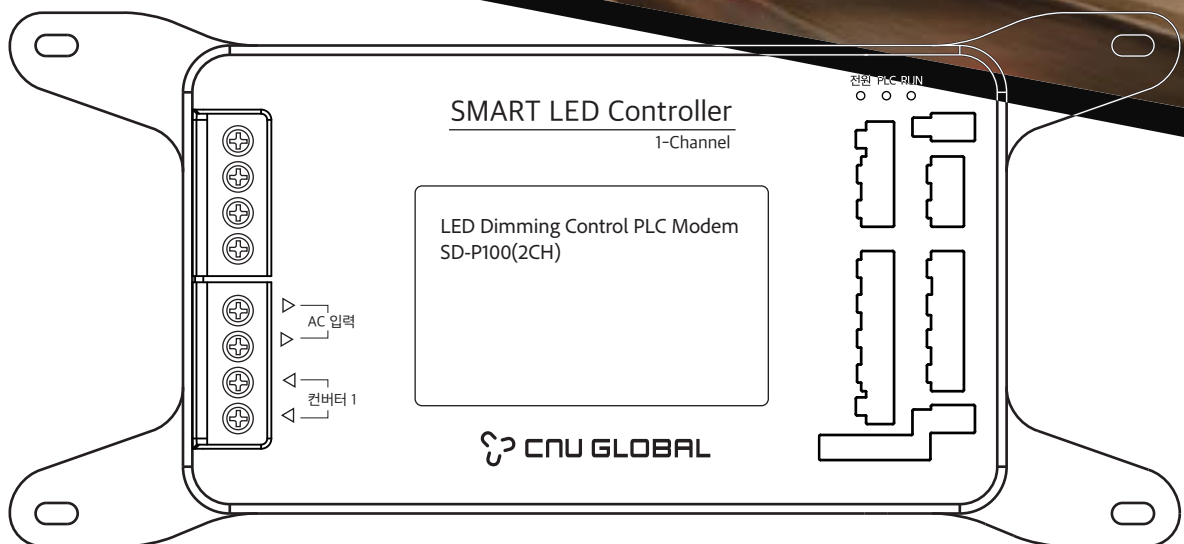


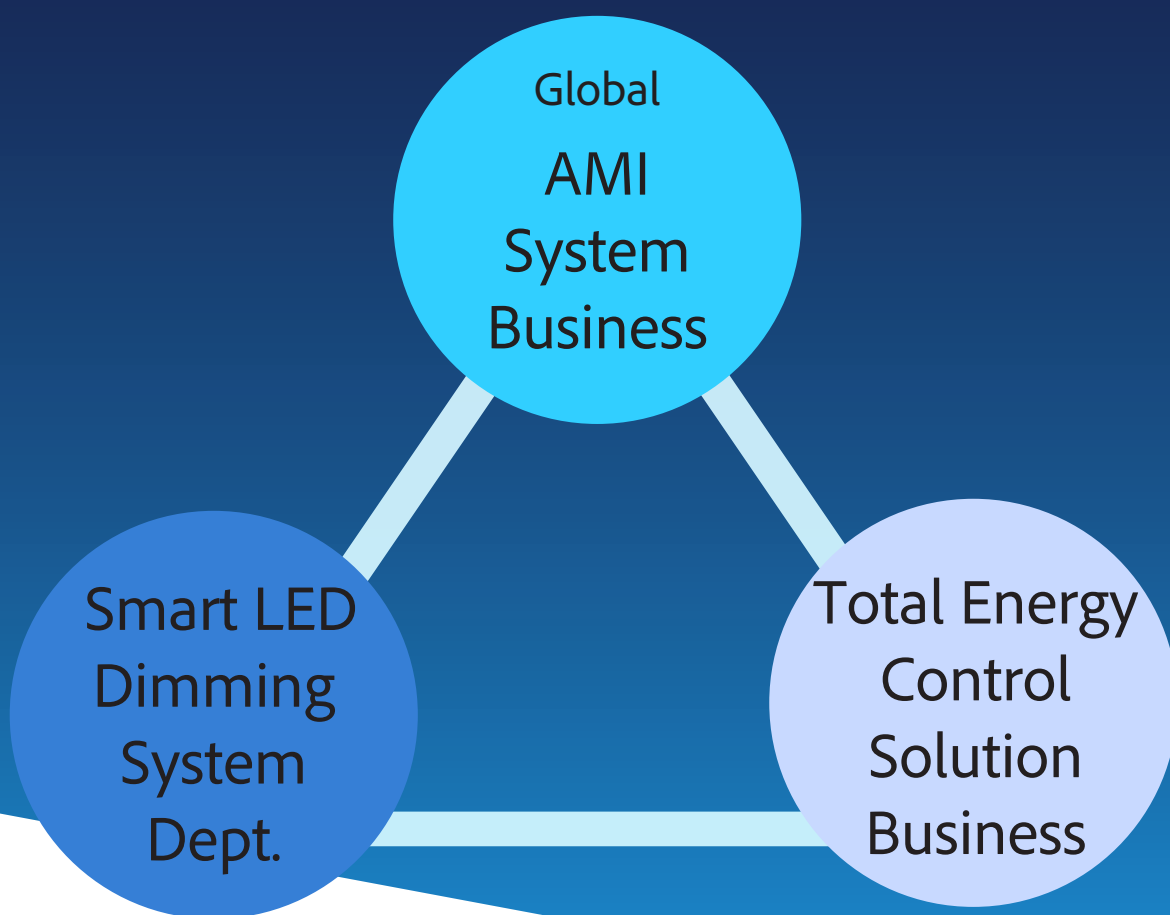
2023

SMART LED Dimming System



Vision

Green Energy Total Solution company
with Power Line Communication (PLC) IC
& PLC Control System



- 1 Securing market competitiveness through product optimization
- 2 Increase saels volume through business diversification
- 3 Leading market technology through continuous R&D

1. Information

Company

CNU Global co., Ltd.

CEO

SuBin Lim, HyunJong Kim (coi-representative)

Established

2007. 7. 4.

Business

- Application-specific integrated circuit design (PLC SoC, Etc.)
- AMI(Advanced Metering Infrastructure) for KEPCO and Civilian demands
- BEMS / FEMS / Smart City
- LED Light Dimming Control System
- Electric Vehicle Charge System

Patent

17

Main Product

Hi-Speed PLC SoC & Module, Modem

Wireless Solutions (LTE, Wi-SUN, ZigBee, BLE, wM-BUS)

Meter/MODEM/DCU/Server for KEPCO AMI

Low speed EV Charger

LED Light Control System for Korean Expressway Standard

Low Power Water Treatment System

Smart LED Lighting Control System Business

Business overview and status

- Korea Express Highway Corporation LED tunnel light, streetlight business (New Construction course or Replacement line)
 - Fully applied to new highways since 2015
 - Replacing 600,000 existing tunnel light and 200,000 streetlights
 - ESCO project in progress: scheduled to be replace by 2022
- Ministry of Land, Infrastructure & Transport LED tunnel ligh / streetlight new establishment and replcement project

Business promotion strategy and goals



Achieving the market share goal

Target to achienve 40% of Ex(Korean Express Hightway Co.)'s ESCO business.



Build a cooperative relationship

Strategic cooperation by selecting lighting companies with technological prowess LED Lighht product companies.



