



**Energy Distribution Solutions and Lighting Systems** 

### **EAE GROUP IN NUMBERS**





### **Since 1973**

EAE Group of Companies started its journey in the electrical sector in 1973 with the establishment of EAE Elektrik. Since its founding, EAE has grown rapidly, expanding its production and areas of operation by incorporating EAE Lighting in 1983, EAE Machinery in 1996, EAE Electrotechnics in 2004, and EAE Technology in 2009.

EAE carries out its production activities in accordance with ISO 9001 Quality Management, ISO 14001 Environmental Management, ISO 14064-1 Greenhouse Gas Management System, ISO 45001 Occupational Health and Safety Management, ISO 10002 Customer Satisfaction Management, ISO 50001 Energy Management System, and ISO 27001 Information Security Management System standards.







Active Factories



360.000m<sup>2</sup> Enclosed Space



R&D Centers



150+ Countries Exported To



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# **Factory Buildings**





**EAE Headquarter** Istanbul / TURKIYE



Busbar Factory (DL3) Kocaeli / TURKIYE



Cable Tray & Support Systems Factory (DL1) Kocaeli / TURKIYE



Busbar 2 Factory (DL4) Kocaeli / TURKIYE



**Lighting & Electrotechnical Panel Factory (DL2)**Kocaeli / TURKIYE



**Automation & Control System Factory** Istanbul / TURKIYE



**EKM Composite Factory** Kocaeli / TURKIYE



**Busbar Factory** Dubai / U.A.E

# **EAE Because...**





### Why EAE

#### **Green Guard Certificate**

**EAE** 

- The chemical pollutants come from products and materials that we use at our homes and workspaces like furniture, equipments and building materials. These materials emit Volatile Organic Compounds (VOCs) that can negatively affect our health. Since our heating and cooling systems recirculate the same air in all the rooms, that means that VOCs remain inside the buildings, posing problems.
- The <u>Greenguard Environmental Institute</u> is an independent organization that certifies products and materials for low chemical emissions. Products that are certified by Greenguard have to meet stringent standards and emission limits for indoor use like schools, daycares and other areas. You can rest assured that any product with the Greenguard Gold certification will

not emit significant chemical compounds into the air which is scientifically proven to reduce indoor air pollution and the risk of chemical exposure,

 EAE power Busbar systems are certified by Greenguard since 2015.



#### **GREEN GUARD**



#### **Fire Resistance Certificate**

#### Fire Resistance Tests IEC 60331-1 (Circuit Integrity Under Fire for E-LINE KX)

• IEC 60331-1 1000°C-3 Hours - BRE, UK • IEC 60331-1 950°C-3 Hours - TUV, Singapore • IEC 60331-1 1000°C-2 Hours - DEKRA, Holland

• BS 8491 842°C-2 Hours - BRE, UK (Sprinkler Water+Mechanical Impact)

• EN 50399 Low Heat and Low Smoke Release

B1/S1 dO - Dekra, Holland

# Fire Resistance & Circuit Integrity Tests for E-Line KX with Plug in Tap Off Box

• IEC 60331-1 830°C - over 3 hours, Magnetic MCCB -

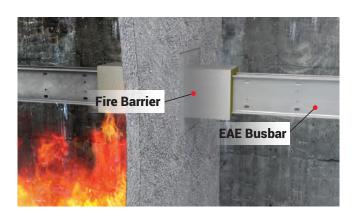
DEKRA, Holland
• IEC 60331-1

830°C - over 3 hours, NH Fuses - DEKRA,

Holland

Flame Propagation Test IEC 60332-3 (IEC 61439-6,10.101)

Fire Barrier Test - 2 Hours ISO 834-1 (IEC 61439-6,10.102)



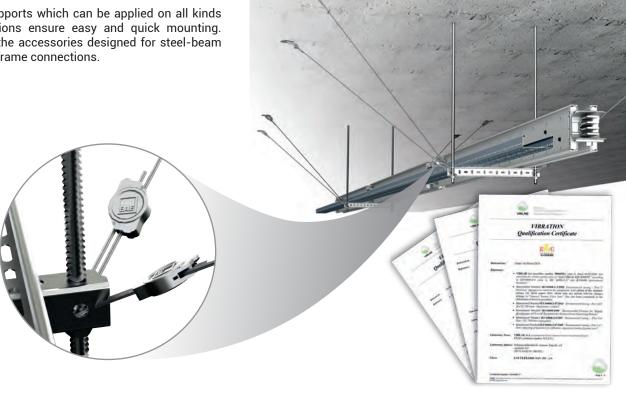


### Why EAE

#### **Seismic Supports**



- EAE Seismic support systems offer perfect solutions of installations for earthquake protection.
- · Seismic supports which can be applied on all kinds of installations ensure easy and quick mounting. Thanks to the accessories designed for steel-beam and space frame connections.



#### **RoHS & Reach**

- · RoHS directives were published and started to implement from 01 July 2006 to all members of this protocol worldwide. This directives goal is to limit of some hazardous materials like Pb, Hg, Cd in Electrical and Electronic equipments. Those materials had a serious impact on human health.
- EAE ELEKTRIK keeps the human health and product safety at the highest level to not use of detrimental elements that create negative effects on the environment and human health, as stated in the RoHS directives.
- · This is confirmed by the RoHS certificate by having the components used in the products manufactured are tested separately.







### **Why EAE**

### **Hygienic Environment**



- EAE ELEKTRIK can manufacture the special Busbar systems for Hygienic environment in stainless steel metal or polyester epoxy painted housing to ensure the requirement.
- EAE also has stainless steel cable trays in many sizes and types that can be safely used wherever needed.
- Floor boxes too can be manufactured with stainless steel cover and frames.



### Painted Housing for Busbar System (Any Color)

- Housing of any type/model/rating Busbar can be painted in any color selected by designer/client in order to match the building/room aesthetically.
- Polyester epoxy paint with min. 75 micron thickness on the housing provides a better strength against environmental conditions.
- Similar requirement can be applied to our Cable trays as well
- This process is done in EAE's inhouse plant as per QA/QS procedures in several steps with a chemical surface preparation, acidic treatments for degreasing and applying the necessary coats of paint on the surface of metal sheets.



### **Why EAE**

#### **EMC & EMI**



- Conductive materials form magnetic field when electric current flowing is through them. Magnetic field is related to magnitude of current, distance between conductors and conductor body.
- In cases where low EMC values are mandatory (health centers, offices, data centers etc.), it is very important to minimize the magnetic induction value.
- Busbar systems with their aluminum or sheet metal bodies, compact structures and the configuration of the conductors in housing help significantly reduce the electromagnetic fields formed.
- Complete range of EAE Busbar products are tested for EMC certificates. EMC measurements made on custom designed EAE Busbar systems showed that using aluminium housing decreases the EMC and potential hazard levels.



### Stainless Steel Cable Trays & Busbars

- EAE manufactures special Busbar systems for Hygienic environment in stainless steel or polyester epoxy painted housing to ensure the requirement.
- Similarly EAE has stainless steel cable trays in many size and types that can be safely used wherever needed.
- Floor boxes also can be manufactured with stainless steel cover and frames.



