elektrolab
POWER SOLUTION

M-LIGHT

ENERGY SAVING SYSTEM

M-LIGHT 10 - 10 kVA
M-LIGHT 20 - 20 kVA
M-LIGHT 30 - 30 kVA
M-LIGHT 40 - 40 kVA
M-LIGHT 50 - 50 kVA

- Save up to 40 %
- Event log
- Protection
- Compact design

CE

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This device is certified on 2011 and now we have "CE" for EMC and LVD directive of the European Parliament. According to Brussels data base of producers, we are the only company in Europe that builds and have certified this type of device.

M-Light we have build and designed in cooperation with local partner companies. Currently in our country and abroad, there is about 700 pieces of energy power modules of 10.000VA in work, with a total installed capacity of 6 MW!

This device is designed for energy saving in public lighting; it is applicable for all types of light sources, and the percentage of energy savings device can achieve is up to 40%.

In addition to the energy savings, the device affects the prolongation of life of the bulbs.

The system is fully automated and has a real time clock and real calendar. There is many of preset programs for setting voltage. Late in the evening when the traffic flow is reduced, the device performs power leveling and reducing the power consumption without reduction of traffic safety.

On user request there is a possibility to add additional hardware for remote control and monitoring of all devices that are located in the city area with a real map. There is advanced software that allows monitoring via computer from the dispatch center.

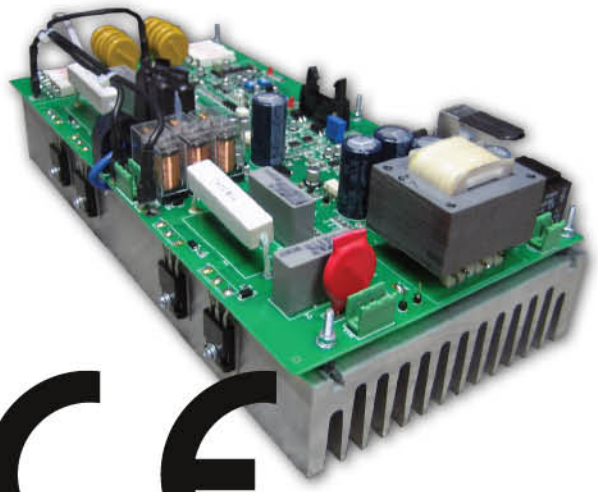
The target groups are: Public lighting, shopping malls, large parking spaces...

The bases of the system are power modules where we implemented highest technology solutions based on IGBT semiconductors. All hardware is made in SMD technology.

The system can be produced in different versions with single, two or three phase. Minimum power is 10.000VA, and the maximum 50.000VA.

Voltage leveling is very precisely controlled with the resolution of 1V AC, giving the stability of the output voltage of ± 0.2%, regardless of the value of the input voltage. Setting range of output voltages are from 170V to 230V AC.

Within the device there is a PLC control module with alpha-numeric display for monitoring and adjustment of different parameters.



CE

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Measurements:
- Real clock and calendar.
- Value of the input voltage for each phase.
- The value of the specified output voltage for each phase.
- The value of the output current for each phase.
- Ambient temperature value.
- The value of the temperature power modules.
- Current program (four programs total).

By-pass:
- Manual – By-pass possibility with a taster button.
- Automatic – If there is a failure on a module automatically transfer the consumers to mains with transfer time of 0 ms!

Protection of:
- Overload.
- Overheating.
- Short circuit at the output.
- Over voltage at the input and output of device.
- Low voltage on the input of device.

Memory for alarms (Event Log):
- Overload Phase 1
- Overload Phase 2
- Overload Phase 3
- Overheating of phase 1
- Overheating of phase 2
- Overheating of phase 3

It is important to note that all above mentioned situations of stored alarms are memorized with time and date when the alarm occurred!

Settings:
- Real time clock and calendar
- Voltage value for first time zone (15h-22h)
- Voltage value for second time zone (22h-24h)
- Voltage value for third time zone (24h-5h)
- Voltage value for fourth time zone (5h-15h)
- Optional manually settings using taster buttons for output voltage.
- Command to by-pass with taster button.

When you make any adjustments, after the installation, all data are permanently stored, and later there is no need for human supervision and adjustment.
The only thing client notice at the end of the month for accounts-which are far up to 40% lower!

