ELECTRICAL POWER DISTRIBUTION & CONTROL

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Danway Group of companies is a fully owned subsidiary of Al Nowais investments, a conglomerate established in 1976 in the UAE that caters to diversified interests in power, water, oil and gas as well as industrial projects within the region. We have a long and successful track record of delivering expert engineering products and technical services across the project value chain. DANWAY operates in accordance with standards ISO 9001:2015, ISO 14001:2015 & OHSAS 18001:2007 and the company is committed to productive efficiency coupled with quality assurance, workplace health, safety and protection of the environment.

DANWAY has headquarters in Dubai and branch offices in Abu Dhabi, Oman, Qatar & Bahrain. As part of its vision to be an internationally respected Engineering and Contracting Company offering comprehensive solutions in the EPC field, DANWAY is actively planning to extend its operations to other countries in the Middle East. To further consolidate its position, DANWAY has implemented ERP solutions from SAP, adopting industries best practices and creating transparency at all levels of the business.

DANWAY Group of Companies mainly comprises of the following:

- Danway LLC
- Danway Electrical & Mechanical Engineering,
- Danway Emirates
- Danway Industries Abu Dhabi
- Dan International Oman

Danway LLC Overview:
DANWAY has successfully delivered major projects in the Utility, Infrastructure, Industrial, Oil & Gas, Construction Sectors etc. It has achieved an enviable track record of working with all the major Clients, Consultants and International EPC Contractors in the region. Our strength is our ability to develop innovative, practical solutions for our clients. Our Customer oriented approach, together with a reputation for high quality and Integrity, forms the basis of the Company’s Corporate Value proposition.

Major Divisions under Danway LLC are as follows:
- EPDC (Electrical Power Distribution & Control)
- Power & Water
- IRSG (Industrial Retail & System)

Danway EPDC Overview:
The Electrical Power Distribution & Control (EPDC) has been in the business for more than four decades providing solutions in the field of Low & Medium Voltage Switchgears, Extra Low Voltage & Low Current Systems, Industrial Process & Energy Automation. We also offer specialized expertise in Digitized solutions for predictive maintenance, Retrofitting of Switchgears, Power Quality Solutions and Preventive/Annual Maintenance Services making us pioneers in bringing sustainability to the greenfield projects as well as catering to brownfield requirements.

Major Departments in EPDC include the following:
- Switchgear Solutions
- Automation Systems
- Service Solutions
- Low Current Systems (LCS)
- Electrical Product Solutions (EPS)

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Regardless of the nature or expansion of a property, switchgears are paramount to the security, safety and management of power distribution in every installation. We offer a comprehensive range of customized LV Switchgears and MV Switchgears, fully type tested & certified as per IEC standards.

**Low Voltage:**
We are specialized in power control and distribution boards, relay panels, automation & drives, and intelligent motor control centers. Our inhouse capabilities include Design, Engineering, Assembly, Quality control and site services such as Supervision of Installation, Testing & Commissioning:

- Certified panels up to 6300A
  - LV Panel/MDB, SMDB, DB, MCC, HVAC MCC, Feeder Pillars,
  - Capacitor Banks, Starter control panel, VFD panels, Lighting
- Control panel, ATS and Synchronization panels.
- Forms of segregation 2b, 3b, 4b type 6/7 (fixed/withdrawable)

**Medium Voltage:**
We offer a wide range of medium-voltage switchgear upto 17.5KV & Ring Main Units upto 22KV in accordance with IEC standards, with the comprehensive scope of Design, Manufacturing, Supply, Supervision of Installation, Testing, Commissioning & Maintenance.