### **Why EAE**

### Tap-Off Box W/ Any Type Of Breakers

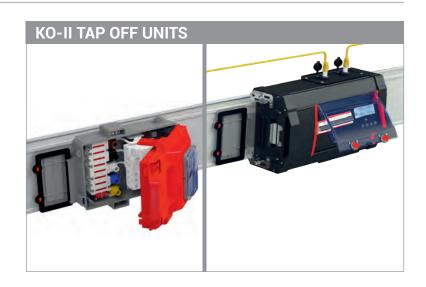


Bolt-on tap off is an unique technology to draw power up to 1000 A at block joints providing flexible solution.

EAE tap off boxes are compatible with World wide brands of circuit breakers and switches.

# All metal enclosure tap-off boxes can be supplied;

- · With any type, model, brand of breakers
- · With any gland type or with a blank gland plate
- · Any required colour of housing
- · Has an electrical interlock mechanism
- · Has a mechanical interlock mechanism
- Has IP55 protection degree
- · Has tulip contacts made of silver plated copper
- Can be tailor made to any size





### Cable Trays and Fire Resistant Support Systems







### **Why EAE**

#### **Underfloor Units**



- Smart: Off-the-shelf products ready for use and equipped with power (mains/ ups), data, telephone and multimedia sockets for desk jobs, meetings and presentations.
- Raw material used in all plastic parts in our products is polycarbonate (PC) and is halogen free and is within V0 flame retardant class according to UL 94 standard.
- Product selections with optional exclusively designed box equipped with Miniature Circuit Breaker (MCB), Residual Current Device (RCD) or Residual Current Circuit Breaker with Over Current Protection (RCBO).
- Cable Organizer. To connect strong current, weak current and multimedia cables from the flooring to the desks or work environments.
- Grommet: With its small and compact structure, it can be used as a 6 modules socket box. Besides if required, with suitable MCB, RCB or RCBO plate, it can be used for cable outlet from ground to table. Gasket shielded window that enables comfortable and secure outlet with multiple cables.



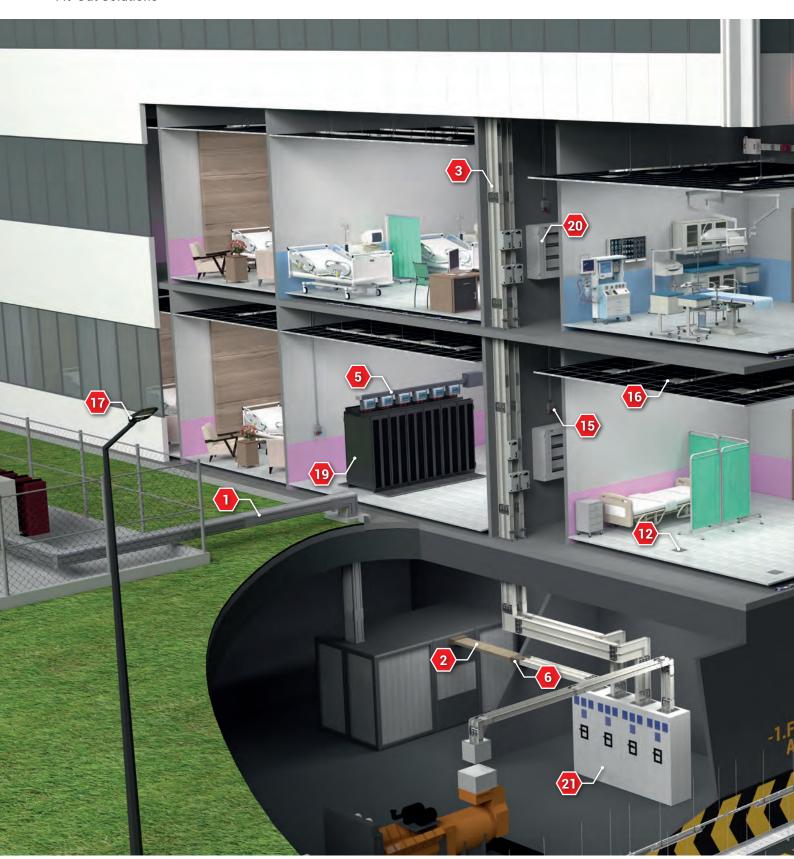


### **EAE Products**

### **EAE Product Types**

- Busbar Power Distribution Systems
  Trolley Busbar Systems
  Cable Management Systems
  Fit-Out Solutions

- Lighting SolutionsPanel Enclosures, Distribution BoxesLighting Automation







#### **Busbar Products**

#### E-LINE KX / Compact Busbar Distribution System 400...6300 A





#### Overview

The EAE E-Line KX Series compact busbar system is designed for use in projects requiring high power distribution, and is rated from 400A to 6300A using the latest technology.

#### **Features**

- Modular structure
- · Ability to supply energy either from the joints of from the tap-off points (Bolt-on or Plug-in)
- · High electrical and mechanical strength
- Fast, easy and reliable installation with single bolt joint construction.
- Output units allow a significant saving about panel and system cost
- · Special design for minimal voltage drop
- Tin plated (optional silver plated) aluminium or copper conductors
- IP 55 and IP 65 standard, IP 67 optional protection degree
- Aluminium housing
- Epoxy insulation
- Fire resistance as per IEC 60331
- UL and IEC product

#### Advantages of E-Line KX Compact Busbar.

- · High short circuit resistance due to compact construction
- · Less voltage drop in comparison to cable systems
- Special alloy metal enclosure provides higher mechanical strength and causes less electromagnetic interference.
- · Better cooling capability
- · High resistance to fire
- Seismic resistance
- Protection Degree (IP55 standard and IP67 optional)
- · Requires less space in comparison to cable systems





#### **Busbar Products**







#### Overview

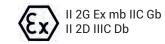
The body of the E-Line CCR busbar is formed using DURACOMP, a composite material of epoxy resin and pure silicon with Aluminium housing body which gives protection against arduous environments and high impact.

#### **Features**

- Current Aluminium and Copper ranges from 630A to 6300A
- IP68 protection degree
- 4, 5 and 6 conductor options
- · Clean earth option
- IEC 60331-1, 3 hours of continuous current under fire condition
- Conformance to seismic requirements in accordance with IEC 60068-3-3; IEC 60068- 2-57 and IEEE 693 standards

#### Fire and Earthquake Resistance

IEC 60331-1, 3 hours of continuous current under fire condition 2 hours current continuity according to BS 8602 standard Seismic Resistance as per IEC 60068-3-3 / 60068-2-57 and IEEE 693



#### **EX - Protected**

ATEX according to EN 60079-0:2009, EN 60079-18:2009, EN60079-31:2009



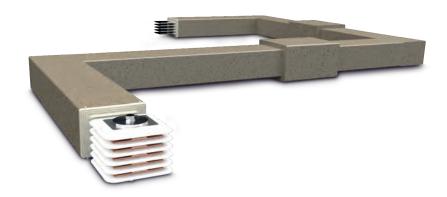
**E-LINE CCR-KX** 

CCR-KX transition module offers the possibility of reducing time and cost with direct installation.

