

[Low Voltage Switchgear]

Pak Elektron Limited

Motor Control Center (MCC)

MCCs are mainly used in industrial process plants to protect and control motor loads and other similar applications. Our MCC panels are available with diverse ranges as per customer requirements.



Transformer Control Panels

PEL manufactures transformer control panels for power transformers to provide protection, control, indication and monitoring facilities. We offer transformer auxiliary control and outdoor Control units facilitating in delivery of continuous power supply within permissible and specified ranges.

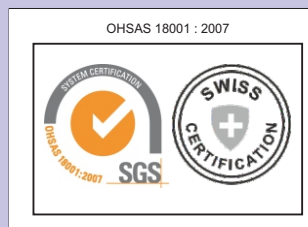


Routine Quality Check (QC) Tests

PEL has a very well organized, technically advanced and fully equipped quality control (QC) department for in-house testing and inspection to provide best quality products to our valuable customer.

Following routine tests are performed on LV panels:

- Power Frequency Test (2kV)
- Test on Auxiliary Electrical Devices
- Mechanical Operation Test
- Design & Visual Checks



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PEL is a licensed partner with GE for supplying LV SEN PLUS Type Tested panels (withdrawable type & fixed type). SEN PLUS is new generation low voltage switchgear based on GE series; it has passed full type tests according to latest IEC 61439-2 standard.



WHY SEN PLUS SOLUTION?

Tests & Standards:

- Four pole KEMA type tested assemblies up to 6400A for power distribution & control as per IEC 61439-2/EN 61439-2 and IEC/TR 61641 for internal arcing.

Dust & water proof:

- Certified to IEC 60529 for IP30-IP54 arrangements thus enable the installation of equipment in a range of environmental conditions.

Internal forms of separation:

- Up to form 4B as per IEC 61439-2 thus enables safe modifications under energized conditions.

Durable surface protection & Compact Design:

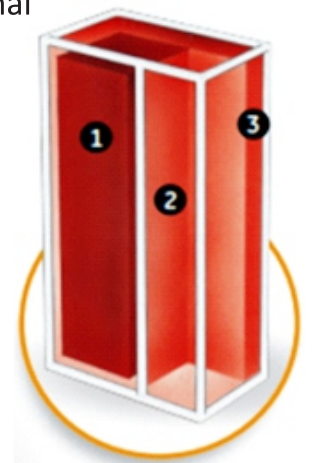
- Product design and epoxy power coating provides a shock and scratch resistant design & also increases functional floor space in building services.

LV Type Tested Solution Features

The system is available in different configurations and features, which include:

- ✓ Fixed, Plug-in, Withdrawable
- ✓ Front or rear Panel access
- ✓ Top and Back Bus Bars position
- ✓ Distribution Boards
- ✓ High current application up to 6400A
- ✓ Motor control centers

**The policy of PEL is one of continuous improvement. The right is reserved to alter the design of any product at anytime without given notice.



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PEL

Change your life

LOW VOLTAGE SWITCHGEAR

SEN+Plus

Optimized ventilation concept

- New fully ventilated Ip42 design
- Same derating from Ip30 through Ip42
- Full KEMA/DEKRA certified

For your safety

- Finger proof shrouds and barriers prevent accidental contact with busbars
- Door locks according to your safety requirements

Optimum accessibility

- 135/180 degree door opening angle

Rear access Motor Control Center - fixed

- Fixed motor starter and feeder applications
- Simple and fast cabling
- Competitive alternative for power distribution
- Optimized stacking density by use of
- MCCB's assembled in vertical orientation

Rear access Power Center

- Rearward cable connection
- Accessable from front and rear

Main busbar position in top

- New busbar in top for currents up to 4500A
- Panel front and rear access
- Improved panel derating
- Icw up to 100kA - 1s
- Fully accessible from top for infrared imaging

Fixed Options

- Separate Ip40 sheet metal covers for each compartment
- 80E mounting plate with one common door or individual doors.

Small modules

- 3 new module sizes
- Optimized stacking density
- Up to 32 motor starter - 11kW
- Up to 48 feeder - 25A
- Use of standard terminals

Rear access Motor Control Center

- Rearward cable connection
- Busbar position in top
- New compact Efficar motor starter units
- Simple and fast module assembly and wiring

Operator Protection

All operations are possible when the doors are closed
Enclosure is tested under arc fault conditions

Benefits

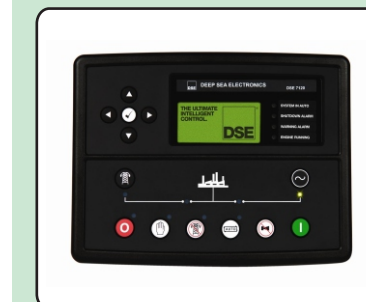
**LV Distribution Panels**

PEL offers safe and robust LV panels customized and tailor-made as per customer required system specifications for low voltage distribution system monitoring, controlling and protection.

Wide spectrum of distribution and control devices are offered for customer choice: ACBs, MCCBs, MCBs, ELCBs, LBS, Relays, contactors, instruments and necessary meters. Our product development and system solutions continue to set standards for quality, reliability and innovation.



"PEL is proud to possess competent team of qualified Engineers and staff covering all engineering phases from Product Development to Manufacturing, Designing, Planning, Production, Quality Assurance and Quality Control, having specialists for all these functions who strive together for excellence to achieve customer satisfaction."

