



Control & Protection Panels

Enhancing Power Quality

Who We are?

POWER ECONOMY is one of the market leaders in the Middle-East region for more than a decade in design, manufacture and supply of a wide range of low, medium and high voltage products & solutions that enhance the quality & reliability of power from LV to EHV systems.

Our Reactive Power Compensation, Distribution, Control, Protection, Automation & Metering solutions are developed through constant research and market innovation and cater to the needs of power transmission and distribution networks in the Middle-East and Africa.

Today the company is offering its solutions for both conventional & smart power networks in the domestic and international T&D business.

At Power Economy, we strongly believe that our success and growth are direct derivatives of 'Customer Satisfaction' through quality products delivered on time and on budget.

Our solutions, developed through constant innovation and research, benefit our customers by cutting down cost, improving efficiency and help them to achieve almost nil downtime.

We always ensure our innovation leads to environmental protection through our energy-efficient products along with long term corporate responsibility efforts.



Reactive power compensation



LV Power distribution



MV Power distribution



Control &



Products & Solutions

Our motto is 'Customised solutions through Engineering & Design'.

Our products and solutions are designed and manufactured by a team of highly experienced technocrats and developed with components sourced mainly from manufacturers in Europe and US & also reputed firms from rest of the world. This ensures not just quality and reliable power distribution but sets the benchmark for overall power quality in any region we work with.



Protection



Substation Automation



Advanced Metering



Site Support



Control and Protection Panels

Power Economy's state of the art control & protection panels are engineered to meet the ever-changing needs of the power industry. We offer reliable, efficient and intelligence solutions for control and protection needed for Utility sector covering Generation, Transmission and Distribution network, Heavy and medium power industries, oil and Gas sector, primary and secondary distribution systems etc.

We design, engineer, manufacture, conduct factory routine tests on C&R panels, conduct site test and commissioning services, undertake special engineering services to meet clients/ engineers needs.

Product Range

- Protection control and relay panels, for MV/HV/EHV system up to 400kV & above
- Process control Instrumentation panels for Process Industries, Pumping Stations and Oil & Gas fields
- Under Frequency load shedding panel
- Mosaic panels, control desks with large screen projection system
- Local control cubicles for GIS switchgears
- SCADA marshalling Panels and local interface panels for RTU, SCS, SCMS
- RTCC (remote tap change control cubicle)
- Pilot wire marshalling and Isolation transformer marshalling cubicles
- Sequence control and annunciator panels
- Generator control, monitoring and protection panels and control desks with single slope or double slope type
- Specific tailor made and non-standard panels for retrofitting and matching for existing S/S
- Demo unit panels with various protection IED and bus system, to train utility and contractors application and T&C engineers.

Services

- Engineering services covering C.T. sizing calculations for protection relays, preparation of engineering drawings like General arrangement drawings, Schematic drawings, Cable/terminal schedules, and substation engineering services
- Protection setting calculations both unit and graded protection calculations
- S/S fault level calculations using internationally recognised software in accordance with IEC regulations
- Erection, testing and commissioning services
- Retrofitting engineering services including supplies



Construction/Packaging

- Combined Control and Relay Panels with fixed 19" relay mounting frame with front viewing door for relay portion
- Protection Relay Panels with fixed/ swing type relay mounting frame with front and rear doors.
- Pullout cum swing type panels for Synchronizing equipment
- Cubicles manufactured from Electro-Galvanized Phosphated and Chromated sheet steel, and painted with powder coating to required color shade
- Panels can be supplied with IP42 to IP55 ingress protection class
- Panels for Indoor and outdoor applications
- Dead front end panels/ Single slop/Double slope control panels/ Simplex and duplex type panel
Tailor made panels for retrofit work

Features

- Panels built with protective relays and systems as per approved component for 400kV/220kV/132kV/33kV systems
- Use of approved control and auxiliary component to meet the highest standards and internal wiring as per international standards using color coded wires, with ferrule systems as per utility requirement
- Approved terminals for CT/VT circuits, CT circuit shorting facility, isolation, test sockets for external testing, disconnect type control terminals for SCADA circuits
- Mimic layout diagram with computerized mimic symbols with PVC strips
- Systematic labels for circuits bays, front and rear mounted equipment
- 100% testing including IR/HV/IR, functional tests on relays and circuits

