

Eco-friendly Electricity Energy

Hello!

KD Group can be explained in terms of e3.
e3 refers to eco-friendly, electricity and energy.

The goal of KD Group is to research/develop/manufacture products that can be of help to men and the nature and provide most benefits to people in their everyday life.

KD Group manufactures lighting products for new ships that are acknowledged for being the world's best and, provides energy maintenance and reduction (EM-RCS) services to the ports all around the world and, finally, supplies multi-cable transit, which can save lives in danger, to power plants, large buildings and ships.

KD Group's R&D Research Center, concentrating on discovering the effect of state-of-the-art technology has on people's happiness, is researching, developing and building businesses on new products for which market currently does not exist.

KD Group, with more than two decades of company history based on the unwavering goals above and the e3 management philosophy, now dedicates itself to become a company that prospers even after a century by continuing to analyze and study customer needs, invest in R&D and develop collaborative relationship with business partners, ultimately contributing to growth of national economy and enhancement of quality of people's life.

KD Group is committed to become a company that tries its "best" to aim for the "highest".
Thank you.

All Employees of Kukdong Elecom



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CEO Message

History

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Awards

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HISTORY (KOREA)

1992

- Founded Kukdong Cable Sales Co., Ltd

1994

- Developed MCT (Multi-Cable Transit)
- Completed Janglim factory of Gukdong Cable Sales Co., Ltd.

1995

- Head office moved to Toseong-dong from Bupyeong-dong, Jung-gu, Busan.

1996

- M&A for Myungsung Industrial System (produces ESA items)

1998

- Combined Toseong-dong head office with Janglim factory and moved the factory to Mujigae Industrial Complex in Dadaepo.
- Acquired the own factory of Kukdong Cable Industry Co., Ltd.



Head Office & No.1 Factory

2004

- Established R&D center under Kukdong Elecom
- Selected as technical renovation company by Small & Medium Business Corporation
- Earned permission to use the company name of "Dalian Kukdong Ship Lighting Equipment Public Corporation" from the Office of Industry and Commerce in Dalian Economic Development Zone

2005

- Acquired KTE 3rd factory as "Kukdong Elecom's 2nd factory"
- Selected as the technical innovation small & medium size company (INNOBIZ) by Small and Medium Size Business Administration.
- Signed the contract for industry and academy joint cooperation with Korea Maritime University and Korea Marine Equipment Research Institute followed by nomination to joint core project by the Ministry of Industry and Resources

2006

- Capital increase (Capital 1 billion KRW)
- Opened the Kukdong Elecom regional sales office
- Acquired "Certificate of quality for explosion-proof exposure lamp for ships" from Korea Marine Equipment Research Institute
- Dalian factory was set up in China. Dalian Kukdong Ship Lighting Public Corporation. Sales of 15.2 billion KRW achieved for the year.

2007

- Selected as a leading enterprise for strategic industry by Busan Metropolitan City.
- Acquired certificate for environment management ISO/KS 1440(BVQA)
- Awarded 10 Million Dollar Export Tower in commemoration of the 44th anniversary of the Trade Day (12,500,000 dollars achieved)
- Hyundai Heavy Industry equipment and 2 other items earn "non-inspection delivery product" status
- Designated as a company authorized for delivery and quality inspection of the lighting equipment by Daewoo Shipbuilding & Marine Engineering

2008

- Kukdong Elecom's 3rd factory set up in Dadae-dong, Saha-gu, Busan Metropolitan City.
- Selected as technical innovation small and medium size company by Small and Medium Size Business Administration Office of Busan and Ulsan
- Completed Dalian factory in China - changed the company name to Kukdong Elecom (Dalian) Public Corporation
- Selected as "2008 Korea Innovation Manager Award" by the News People magazine

1999

- Moved the factory after expanding the 1st factory
- Awarded "International Trade Businessman of the Month" (8th) hosted by Korea Trade Association and the Ministry of Industry and Resources
- Acquired certificate of quality assurance ISO 9001-1994(KS 9001)
- Awarded 1 Million dollar Export Tower in commemoration of the 36th anniversary of the trade day (2,300,000 dollars achieved) and citation was awarded by the Minister of Industry and Resources

2000

- Acquired Dong Sung Jeonjang, the manufacturer of lighting equipment for ships
- The company name changed to Kukdong elecom Co., Ltd.
- Joined Korea Marine Equipment Association
- Signed the contract for Industry and Academy joint research with Hoseo University
- Capital increased (Capital 500 million KRW)
- Held the first pre-production show for lighting equipment for ships

2001

- Qualified by ISES (World Service Network) and joined the membership
- Selected as the best enterprise by Korea Technology Finance Corporation
- Designated as "Family Enterprise" for Industrial Bank by the president of Korea Industrial Bank
- Participated at the grand festival of "2001 Busan International Shipbuilding and Marine Shows" Acknowledgment was awarded by the Mayor of Busan Metropolitan City.