**Generator Control Panels**

PEL Generator control panels can help in supplying uninterrupted power to your systems by enabling Generators synchronization, supply monitoring, supply transfer and automatic control of electrical parameters.

Power Factor Improvement & Control (PFI/PFC)

PEL PFI panels give you flexibility in choice & economy for improvement, automatic monitoring and control of your system's power factor. We offer automatic and manual P.F. control, monitoring and metering facilities, remote controlling and indication options.

**LV Type Tested Solution**

- ✓ LV Switchboards
- ✓ LV Load Centers
- ✓ LV Motor Control Center
- ✓ LV Distribution Board

LV Distribution Panels

- ✓ LV Switchboards & Panels
- ✓ Street Light control Panels
- ✓ AC/DC Auxiliary Supply Panels
- ✓ Automatic Transfer Switch
- ✓ AMF Panels

Generator Control Panels

- ✓ Generators Synchronization
- ✓ Generators and Utility Supply Monitoring & Transfer
- ✓ Generator Parameters Automatic Control

Power Factor Improvement Panels

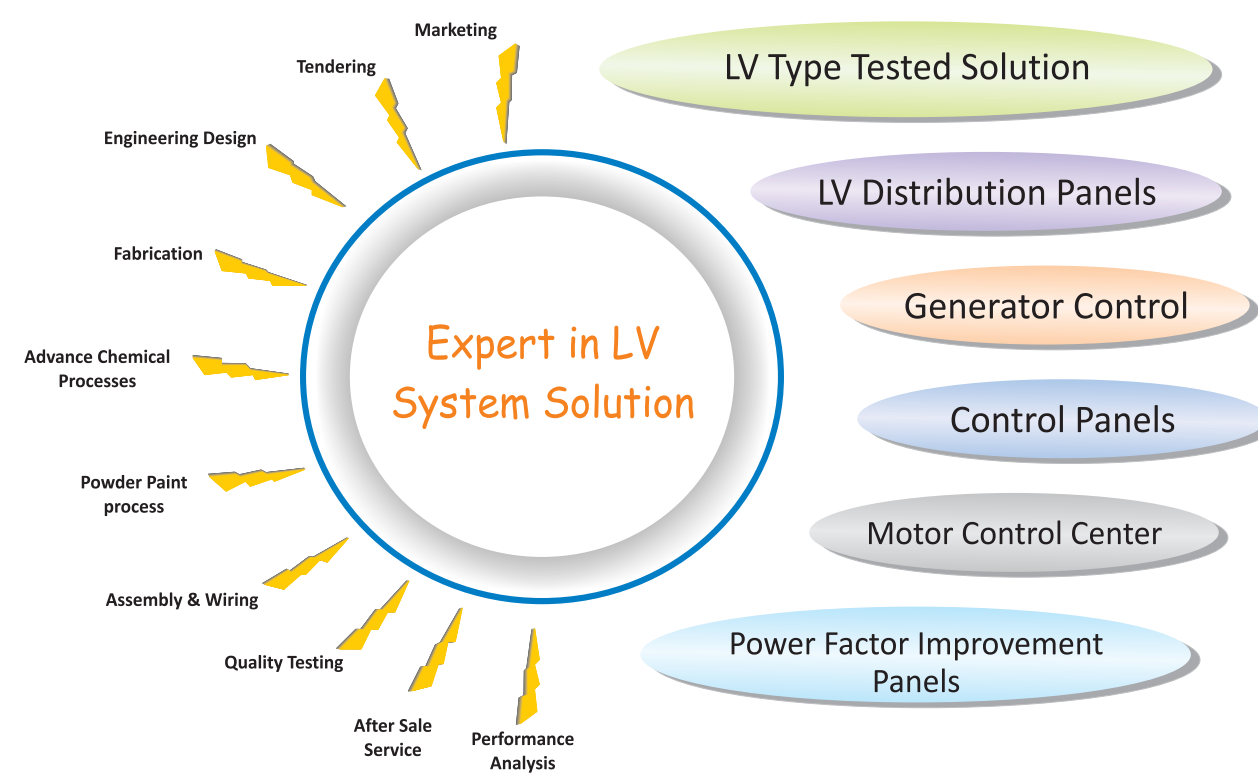
- ✓ Automatic & Manual P.F. control and improvement
- ✓ Monitoring and metering facilities
- ✓ Remote control Panels

Motor Control Center (MCC)

- ✓ Withdrawable MCC Panels.
- ✓ Soft Starter Panel
- ✓ Reverse Forward Starters
- ✓ Motor Protector and Controller

Transformer Control Panels

- ✓ Power Transformer Auxiliary Control Panels.
- ✓ Power Transformer Outdoor Control Panels.



Low Voltage series has been designed from the outset based on customer requirements.

The result is a product that offers unrivalled flexibility and user safety, backed up by comprehensive testing and support for many specific applications:

Commercial

- Small and large offices
- Warehouses
- Shopping malls
- Schools
- Hospitals
- Airports

Utilities

- Water treatment plants
- Waste management Energy (Electricity) distribution
- Telecommunications
- Cable providers

Industrial

- Printing
- Machinery
- Pharmaceutical
- Automotive
- Paper and Chemical industry

Flexible system to suit your requirements