Client Approvals:

- Approved C&R products supplier to UAE utility sector for ADWEA (TRANSCO, ADDC, AADC), FEWA, SEWA and executed several 400 kV/220kV/132kV/33kV projects.
- Approved C&R product supplier in Oman for OETC, MEDC, Mazoon, RAECO, PDO, DPC & MAJAN
- Approved panel integrator for MNC companies like Siemens, ALSTOM Grid, ABB, Schneider Electric and other leading OEMs.
- Approved suppliers of C&R panels up to 400kV system
- Preferred C&R product suppliers to Major EPC'S like Hyundai, Samsung, LNT, Toshiba, Galfar(Oman), BEC (Oman), NCC etc.

Technical Details	
Degree of protection for enclosure	IP42 to IP55
Design ambient temperature	35°C to 55°C
Overhead lines, Cable Feeder, Transformer, Bus Section & Bus Coupler Schemes.	
Busbar protection schemes	
Under frequency and loading shedding schemes	
Generator protection schemes	

Floor Mounted Enclosures

- Designed to provide IP 55
- Sizes ranging from 1600mm height to 2000mm height
- Removable concealed hinges with 120 degree openability
- Welded earth stud
- Wide bottom gland opening for cable entry
- Metal reinforcement stiffener on the inside of the door also serves
- effective gasketing for ingress protection
- 3 point locking system with swing handle (optional)
- Base channel for floor mounting and canopy (optional)

Colour

- Body: Powder coated RAL 7032 matt texture finish. Mounting
- Plate: Powder coated RAL 2000 semi glossy finish



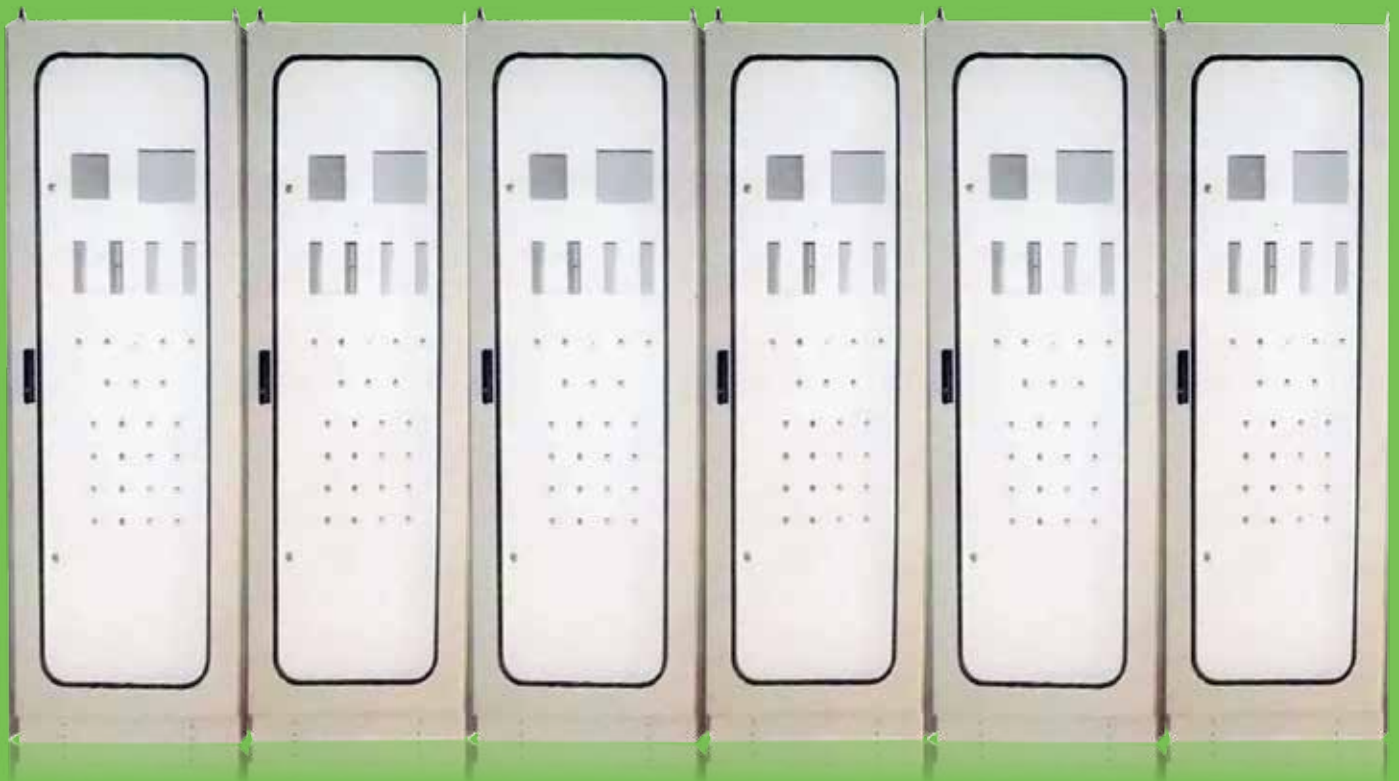
Extendable type Enclosures for Control & Protection Panels