2002

- Acquired certificate of quality assurance ISO 9001/2000(BVQA)
- Citation was awarded by the president of Small and Medium Business Administration
- Selected as "promising medium size company" from Korea Industrial Bank
- 5 Million Dollar Export Tower was awarded in commemoration of the 38th Trade Day
- Citation was awarded by the prime minister and the minister of industry and resources

2003

- Joined Korea Standard Association, Selected as KS-mark factory



No.2 Factory



No.3 Factory

2009

- Selected as Korea's New Growth Engine Company
- Awarded Grand Prize for Busan Small and Medium Size Business by Busan City
- 20 Million Dollar Export Tower awarded in commemoration of the 46th Trade Day (Medal of Honor)
- Selected as the technical assurance company (venture business) by Korea Technology Finance Corporation
- Selected as the component-/material-specialized company by the Ministry of Knowledge and Economy
- Opened Yeosu office as Honam branch office

2010

- Acquired Kukdong Techway-Dalian Public Corporation
- Citation awarded in commemoration of the 44th Taxpayer's Day
- Selected as the best associate company of DSME

2011

- Expanded Kukdong Elecom Changxingdao for outfitting
- Expanded Kukdong Elecom Changxingdao for outfitting
- Certified by Busan City as the leading enterprise (Busan City)
- Industry and Academy Joint Research Cooperation with the Marine Lighting Research
- Industry and academy joint cooperation with the engineering college of Dong-A University

2012

- The company's 20th Anniversary
- Established CSS China to develop solar cell and flame retarding EPS board
- Developed new layer-type MCT

2013

- Developed A2-EPS (HI-POR)
- Certificate of the World's Humanity Product (fluorescent lamp equipment for ships)
- Developed EM-RCS and won the first contract (Dubai DP World)

HISTORY (CHINA)

2002

- Completed an application for operating 5,000 pyung shipbuilding equipment factory in Dalian, China. Opened an office.

2004

- Changed the company name to "Dalian Kukdong Ship and Lighting Equipment Public Corporation" with permission from Office of Industry and Commerce in Dalian Economic Development Zone

2006

- Application to build a foreign-investment company and factory in Dalian, China approved. Permission to register for incorporation issued. (Establishment of company)

2007

- Held the ground-breaking ceremony for Dalian factory at Daegosan in Dalian Economic Development Zone.
- The ceremony was jointly held by four Korean companies (Samgong Ship Machinery, Dongbang Ship Machinery, Woongchon Ship Machinery, Kukdong Elecom)

2008

- Changed the name of the Dalian factory in China to "Kukdong Elecom (Dalian) Public Corporation". After completing construction of Central Complex, the 1st factory and security office, the office located in the economiz development zone was moved to Daegosan factory.



**No.4 Factory
(China Dalian)**

2010

- Acquired "Dalian Woojin Electric Public Corporation" in Dalian, China and changed the company name to "Kukdong Techway-Dalian Public Corporation". The office moved to Kukdong Elecom (Dalian) factory in Dalian Economic Development Zone.

2011

- Established "Kukdong Commerce and Trade (Dalian) Public Corporatino" to facilitate direct sales in and international trade with Dalian, China.
- Expanded construction of 16,060 pyung scale "Kukdong Elecom Jangheungdo factory" to produce shipping machineries in Jangheungdo, Dalian, China.

2012

- The company's 20th Anniversary
- Established "Kukdong C&SS" to develop solar power panel and fire retarding EPS board in Dalian, China.
- Developed new layer-type MCT

2013

- Merger of Kukdong C&SS and Kukdong Elecom-Dalian
- Developed A2-EPS (HI-POR)
- Developed EM-RCS and won the first contract (Dubai DP World)

Korea 1st Factory - 128 Dasan-ro Saha-gu Busan-si (Land: 2,398m², Floor Space: 5,157m², 1,562 pyung)
 Korea 2nd Factory - 128 Dasan-ro Saha-gu Busan-si (Land: 2,112m², Floor Space: 3,465m², 1,050 pyung)
 Korea 3rd Factory - 128 Dasan-ro Saha-gu Busan-si (Land: 2,400m², Floor Space: 2,200m², 667 pyung)
 Korea 4th Factory - 128 Dasan-ro Saha-gu Busan-si (Land: 16,500m², Floor Space: 7,224m², 2,158 pyung)

Business Network



Major clients

- Domestic Market
- HYUNDAI HEAVY INDUSTRIES
- HYUNDAI SAMHO HEAVY INDUSTRIES
- HYUNDAI MIPO DOCKYARD
- SAMSUNG HEAVY INDUSTRIES
- DAEWOO SHIPBUILDING & MARINE ENGINEERING
- STX OFFSHORE & SHIPBUILDING
- HANJIN HEAVY INDUSTRIES
- SUNGDONG SHIPYARD
- SLS / SPP SHIPYARD

Overseas Market

JAPAN

MITSUBISHI HEAVY INDUSTRIES
USC GROUP / TSU, ARIAKE, MAIZURU S.Y
SHINKURUSHIMA / IHI / SHINKOCHI/KYOKUYO

CHINA

SINO-PACIFIC GROUP/ DAYANG, ZHEJIANG
JIANGNAN/ CHENGXI/ NEW TIMES/ CHANGBO
YANGZIJIANG / TSUJI S.Y / ZHEJIANG CHENYE
SHANGHAI / COSCO ZHOUSHAN / SANFU S.Y
JIANGXIN / FUJIAN DONGNAN S.Y
BOHAI / COSCO DALIAN / XINGANG S.Y

