

PNL®

KABİN

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Perfect Design and Superior Quality in Electrical Panels...



EMPTY ENCLOSURES FOR L.V. SWITCHGEARS

ACCORDING TO IEC EN 62208
POLYURETHANE FOAM GASKET
IP65 IP54 IK10

Products →



L.V. FULLY TYPE TESTED ASSEMBLIES

ACCORDING TO IEC 61439-1/2
IEC 60068 ZONE-4 SEISMIC EARTHQUAKE
UP TO FORM-4B 100kA 4000A

Products →



BOXES AND ENCLOSURES

FOR ELECTRICAL ACCESSORIES FOR HOUSEHOLD
ACCORDING TO IEC 60670-24

Products →



SOLAR PHOTOVOLTAIC PANELS

UP TO 800VAC
FOR PV SOLAR ENERGY FACILITIES

Products →

About Us

As Panel Cabin Electrical Systems Company, our production center and office building are located in Esenyurt Alkop Industrial Site . Since 1994;

- In Industrial Facilities, Power Plants
- Heavy Industry Factories
- In Mass Housing, Shopping Malls and Hospitals
- In Port and Marine Projects

We provide services in Empty Panel manufacturing and Assembled Electrical panels.

We can export without any problems due to the certificates we have.

- Our GOST-R - EAC Certificate, which is accepted as the standard of the Russian government and the Turkic States,
- We have a CE Conformity Approval Certificate, which is seen as an entry ticket to EU countries.
- Compliant with ISO 9001, ISO 45001 and ISO 14001 Quality management system certificates
- 4000A 100kA FORM-4B Full Type Test Certified Mounted Electrical Panel in accordance with IEC EN 61439-2 Standard
- Certified Empty and Assembled Electrical Panel in accordance with IEC EN 60068 Seismic (Earthquake) ZONE4 Standard
- Seismic (Earthquake) Certified Empty and Assembled Electrical Panel in accordance with UL AC-156 American Standard
- TSE certified EMPTY Panel production in accordance with IEC EN 62208 Standard
- We produce TSE certified fuse boxes in accordance with IEC EN 60670-24 standard.

Panel Kabin produces modular and welded electrical panels on automatic machine tools.

In our machinery, CE certified heavy industry CNC machines suitable for the latest technology are used.

The sheets we used in panel manufacturing are Ereğli Iron and Steel products.

Liquid gasket casting is used in our products with CNC gasket casting machine. The gaskets used provide IP65 level.

Due to the advantage of being a manufacturing company in the sector, we also provide TSE certified IEC 62208 (Empty Enclosures) to our colleagues.

We provide support in the sale of Empty Panels.

Besides ;

- Metal sheet cutting, drilling, bending operations kiosk panels
- Generator cabins
- Shelves and stands
- Withdrawable Electrical Panels
- We also manufacture special production products.

Although we provide service to every region of Turkey and all over the world, we can also issue export registered invoices as we are a manufacturer company.

Vision & Mission

Our Vision

- To make Panel Kabin a global brand by meeting customers' expectations at the highest level and continuing to grow, based on the philosophy of total quality management.

Our Mission

- Providing the best service in the sector at optimum cost by using our resources effectively;
- Giving the necessary importance to product development, bringing new products to the sector and being a follower of technological innovations.
- To be a company that achieves customer satisfaction at the highest level, creates an educated and qualified workforce by keeping the principle of the best investment in its employees, and adds value to our country with social responsibility and the environment.

Quality Policy

Our company's senior management has determined our quality policy, which states our company's goals and guides its goals, aims to improve continuously, and indicates its commitment. This policy was communicated to all our employees through training, and they were ensured to understand and comprehend it. By hanging in visible places in our company, our goals and commitments are constantly visible to our employees, customers, and suppliers.

Our quality policy is reviewed annually to ensure its suitability, effectiveness, and whether it is indicative of our goals and objectives.

Our goal is to move our company to a level where it can compete with our competitors in the international market regarding quality, price, and efficiency and to improve and improve our products and systems continuously. As we walk towards our goal, our basic policy is to accept quality as our primary line and to increase customer, employee, and shareholder satisfaction constantly.

- To become a leading company in our industry by increasing domestic sales volume,
- Reduce Costs
- To expand training activities for all personnel, to constantly support them, to encourage them to participate in quality improvement and development studies,
- Since our goal is customer satisfaction and continuous improvement, we are never satisfied with our work and always seek better and error-free.



General Information

Explanation	Applicable Qualification
Trademark	PNL Kabin
According to Place of Use	LV Power Distribution Equipment
Place of use	Indoor & Outdoor Environments
Main Busbar Short Circuit Breaking Withstand Current	Icw 100 kA
Short Circuit Peak Withstand Current to Main Busbar	Ipk 220 kA
Hardware Internal Allocation Format	Form 1 / Form 2b (2a) / Form 3b (3a) / Form 4b (4a)
Mechanical Impact Protection Class	IK 10
External Protection Degree (IP)	IP31 / IP41 / IP55 / IP65
Internal Protection Degree (IP)	IP30

Certificates

Applicable Standards
Full Type Test IEC EN 61439-1/2 4000A 100kA Form 4B Low voltage switching and control equipment
TSE EN 61439-1/2 Low voltage switching and control equipment
TSE EN 62208, IEC EN 62208 Empty Enclosures - Low voltage switching and control equipment
Degree of Protection Provided in TSE EN 60529, IEC EN 60529 Enclosures (IP Code)
TSE EN 62262, IEC EN 62262 Protection Degrees Provided by the Enclosure of Electrical Equipment Against External Mechanical Impacts (IK Code)
Control and Protection Scheme for TSE EN 60670-1/24, IEC EN 60670-1/24 Fuse and Vending Boxes
Turkak ISO 9001-2008 Quality Management System
Gost-R ,EAC Russia Declaration
CE 2006-95AT Low Voltage Directive
2014 88671 Trademark Registration
IEC EN 60068-3-3 IEC EN 60068-2-57 IEC EN 60068-2-6 ZONE-4 Criterion 0 Seismic (Earthquake) Certificate
UL ICC-ES AC 156, IEC EN 60068-2-47 Seismic (Earthquake) Certificate
ISO 140001:2015 Environmental Management System
ISO 450001:2015 Occupational Health and Safety Management System
Turkak Measuring and Testing Devices Calibration Certificates

Standard Dimensions

This product group is measured on a project basis.