- Designed to provide IP51 to IP55
- Frame, front cover/door, rear cover/door, top cover - 2.5mm sheet steel; Mounting plate / plinth - 3mm sheet steel
- Rigid doors with special hinges ensuring 120 degree openability
- 3 Point locking system with swing handle and padlock provision (optional)
- EPDM gaskets provided all round the door
- Door limit switch bracket provided on rear door
- Lamp fixing bracket provided on top cover
- Vermin proof louvers provided on rear door
- M12 eyebolts provided for lifting

- Type 1: Dead Front
- Type 2: Rear Door or removable Cover
- Type 3: Glazed front door with toughened glass
- Type 4: 19" sub rack frame - fixed and swing type
- Type 5: Front inner cover
- Type 6: Side mounting plates
- Type 7: 19" blanking plates and rack plates (1U, 2U, 3U, 4U and 5U)

Colour

- Powder coated RAL 7032 matt texture finish.
- Mounting plate: Powder coated RAL 7032 / RAL 9003 / RAL 9010 (as per customer requirement)
- Plinth: Black
- Customized designs and colours available on request





Out door marshaling panel



Relay panel with fixed frame with rear doors



Relay panels with swing type relay frame



Server and SCS panels



Single slope special control desk

We at power economy have the in-house capability to provide you with a wide array of standard or customized control and protection panel enclosures based on your requirement.

Innovative and indigenous computer aided designing supplemented with traditional expertise and rich experience make our enclosures superior and unique. Apart from that all our enclosures are fabricated using superior quality sheet steel through a stringent quality and system driven manufacturing process to ensure global electro-safety standards.

Gallery



33kV Combined Control & Relay Panels at Aziaba North-3 Primary Station for MEDC, Oman



12MVAR, 22kV Capacitor Bank Control & Protection Panel SAT testing for ADWEA, UAE



400kV Protection Panels at Ajman Grid Station for ADWEA, UAE.

Customers



UTILITIES SERVED:

ADWEA (ADDC, AADC & TRANSCO), UAE
SEWA, UAE
FEWA, UAE
Muscat Electricity and distribution Co., Oman
Mazoon Electricity Distribution Co., Oman
Majan Electricity and Distribution Co., Oman
OETC, Oman
RAECO, Oman
DPC, Oman
KharaMaa, QATAR
Saudi Electricity Co, K.S.A
National Electricity Corporation, SUDAN
MEW IRAQ
Nigerian utility

COMMERCIAL SEGMENTS SERVED:

Hotels complexes
Office complexes
Residential complexes
Shopping malls

OIL & GAS:

Abu Dhabi company for onshore oil operation
GASCO, Abu Dhabi
ADCO, Abu Dhabi
NPCC, Abu Dhabi
Petroleum development, Oman
Occidental, Oman
ORPC, Oman
Egyptian petrochemicals co., Egypt
FPCC refinery project, Taiwan

INDUSTRIES SERVED:

Cement production
District cooling
Aluminium production
Steel melt shops
Steel rolling mills
Sugar production
Water pumping stations



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