VIETNAM

VINA-SHIN GROUP / NAMTRIEU / HALONG
BACH DANG / PHARUNG / DUNG QUAT S.Y
BENKIEN S.Y / 189 S.Y

U.S.A

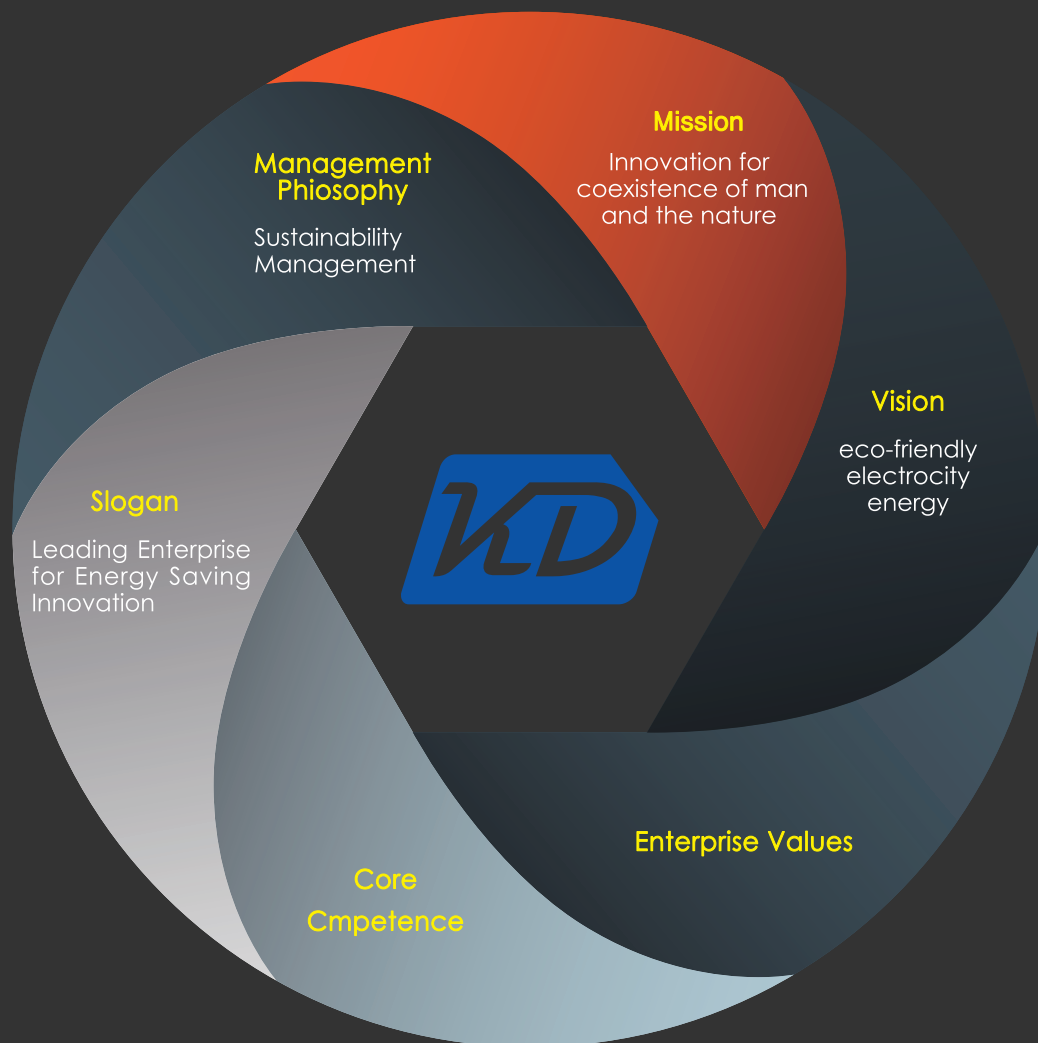
DADE LIFT / NAMPYOL / NAMPYOL MARINE /
ICC CABLE

TURKEY

DEGUSAN / YARDIMCHI / SOLI /
SEFINE / SAHIN / FILIZ

SINGAPORE / INDIA / IRAN / MALAYSIA

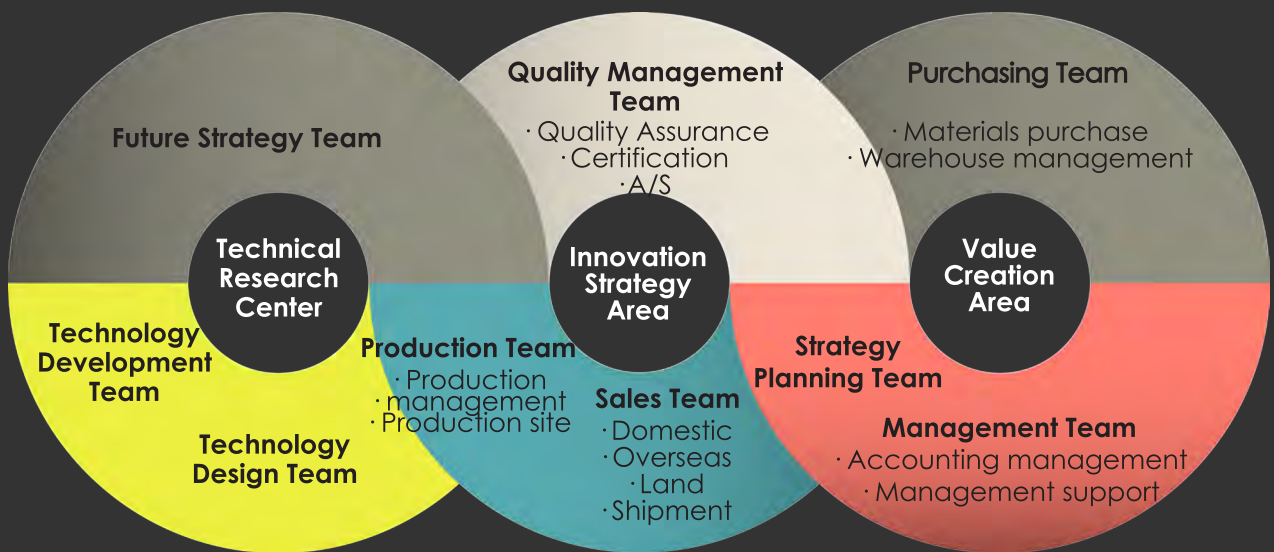
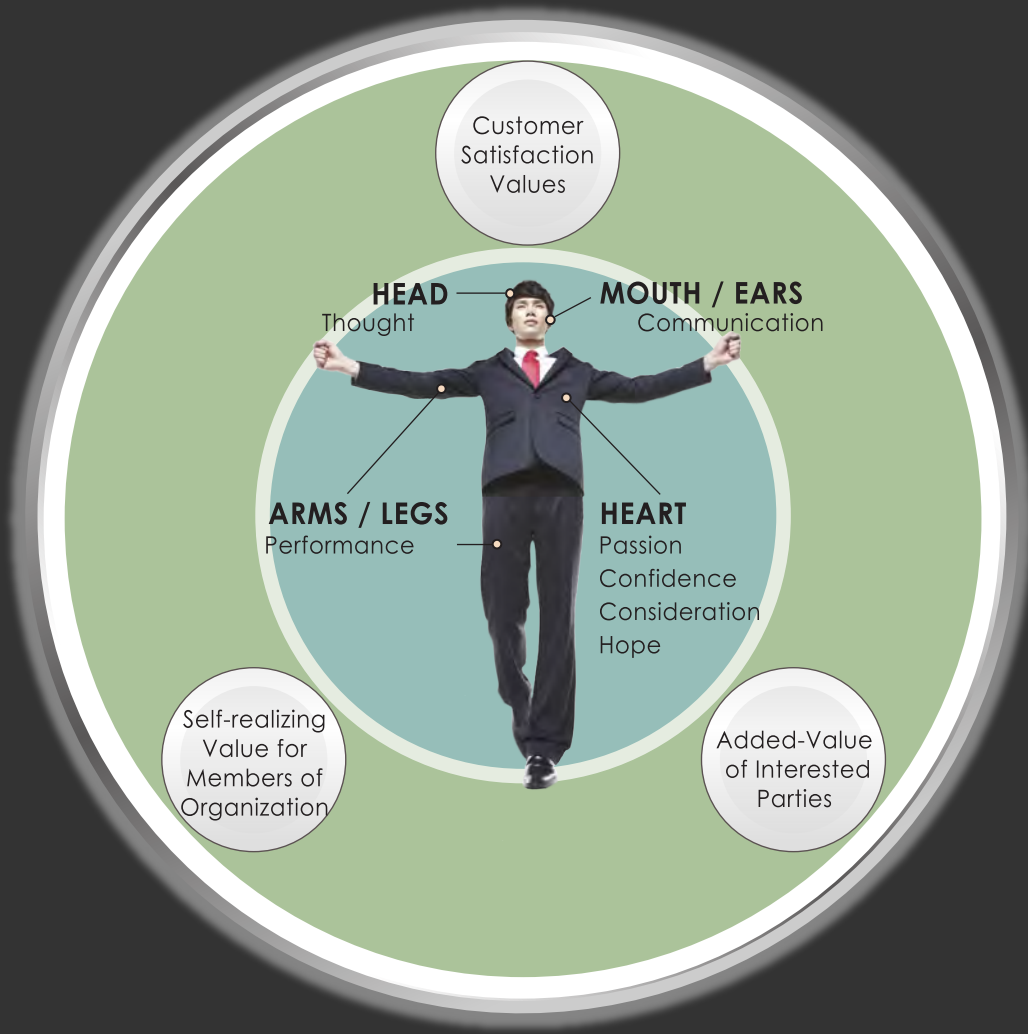
Vision



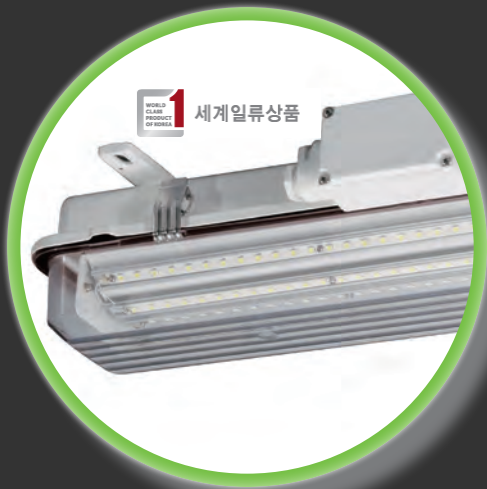
Organization



- KUKDONG ELECOM
- KESKOM CO.,LTD
- KUKDONG ELECOM - DALIAN
- KUKDONG TECHWAY - DALIAN
- KUKDONG HOUSING - DALIAN



Business Fields



LED Lighting Marine/Industry

Applicable areas :

off-shore plant/ high value-added ship (cruise ship) / LPG ship / LNG ship / Drill Ship / search light at ice-breaker ship dock and etc. / factories and etc. / stores and etc. / ships and etc. / cold storage and etc. / construction site / inside subways and etc.