It is used to command and control the system appropriately in shopping malls, industrial facilities, smart buildings, treatment plants, and all areas where LV power control is required.

It is a critical type of electrical panel that allows the electrical energy of the building or facility to be taken from the incoming power line and distributed to different electrical circuits and sub-panels of the building. ADP panels are designed by taking into account the dynamic forces created by the on-off maneuvers of high-breaking capacity breakers up to 6300A applications. In electrical installation, electrolytic copper busbars suitable for total power and short circuit currents are selected and supported at appropriate intervals within IEC 61439-2 and TS 3367 standards. In accordance with IEC 61439-2 standards, auxiliary separators and switches from Form 2a to Form 4b Type 7 can be formed with the help of accessories for operational safety.

Main Distribution Point: The main distribution panel is usually connected to a building or facility's primary energy supply source. This source can be the main line of the power grid or a large energy converter such as a transformer.

Distribution of Electrical Energy: ADP distributes incoming electrical energy to different areas or circuits of the building. These zones include lighting, outlets, HVAC (heating, ventilation, and air conditioning), machinery, and other loads.

Circuit Breakers or Fuses: ADP includes circuit breakers or fuses to energize and protect different circuits. Each circuit provides protection in case of overcurrent.

Power Capacity: The ADP must have the power capacity appropriate to the needs of the building or facility. This is important to meet the maximum energy demands of the building.

Protection and Safety: The main distribution panel monitors and controls overcurrent, overvoltage, and other hazardous conditions. This prevents electrical fires and safety risks.

Automation Capabilities: Some modern ADPs have automation features for energy management and monitoring. This improves energy efficiency and offers remote monitoring.

Redundancy and Stability: The main distribution panel can have redundancy in case of power outages, ensuring a continuous energy supply.

Distribution of Electrical Energy: ADP distributes incoming electrical energy to different areas or circuits of the building. These zones include lighting, outlets, HVAC (heating, ventilation, and air conditioning), machinery, and other loads.

Technical Details

Explanation	Applicable Qualification
According to Facility Conditions	Indoor/Outdoor Fixed Equipment
By Electric Shock	Authorized Personnel
Operating voltage(Ue)	400 V AC 3 PHASE+Neutral+Ground
Impact Resistance Back (Uimp) in Main Circuits	8 kV
Impact Resistance Back (Uimp) in Auxiliary Circuits	8 kV
Insulation Voltage(Ui)	690 V
Mains Frequency Withstand Voltage	1000 V
Hardware Operating Current(Ina)	4000KVA / 6300A
Frequency(Fn)	50 HZ
Number of Poles	3 or 4
Electromagnetic Compatibility (EMC) Classification	A Class
Hardware Operating Temperature	.5/+35(ort24H)___max+40
Hardware Working Height (m)	2000<
Pollution Degree	3
Hardware Cooling Type (Natural/Forced)	Natural/ALGEBRIC
Busbar Sections Brand/Resistance	Electrolyte Flat (57-58uS)
Cable Type and Feature	Nyaf Halogen Free, H07Z1-K
Cable Labeling	HF Heat Shrink Tubing or KE Overfit
Control Cable Colors	Color codes suitable for the project
Bolt Type	Zinc Coated 8.8 Grade
Connection Terminal Type	Push in Spring Pressed or Screwed



It is a type of electrical panel used to compensate electrical energy in order to provide energy efficiency and power factor improvement.

These panels, which are used to compensate the system in the most appropriate way, are projected to IEC 60617 standards by our expert team. RPCC panels are designed for applications up to 2500 KVA, taking into account harmonics and the most appropriate stepping options. In electrolytic assembly, electrolytic copper busbars suitable for total power and short circuit currents are selected and supported at appropriate intervals within IEC 61439-1 and TS 3367 standards.

Power Factor Improvement: The main purpose of compensation panels is to improve the power factor. Power factor measures the efficiency of an electrical circuit and means that in an ideal situation (considered to be 1), all energy is converted into active power. However, many industrial loads generate inductive (reactive) power, causing the power factor to decrease. The compensation panel increases the power factor by balancing this reactive power.

Capacitors: The compensation board usually contains large capacitors. These capacitors help balance reactive power. Inductive loads in industrial facilities enable capacitors to consume reactive power, which increases the power factor.

Energy Efficiency: Power factor improvement increases energy efficiency. A higher power factor means less reactive power generation and lower losses. This can reduce energy costs.

Protection and Control: Compensation panels ensure safe operation of capacitors. Additionally, these panels contain protection and control devices and monitor and control overcurrent, overvoltage and other hazardous conditions.

Remote Monitoring and Control: Modern compensation panels can be integrated with remote monitoring and control systems. In this way, energy management becomes more efficient.

Industrial and Commercial Use: Compensation panels are used in many different places such as industrial facilities, shopping malls, hotels and large buildings. Especially large industrial facilities are places where the power factor must be improved regularly.

General Information

Explanation	Applicable Qualification
Trademark	PNL Kabin
According to Place of Use	LV Power Distribution Equipment
Place of Use	Indoor & Outdoor Environments
Main Busbar Short Circuit Breaking Withstand Current	Icw 100 kA
Short Circuit Peak Withstand Current to Main Busbar	Ipk 220 kA
Hardware Internal Allocation Format	Form 1 / Form 2b (2a) / Form 3b (3a) / Form 4b (4a)
Mechanical Impact Protection Class	IK 10
External Protection Degree (IP)	IP31 / IP41 / IP55
Internal Protection Degree(IP)	IP30

