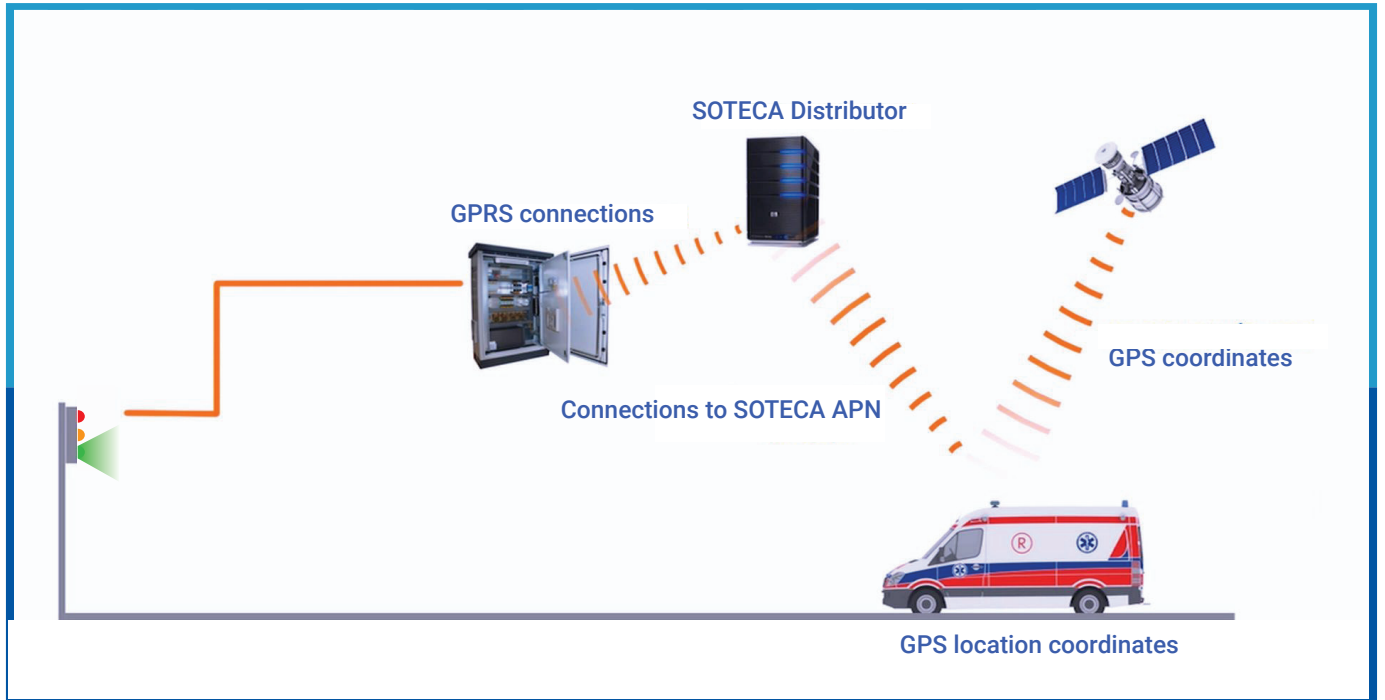
# Solar traffic lights



The solar control panel reduces frequent power cuts and is also suitable for remote sites. Solar energy is the main source of electrical power with continuous storage in high efficiency batteries that allow it to continue to operate at night in the absence of the power supply.