Notes :

Low-electricity and high efficiency / usable under extreme condition with temperature below 45°C (patented) / compatible spare light source by product group (differentiating trait) / LED lighting installed in all ships in accordance with 2013 Tokyo Protocol



Multi Cable Transit

Applicable areas :

off-shore plant / high value-added ships (cruise ships) / LPG ships / LNG ships / drill ships / ice-breaker ships / nuclear plants / thermoelectric power plant / wind-power plant / subway / bridge

Notes :

minimize human casualties by retarding spread of fire / retarding spread of toxic gas / compatible with electric wire and pipes / the first Korean company to pass jet fire test



EM-RCS (Energy Monitoring Reefer Container Socket)

Applicable areas :

off-shore plants / high value-added ships (cruise ships) / LPG ships / LNG ships / drill ships, ice-breaker ships / docks / tower control / industrial site / construction site

Notes :

Save electricity and minimize repair parts during damage / the control room measures electricity consumption and manages quantity of electricity committed / complete water-proof specification (IP67) / strong against vibration and environmental resistance / efficient use of energy and reduction in maintenance cost



Special Lighting

Applied areas :

off-shore plants / high value-added ships (cruise ships) / LPG ships / LNG ships / drill ship / big commercial ship / military vessels / ice-breaker ships / docks / tower control / industrial site / construction site / fishery inspection boat

Highest quality and safety with the world's second best market share / quality assurance through more than 200 quality certificates / convenient service system based on the worldwide service network



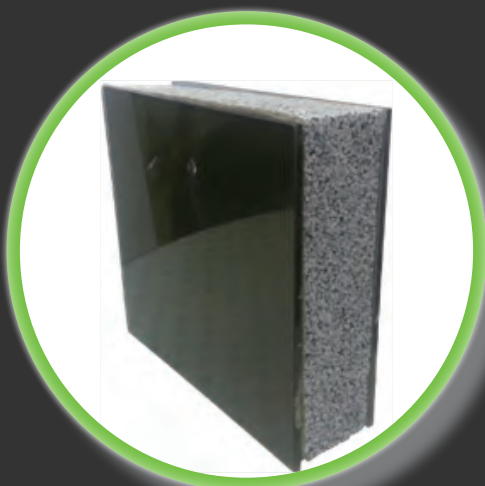
Night Vision (Navi-Eye)

Applied areas :

High value-added ships (cruise ships) / LPG ships / LNG ships / drill ships / big commercial vessel / ice-breaker ship / military vessel / fishery inspection boat / coastal military zone

Note :

Possible to recognize 30cm x 30cm letter from 7km distance at night / complete waterproof specification (IP67) / 360 degree camera view / quick control using joy stick control



Hi-POR (A2-EPS)

Applied areas :

B-level material manufacturer/ newly constructed building / renovated building / apartment / house / commercial district / factory / exhibition place

Note :

Upgradable to A-grade by coating B-grade EPS out of inventory stock (patent expected) / possible to continue using existing EPS board installation (only coating machine needs to be installed) / legalize the use of A-grade insulator for all buildings in China

EM-RCS

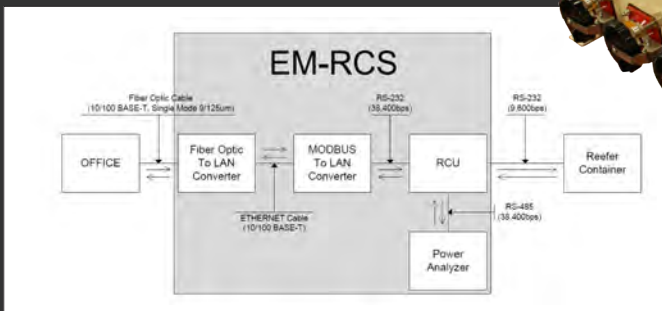
Energy Monitoring - Reefer Container Socket

Main Function

- Monitors alarm and temperature conditions
- Sends commands such as change of set-point temperature
- Generates user friendly reports
- Registers the history of each container
- Measures power consumption

Communications : Fiber Optic / LAN / Wi-Fi

Applications : Container Ship, Port



Advantage

EM-RCS enables just one operator to monitor entire container terminal. This system allows two way communication between the TOS and each reefer container. This system records all required data in detail and generates alarm when there's any problems in the reefer container.