Certificates

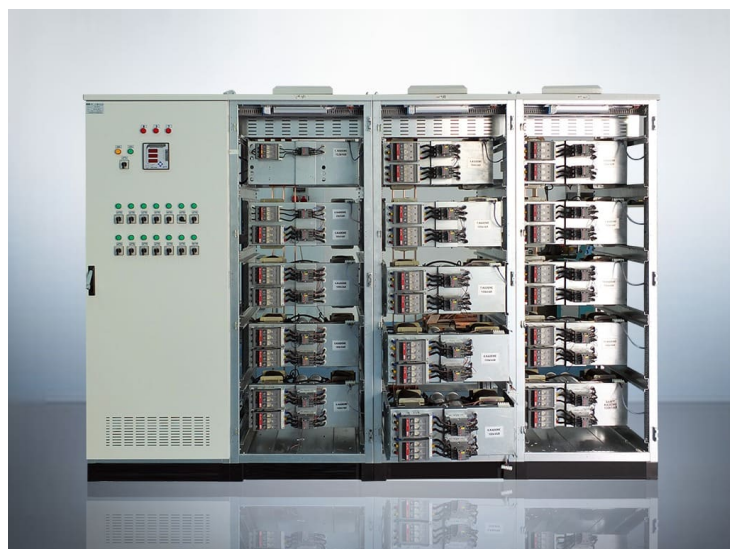
Applicable Standards
Full Type Test IEC EN 61439-1/2 4000A 100kA Form 4B Low voltage switching and control equipment
TSE EN 61439-1/2 Low voltage switching and control equipment
TSE EN 62208, IEC EN 62208 Empty Enclosures - Low voltage switching and control equipment
Degree of Protection Provided in TSE EN 60529, IEC EN 60529 Enclosures (IP Code)
TSE EN 62262, IEC EN 62262 Protection Degrees Provided by the Enclosure of Electrical Equipment Against External Mechanical Impacts (IK Code)
Control and Protection Scheme for TSE EN 60670-1/24, IEC EN 60670-1/24 Fuse and Vending Boxes
Turkak ISO 9001-2008 Quality Management System
Gost-R ,EAC Russia Declaration
CE 2006-95AT Low Voltage Directive
2014 88671 Trademark Registration
IEC EN 60068-3-3 IEC EN 60068-2-57 IEC EN 60068-2-6 ZONE-4 Criterion 0 Seismic (Earthquake) Certificate
UL ICC-ES AC 156, IEC EN 60068-2-47 Seismic (Earthquake) Certificate
ISO 140001:2015 Environmental Management System
ISO 450001:2015 Occupational Health and Safety Management System
Turkak Measuring and Testing Devices Calibration Certificates

Standard Dimensions

This product Group Project Is Measured From Some.

Technical Details

Explanation	Applicable Qualification
According to Facility Conditions	Indoor/Outdoor Fixed Equipment
By Electric Shock	Authorized Personnel
Operating Voltage (Ue)	400 V AC 3 PHASE+Neutral+Ground
Impact Resistance Back (Uimp) in Main Circuits	8 kV
Impact Resistance Back (Uimp) in Auxiliary Circuits	8 kV
Insulation Voltage(Ui)	690 V
Mains Frequency Withstand Voltage	1000 V
Hardware Operating Current(I _{na})	2500KVAR / 4000A
Frequency(Fn)	50 HZ
Number of Poles	3 or 4
Electromagnetic Compatibility (EMC) Classification Type	A Class
Hardware Operating Temperature	.5/+35(ort24H)___max+40
Hardware Working Height (m)	2000<
Pollution Degree	3
Hardware Cooling Type (Natural/Forced)	Natural/ALGEBRIC
Busbar Sections Brand/Resistance	Electrolyte Flat (57-58uS)
Cable Type and Feature	Nyaf Halojen Free , H07Z1-K
Cable Labeling	HF Heat Shrink Tubing or KE Over Fit
Control Cable Colors	Color codes suitable for the project
Bolt Type	Zinc Coated 8.8 Grade
Connection Terminal Type	Push in Spring Pressed or Screwed



General Information

Explanation	Applicable Qualification
Trademark	PNL Kabin
According to Place of Use	LV Power Distribution Equipment
Place of Use	Indoor & Outdoor Environments
Main Busbar Short Circuit Breaking Withstand Current	Icw 100 kA
Short Circuit Peak Withstand Current to Main Busbar	Ipk 220 kA
Hardware Internal Allocation Format	Form 1 / Form 2b (2a) / Form 3b (3a) / Form 4b (4a)
Mechanical Impact Protection Class	IK 10
External Protection Degree (IP)	IP31 / IP41 / IP54 / IP65
Internal Protection Degree (IP)	IP30

Certificates

Applicable Standards
Full Type Test IEC EN 61439-1/2 4000A 100kA Form 4B Low voltage switching and control equipment
TSE EN 61439-1/2 Low voltage switching and control equipment
TSE EN 62208, IEC EN 62208 Empty Enclosures - Low voltage switching and control equipment
TSE EN 62262, IEC EN 62262 Protection Degrees Provided by the Enclosure of Electrical Equipment Against External Mechanical Impacts (IK Code)
Control and Protection Scheme for TSE EN 60670-1/24, IEC EN 60670-1/24 Fuse and Vending Boxes
Turkak ISO 9001-2008 Quality Management System
Gost-R ,EAC Russia Declaration
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IEC EN 60068-3-3 IEC EN 60068-2-57 IEC EN 60068-2-6 ZONE-4 Criterion 0 Seismic (Earthquake) Certificate
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Standard Dimensions

This product group is measured on a project basis.

Compared to standard compensation panels, the fact that the stages are withdrawable provides the opportunity to intervene in the panel without being exposed to a power outage in case of malfunction and maintenance. With the regular placement of capacitors, up to 500kvar power can be obtained in one panel.

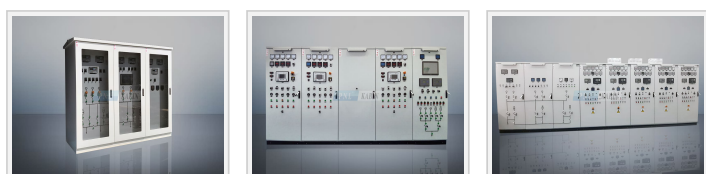
Withdrawable Compensation panels play an important role in energy efficiency and power factor improvement. A properly designed and maintained compensation panel can reduce energy consumption, lower energy costs and ensure safer and more efficient operation of electrical facilities.

Drawer modules can be removed and installed thanks to their socket structure, providing the user with greater ease of use compared to wired systems. In order to remove the drawer for repair or maintenance purposes, the security pin must first be removed. Drawer types vary depending on the shunt reactor, harmonic filter and capacitor sizes to be used inside. The most suitable drawer is offered to the user according to the project.