### **Busbar Products**







#### Overview

The body of the E-Line CR busbar is formed using DURACOMP, a composite material of epoxy resin and pure silicon which gives protection against arduous environments and high impact.

#### **Features**

- Current Aluminium and Copper ranges from 630A to 6300A
- IP68 / IP69 K protection degree
- · 4, 5 and 6 conductor options
- · Clean earth option
- IEC 60331-1, 3 hours of continuous current under fire condition
- Conformance to seismic requirements in accordance with IEC 60068-3-3; IEC 60068- 2-57 and IEEE 693 standards

#### E-LINE MV / Medium Voltage Busbar Distribution System 950...5000A



#### Overview

The E-Line MV Series Busbar Systems, as the newest addition to the busbar product range, is offered with 12 kV and 17,5 kV variants. It offers safe and efficient power transmission. MV CR is manufactured in a single body with Cu conductors embedded in DURACOMP insulation which is a composite material of epoxy and pure silicon.

- 12 kV and 17,5 kV variants
- DURACOMP composite body
- Ex-proof
- IP68 protection degree
- · Cu conductor
- · 3 conductors

### **Busbar Products**

#### E-LINE KL / Busbar Distribution Systems 160A...1250A





The "E-Line KL Series" medium-range busbar systems are used in medium-sized buildings or industrial facilities, providing suitable solutions for electrical transmission and distribution in horizontal or vertical applications.

They offer significant cost savings by using fuseswitch disconnectors/MCCBs (Molded Case Circuit Breakers) with metal boxes or plastic boxes compatible with MCB (Miniature Circuit Breaker) switches for smaller currents, according to specific needs.

#### **Features**

- Modular structure
- Plug-in tap off outlets at every 25cm
- Aluminium or copper conductors
- 4 or 5 conductors
- Tin plated conductors
- Dust cover on outlet points
- IP55 protection class

### E-LINE KO-II / Busbar Distribution System 160...800A



#### Overview

Overview

"E-Line KO Series" medium range busbar systems provide suitable solutions for electricity transmission and distribution in medium-sized project facilities.

- Modular structure
- Plug-in tap off outlets at every 25 cm
- · Aluminium or copper conductors
- 4, 4,5 or 5 conductors
- Tin plated conductors
- Dust cover on outlet points
- IP 55 protection class

### **Busbar Products**

#### E-LINE KD / Data Rack Busbar Systems 160...1000A





#### Overview

To power the mission critical IT infrastructures, EAE offers a highly flexible Busbar Systems for reliable and energy efficient operations in your Healthcare System's Data Centers.

#### **Features**

- Plug-n-play anywhere along the bar
- Protected Tap-Off Contacts
- · Tap-Off contacts with heat cycle testing
- · Al and Cu conductor options
- · Safe Alignment mechanism ensures correct installation and operation
- Special interlock mechanism enabling to carry the weight of the plug-in box and cables by the busbar housing
- Up to 6 conductor option
- IP23D protection

#### E-LINE MK / Busbar Distribution System 100-160-225-250A



#### Overview

The small power range busbar systems of "E-Line MK Series" provide flexible and cost-effective solutions for the transmission and distribution of electricity in small-sized enterprises, workshops and industrial facilities.

- Modular structure
- Plug-in tap off outlets at every 25 cm on both side
- Tin plated aluminium or copper conductors
- 4 or 5 conductors
- · Hinged and lockable dust cover on outlet points
- Installation without using a torque wrench (shearhead bolts)
- IP 55 protection class
- Flexible elbows and expansion modules

#### **Busbar Products**



#### E-LINE KY-S / Lighting & Low Power Distribution Systems 25-40-63A



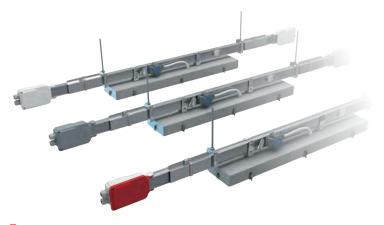
#### Overview

KY-S Busbar System is suitable for all kinds of lighting, sockets and low power circuits with 25-40-63A current levels. Also within the scope of lighting automation, DALI and DIM circuits can be used to transmit the emergency lighting kit reference voltage.

#### **Features**

- 3 and 4m standard busbar lenght, plug-in points every 1m,
- · At all joint and plug-in points, the contacs are plated with silver,
- · Copper conductors are covered with full length tin and copper oxide formation is prevented,
- · Simple joint structure that prevents deflection and stretching.

#### E-LINE DL/SL / Multi-conductor Lighting Busbar Systems 25-32-40A



#### Overview

The E-Line DL/SL range of busbar systems are used in buildings on lighting and socket circuits where 25A, 32A or 40A Three-phase or Single-phase power is required.

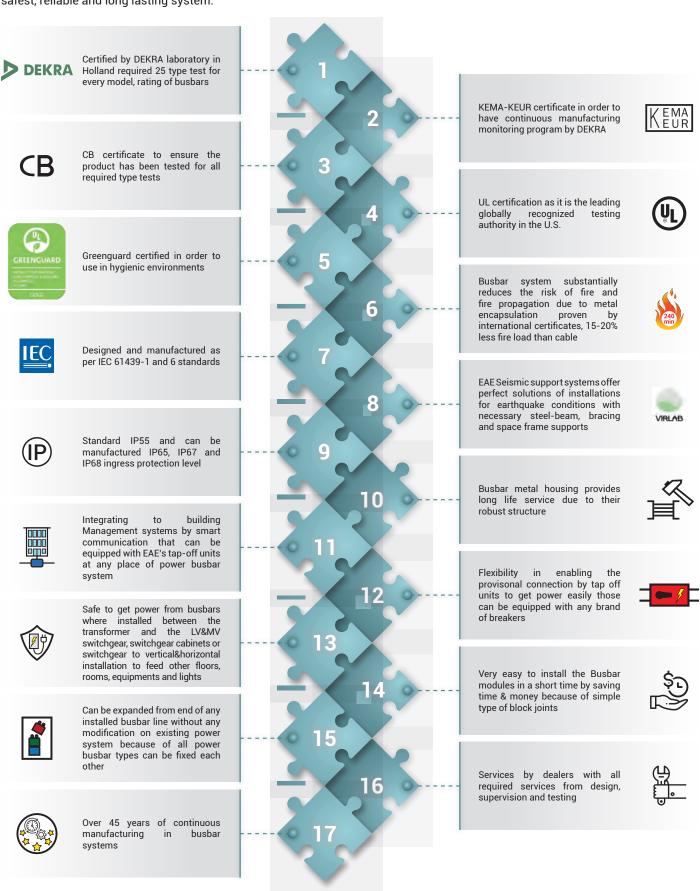
10-16A plugs or 25A tap-off boxes with a cartridge fuse or miniature circuit breaker are specially designed to supply lighting and power circuits as per the specifications.

