LED Street Lighting & Parasolar Protection against disasters

APEC PRODUCED ENGINEERING IN JAPAN & ASEAN
APEC Company Overview

◆ Capital Amount  JPY 34 million
◆ Headquarters  5F Ginza Fugetsudo Building 5F Chuo-ku Tokyo, 〒104-0061
               TEL:03-5537-7706    FAX:03-5537-5281
◆ Chiba Branch  2060 Anegasaki Ichihara City Chiba, 299-0111
◆ Established  Dec 25th, 1995 / May 21st, 2003
◆ President  Shinjiro Sugimoto
◆ Major Business Lines
  • Sales of “LED Street Lights”
  • Development and Sales of “Disaster protection Parasolar Communication Systems”
  • General engineering services for plant constructive work
  • Selling electrical wires and cables (Made in Korea)
  • Conduct electrical construction and telecommunication activities.
Corporate Identity

*Offer high quality but reasonably priced products*
*Make best effort to develop high quality, efficient and effective goods which can support, protect, and comfort the people of the region*
*Protect the living and heart of the people by adding disaster protection functions and lighting the community.*
Goals and Potential Market

Clean Energy

‘LED street lights’ are a global boom!

Development and Sales of “Disaster protection Parasolar Communication Systems”

◆ For use in Tohoku disaster affected areas
◆ For use in Asean countries
◆ Market into other countries
◆ For lighting use in parks, shopping alleys, backstreets, main streets, inside factories, schools, kinergartens, and isolated mountainous
Effective to the people’s living and the economy!
About Solar LED Street Lights
Select the most required from various types

◆ **No power required**: Only solar natural energy
  ⇒ Zero Co2 emissions

  Possible duration⇒ 5 days guaranteed without receiving any solar lights

◆ **LED life span**: 60,000 hours/3 years guarantee

◆ **Battery Lifespan**: Requires maintenance every 3 years
  Equipped with emergency 100 V battery

  Uses Lithium Battery; lasts twice as long

◆ **No glass breakage; No mercury leakage**

  Safer than bulbs or flourescents in times of earthquakes

◆ **Can attach solar panels and windpower**
Parasolar Communication Systems with Disaster protection functions

A beach parasol type with solar panels on the parasol and LED below the parasol, equipped with 100V battery for use for PC or AV equipment

A Disaster prevention Parasolar communication center (which will protect the community in time of disasters)

Function as communication center in time of disasters

Function as mobile phone battery charger/ functions as a coffee stand in normal times to enhance community network

Utility model patent: Time judge application No TJ12038 号

Registered trademark: 21221950027

Application No: Patent app 2012-86226

Has mobile type and fixed type
1. **Portable power source** *(Nippon Densan COPAL)*

- **Product type**: Portable power source (battery accumulator)

**KEY WORD**

1. **Compact and light**: 3.5~5kg... Can be easily carried
2. **Energy saving**: Less energy consumption with mixed use of small size solar panels
3. **High efficiency**: Can be used for leisure or business with removable inverters

● A backup power source in times of black outs

Can be used for minimum power requirements i.e. lights, phones, water heater, etc
2. Main features of product (Nippon Densan COPAL)

- Main body
  - Inverter removable covers

Power source can be connected to cigarette lighters of automobiles

Future products:
1. Low cost solar panel attached type (TYPE A, B)
2. Free standing type with solar panels built in (TYPE C, D)
## 4. Basic models and product list (Nippon Densan COPAL)

<table>
<thead>
<tr>
<th>TYPE</th>
<th>Lead battery type</th>
<th>Lithium Ion battery type</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>Appearance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Battery size (Wh)</td>
<td>60</td>
<td>180〜240</td>
</tr>
<tr>
<td>Inverter power (W)</td>
<td></td>
<td>150</td>
</tr>
<tr>
<td>Solar panel</td>
<td>With one panel</td>
<td>With one panel</td>
</tr>
<tr>
<td>Battery charger</td>
<td>option</td>
<td>Battery attached</td>
</tr>
<tr>
<td>Carrier</td>
<td>Nil</td>
<td>Nil</td>
</tr>
<tr>
<td>LED light</td>
<td>nil</td>
<td>nil</td>
</tr>
<tr>
<td>Size H × W × D (mm)</td>
<td>270 × 160 × 230</td>
<td>270 × 160 × 230</td>
</tr>
<tr>
<td>weight (kg)</td>
<td>4.0以下</td>
<td>3.5以下</td>
</tr>
<tr>
<td>3W LED lighted time (h) approx</td>
<td>8</td>
<td>30</td>
</tr>
</tbody>
</table>
Japan's role as member of ASEAN area is important in the era of Globalization. Do some good in the community.

Producing in foreign factories saving production cost and we Japanese take up initiative for marketing.

We will join the market in overseas in Aug, 2014.

Let's create the scheme together that will provide to continued profitability to the future.

We set our company's goal to help children realize their dream!

APEC Engineering Co., Ltd.

President  Shinjiro Sugimoto