WRPCC panels are designed for applications up to 2500 KVA, taking into account harmonics and the most appropriate stepping options. In electrolytic assembly, electrolytic copper busbars suitable for total power and short circuit currents are selected and supported at appropriate intervals within IEC 61439-1 and TS 3367 standards. Withdrawable Compensation panels play an important role in energy efficiency and power factor improvement.

Technical Details

Explanation	Applicable Qualification
According to Facility Conditions	Indoor/Outdoor Fixed Equipment
By Electric Shock	Authorized Personnel
Operating Voltage(Ue)	400 V AC 3 PHASE+Neutral+Ground
Impact Resistance Back (Uimp) in Main Circuits	8 kV
Impact Resistance Back (Uimp) in Auxiliary Circuits	8 kV
Insulation Voltage(Ui)	690 V
Mains Frequency Withstand Voltage	1000 V
Hardware Operating Current(I _{na})	2500KVAR / 4000A
Frequency(Fn)	50 HZ
Number of Poles	3 or 4
Electromagnetic Compatibility (EMC) Classification Type	Class A
Hardware Operating Temperature	.5/+35(ort24H)___max+40
Hardware Working Height (m)	2000<
Pollution Degree	3
Hardware Cooling Type (Natural/Forced)	Natural/ALGEBRIC
Busbar Sections Brand/Resistance	Electrolyte Flat (57-58uS)
Cable Type and Feature	Nyaf Halogen Free, H07Z1-K
Cable Labeling	HF Heat Shrink Tubing or KE Overfit
Control Cable Colors	Color codes suitable for the project
Bolt Type	Zinc Coated 8.8 Grade
Connection Terminal Type	Push in Spring Pressed or Screwed



Synchronization panels are an electrical panel used to synchronize and combine energy in facilities with more than one transformer and generator system.

The most essential feature of generator synchronization systems is that one or more generators work on the same power line with another generator or network and share the load.

This simultaneous operation is achieved by controlling the amplitude, frequency, and phase angle of the generator's voltage signal. These parameters are adjusted and retained according to the system to be installed, the type of application, and the produced welding voltage is transmitted to the facility via switching elements (switches).

Synchronization Process: Synchronization panels are used to synchronize different power sources (e.g., generators, alternative energy sources, or separate electrical grids). Synchronization involves matching parameters such as frequency and phase angle so that electrical energy from different sources can be combined seamlessly.

Power Backup and Stability: Synchronization boards synchronize backup power supplies with the mains during power outages or other issues. This is important to maintain electricity stability and reduce outage time.

Coordination and Control: Synchronization boards are used to coordinate and control different power supplies. This optimizes the operation of the electrical grid and increases energy efficiency.

Automation: Modern synchronization panels can be integrated with automation systems. This makes the synchronization process more efficient and reduces human intervention.

Safety and Protection: Synchronization boards enable safe and trouble-free coupling of power supplies. Additionally, it monitors and protects against overcurrent, overvoltage, and other hazardous conditions.

Energy Distribution: Synchronization panels help distribute energy evenly within or between facilities. This allows energy to be shared between specific loads.

General Information

Explanation	Applicable Qualification
Trademark	PNL Kabin
According to Place of Use	LV Power Distribution Equipment
Place of Use	Indoor & Outdoor Environments
Main Busbar Short Circuit Breaking Withstand Current	Icw 100 kA
Short Circuit Peak Withstand Current to Main Busbar	Ipk 220 kA
Hardware Internal Allocation Format	Form 1 / Form 2b (2a) / Form 3b (3a) / Form 4b (4a)
Mechanical Impact Protection Class	IK 10
External Protection Degree (IP)	IP31 / IP41 / IP54 / IP65
Internal Protection Degree (IP)	IP30

Certificates

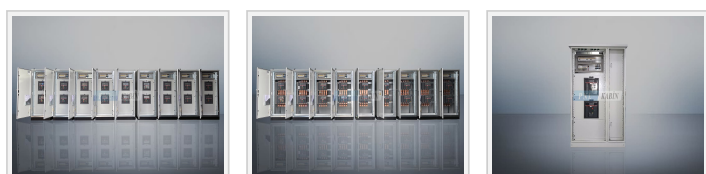
Applicable Standards
Full Type Test IEC EN 61439-1/2 4000A 100kA Form 4B Low voltage switching and control equipment
TSE EN 61439-1/2 Low voltage switching and control equipment
TSE EN 62208, IEC EN 62208 Empty Enclosures - Low voltage switching and control equipment
Degree of Protection Provided in TSE EN 60529, IEC EN 60529 Enclosures (IP Code)
TSE EN 62262, IEC EN 62262 Protection Degrees Provided by the Enclosure of Electrical Equipment Against External Mechanical Impacts (IK Code)
Control and Protection Scheme for TSE EN 60670-1/24, IEC EN 60670-1/24 Fuse and Vending Boxes
Turkak ISO 9001-2008 Quality Management System
Gost-R ,EAC Russia Declaration
CE 2006-95AT Low Voltage Directive
2014 88671 Trademark Registration
IEC EN 60068-3-3 IEC EN 60068-2-57 IEC EN 60068-2-6 ZONE-4 Criterion 0 Seismic (Earthquake) Certificate
UL ICC-ES AC 156, IEC EN 60068-2-47 Seismic (Earthquake) Certificate
ISO 140001:2015 Environmental Management System
ISO 450001:2015 Occupational Health and Safety Management System
Turkak Measuring and Testing Devices Calibration Certificates

Standard Dimensions

This product Group Project Is Measured From Some.