*Our medium voltage portfolio of products include:*

- **Ring Main Units up to 22 KV of Schneider Electric:**
  - RMU — SF6 Gas insulated
  - Smart RMU with RTU and Metering section
  - Performance ratings- 12kV/25kA for 1s, 17.5kV/21kA for 3s, 24kV /20kA for 3s – 400A or 630 A

- **Vacuum switchgear up to 17.5 KV under license from Schneider Electric:**
  - Metal clad switchgear, vacuum circuit-breaker rolling on floor, withdrawable type
  - Short time withstand current up to 31.5kA for 3s
  - Rated up to 2500A
  - Internal Arc tested (AFLR)

**RTU (Remote Terminals Units) and Smart Distributions Boards:**
We offer Design/ Engineering, Assembly, Supply, Installation and Testing & Commissioning of RTU(Remote Terminal Units) for Utility and Private projects in UAE and we have experienced team for Installation and Testing & Commissioning of RTU panels and integrations of RTU panels with Master stations (central SCADA). We can offer Smart Distributions Board as per the end user requirements for remote monitoring.

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We provide System Solutions and Services for Critical Applications in Control Automation Systems & Instrumentation to Middle East region’s most important clients in the Oil & Gas, Utilities, Infrastructure, District Cooling and Manufacturing Industries. Our state-of-the-art bespoke Automation & Instrumentation solutions cater to various project applications such as,

- **Oil & Gas:** Wellhead Control Systems, Pipeline Solutions, OEM Package Automation Systems, Water Injection Systems, Tanks & Terminal Automation, Safety System Applications.
- **Water and Waste:** Water Treatment Plants, Sewage Treatment Plants, Pumping Stations, Chemical Dosing Systems, Distribution Pipeline Network Applications.
- **District Cooling:** District Cooling Plants, Energy Transfer Stations, Central SCADA system Applications.
- **Transportation:** Environment Control Systems, Tunnel Ventilation Systems in Metro/Rail Projects.
- **Civil Aviation:** Baggage & Cargo Handling Systems.
- **Manufacturing:** Cement, Aluminium, Food & Beverages, Crusher Plant applications.

The key aspect of our solution includes providing design consultancy services, selecting techno-commercially most suitable OEM solutions for various applications, providing in-house services from design stages of the Automation systems up to commissioning. Some of the major Automation systems we deliver are listed as below,

### INDUSTRIAL AUTOMATION:

- **PLC – SCADA – HMI based Control Automation Systems**
- **PLC based Safety Systems – for Emergency Shutdown, HIPPS, Fire & Gas Applications including F&G field detectors**
- **Distributed Control Systems**
- **RTU – SCADA based Telemetry Systems**
- **Command and Control Centers – Central SCADA Systems**
- **Communication networks between Remote Stations to Central SCADA System**
- **Process Instrumentation**
- **PLC / HMI based HVAC Control Systems and Field Instrumentation**
- **Containerized Automation Systems**
- **Ex rated Control Panels for Hazardous Area applications**
- **Migration and Upgradation of Automation Systems**

### ENERGY AUTOMATION:

- **Smart Grid, Distribution Automation Systems, RTU Retrofitting projects**
- **Substation Automation Systems for Grid Substations, RTU/SCADA upgradation projects**
- **Power Monitoring Systems**

We use Automation products from world renowned principal companies like ABB, Siemens, Honeywell, Schneider-Electric etc in our Automation solutions that we deliver for our projects. Due to our expertise in multiple manufacturer’s products and our capability to provide complete solution for Automation Systems, Instrumentation, Electrical Switchgear Panels,

- **We are a single-source Systems Integrator for the Integrated Solutions for customers’ E&I requirements.**
- **Automation Systems Migration/Upgradation from one manufacturer products to other or to the same with the latest technology as per Client preference.**

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Low Current Systems (LCS)

Low Current Systems is a division in EPDC which provides a solution package of design, engineering, supply, testing & commissioning for ELV Systems, such as Lighting Control System, Access Control System, CCTV System, Building Management System, and Secure Power Systems, such as Central Battery System, DC System and UPS depending on the project requirement and authority standards.