- Simple Operation
- Simultaneous Communication
- Convenient System Expansion
- Reduction in Labor and Expense
- Cargo Claims Can Be Effectively Defended
- Increase in Safety for Users
- Quick & Stable Communication



EM-RCC

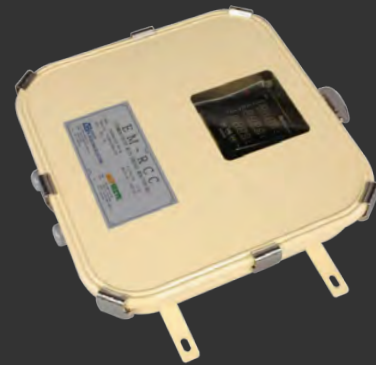
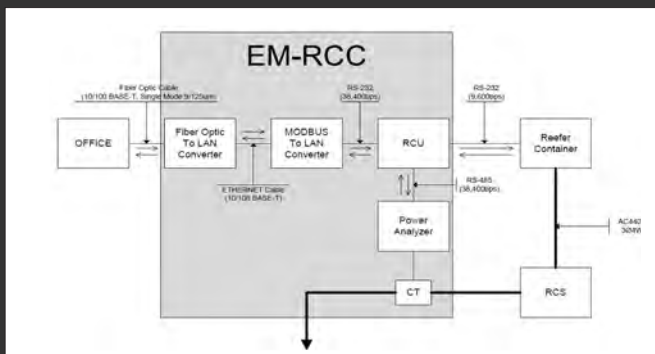
Energy Monitoring-Reefer Container Communicator

Main Function

- Monitors alarm and temperature conditions
- Sends commands such as change of set-point temperature
- Generates user friendly reports
- Registers the history of each container
- Measures power consumption

Communications : Fiber Optic / LAN / Wi-Fi

Applications : Container Ship, Port where RCS has been already installed



RCC

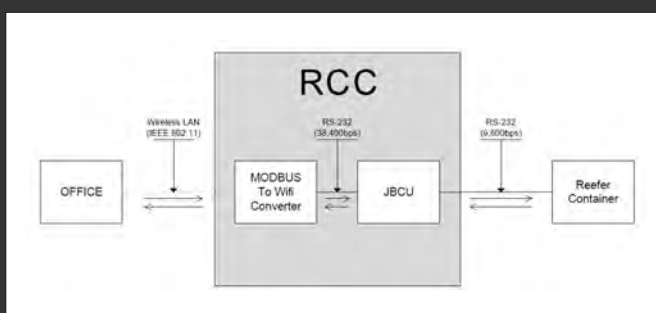
Reefer Container Communicator

Main Function

- Monitors alarm and temperature conditions
- Sends commands such as change of set-point temperature
- Generates user friendly reports
- Registers the history of each container

Communications : Fiber Optic / LAN / Wi-Fi

Applications : Container Ship, Port where RCS has been already installed

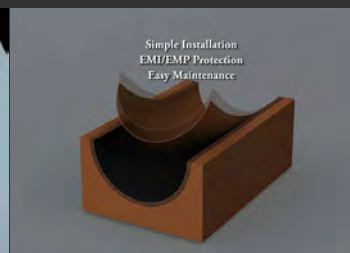


Multi Cable Transit



Adaptable sealing system is protected against smoke, hazards, gas, water and EMC environment.

The Multi Cable Transit is the excellent fireproof, low smoke, water-proof and gas-tight product, and cables pass from one compartment to another compartment. It is simple, expedient and economical - giving much more protection than conventional stuffing tubes while drastically reducing time and installation cost.



Certified Protection

TYPE APPROVAL CERTIFICATE :

- H-120 (Bulkhead Type)
- H-120 (Deck Type)
- JET FIRE TEST based on " ISO 22899-1:2007 " regulation
- IP67
- Halogen Free

PATENT APPLICATION :

- Cable sealing system for shielding electromagnetic wave
- Multi Cable Transit for electromagnetic interference shielding end packing
- Cable penetration sealing system for shielding electromagnetic wave
- Multi cable transit packing system for shielding electromagnetic wave
- Insert blocks for shielding electromagnetic wave
- Insert blocks of the MCT Packing system



BV TYPE APPROVAL CERTIFICATE
H-120 (BULKHEAD/DECK TYPE)
JET FIRE TEST



IP 67 (KOLAS)



HALOGEN FREE

Quality Certificate History

2013

09- Certified by CCS (DAY TIME SIGNAL LIGHT)
03- Certified by ABS
(Firestop system, Suez Canal Search Light)
02- Certified by BVQI (ISO 9001)

2012

07- Certified by DNV (LIGHT FIXTURES)
- Certified by KRH (DAY TIME SIGNAL LIGHT MED-B,D)
05- Certified by LR (NAVIGATION LIGHT)
02- Certified by BV (CABLE PENETRATIONS IN FIRE DIVISIONS(H-120))

2011

04- Certified by DNV (Navigation light / Incandescent navigation Light)
03- Certified by CE (Switch for household)
02- Certified by CE (Flush Type Socket-Outlets With Shutters)

2010

10- Certified by ABS
(Fluorescent Light / Incandescent Light / Navigation and Signal Light)
09- Certified by IECEx / KEMA (FX Series Luminaire)
04- Certified by KIMM (Fluorescent Ceiling Light / Incandescent Light / Mercury
Ceiling Light / Sodium Light / Halogen Flood Light)