Technical Details

Explanation	Applicable Qualification
According to Facility Conditions	Indoor/Outdoor Fixed Equipment
By Electric Shock	Authorized Personnel
Operating Voltage (Ue)	400 V AC 3 PHASE+Neutral+Ground
Impact Resistance Back (Uimp) in Main Circuits	8 kV
Impact Resistance Back (Uimp) in Auxiliary Circuits	8 kV
Insulation Voltage(Ui)	690 V
Mains Frequency Withstand Voltage	1000 V
Hardware Operating Current(Ina)	4000A
Frequency(Fn)	50 HZ ve 60HZ
Number of Poles	3 or 4
Electromagnetic Compatibility (EMC) Classification Type	Class A
Hardware Operating Temperature	.5/+35(ort24H)___max+40
Hardware Working Height (m)	2000<
Pollution Degree	3
Hardware Cooling Type (Natural/Forced)	Natural/ALGEBRIC
Busbar Sections Brand/Resistance:	Electrolyte Flat (57-58uS)
Cable Type and Feature	Nyaf Halogen Free, H07Z1-K
Cable Labeling	HF Heat Shrink Tubing or KE Over Fit
Control Cable Colors	Color codes suitable for the project
Bolt Type	Zinc Coated 8.8 Grade
Connection Terminal Type	Push in Spring Pressed or Screwed



It allows electrical energy to switch automatically between the grid and the generator. It aims to provide continuous and uninterrupted energy during outages or problems in the electricity network.

ATS panels, up to 6300A applications, are designed considering the dynamic forces created by the opening and closing maneuvers of high-breaking capacity breakers.

Under normal conditions, the load line is fed directly from the grid when there is electrical energy. However, when the mains electricity is interrupted and has poor energy quality (energy drop or fluctuation, etc.), the generator comes into play and continues to feed the load line. After the mains energy returns to its ordinary course, the load line feed is transferred back to the network, and the generator is disabled. The systems that perform this transfer are provided with transfer panels. It ensures that operations continue in hospitals, data centers, and other applications.

Switching Function: Automatic Transfer Panels perform an automatic switching function between the primary power source (usually the mains or generator) and the backup power source (usually a generator). If the direct power supply fails or a specific parameter (e.g., voltage or frequency) exceeds limits, the automatic transfer panel switches to the backup power supply.

Uninterruptible Power Supply: ATs ensure a continuous uninterrupted electrical power supply. This ensures continued uninterrupted operation in critical facilities, hospitals, data centers, and other application areas.

Automation and Monitoring: Modern automatic transfer panels can be integrated with automation systems and monitored remotely. In this way, it ensures that transitions between power sources are made automatically and under control. It also provides information to diagnose system errors and monitor resources.

Bidirectional Functionality: Some automatic transfer panels offer bidirectional functionality in controlling the energy load. This means switching electricity from the primary power source to the backup power source and vice versa.

Backup Power Supplies: Automatic Transfer Panels make it easier to use backup power sources (such as generators). This is especially important in areas where power outages are frequent or in emergency situations.

Protection and Safety: ATs ensure safe switching of power supplies and monitor and control overcurrent, overvoltage, and other hazardous conditions.

General Information

Explanation	Applicable Qualification
Trademark	PNL Kabin
According to Place of Use	LV Power Distribution Equipment
Place of Use	Indoor & Outdoor Environments
Main Busbar Short Circuit Breaking Withstand Current	Icw 100 kA
Short Circuit Peak Withstand Current to Main Busbar	Ipk 220 kA
Hardware Internal Allocation Format	Form 1 / Form 2b (2a) / Form 3b (3a) / Form 4b (4a)
Mechanical Impact Protection Class	IK 10
External Protection Degree (IP)	IP31 / IP41 / IP54 / IP65
Internal protection Degree (IP)	IP30

Certificates

Applicable Standards
Full Type Test IEC EN 61439-1/2 4000A 100kA Form 4B Low voltage switching and control equipment
TSE EN 61439-1/2 Low voltage switching and control equipment
TSE EN 62208, IEC EN 62208 Empty Enclosures - Low voltage switching and control equipment
Degree of Protection Provided in TSE EN 60529, IEC EN 60529 Enclosures (IP Code)
TSE EN 62262, IEC EN 62262 Protection Degrees Provided by the Enclosure of Electrical Equipment Against External Mechanical Impacts (IK Code)
Control and Protection Scheme for TSE EN 60670-1/24, IEC EN 60670-1/24 Fuse and Vending Boxes
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2014 88671 Trademark Registration
IEC EN 60068-3-3 IEC EN 60068-2-57 IEC EN 60068-2-6 ZONE-4 Criterion 0 Seismic (Earthquake) Certificate
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ISO 140001:2015 Environmental Management System
ISO 450001:2015 Occupational Health and Safety Management System
Turkak Measuring and Testing Devices Calibration Certificates

Standard Dimensions

This product group is measured on a project basis.

Technical Details

Explanation	Applicable Qualification
According to Facility Conditions	Indoor/Outdoor Fixed Equipment
By Electric Shock	Authorized Personnel
Operating Voltage(Ue)	400 V AC 3 PHASE+Neutral+Ground
Impact Resistance Back (Uimp) in Main Circuits	8 kV
Impact Resistance Back (Uimp) in Auxiliary Circuits	8 kV
Insulation Voltage(Ui)	690 V
Mains Frequency Withstand Voltage	1000 V
Hardware Operating Current(Ina)	4000A
Frequency(Fn)	50 HZ and 60HZ
Number of Poles	3 or 4
Electromagnetic Compatibility (EMC) Classification Type	Class A
Hardware Operating Temperature	.5/+35(ort24H)___max+40
Hardware Working Height (m)	2000<
Pollution Degree	3
Hardware Cooling Type (Natural/Forced)	Natural/ALGEBRIC
Busbar Sections Brand/Resistance:	Electrolyte Flat (57-58uS)
Cable Type and Feature	Nyaf Halogen Free, H07Z1-K
Cable Labeling	HF Heat Shrink Tubing or KE Over Fit
Control Cable Colors	Color codes suitable for the project
Bolt Type	Zinc Coated 8.8 Grade
Connection Terminal Type	Push in Spring Pressed or Screwed



It has vast usage opportunities in all areas of intense motor control, such as production lines, factories, smart buildings, treatment facilities, and pump stations.

MCC panels are our panel groups used in control and command centers where the motors are fed. Motor Control Center (MCC) panels are special electrical panels used to control and protect large and complex electric motors in industrial facilities. MCC panels organize, control, and preserve electrical circuits to ensure motors' safe and effective operation.

Motor Control: MCC panels control the operation of industrial motors. These motors are used in conveyor systems, pump stations, compressors, and similar applications.

Circuit Protection: MCC panels monitor and protect against overcurrent, overheating, short circuits, and other dangerous conditions for motors and other devices. This prevents device damage or safety hazards.