Global Business Promotion

Promotion of Southeast Asian LED streetlight dimming business through overseas agents.



LED tunnel light control system



LED streetlight control system

2. Dimming Modem

▶ SD-P100: 2 Ch.

Smart LED Dimming Controller



Function of LED Dimming Modem (100W, 2Channel)

Monitoring Function

1. Detecting Leakage Current
2. Monitoring abnormal Dimming status
3. Monitoring Converter Status
4. Monitoring LED Module
5. Monitoring 0-10V DC output interface
6. 2ch. 7 port (Only 6 port can be used at the same time)

Communication Methodology

1. Power Line Communication
(KS X ISO/IEC12139-1)

Control Function

1. Dimming Control : 0-10V Interface
2. Maintenance Rating Setting Control

Additional Function

1. Firmware upgrade - Remote/Direct
2. Surge Protection (KN 61000-4-5)
3. Additional Surge & Protection Function : 6KV , 380V Overvoltage protection

Specification

Input

AC 100V-240V,50/60HZ

Power

2.5 W (Up to : 3W)

Size

247 * 115 * 35 (W * H * D : mm)

Installation Specification

230 * 100 (W * H : mm)

Water / Dust Proof

IP 20 (KS C IEC 60529)

Surgey (KN61000-4-5)

Line to Line: 4kV3Line to GND 6kV

Warranty

3 years

2. LED Dimming Modem

▶ SD-P200: 1 Ch.

Smart LED Dimming Controller



Function of LED Dimming Modem (200W, 1Channel)

Monitoring Function

1. Detecting Leakage Current
2. Monitoring abnormal Dimming status
3. Monitoring Converter Status
4. Monitoring LED Module
5. Monitoring 0-10V DC output interface
6. 1Ch. 4 port

same time)

Communication Methodology

1. Power Line Communication
(KS X ISO/IEC12139-1)

Control Function

1. Dimming Control : 0-10V Interface
2. Maintenance Rating Setting Control

Additional Function

1. Firmware upgrade - Remote/Direct
2. Surge Protection (KN 61000-4-5)
3. Additional Surge & Protection Function : 6KV , 380V Overvoltage protection