2009

07- Selected by Busan Metropolitan City for 'The Excellent in Corporate Award'
04- Selected by SMBA for 'Venture Company'

2008

10- Certified by KIMM (LEC ceiling Light)
09- Certified as 'INNO-BIZ' company by SMBA
05- Certified by CE (Class B Recesses for Light Fittings, Ventilation Units and Similar)
04- Certified by CE (Fluorescent Light)
- Certified by BVQI (ISO 9001: 2001)

2007

10- Certified by ABS (MA CERT)
06- Certified by BVQI (ISO 14001:2004)
04- Certified by GL (Reefer Container Socket)
01- Certified by ABS (Fluorescent Ceiling Light / Incandescent Light /
Suez Canal Search Light / M.C.T Frame)

2006

09- Certified by CE (Fluorescent Light)
08- Certified by CE (Incandescent Navigation Light / Fluorescent Light)

2005

08- Certified by ABS (Fluorescent Light)
- Certified by DNV (Lexplosion-proof Lights)
06- Certified by BV (Electric cable transits through 'A' Class Divisions)
04- Certified by BVQI (ISO 9001;2001)

2004

09- Certified by ABS (Search Light)
04- Certified by KIMM (Fluorescent Light)
- Certified by KILT (Fluorescent Light)
01- Certified by KIMM (Fluorescent Light)

2003

10- Certified by BV (M.C.T Frame Cable)
09- Certified by KS (Fluorescent Light)

2002

04- Certified by BVQI
02- Certified by GL (Reefer container Socket)
01- Certified by NK (Explosion-proof Light)

2001

05- Certified by I.S.E.S
04- Certified by KIMM (Fluorescent ceiling Light)
- Certified by KOSHA (Working Light)

2000

09- Certified by KIMM (Fluorescent ceiling Light)

1998

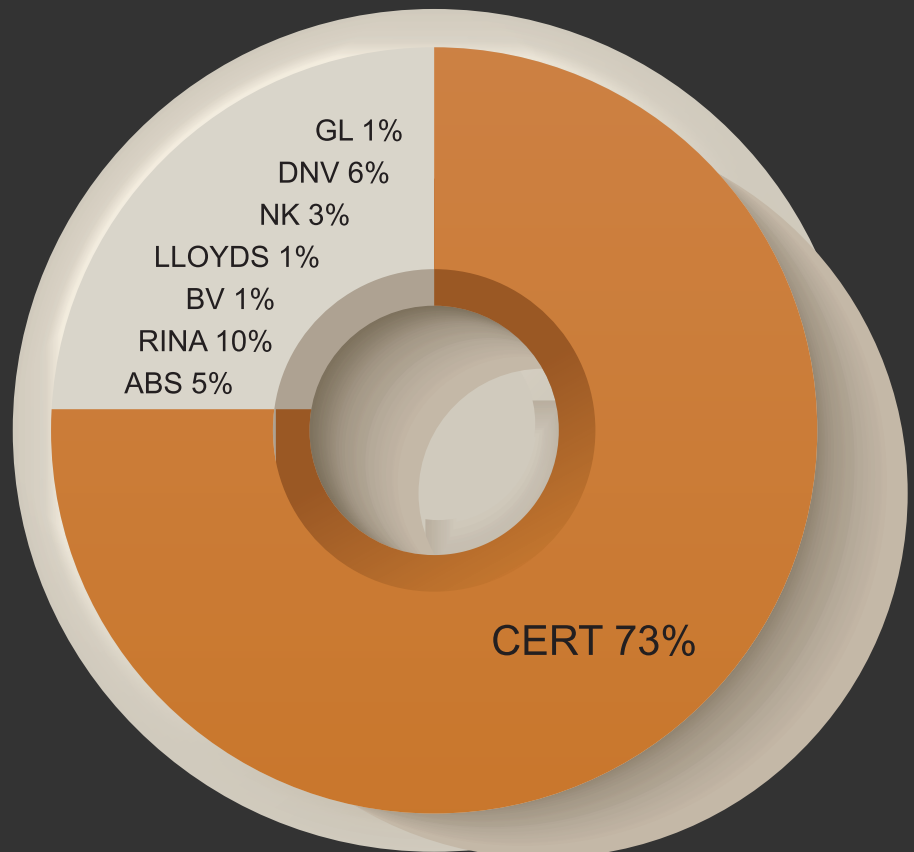
04- Certified by LR (M.C.T Frame)

Certificates

- Certificate of factory registration and business license
- Certificate of venture company
- Certificate of INNOBIZ
- Certificate of excellence and new engine of growth
- Certificate for leading company
- Research center with corporate affiliation
- Certificate of excellence in management
- Certificate of excellence in technology
- Certificate of specialization in component materials
- Awarded Busan Small and Medium Business Entrepreneur Award
- 1 Million / 5 Million / 10 Million / 20 Million Dollar Export Tower
- Global-minded small-but-strong company
- The World's Humanity Product