- Choice of conductor configurations up to 10 conductors with 5+5 form
- Tap-off plugs are available in different colours to indicate the phases
- · Strong body structure which can support all types of luminaires
- IP 55 protection class
- · Clean Earth "CE" conductor for UPS circuit
- The Emergency Kit (ACK) supply and the Dali signal are fed through the same busbar and tap off plug negating the need for extra cabling

### **EAE Busbar Advantages**



Electrical power distribution is vital for any building. The distribution products need to be selected carefully in order to obtain the safest, reliable and long lasting system.



### **Cable Management**

#### E-LINE CT / Hot-dip Galvanized Cable Tray Systems





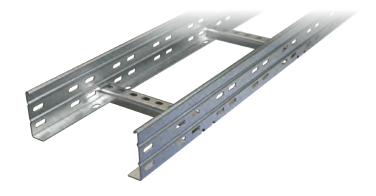
#### Overview

E-Line CT series hot-dip galvanized cable trays are designed to carry the cabling in indoor or outdoor installations internally or externally in factories and buildings, especially in humid or vaporous environments. They can also be manufactured as pre-galvanized upon request.

#### **Features**

- · Heavy duty and regular types
- 40/50/60/75/100/125/150mm tray heights
- 50/100/150/200/250/300/400/500/600 widths (700-800-900 special widths on request)
- 0,8/1/1,2/1,5/2mm thickness
- 3000mm length (6000mm special length on request)
- TS EN ISO 1461 standard hot-dip and after special EAE protective coating over hot dip
- · Possibility to connect the various accessories that 20,5 diametres hole in the middle of the tray
- Wide range of accessories
- Fire resistance certificates (E30-E60-E90)
- · Galvanized steel painted finish available on request (epoxy, epoxy polyester, polyester)

#### E-LINE KME / Hot-dip Galvanized Cable Ladders



#### Overview

E-Line KME cable ladders are designed to route the cabling in facilities and buildings in internal or external environments on vertical shafts thanks to its high load bearing capacity.

#### **Features**

- · Heavy duty type
- 40/50/60/75/100/125/150mm heights
- 50/100/150/200/250/300/400/500/600mm widths
- With Binrak traverse with 700/800/900 width options, high bearing capacity (KME)
- 1,2/1,5/2mm thickness
- · Load carrying capacity can be increased by giving shape to the sheet iron.
- 300mm equally spaced traverse structure
- TS EN ISO 1461 standard hot-dip production
- · Wide range of accessories
- Fire resistance certificates (E30-E60-E90)
- Galvanized steel painted finish available on request (epoxy, epoxy polyester, polyester)

### **Cable Management**

#### E-LINE UKE / Cable Tray Systems





#### Overview

The E-Line UKE series pre-galvanized cable trays are produced in a standard heavy-duty type according to TSE (Turkish Standards Institution), TS EN 10346, and ISO 10143 standards. Manufactured through the "Roll Forming" method, they are produced as a single piece up to a length of 6m. The standard length is 3m. They are designed to carry cable installations in internal environments within facilities and buildings.

#### **Features**

- · Heavy duty type
- Standard 40/50/60/75/100mm heights produced
- 50/100/150/200/250/300/400/500/600mm widths
- 0,8/1/1,2/1,5/2mm thickness
- · 3000/4000/5000/6000mm lenghts
- · According to the TS EN 10346 and TS EN 10143 standards galvanized option (pregalvanized)
- · Possibility to connect the various accessories that 20,5 diametres hole in the middle of the tray
- · Wide range of accessories
- Fire resistance certificates (E30-E60-E90)
- Galvanized steel painted finish available on request (epoxy, epoxy polyester, polyester)

#### E-LINE CTK / Hot-dip Snap On Covered Cable Duct Systems



#### Overview

E-Line CTK series hot dip snap on cover cable tray systems can be easily mounted without the need for cover fixings thanks to the special bends on the cover and the tray.

#### **Features**

- · Heavy duty type
- 60 / 75 / 100mm heights
- Thickness: 1.5mm for 100/150/200/250/300mm 2mm for 400/500/600mm
- 3000mm length (6000mm special length on request.)
- Plug cover structure
- TS EN ISO 1461 standard hot-dip and after special EAE protective coating over hot dip
- Possibility to connect the various accessories that 20,5 diametres hole in the middle of the tray (Allows fast mounting for devices such as lighting panel, fire detector etc.)
- · Wide range of accessories
- Fire resistance certificates (E30-E60-E90)
- Galvanized steel painted finish available on request (epoxy, epoxy polyester, polyester.)

### **Cable Management**

#### E-LINE TKS / Trunking Systems





#### Overview

E-Line TKS series trunking cover cable trays systems are used for cabling in indoor environments. They are manufactured as pregalvanized or Hot dip. The cover is easily mounted thanks to the special lock system. Mounting the modules on trays is quick and simple.

#### **Features**

- Heavy duty type
- · 3000mm Standard length
- Standard 50/75/100/150mm Available height size
- 50/75/100/150/200mm Available width size
- 1,2/1,5mm Thickness
- TS EN 50085, TS EN 10346, TS EN 10143 and TS EN 1461 standards

#### E-LINE TLS / Wire Mesh Cable Trays



#### Overview

E-line TLS series wire mesh cable trays allows for downward outputs and to the right or left between the wires to be easily made thanks to the cage structure of wire mesh tray systems. Products are produced as stainless steel or electro-galvanized plated options.

- · Heavy duty type
- · 3000mm Standard length
- Standard 35/55/75/85/100mm Available height size
- 50/100/150/200/250/300/400/500/600mm Available width size
- 4/5mm Thickness
- TS EN 61537, TS 149 and AISI 304 (SS) standards

### **Support Systems**

#### E-LINE A-A / Support - Accessories Systems





#### Overview

E-LINE A-A series and E-Line Seismic suspension systems are used in buildings and factories; in concrete or steel structures to carry Busbar, Conduit, Cable Ladder, etc. Systems appropriately. Service- and light service-type suspension types diversities are available according to the weight of the system to be carried.

#### **Features**

- Certified seismic suspension range
- Light service-type and heavy service-type suspension types
- Produced with a wall thickness of 2 mm to 6 mm. (Only AT3 and KT types are produced with 1.5 mm thickness)
- · Pre-galvanized and hot-dip alternatives
- · Hot-dip production in all welded supports
- Load deflection graphs where carrying capacities of all supports are shown
- Plating which is durable against 400-hour salt test to avoid corrosion of consumable connection elements such as rod, bolt, nut, etc
- Customized support production
- Supports with fire resistance certificate (E30, E60, E90)





















#### **A-A SUPPORT SYSTEMS**

Hot Dip Galvanized (TS EN ISO 1461), Fire Resistant (E30-E90)

- E-Line A-A series of support systems are designed for heavy duty loads.
- The A-A series can be produced from 2.0mm upto 4 mm. as bellow available finishes. With its special coating it can provide project required corrosion protection and it is fire resistant.



#### STRUT CHANNEL (G PROFILE)

Pre-galvanized (TS EN 10346 - TS ÉN 10143), Hot Dip Galvanized (TS EN ISO 1461) and Stainless Steel

E-Line STRUT CHANNEL series are a modular support system especially designed for heavy duty loads with its numerous of assembly variations. The BINRAK series can be produced with 1.5, 2.0mm and 2.5mm thickness as pregalvanized and hot dip galvanized and stainless steel.