Specification

Input

AC 100V-240V,50/60HZ

Power

2.5 W (Up to : 3W)

Size

247 * 115 * 35 (W * H * D : mm)

Installation Specification

230 * 100 (W * H : mm)

Water / Dust Proof

IP 20 (KS C IEC 60529)

Surge (KN61000-4-5)

Line to Line: 4kV3Line to GND 6kV

Warranty

3 years

Dimming Controller

▶ ILC-P2400A

LED Dimming Controller for Tunnel
- On/Off & Dimming Control



Main Function of Dimming Controller - Tunnel

1. On/Off control for each circuit (Magnet Relay control)
2. LED Dimming control for each circuit
3. External illumination/luminance sensor value interlocking function
4. Two-way connection with remote control center
5. Automatic/manual operation selection function
6. Power redundancy structure
7. Preliminary CPU2 design
8. 10.4 inch LCD UI interface

Specification

Input

AC 100V-240V,50/60HZ

Power

38 W (Up to : 200W)

Dimension

543 * 353 * 485 (W * H * D : mm)

Water / Dust Proof

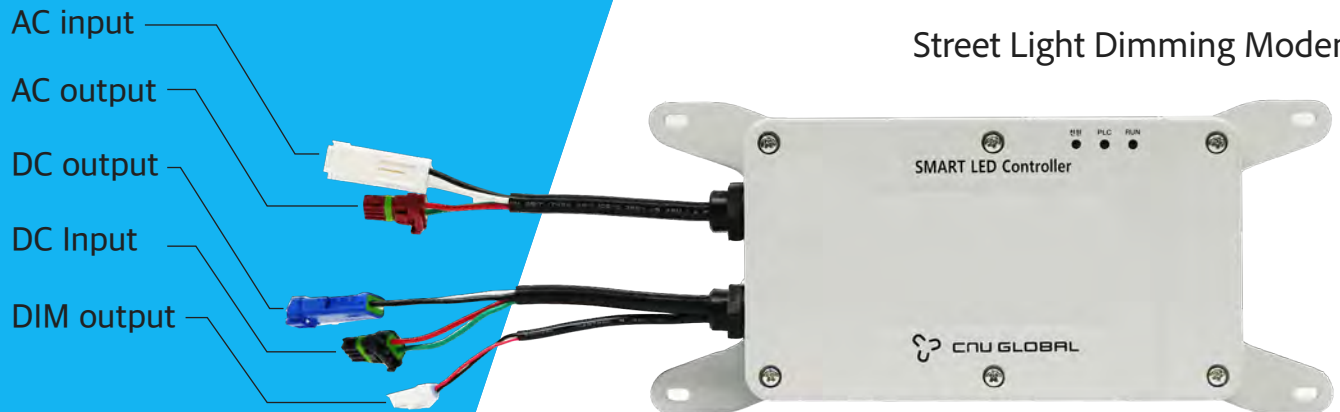
IP 20 (KS C IEC 60529)

Surge Test (KN61000-4-5)

Line to Line 4kV, Line to GND 6kV

Warranty

3 Years



Main Function of the Street Light Dimming Modem (300W)

Monitoring Function

1. Detecting Leakage Current
2. Monitoring abnormal Dimming status
3. Monitoring Converter Status
4. Monitoring LED Module
5. Monitoring 0-10V DC output interface

Communication Methodology

(KS X ISO/IEC12139-1)

Control Function

1. Dimming Control : 0-10V Interface
2. Maintenance Rating Setting Control

Additional Function

1. Firmware upgrade - Remote/Direct
2. Surge Protection (KN 61000-4-5)
3. Additional Surge & Protection Function : 6KV , 380V Overvoltage protection

Specification

Input

AC 100V-240V,50/60HZ

Power

38 W (Up to : 200W)

Dimension

247 * 115 * 35 (W * H * D : mm)

Installation

230 x 100 (W * H : mm)

Surge Test (KN61000-4-5)

Line to Line 4kV, Line to GND 6kV

Warranty

3 Years

Street Light Controller

► ILC-P2400A

Street Light Dimming & On/Off
Controller



Main Function of th Street Light Controller

1. Two-way connection with remote control center
2. 7-inch LCD UI interface
3. ON/OFF function for each circuit (magnetic relay control)
4. Leakage current monitoring device, door opening monitoring device
5. GPS device for time correction
6. Sensor interface device

Specification

Input

AC 100V-240V,50/60HZ

Power

12.15 W (Up to : 200W)

Size

150 * 250 * 100 (W * H * D : mm)

Water / Dust Proof

IP 20 (KS C IEC 60529)

Surge Protection (KN61000-4-5)

Surge Test (KN61000-4-5)

Line to Line 4kV, Line to GND 6kV

Warranty

3 Years

3. Electromagnetic waves and reliability report

▶ SD-P100

방송통신기자재등의 적합등록 필증
Registration of Broadcasting and Communication Equipment

장소 또는 업체: 주재통신사업자
기자재명: 무선랜기
기자재명: SD-P100

제품명: SD-P100

등록번호: MRP-2018-0101-0101

제조업체: 주재통신사업자

등록일자: 2018-01-01

등록처: 주재통신사업자

본 기기는 「전자파, 전자기파, 전자기파에 대한 적합성을 증명합니다」
It is verified that foregoing equipment has been registered under the Clause 3, Article 10-2 of Radio Waves Act.