Control Systems: MCC panels contain control devices to control motors' speed, direction, and status. These control systems allow operators to control engines remotely or on-site.

Energy Efficiency: MCC panels can be designed to increase energy efficiency. Engine start and stop can be made more efficient and help use energy resources more effectively.

Automation and Remote Monitoring: MCC panels can be integrated with automation systems and remote monitoring systems. In this way, engine control and monitoring processes are made more efficient.

General Information

Explanation	Applicable Qualification
Trademark	PNL Kabin
According to Place of Use	LV Power Distribution Equipment
Place of Use	Indoor & Outdoor Environments
Main Busbar Short Circuit Breaking Withstand Current	Icw 100 kA
Short Circuit Peak Withstand Current to Main Busbar	Ipk 220 kA
Hardware Internal Allocation Format	Form 1 / Form 2b (2a) / Form 3b (3a) / Form 4b (4a)
Mechanical Impact Protection Class	IK 10
External Protection Degree (IP)	IP31 / IP41 / IP54 / IP65
Internal protection degree(IP)	IP30

Certificates

Applicable Standards
Full Type Test IEC EN 61439-1/2 4000A 100kA Form 4B Low voltage switching and control equipment
TSE EN 61439-1/2 Low voltage switching and control equipment
TSE EN 62208, IEC EN 62208 Empty Enclosures - Low voltage switching and control equipment
Degree of Protection Provided in TSE EN 60529, IEC EN 60529 Enclosures (IP Code)
TSE EN 62262, IEC EN 62262 Protection Degrees Provided by the Enclosure of Electrical Equipment Against External Mechanical Impacts (IK Code)
Control and Protection Scheme for TSE EN 60670-1/24, IEC EN 60670-1/24 Fuse and Vending Boxes
Turkak ISO 9001-2008 Quality Management System
Gost-R ,EAC Russia Declaration
CE 2006-95AT Low Voltage Directive
2014 88671 Trademark Registration
IEC EN 60068-3-3 IEC EN 60068-2-57 IEC EN 60068-2-6 ZONE-4 Criterion 0 Seismic (Earthquake) Certificate
UL ICC-ES AC 156, IEC EN 60068-2-47 Seismic (Earthquake) Certificate
ISO 140001:2015 Environmental Management System
ISO 450001:2015 Occupational Health and Safety Management System
Turkak Measuring and Testing Devices Calibration Certificates

Standard Dimensions

This product group project Is measured from some.

Technical Details

Explanation	Applicable Qualification
According to Facility Conditions	Indoor/Outdoor Fixed Equipment
By Electric Shock	Authorized Personnel
Operating Voltage(Ue)	400 V AC 3 PHASE+Neutral+Ground
Impact Resistance Back (Uimp) in main circuits	8 kV
Impact Resistance Back (Uimp) in Auxiliary Circuits	8 kV
Insulation Voltage(Ui)	690 V
Mains Frequency Withstand Voltage	1000 V
Hardware Operating Current(Ina)	4000A
Frequency(Fn)	50 HZ and 60HZ
Number of Poles	3 or 4
Electromagnetic Compatibility (EMC) Classification Type	Class A
Hardware Operating Temperature	.5/+35(ort24H)___max+40
Hardware Working Height (m)	2000<
Pollution Degree	3
Hardware Cooling Type (Natural/Forced)	Natural/ALGEBRIC
Busbar Sections Brand/Resistance:	Electrolyte Flat (57-58uS)
Cable Type and Feature	Electrolyte Flat (57-58uS)
Cable Type and Feature	Nyaf Halogen Free, H07Z1-K
Cable Labeling	HF Heat Shrink Tubing or KE Over Fit
Control Cable Colors	Color codes suitable for the project
Bolt Type	Zinc Coated 8.8 Grade
Connection Terminal Type	Push in Spring Pressed or Screwed



It is designed to command and control energy measurement and security in the most appropriate way in public housing, business centers and shopping malls.

Meter Panels meet the meter sealing requirements, taking into account the acceptance criteria of the electricity company.

Energy Meters and Measuring Devices: Meter panels contain energy meters and measuring devices used to measure electrical energy consumption. These devices are used to determine how much of the service is consumed.

User Consumption Information: Meter panels allow users to monitor energy consumption over a period of time. This information is important for billing, data analysis, and energy efficiency efforts.

Remote Reading and Monitoring: Can be integrated with remote reading and monitoring systems. This makes it easy to retrieve and monitor meter information remotely and ensures fast service.

Billing and Revenue Collection: Helps service providers bill users accurately. This enables revenue collection to cover the costs of services.

Data Analysis: Data collected by meter panels contains important information about energy consumption and usage patterns. This data can be used to improve energy efficiency and optimize energy management strategies.

Protection and Security: Meter panels can be designed to protect against energy theft. It also protects the safe operation of meters and consumption information.

Customizability: Meter panels can be customized to suit different metering needs and service types. For example, a commercial facility's energy meter panel may have different requirements than a home's energy meter panel.

General Information

Explanation	Applicable Qualification
Trademark	Pnl Kabin
According to Place of Use	LV Power Distribution Equipment
Place of Use	Indoor & Outdoor Environments
Main Busbar Short Circuit Breaking Withstand Current	Icw 100 kA
Short Circuit Peak Withstand Current to Main Busbar	Ipk 220 kA
Hardware Internal Allocation Format	Form 1 / Form 2b (2a) / Form 3b (3a) / Form 4b (4a)
Mechanical Impact Protection Class	IK 10
External Protection Degree (IP)	IP31 / IP41 / IP54 / IP65
Internal Protection Degree (IP)	IP30