# Priority vehicle system



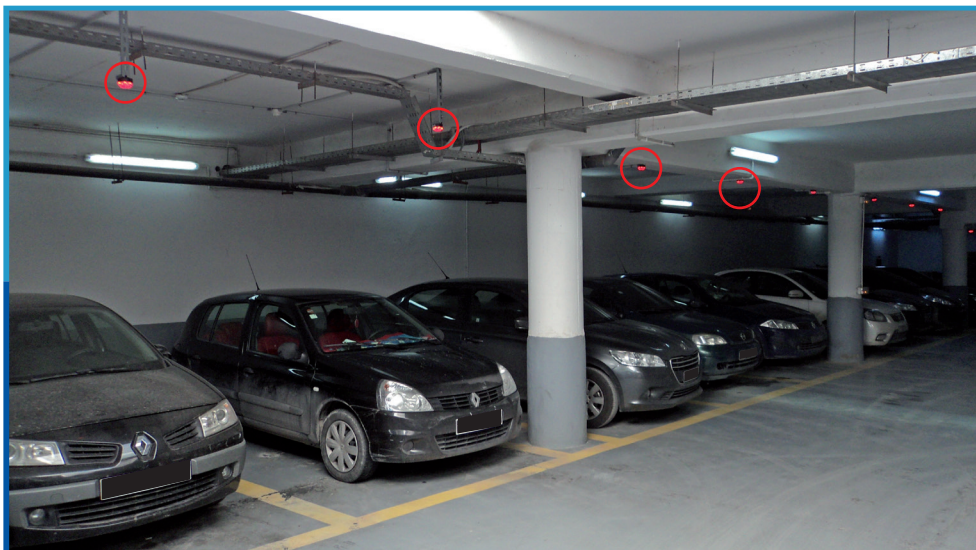
The automatic traffic light control system developed and programmed by the SOTECA Electric team, features a traffic priority system for ambulances or public buses which are equipped with a GPS tracking system, to ensure automatic change of traffic status, to allow them to pass without stopping.

## Closed car parking

- Car parking equipped with car presence sensors
- Display for available parking areas
- Directional display for vacant spaces
- Reservation application on smartphone



Display for outdoor use



Vehicle presence sensors

Ooredoo car parking shores of Tunis lake - Tunisia



# Intelligent parking



## Open area parking

### Radio / Wifi sensor

- Sensor for available spaces
- Battery life > 5 years
- Remote configuration, management, setting and maintenance
- Communication by radio / Wi-Fi



## Outdoor display

- Display of available spaces



## Communication box

- Wireless communication system between devices (3G/4G, radio, Wi-Fi)

## Remote control screen

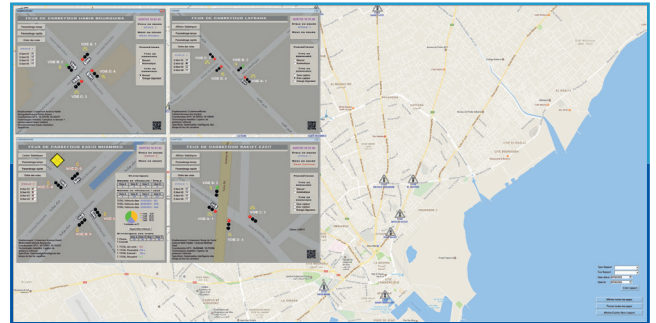
- Control and traffic management, car parking including surveillance cameras and all smart city related applications.
- Change and update traffic light settings and perform remote maintenance.
- Documentation and storage of all updated data.





## SCADA system :

- Remote control and monitoring
- Remote intervention
- Modification of parameters and operating modes (with/without sensor, automatic manual)
- Presentation of measurement data, taking of statistics in real time
- Number of vehicles per track
- Total number of vehicles passing per day
- Archiving of all data
- Setting of sensor parameters



**Supervisory view (SCADA)**

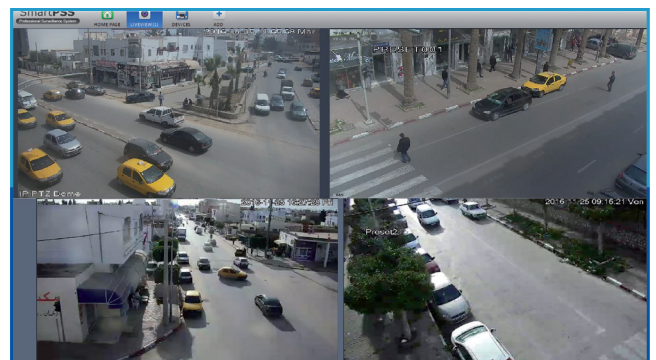


**Sensor view**

**By-pass Kaied Mohamed Sfax**

## Visualisation of intersections:

- Instantaneous visualization of traffic through surveillance cameras
- Anti-vandalism



**Camera view**

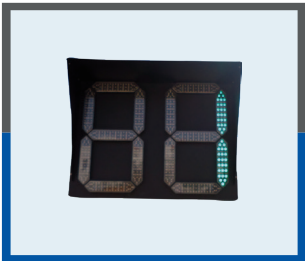
**Mahdia Road / Habib Bourguiba Avenue /  
El Aïn Road - Environment Avenue /  
By-pass N°4 El Aïn Road - Sfax**



Round countdown lantern  
(Small size)