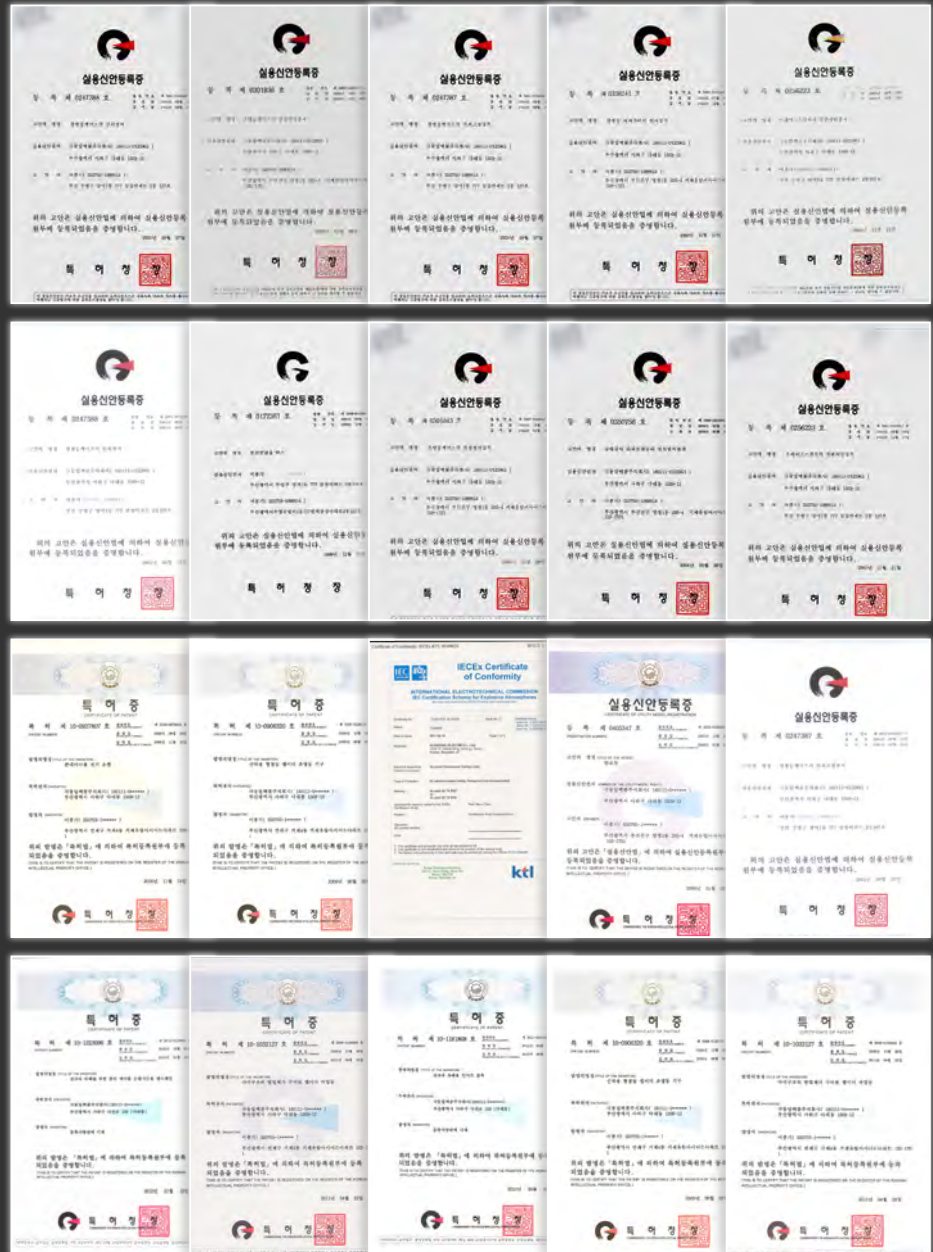


- KOSHA
- IECEX
- KIMM
- ATEX
- CE
- U.L
- ISO 9001
- ISO 14001
- OHSAS 18001
- ABS
- DNV
- NK
- GL
- LR
- BV
- SMBA INNO-BIZ
- SMBA Venture



Letters Patent / a Utility Model

Patent and utility model



- Certificate of design, design registration for 'e3' character
- Certificate of patent registration for marine fluorescent lamp, LED lamp and etc.
- Certificate of utility model registration for searchlight
- Certificate of registration for wire installation device elevator-type tower spotlight
- Certificate of utility model registration for latch-fixing device for fluorescent lamp case
- Certificate of utility model registration for latch device for fluorescent lamp case
- Certificate of utility model registration for wire connecting box

- Certificate of utility model registration for fluorescent lamp
- Certificate of utility model registration for sensor device of fluorescent lamp PC cover
- Certificate of utility model registration for ceiling installation device of searchlight lamp case
- Certificate of utility model registration for power-down device of break-switch
- Certificate of patent registration for end-packing for multi-cable transit for electromagnetic wave shielding
- Certificate of patent registration for multi-cable transit packing system for electromagnetic wave shielding
- Certificate of patent registration for cable sealing system for electromagnetic wave shielding



Based on three mottos of eco-friendly, electricity and energy, we will realize the innovative method that can allow man and the nature to coexist and make it accessible to our customer's everyday life. KD is an eco-friendly company with strategy for future!!



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Leading Enterprise for Energy Saving Innovation

KD GROUP Introduction

We, Kukdong, have constantly been developing and researching ranging from marine equipment to LED lighting, energy-saving products and solutions during the business. The past, present and future of KD will be filled with various innovations for you.

www.kdkorea.net