Certificates

Applicable Standards
Full Type Test IEC EN 61439-1/2 4000A 100kA Form 4B Low voltage switching and control equipment
TSE EN 61439-1/2 Low voltage switching and control equipment
TSE EN 62208, IEC EN 62208 Empty Enclosures - Low voltage switching and control equipment
Degree of Protection Provided in TSE EN 60529, IEC EN 60529 Enclosures (IP Code)
TSE EN 62262, IEC EN 62262 Protection Degrees Provided by the Enclosure of Electrical Equipment Against External Mechanical Impacts (IK Code)
Control and Protection Scheme for TSE EN 60670-1/24, IEC EN 60670-1/24 Fuse and Vending Boxes
Turkak ISO 9001-2008 Quality Management System
Gost-R ,EAC Russia Declaration
CE 2006-95AT Low Voltage Directive
2014 88671 Trademark Registration
IEC EN 60068-3-3 IEC EN 60068-2-57 IEC EN 60068-2-6 ZONE-4 Criterion 0 Seismic (Earthquake) Certificate
UL ICC-ES AC 156, IEC EN 60068-2-47 Seismic (Earthquake) Certificate
ISO 140001:2015 Environmental Management System
ISO 450001:2015 Occupational Health and Safety Management System
Turkak Measuring and Testing Devices Calibration Certificates

Standard Dimensions

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Technical Details

According to Facility Conditions	Applicable Qualification
According to Facility Conditions	Indoor/Outdoor Fixed Equipment
By Electric Shock	Authorized Personnel
Operating Voltage(Ue)	400 V AC 3 PHASE+Neutral+Ground
Impact Resistance Back (Uimp) in Main Circuits	8 kV
Impact Resistance Back (Uimp) in Auxiliary Circuits	8 kV
Insulation Voltage(Ui)	690 V
Mains Frequency Withstand Voltage	1000 V
Hardware Operating Current(I _{na})	4000A
Frequency(Fn)	50 HZ and 60HZ
Number of Poles	3 or 4
Electromagnetic Compatibility (EMC) Classification Type	Class A
Hardware Operating Temperature	.5/+35(ort24H)___max+40
Hardware Working Height (m)	2000<
Pollution Degree	3
Hardware Cooling Type (Natural/Forced)	Natural/ALGEBRIC
Busbar Sections Brand/Resistance	Electrolyte Flat (57-58uS)
Cable Type and Feature	Nyaf Halojen Free , H07Z1-K
Cable Labeling	HF Heat Shrink Tubing or KE Overfit
Control Cable Colors	Color codes suitable for the project
Bolt Type	Zinc Coated 8.8 Grade
Connection Terminal Type	Push in Spring Pressed or Screwed



General Information

Explanation	Applicable Qualification
Trademark	Pnl Kabin
According to Place of Use	LV Power Distribution Equipment
Place of Use	Indoor or Outdoor Environments
Main Busbar Short Circuit Breaking Withstand Current	Icw 100 kA
Short Circuit Peak Withstand Current to Main Busbar	Ipk 220 kA
Hardware Internal Allocation Format	Form 1 / Form 2b (2a) / Form 3b (3a) / Form 4b (4a)
Mechanical Impact Protection Class	IK 10
External Protection Degree (IP)	IP31 / IP41 / IP54 / IP65
Internal Protection Degree (IP)	IP30

Certificates

Applicable Standards
Full Type Test IEC EN 61439-1/2 4000A 100kA Form 4B Low voltage switching and control equipment
TSE EN 61439-1/2 Low voltage switching and control equipment
TSE EN 62208, IEC EN 62208 Empty Enclosures - Low voltage switching and control equipment
Degree of Protection Provided in TSE EN 60529, IEC EN 60529 Enclosures (IP Code)
TSE EN 62262, IEC EN 62262 Protection Degrees Provided by the Enclosure of Electrical Equipment Against External Mechanical Impacts (IK Code)
Control and Protection Scheme for TSE EN 60670-1/24, IEC EN 60670-1/24 Fuse and Vending Boxes
Turkak ISO 9001-2008 Quality Management System
Gost-R ,EAC Russia Declaration
CE 2006-95AT Low Voltage Directive
2014 88671 Trademark Registration
IEC EN 60068-3-3 IEC EN 60068-2-57 IEC EN 60068-2-6 ZONE-4 Criterion 0 Seismic (Earthquake) Certificate
UL ICC-ES AC 156, IEC EN 60068-2-47 Seismic (Earthquake) Certificate
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Turkak Measuring and Testing Devices Calibration Certificates

Standard Dimensions

This product group project is measured from some.

Today, one of the renewable energy systems is Solar Energy. Solar ADP panels are one of the most important components of the solar energy system. The operating voltage of Solar Panels can be produced as 800VAC according to customer demand.

The electricity produced by the solar panels is converted into AC power by an inverter and collected in Field Panels located next to the solar panel banks on the field. The energy obtained from the panels on the field is transferred to the Solar Main Distribution Panel located next to the transformer.

Energy Production and Monitoring: The solar power plant ADP panel provides control of inverters that convert solar energy from photovoltaic panels into electrical energy. These panels are a central control point where the energy produced by solar panel arrays is collected and directed to the grid or storage systems.

Data Collection and Monitoring: Solar panels collect and visually present data from sensors used to monitor solar panel performance. This is important for monitoring the efficiency of the solar power plant and determining maintenance requirements.

System Security: The solar power plant ADP panel accommodates various protection and monitoring functions to ensure system security. Detects and protects against overvoltage, overcurrent, short circuit and other safety hazards.

Remote Monitoring and Control: Can be integrated with remote monitoring and control systems. In this way, solar power plant operators can monitor system performance remotely and intervene when necessary.

Automation: Solar power plant ADP panels have automation capabilities to optimize system operation. For example, it can automatically perform operations such as adjusting the viewing angles of panels or changing the inverter capacity.

Data Analysis: Data collected from the system can be used to provide information such as performance analysis and energy production data. This data can be used to improve energy efficiency and optimize solar power plant operations.