국립전파연구원
Director General of National Radio Research Agency

신뢰성 시험 성적서

장소 또는 업체: 주재통신사업자
기자재명: 무선랜기
기자재명: SD-P100

제품명: SD-P100

등록번호: MRP-2018-0101-0101

제조업체: 주재통신사업자

등록일자: 2018-01-01

등록처: 주재통신사업자

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Director General of National Radio Research Agency

▶ SD-P200

방송통신기자재등의 적합등록 필증
Registration of Broadcasting and Communication Equipment

장소 또는 업체: 주재통신사업자
기자재명: 무선랜기
기자재명: SD-P200

제품명: SD-P200

등록번호: MRP-2018-0101-0101

제조업체: 주재통신사업자

등록일자: 2018-01-01

등록처: 주재통신사업자

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기자재명: 무선랜기
기자재명: SD-P200

제품명: SD-P200

등록번호: MRP-2018-0101-0101

제조업체: 주재통신사업자

등록일자: 2018-01-01

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Director General of National Radio Research Agency

▶ ILC-P2400A

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Registration of Broadcasting and Communication Equipment

장소 또는 업체: 주재통신사업자
기자재명: 무선랜기
기자재명: ILC-P2400A

제품명: ILC-P2400A

등록번호: MRP-2018-0101-0101

제조업체: 주재통신사업자

등록일자: 2018-01-01

등록처: 주재통신사업자

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기자재명: 무선랜기
기자재명: SDC-ST-PLCMA

제품명: SDC-ST-PLCMA

등록번호: MRP-2018-0101-0101

제조업체: 주재통신사업자

등록일자: 2018-01-01

등록처: 주재통신사업자

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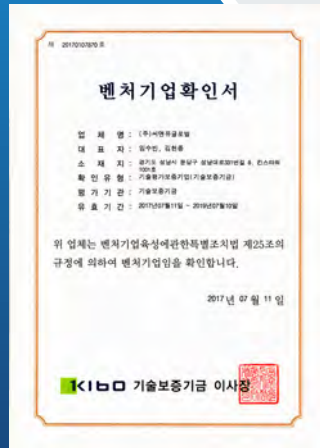
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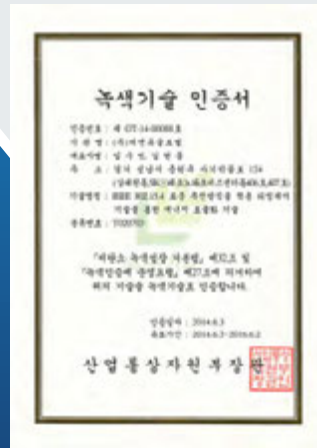
4. Certification, Patent



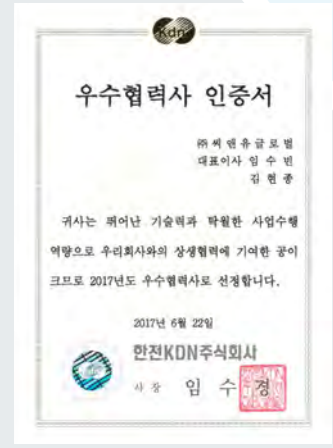
기업부설 연구소
인정서



벤처기업확인서



녹색기술 인증서



우수협력사 인증서



한국전력공사
우수 협력
중소기업 인증서



한국 전력공사
우수 협력
중소기업 인증서(영문)



ISO 9001 : 국문



ISO 9001 : 영문

5. Patent/trademark registration certificate



신호감쇄 방지 및
잡음차단을 위한
장치



전력량계를 위한
전력선 통신용
장치



3상 일체형 전력선
커플링 장치외



전력선 통신
시스템, 통신모듈,
및 커플링장치



전력선 시스템용 단말기,
통신장치, 및 통신방법



원격검침 시스템의
음영지역용 전력선
통신 장치



전력 시스템, 전력선
통신장치, 및 전력선
통신장치 설치방법



비접촉 전원 및
전력선 통신장치



전력선 위상정보
처리방법



PLC 기반 유무선 AMI
장치를 이용한 복합
전력 검침 시스템



광산란 기반의
먼지센서



Inhome Display
상표등록증

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