#### **SEISMIC**

#### Hot Dip Galvanized (TS EN ISO 1461)

E-Line Seismic bracing assembly systems are designed to secure the support systems sustainability against seismic waves with lateral and longitudinal applications withstanding the push and pulling forces. The assemblies are produced as hot dip galvanized with electrogalvanized accessories.



#### M-FIX ELECTRO-MECHANICAL SUPPORT AND SUSPENSION SYSTEMS

Pre-galvanized (TS EN 10346 - TS EN 10143) and Hot Dip Galvanized (TS EN ISO 1461)

- Pre-galvanized and Hot-Dipping alternatives
- Suspension system varieties of Light, Medium and Heavy-Duty type
- Coating resistant to salt test of 400 hours for the purpose of corrosion prevention of products such as Stem Bar, Bolt and Nuts of switch material fittings
- Mechanical suspension solutions specific to customer requirements.

### **Fit-Out Solutions**

#### DABLINE / Raised Floor Power Distribution Systems 63-80A





#### Overview

DABLINE busbar systems, which has different colour options, is used for raised floor applications in offices.

Does not require cable duct, cable, junction and connector. Manufactured in either 63A or 80A current rated versions with tap off plugs rated 13A to 32A.

#### **Features**

- IP55 protection degree
- Plug-in points every 30 or 60 cm.
- Each busbar length is equipped with integral adjustable fixing brackets.
- Ultra slim structure and horizontal utilization properties
- Can be used comfortably beneath a 10 cm raised floor

### E-LINE NDK / Modular and Compact Solutions for Underfloor and Raised Floor



#### Overview

Stylish, safe and innovative design, modular and compact solutions.

The underfloor and raised floor power distribution systems that save office etc environments from cable stacks and offer streamlined cablling. Can be adapted when offices or work places are moved around or capacity increases.

- · Socket box options with 3, 8, 16 or 24 module capacity
- · Compliant with circuit protection elements such as MCB,RCD and RCBO

#### **Fit-Out Solutions**



#### E-LINE SMART / Socket Blocks Fit Fot Fitting-Safe, Reliable, Efficient Solutions



#### Overview

Products ensure high ease of use, depending on your personal needs and preferences with modular type power and low voltage sockets. Products are 7 different types, according to size in socket needs, universal and modular design makes it suitable to accept any brand of socket.

#### **Features**

- Modular structure for energy and low voltage sockets
- 8, 10, 12, 14, 16 and 18 modules standard production capacity options
- Compatible structure with offices, meeting rooms, every desk
- Aluminum body and polycarbonate covers

#### E-LINE MINI / Mini Series Pop-up and IP66 Outlet Boxes



#### Overview

New, aesthetic, compact and mini-solutions for working desks, raised floor and under-screed sockets...

Three different range of product with IP40 and IP66 options.

- IP40 protection degree 3 modules and 6 modules pop-up series options,
- Can be used in tabletop, under screed or raised floor applications,
- IP66 protection degree rectangle or circle options,
- Water and dust-proof
- Can be used in under screed or raised floor applications,
- · Two stage opening cover

### **Fit-Out Solutions**

#### E-LINE E-BOX / Socket Combination Box









#### Overview

The E-BOX SOCKET COMBINATION BOX series is designed for use in factories, construction sites, workshops, and work environments. It combines sockets and functions as an electrical installation box for circuit protection and distribution...

- IP42 Protection Class
- The plastic frame material of the product is PA6, halogen-free, and meets the UL94 standard with a V2 fire resistance rating
- Operating voltage of 230/400V AC
- · Various configuration options are available, with a maximum current rating of 63A
- It is suitable for mounting 16A, 240V socket type panels (Schuko) and 63A, 415V CEE standard socket type industrial plugs
- It includes a compartment with 11 modules for miniature circuit breakers (MCB) and/or residual current devices (RCD), featuring breakable plates, a padlock attachment, and a transparent cover



### **EAE Lighting Solutions**

#### **Led Lighting Solutions**



Lighting has a considerable influence on our sense of wellbeing. Light is not only vital for vision; it also affects our emotions and other biological processes such as our sleep/wake rhythm.

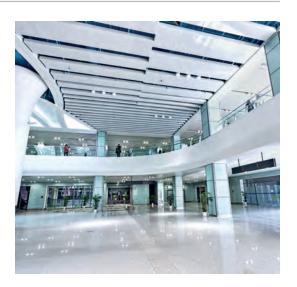
Ambience and sense of wellbeing play a major role here – and are particularly influenced by factors such as modern design and agreeable lighting.

Warm tone lighting has a soothing effect, helps quell patient fears and thus makes for a greater sense of wellbeing in the ward. "Cold" high tech plays a less and less visible role in the day-to-day life of a hospital; the design of patient rooms is becoming more homely.

By stabilising hospital patients' and circadian rhythm, biologically effective light can set in motion a positive spiral that significantly improves cognitive abilities and emotional state by ensuring a good night's sleep and an active day. EAE Lighting luminaires can be adjusted for Human Centric Lighting applications.



Human Centric Lighting is a system solution which works based on changing colur temperature, luminous intensity by time according a scenario, in harmony with the Sun's changing light in a day



#### **Patient Rooms**



Lighting in patient rooms plays a key role in both comfort and recovery. Adjustable and glare-free light supports patient rest while enabling healthcare staff to work efficiently. Our solutions combine aesthetics and functionality to create a warm, safe atmosphere in patient spaces.







Polyclinics - Corridors & Waiting Areas



Corridors and waiting areas are where patients often spend the most time and form their first impressions. Especially before examinations or while waiting for test results, the right lighting can ease stress and promote a sense of calm. Our balanced lighting solutions create a peaceful and calming atmosphere that supports patient comfort and well-being.







**Polyclinics - Examination Rooms** 



Examination rooms serve multiple purposes from consultations to treatment and administrative tasks. Lighting in these spaces must be flexible and easily adjustable to suit each function. The right lighting setup ensures optimal working conditions for medical staff while providing comfort and reassurance for patients.









### **EAE Lighting Solutions**

#### **UV Led Lighting Solutions for Disinfection**



We're all at risk of contracting or spreading viruses and bacteria, but none more so than vulnerable patients who are being cared for in hospital and healthcare settings, because any form of viral infection can complicate their recovery. UV-C luminaires don't treat people directly, they can make a difference by helping neutralize viruses and bacteria that might present a danger. All bacteria and viruses tested to date (many hundreds over the years, including various coronaviruses), respond to UV-C disinfection.





Ultra-Violet (UV) light is invisible to the human eye and is divided into UV-A, UV-B and UV-C.

#### **Operating Rooms**



Proper lighting in the operating room is essential for not only the surgeons but also the entire surgical team to work safely and efficiently. Good lighting illuminates every area evenly, eliminating glare and reflections, thus preventing eye strain and keeping the team focused for long periods of time. The right lighting allows healthcare workers to quickly and confidently select the right equipment so that every intervention runs smoothly.