Lamp type	Minimum voltage	Energy savings
High-pressure sodium	180 V	40 %
Mercury vapour	180 V	39 %
Metal halide	180 V	37 %
Fluorescent with electromagnetic dimme	190 V	40 %
Energy-saving fluorescent	190 V	35 %

Slovenski institut za kakovost in meroslovje
Slovenian Institute of Quality and Metrology

Certifikat o ustreznosti / Certificate of Conformity

Št. / No.
C251-0137/11

Predmet in tehnika / Identification of product
Supply voltage regulation for public lighting systems
Type: M-LIGHT (10 kVA; 20 kVA; 30 kVA; 40 kVA; 50 kVA)

Naročnik / Applicant
M.M. ELEKTROLAB
Džona Kenedija 11, Kaluđerica, Beograd, Serbia

Proizvajalec / Manufacturer
M.M. ELEKTROLAB
Džona Kenedija 11, Kaluđerica, Beograd, Serbia

Blagovna znamka / Trade mark
M-LIGHT

Uporabljeni predpisi - standardi / Related regulations - standards
See remark

Poročilo o preskusu - št. in datum izdaje / Test report - No. and date of issue
T251-0380/11 from 2011-08-12

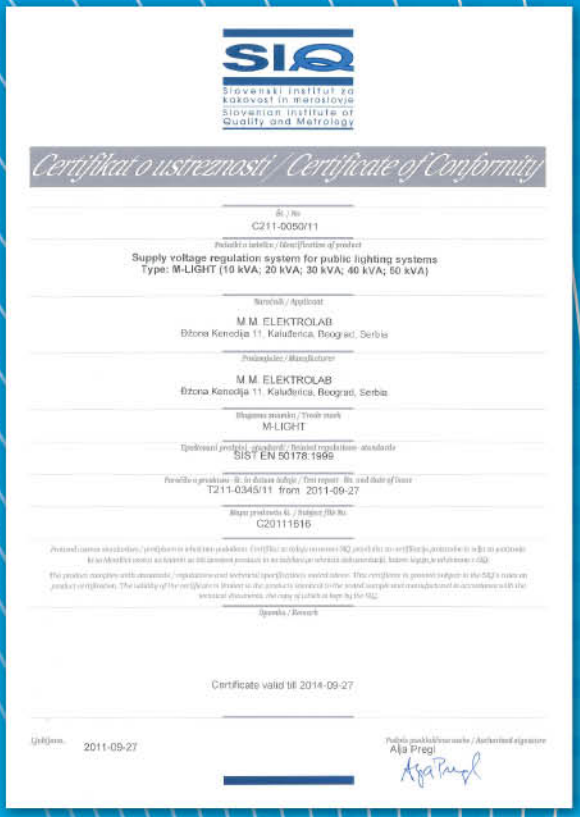
Skupni preskusni št. / Subject File No.
C20111616

Opombe / Remarks
The product complies to standards:
EN 55015:2006+A1:2007+A2:2009; EN 61000-3-2:2006;
EN 61547:1995+A1:2000; EN 61000-3-3:2008

Certificate valid till 2014-09-28

Ljubljana, 2011-09-28

Pečat in podpis pooblaščene osebe / Authorized signature
Zoran Svetik



Slovenski institut za kakovost in meroslovje
Slovenian Institute of Quality and Metrology

Certifikat o ustreznosti / Certificate of Conformity

Št. / No.
C211-0050/11

Predmet in tehnika / Identification of product
Supply voltage regulation system for public lighting systems
Type: M-LIGHT (10 kVA; 20 kVA; 30 kVA; 40 kVA; 50 kVA)

Naročnik / Applicant
M.M. ELEKTROLAB
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Proizvajalec / Manufacturer
M.M. ELEKTROLAB
Džona Kenedija 11, Kaluđerica, Beograd, Serbia

Blagovna znamka / Trade mark
M-LIGHT

Uporabljeni predpisi - standardi / Related regulations - standards
SIST EN 50178:1999

Poročilo o preskusu - št. in datum izdaje / Test report - No. and date of issue
T211-0345/11 from 2011-09-27

Skupni preskusni št. / Subject File No.
C20111616

Opombe / Remarks

Certificate valid till 2014-09-27

Ljubljana, 2011-09-27

Pečat in podpis pooblaščene osebe / Authorized signature
Alja Pregl

EC-DECLARATION OF CONFORMITY

elektrolab POWER SOLUTION

Manufacturer:
Name and address: **M.M.Elektrolab**
Džona Kenedija 11,Kaluđerica,
Beograd,Srbija

We declare under our sole responsibility that

Product designation: **Supply voltage regulation for public lighting systems**
Type / model: **M-Light (10 kVA; 20 kVA ; 30 kVA ; 40kVA ; 50kVA)**
Ratings:230V~ , 50Hz , Class I

is in conformity with the provisions of the following regulations

LVD Directive 2006/95/EC relating to electrical equipment designed for use within certain voltage limits

EMC Directive 2004/108/EC relating to electromagnetic compatibility

and also complies with the following harmonized standards

Directive 2006/95/EC **SIST EN 50178:1999**

Directive 2004/108/EC **EN 55015:2006 + A1:2007 + A2:2009**
EN 61000-3-2:2006, EN 61547:1995 + A1:2000
EN 61000-3-3:2008

Year of affixing of CE marking: **2011**

Place and date of issue

2011.9.15

Name, surname,
and signature of authorized person

Mr. Milutinović Miroslav

CE

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