**DC CHARGER / UPS / INVERTER SYSTEM**

Full range of supply of thyristor based DC Charger System / ups and inverter system (Braga Moro / Statron) for industrial and commercial market.

**CENTRAL BATTERY SYSTEM**

Authorized exclusive integrator for CEAG (Eaton) Emergency Lighting Systems in Abu Dhabi Region.

**BUILDING MANAGEMENT SYSTEM**

Danway also offers Building Automation Integration & a cloud based Energy Management Solution System (ABB-Cylon).

**LIGHTING CONTROL / GRMS**

KNX based cost effective solution for Lighting Control and Guest Room Management System (ABB).

**CCTV / ACCESS CONTROL SYSTEM**

We are also offering complete Security and Surveillance system package in the UAE (PELCO/-CANSEC/WATCHNET).

### ELECTRICAL PRODUCT SOLUTIONS (EPS)

#### JUNCTION BOX AND ELECTRICAL ACCESSORIES

- Design, assembly & supply of electrical junction boxes / enclosures (WEIDMULLER)
- Available in Stainless Steel /AL / GRP / Sheat Steel
  - Suitable for EXE and Industrial Safe Areas
  - Terminals and markers
  - Screw type / push-in type / tension clamp
- Power supply
- Relays & solid-state relays
- Industrial ethernet
- Remote I/O
- PLC interface units
- Tools – cutting / crimping / striping

#### TRANSFORMERS

- Above 10 MVA 33/11 kV voltage class up to 500 MVA 400 kV voltage class.
- Three-phase Mineral Oil filled Distribution Transformers ONAN

*Type of 3.3 kV to 34.5kV, high voltage, 50/60 Hz*
Backing our customers objective to increase life of the existing assets, ensure safety and improve efficiency and reduce owning cost; Danway offer diversified and comprehensive predictive and preventive maintenance programs which include medium voltage switchgears, low voltage switchgears, transformers, cables, capacitor banks, generators, building management system and DC system.

Danway leadership position in the market is a result of having its local approval as well as inhouse capable design and engineering team which help us to deal with varied make and type of electrical equipment.

BELOW ARE OUR MAIN SERVICE VERTICALS:

1. MAINTENANCE: Electrical components and instruments are like any other, they age, lack efficiency and turn out to be faulty. Maintaining those items will ensure the functionality of the equipment as well as reduce the failure probability of other items and loading side. Danway has extensive experience and knowledge working in all switchgear make and it is capable to provide its customer with professional, reliable and cost-effective solutions. In the occasion the faulty items are obsolete then Danway is again your option to engineer the best modernized solution in accordance with international standard and best technological practice.

2. POWER QUALITY: Any equipment for it to function properly requires a good power quality, essentially a good voltage quality (SINE WAVE). It is designed to accept THDU (Total Harmonic Distortion Voltage) of 5% but if it receives distortion levels above this limit, it can malfunction or essentially fail. Assume the equipment to be a ventilator in a hospital or a server in a bank, failure can cause serious and undesirable consequences. Danway Electrical Power Distribution and Control Service Department offers specialist power quality services with the right diagnosis and treatment, both utilities and consumers can alleviate power quality issues. With a wide range of products, systems and services that improve power quality across the power value helping its customer to safeguard their asset integrity.

3. INNOVATIVE RETROFIT SOLUTIONS Dealing with aged and obsolete installation has been always a challenge for facilities owners and operators. Not only because of the difficulties in the operation and maintenance but also unavailability of the cost-effective solution. Danway is pleased to engineer for its customers cost effective and reliable solutions for most of the makes and kinds.

OUR KEY ADVANTAGES ARE

- Increase of the integrity and lifetime of your switchgears and installations
- Effective solutions eliminate the possibility of unexpected trips
  Modernize your switchgear with new protections which were not available during the time of installation
- Optimize the preventive maintenance by predictive failure through digitization
- Improved quality of delivered power