#### **Intensive Care Units**



The primary goal of lighting in intensive care rooms is to support the treatment and monitoring of patients. Lighting not only aids the treatment process but also creates a sterile environment, reducing the risk of infection and enhancing patient safety. Clean and precise lighting helps patients relax and contributes to a faster recovery process.



**BLOOM STERIL IP65** 



#### **Ancilary Rooms & Outdoor Lighting**



Outdoor lighting is critical to ensure the safety, functionality and aesthetics of a hospital's surrounding areas. This lighting provides effective illumination of outdoor areas while enhancing the safety of patients, visitors and employees during the night. In addition, proper illumination of areas such as facade lighting, parking areas, walkways and emergency exits not only creates a safe environment but also contributes to the hospital's exterior appearance.

YPB NG

TORNADO



RA







### **EAE Electrotechnical Products**





PanelMaster low voltage switchboards are designed to fulfil various application needs. It's unique structure and flexible power modules are type-tested and certified by internationally accepted indepented laboratories.

PanelMaster has been type-tested with switchgear equipment of various suppliers. This gives freedom at component selection among widely accepted and known switchgear equipment brands.



Rated Current (In) : Up to 6800A
Rated Short Time Withstand Current (Icw) : Up to 120 kA - 1sec.
Rated Impulse Withstand Voltage (Uimp) : Up to 12 kV
Partitioning : Up to Form 4b
Protection Class : Up to IP55
Protection Class Against Mechanical Impact : IK10

Protection Class Against Mechanical Impact Framework

Colour

: Painted 2mm pre-galvanized steel

: RAL 7035 epoxy-polyester electrostatic powder paint

#### **EAE Data Center Rack Cabinet & Containment Solutions**

EAE KabinPLUS KD 19" Data Center Rack Cabinets have been designed to reach high flexibility and efficiency with a robust core construction. While providing a comprehensive approach for the cabling accessories to serve high density structured cabling, EAE KabinPLUS series offer highly versatile Data Center Aisle and Containment Solutions to increase the "Energy Efficiency" and manage the "Physical Security & Access Control" in data center environments.



### **EAE Lighting Automation**





The system not only helps to improve the hospital management, also enhance stuff's efficiency, saving operating costs and creating safe healthcare environment.















Presence / Movement Sensors



Switching Actuators



Fan Coil Actuator













#### **KNX Hospital Solution**

#### **BMS Integration**

 Nurse Call System Integration

### **Lighting Control**

- DALIOn/Off
- 1-10V
- Universal DIM (phase cut)
- Emergency Lighting Reporting

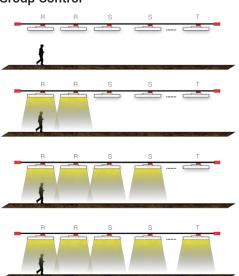
#### Heating-Cooling Control Shutter/Blind Control Presence / Movement

- Fancoil
- VRF/VRV Control
- Under Floor Heating
- Split AC Units
- Package Air Conditioning Systems

# • AC/DC Blind Control

/ Corridor & Daylight Sensor

#### **Group Control**



# **Major References List**





EUROPE		City Hospital, Mohács	HUNGARY
Socomec (St.Elizabeth Hospital)	BELGIUM	Hetényi Géza Hospital, Szolnok	HUNGARY
<ul> <li>Centre Hospitalier Peltzer La Tourelle in Verviers</li> </ul>	BELGIUM	Szemmelveisz University Dental Clinic	HUNGARY
St.Elizabeth Hospital (Brussels)	BELGIUM	<ul> <li>Uzsoki street Hospital, Budapest</li> </ul>	HUNGARY
<ul> <li>Centre Hospitalier Peltzer La Tourelle (Verviers)</li> </ul>	BELGIUM	Duna Medical Center Hospital	HUNGARY
<ul> <li>CHC Mont Légia (Liège)</li> </ul>	BELGIUM	<ul> <li>Budai Irgalmasrendi Kórház</li> </ul>	HUNGARY
CHU CIO UNILAB (Liège)	BELGIUM	PTE Clinic, Pécs	HUNGARY
<ul> <li>UZ-Leuven Gasthuisberg (Leuven)</li> </ul>	BELGIUM	<ul> <li>City Hospital, Mohács</li> </ul>	HUNGARY
<ul> <li>CHU Brugmann (Brussels)</li> </ul>	BELGIUM	<ul> <li>Hetényi Géza Hospital, Szolnok</li> </ul>	HUNGARY
<ul> <li>Institut Jules Bordet (Brussels)</li> </ul>	BELGIUM	<ul> <li>Szemmelveisz University Dental Clinic</li> </ul>	HUNGARY
HUDERF (Brussels)	BELGIUM	<ul> <li>Uzsoki street Hospital, Budapest</li> </ul>	HUNGARY
<ul> <li>ZNA Cadix (Antwerpen)</li> </ul>	BELGIUM	<ul> <li>Duna Medical Center Hospital</li> </ul>	HUNGARY
Hopitaux Iris Sud (Brussels)	BELGIUM	<ul> <li>Budai Irgalmasrendi Kórház</li> </ul>	HUNGARY
CHWAPI (Tournai)	BELGIUM	PTE Clinic, Pécs	HUNGARY
CHIREC-Clinique St-Anne St-Rémi	BELGIUM	Frullone	ITALY
CHU Saint-Pierre de Bruxelles (Brussels)	BELGIUM	<ul> <li>Niguarda Hospital</li> </ul>	ITALY
Braunschweig Klinikum	GERMANY	S.Giovanni	ITALY
Endoklinik - Hamburg	GERMANY	Ospedale di Matera	ITALY
KKH-Helmstadt	GERMANY	Ospedale di Verona	ITALY
<ul> <li>Universitätsklinik Hamburg HH - Eppendorf</li> </ul>	GERMANY	Ospedale di Campobasso	ITALY
Uniklinik Physiologie	GERMANY	Ospedale di Sassuolo	ITALY
Kassel Klinikum	GERMANY	Ospedale di Viterbo	ITALY
Universtät Lübeck	GERMANY	Ospedale San Raffaele-Milano	ITALY
Uniklinik - Magdeburg	GERMANY	Ospedale di Fidenza	ITALY
Universität - Magdeburg	GERMANY	Ospedale di Foligno	ITALY
Uniklinik Mainz	GERMANY	Prato Hospital	ITALY
Klinikum Münster	GERMANY	Pistoia Hospital	ITALY
Asklepiosklinik Parchim	GERMANY	• Lucca Hospital	ITALY
Asklepiosklinik Pasewalk	GERMANY	Massa/Apuane Hospital	ITALY
Rhön Kliniken Pforzheim	GERMANY	Ospedale del Mare – Naples	ITALY
Klinikum/Chirurgie Ulm	GERMANY	Hospital of Vesoul	FRANCE
• KKH Waldbröl	GERMANY	Elco / Servitec	LUXEMBURG
Krankenhaus Wismar	GERMANY	• Gelre Hospital – Zutphen	NETHERLANDS
Städtisches Krankenhaus Wismar	GERMANY	Vlietland Hospital – Schiedam	NETHERLANDS
CVUA - Münster	GERMANY	• Flevo Hospital	NETHERLANDS
BG Unfallklinik - Ludwigshafen	GERMANY	Vlietland Hospital	NETHERLANDS
Medizinische Universitätsklinik - Lübeck	GERMANY	AZM Hospital, maastricht	NETHERLANDS
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# Başlık