Square countdown lantern  
(Large size)



Horizontal lantern



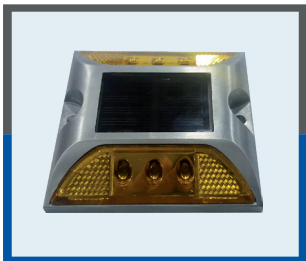
Pedestrian lantern



Vertical lantern



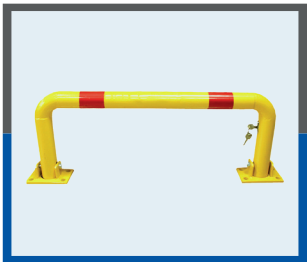
Solar lantern



Photovoltaic road signs

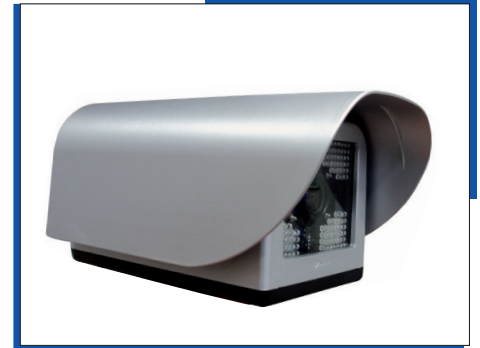


LED RGB



Barrier for private parking

- Safety of vehicle and pedestrian crossing at intersections
- Photos, video and information on red light violation
- Images and information on vehicle registration plates.



**Radar camera**

- Rotating cameras for 360° movements
- High precision with high definition optical zoom
- Remote configuration and learning interface



**Surveillance camera**

- The sensors allow the adjustment of the time of the traffic light, ensuring continuous movement at the intersection and better utilisation, which saves energy, reduces gas emissions and relieves psychological pressure on drivers.
- The sensors have an on-board web interface that provides:
  - Detecting the presence of vehicles
  - Calculation of the number of vehicle passages
  - Remote configuration of detection zones
  - Visualisation of the flow
  - Software update

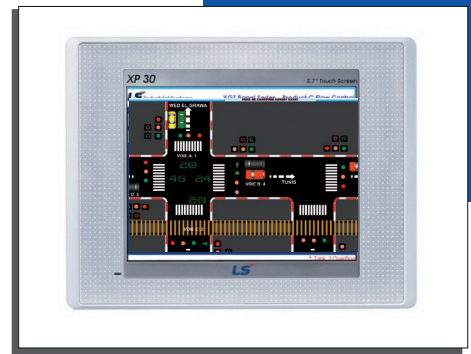


**Presence sensor**





**Crossroads light control cabinet**



**HMI Touch Screen Control**



- Outdoor use IP54
- Durable double metal case
- PLC with XP 30 display (touch screen with high resolution colours)
- Adjustment and setting of traffic light cycles
- Display of traffic light status
- Visualisation of traffic light and control cabinet errors

#### **Other solutions:**

PLC controller

Controller with output units (12, 24, 32) that allows operating cycles to be programmed manually or automatically.

#### **References:**

Crossroads lights Gremda, Lafrane, El Aïn, Sakiet Ezzit, Kaied Mohamed, Gabes road, Habib Bourguiba avenue, Mahdia road (Sabra Building), Street 5 Août Majida Bouleila, Intersection of the fishing port road, Teniour road, etc.

# Intelligent public lighting



## Features and benefits :

- Up to 5 days autonomy in cloudy and/or rainy weather
- Customised and flexible operating modes with timer and programmable motion detector

## Applications :

- Lighting of highways & motorways
- Lighting of streets & public roads
- Lighting of public spaces (parks, car parks, etc.)

## Available powers in Watts :

Power (Watts)    50   60   80   90   120   150   200

**Product warranty:** 3 years

**Product lifetime:** 10 years



**El-Marj (Libya)**



# Musical fountain

**Dancing musical fountain with programmable scenarios**



**Fountain of the Republic Place - Sfax (Tunisia)**





# International Presence

Your Reliable Partner in Electrical Solutions  
in Africa, Europe & Middle East



Tunisia



Libya



Algeria



Mauritania



Ivory Coast



Mali



Guinea-Conakry



Senegal



Burkina Faso



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Italy



Iraq



Saudi Arabia



Chad



Gabon



Burundi




Djibouti



Comores

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