# Alt Başlık



Reinier De Graaf Hospital, Delft	NETHERLANDS	• 400 Beds Basra Hospital	IRAQ
Hospital Gelderse Vallei, Ede	NETHERLANDS	Kerbela 500 Beds Government Hospital	IRAQ
Maxima Hospital, Eindhoven	NETHERLANDS	• 400 Bed Teaching Hospital-Amara	IRAQ
Beatrix Hospital, Winterswijk	NETHERLANDS	• 400 Bed Teaching Hospital-Hilla	IRAQ
Hospital Ruwaart Van Putten, Spijkenisse	NETHERLANDS	RANIA Hospital	IRAQ
Diaconessen Hospital, Leiden	NETHERLANDS		
Rijnland Hospital, Alphen a/d Rijn	NETHERLANDS	FAR EAST	
Tønsberg Hospital, Tønsberg	NORWAY	Rama Bangplee Hospital	THAILAND
LHL Hospital, Gardermoen	NORWAY	Veterans General Hospital - Bangkok	THAILAND
Moss Hospital, Moss Lillehammer Hospital, Lillehammer	NORWAY NORWAY	Chulalongkorn Hospital - Bangkok     Thomburi 2 Hospital - Bangkok	THAILAND
Ullevål Hospital, Oslo	NORWAY	<ul><li>Thonburi 2 Hospital -Bangkok</li><li>Srinakharinwirot University Hospital-Nonthaburi</li></ul>	THAILAND
Rikshospitalet, Oslo	NORWAY	Pinklao Hospital - Bangkok	THAILAND THAILAND
Stavanger Hospital	NORWAY	Kasemrat Hospital - Bangkok	THAILAND
Spital Judetean Alexandria	ROMANIA	Ramathibodi Hospital - Bangkok	THAILAND
Spital Victor Gomoiu Bucharest	ROMANIA	Somdech Phra Pinklao Hospital - Bangkok	THAILAND
Institutul Matei Bals Bucharest	ROMANIA	· Queen Savang Vadhana Memorial Hospital - Chonb	
Spital Sfantul Spiridon Mioveni	ROMANIA	Ratchadamri Hospital - Bangkok	THAILAND
Spital Judetean Alexandria	ROMANIA	Thammasat University Hospital - Pathumthani	THAILAND
Spital Victor Gomoiu Bucharest	ROMANIA	University of Phayao Medical Center-Phayao	THAILAND
Institutul Matei Bals Bucharest	ROMANIA	Mae Fah Luang University - ChiangRai	THAILAND
Spital Sfantul Spiridon Mioveni	ROMANIA	Bangkok Hospital Surat - Surat Thani	THAILAND
Östermalms Sjukhem	SWEDEN	Queen's Phramongkutklao Hospital - Bangkok	THAILAND
Karolinska Hospital Sabbatsbergs Hospital	SWEDEN	Bangkok Brain & Bone Hospital - Bangkok	THAILAND
Blekinge Hospital, Karlskrona	SWEDEN SWEDEN	Bangkok Hospital- Chiangrai	THAILAND
Umeå UC, Hospital	SWEDEN	<ul> <li>Maharaj Nakorn Chiang Mai Hospital-Chiangmai</li> <li>Bangkok-Suratthani Hospital - Surat Thani</li> </ul>	THAILAND
Linköpings Hospital	SWEDEN	TPP Healthcare Hospital - Bangkok	THAILAND THAILAND
Plymouth Hospitals NHS			SINGAPORE
Farnborough Hospital - Kent	UNITED KINGDOM	National Skin Center	SINGAPORE
The Lewisham Hospital NHS Trust			SINGAPORE
West Middlesex Hospital - Brentford	UNITED KINGDOM		
Sheffield Northern General Hospital	UNITED KINGDOM	AMERICA	
Churchill Cancer Care - Oxford	UNITED KINGDOM	Clinica Alemana	CHILE
Derriford Hospital - Plymouth	UNITED KINGDOM	Clinica Indisa	CHILE
Bupa Nuffield Hospital - Ipswich	UNITED KINGDOM		
St. Barts Hospital - London	UNITED KINGDOM	CIS	
Southern General Hospital - Glasgow	UNITED KINGDOM	Ashgabat Maternity Hospital	TURKMENISTAN
UCLH - London Whittington Hospital - London	UNITED KINGDOM UNITED KINGDOM	Cardiology Hospital	TURKMENISTAN
Bedford General Hospital	UNITED KINGDOM		
Princess Royal Hospital	UNITED KINGDOM	AFRICA	
Northwick Park Hospital	UNITED KINGDOM	Hospital Of Uyo	NIGERIA
St. James's University Hospital Leeds	UNITED KINGDOM	• TDM New	MAURITIUS
,,		Hospital Cheikh Khalifa Ben Zaid	MOROCCO
MIDDLE EAST		Mahra Hospital, Al Marj     Age Khan Hospital	LIBYA
Sheikh Khalifa Hospital	UAE	<ul><li>Aga Khan Hospital</li><li>Agouza Army Hospital</li></ul>	KENYA EGYPT
Cleveland Clinic Abu Dhabi	UAE	• El Fath Hospital	EGYPT
Security Forced Hospital - Makkah	S.ARABIA	Arbaminch Hospital	ETHIOPIA
300Beds General Hospital Meqat - Madinah	S.ARABIA	Debrebirahan Hospital	ETHIOPIA
Saudi German Hospital - Jeddah	S.ARABIA	• Sudan Hospital	SUDAN
100Beds Hospital - Jumum	S.ARABIA		
King Fahd Armed Forced Hospital - Dhahran	S.ARABIA	ASIA	
Saudi German Hospital - Dammam	S.ARABIA	Bexim Pharma - Tongi Gazipur	BANGLADESH
Armed forced Hospital - Taif	S.ARABIA	Pharma Asia (Rangs Medicine) Rajendropur	BANGLADESH
200Beds Pediatric&Obstetrics Hospital - Hail Nurses accomodation - Dhahran	S.ARABIA S.ARABIA	Mayapada Kuningan Hospital	INDONESIA
CMC Hospital - Riyadh	S.ARABIA S.ARABIA	Cancer Hospital, Lucknow, UP	INDIA
Al Iman Hospital - Riyadh	S.ARABIA	Saifai Hospital, Saifai, UP	INDIA
200Beds Pediatric&Gynecology Hospital - Tabuk	S.ARABIA	District Hospital, Noida, UP	INDIA
Nurses accomodation- Wadi Dawasir	S.ARABIA	• ILBS Hospital, Delhi	INDIA
Medical College Ext Riyadh	S.ARABIA	Cancer Hospital, Nasik, Maharashtra	INDIA
	S.ARABIA	Currae Hospital, Nasik, Maharashtra	INDIA
		<ul> <li>Cancer care Trust Hospital, Mumbai, Maharashtra</li> </ul>	INDIA
Prince Mansour Hospital - Makkah	S.ARABIA	A Actor Madaity Kachi Karala	INIDIA
Prince Mansour Hospital - Makkah Armed Forces Hospital-Nurses Acc Makkah Dallah Hospital - Riyadh		Aster Medcity, Kochi, Kerala	INDIA
Prince Mansour Hospital - Makkah Armed Forces Hospital-Nurses Acc Makkah Dallah Hospital - Riyadh Royal Oman Police	S.ARABIA S.ARABIA OMAN	Aster Medcity, Kochi, Kerala	INDIA
Prince Mansour Hospital - Makkah Armed Forces Hospital-Nurses Acc Makkah Dallah Hospital - Riyadh Royal Oman Police Al Fardan Medical Center	S.ARABIA S.ARABIA OMAN QATAR	Aster Medcity, Kochi, Kerala	INDIA
Prince Mansour Hospital - Makkah Armed Forces Hospital-Nurses Acc Makkah Dallah Hospital - Riyadh Royal Oman Police Al Fardan Medical Center Aman Hospital	S.ARABIA S.ARABIA OMAN QATAR QATAR	Aster Medcity, Kochi, Kerala	INDIA
Prince Mansour Hospital - Makkah Armed Forces Hospital-Nurses Acc Makkah Dallah Hospital - Riyadh Royal Oman Police Al Fardan Medical Center Aman Hospital Quattinah Clinic Psychiatric Hospital	S.ARABIA S.ARABIA OMAN QATAR	Aster Medcity, Kochi, Kerala	INDIA

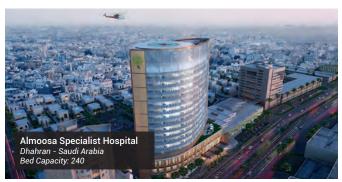
# **Major References List**

















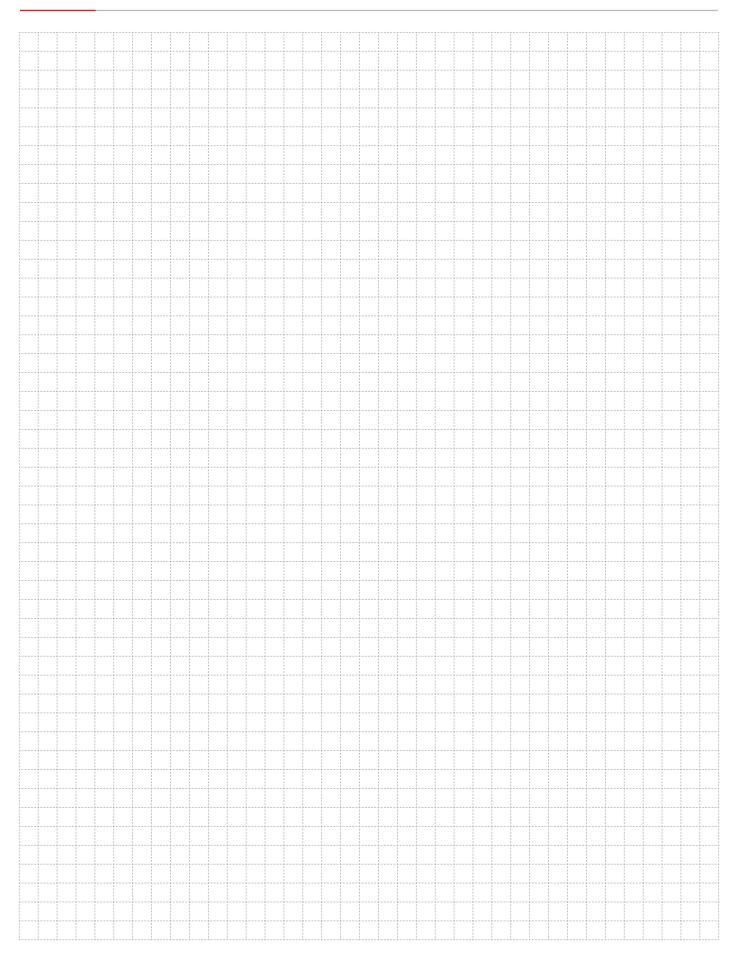






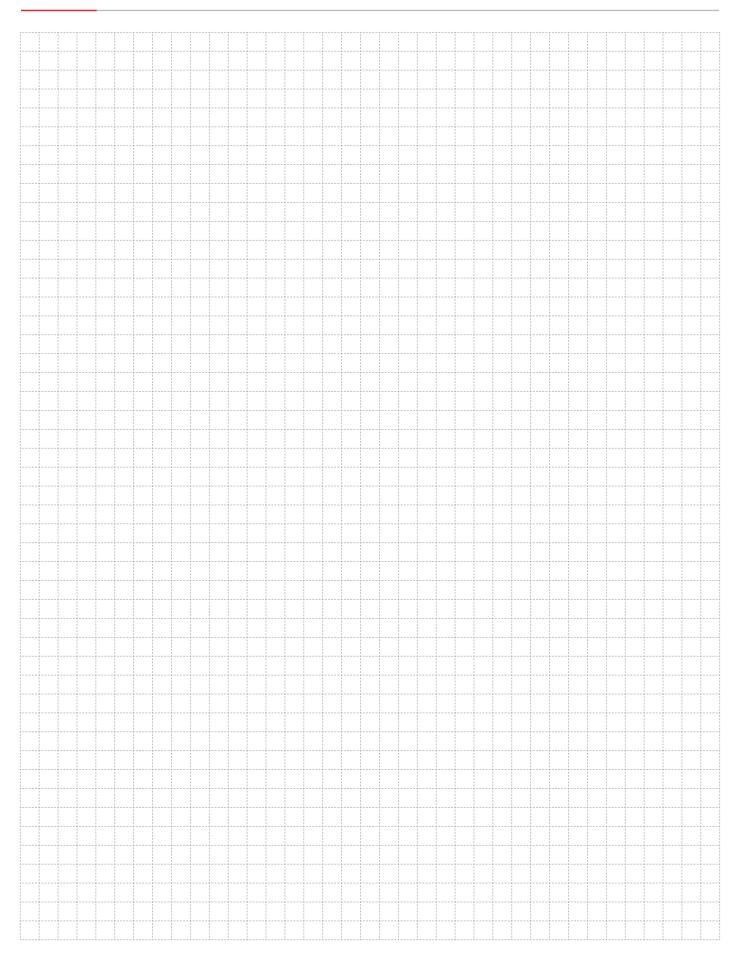
# Notes





# Notes





### SUSTAINABLE FUTURE

### Sustainability Management at EAE Elektrik



As part of our goal to support sustainable development and green transformation, measuring, evaluating, and managing all economic, environmental, and social impacts resulting from our sustainability practices is a key governance priority for EAE Elektrik. We act with great care in analyzing, monitoring, and managing the economic, environmental, and social impacts and risks that arise throughout our value chain in both our national and global operations.





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