Technical Details

According to Facility Conditions	Applicable Qualification
According to Facility Conditions	Indoor/Outdoor Fixed Equipment
By Electric Shock	Authorized Personnel
Operating Voltage (Ue)-1	400 V AC
Operating Voltage (Ue)-2	800 V AC
Impact Resistance Back (Uimp) in Main Circuits	8 kV
Impact Resistance Back (Uimp) in Auxiliary Circuits	8 kV
Insulation Voltage(Ui)	690 V
Mains Frequency Withstand Voltage	1000 V
Hardware Operating Current(I _{na})	4000A
Frequency(Fn)	50 HZ and 60HZ
Number of Poles	3 or 4
Electromagnetic Compatibility (EMC) Classification Type	Class A
Hardware Operating Temperature	.5/+35(ort24H)___max+40
Hardware Working Height (m)	2000<
Pollution Degree	3
Hardware Cooling Type (Natural/Forced)	Natural/ALGEBRIC
Busbar Sections Brand/Resistance	Electrolyte Flat (57-58uS)
Cable Type and Feature	Nyaf Halogen Free, H07Z1-K
Cable Labeling	HF Heat Shrink Tubing or KE Overfit
Control Cable Colors	Color codes suitable for the project
Bolt Type	Zinc Coated 8.8 Grade
Connection Terminal Type	Push in Spring Pressed or Screwed



General Information

Explanation	Applicable Qualification
Trademark	Pnl Kabin
According to Place of Use	LV Power Distribution Equipment
Place of Use	Indoor & Outdoor Environments
Hardware Internal Allocation Format	Form 1 / Form 2b (2a) / Form 3b (3a) / Form 4b (4a)
Mechanical Impact Protection Class	IK 10
External Protection Degree (IP)	IP31 / IP41 / IP54 / IP65

Certificates

Applicable Standards
Full Type Test IEC EN 61439-1/2 4000A 100kA Form 4B Low voltage switching and control equipment
TSE EN 61439-1/2 Low voltage switching and control equipment
TSE EN 62208, IEC EN 62208 Empty Enclosures - Low voltage switching and control equipment
Degree of Protection Provided in TSE EN 60529, IEC EN 60529 Enclosures (IP Code)
TSE EN 62262, IEC EN 62262 Protection Degrees Provided by the Enclosure of Electrical Equipment Against External Mechanical Impacts (IK Code)
Control and Protection Scheme for TSE EN 60670-1/24, IEC EN 60670-1/24 Fuse and Vending Boxes
Turkak ISO 9001-2008 Quality Management System
Gost-R ,EAC Russia Declaration
CE 2006-95AT Low Voltage Directive
2014 88671 Trademark Registration
IEC EN 60068-3-3 IEC EN 60068-2-57 IEC EN 60068-2-6 ZONE-4 Criterion 0 Seismic (Earthquake) Certificate
UL ICC-ES AC 156, IEC EN 60068-2-47 Seismic (Earthquake) Certificate
ISO 140001:2015 Environmental Management System
ISO 450001:2015 Occupational Health and Safety Management System
Turkak Measuring and Testing Devices Calibration Certificates

Standard Dimensions

This product group project is measured from some.

Construction Site Panels and Socket Panels are types of panels that provide electricity distribution in construction sites and temporary work areas and help eliminate the need for electricity. When the construction site is finished, the task of this panel automatically ends.

Construction site and socket panels are generally outdoor panels. It is made to receive electricity at the construction site, IP protection classes are made according to customer demand. For long-term durability, the construction site panel must have a polyurethane cast gasket. There should be a protective hat on the panel to prevent dust, moisture and rain.

Construction Site Panels

Electricity Distribution: Construction site panels provide the distribution of electrical energy at the construction site. These panels provide electrical energy to electrical loads on the construction site, including lighting, power tools and grid-connected equipment such as temporary offices.

Power Capacity: Construction site panels often have a large energy capacity and offer multiple outlets and circuits to meet different needs.

Protection and Safety: Şantiye panoları, aşırı akım, aşırı gerilim ve kısa devre gibi tehlikeli durumları tespit edip kontrol ederek işçi güvenliğini sağlar. Bu panolar ayrıca hava koşullarına ve çevresel etmenlere dayanıklı olmalıdır.

Portability: Construction site panels can be portable according to workers' needs so that the energy source can be easily transported to the work site.

Socket Panels

Distribution Center: Socket panels are the central points of electricity distribution at the construction site. They are usually housed in steel boxes and make it easier for workers to access electrical energy.

Number of Sockets: Socket panels have multiple socket outlets to meet the power needs of workers. The number of sockets may vary depending on the number of workers and need.

Circuit Breakers: Receptacle panels contain circuit breakers and are used to shut off electricity in the event of overcurrent or other safety hazards.

Protection and Security: Socket panels are designed to ensure worker safety and facilitate access to frequently used sockets. Additionally, the protective covers of the panels prevent workers from contacting them.

Portability: Socket panels can also be portable, making them easy for workers to use at different job sites.

Technical Details

According to Facility Conditions	Applicable Qualification
According to Facility Conditions	Indoor/Outdoor Fixed Equipment
By Electric Shock	Authorized Personnel
Operating Voltage(Ue)	400 V AC 3 PHASE+Neutral+Ground
Impact Resistance Back (Uimp) in Main Circuits	8 kV
Impact Resistance Back (Uimp) in Auxiliary Circuits	8 kV
Insulation Voltage(Ui)	690 V
Mains Frequency Withstand Voltage	1000 V
Hardware Operating Current(Ina)	4000A
Frequency(Fn)	50 HZ and 60HZ
Number of Poles	3 or 4
Hardware Operating Temperature	.5/+35(ort24H)___max+40
Hardware Working Height (m)	2000<
Pollution Degree	3
Cable Type and Feature	Nyaf Halogen Free, H07Z1-K
Cable Labeling	HF Heat Shrink Tubing or KE Overfit
Control Cable Colors	Color codes suitable for the project
Bolt Type	Zinc Coated 8.8 Grade
Connection Terminal Type	Push in Spring Pressed or Screwed



These are electrical panels used in commercial stores and retail businesses. MDP is designed to control electrical energy distribution in stores and manage various electrical loads within the store.

Electrical Distribution: MDP, Store distribution panels provide power to various electrical loads inside the store. These loads include lighting, air conditioning, refrigeration equipment, electronic devices and other electrical equipment.

Load Control: Used to control and monitor electrical loads within the store. This ensures energy efficiency and optimizes energy consumption.

Sockets and Circuit Breakers: MDP panels contain receptacle outlets and circuit breakers. This is used to adjust electrical loads and provide power outages for safety purposes.

Power Capacity: It has sufficient power capacity to meet the electricity needs in the store. This is important to meet the store's electrical requirements.

Protection and Safety: MDP panels ensure worker safety by detecting and controlling overcurrent, overvoltage and other dangerous situations. It also provides protection to prevent fire and electrical malfunctions.

Control and Monitoring: It offers store owners or business owners the opportunity to monitor and control their electrical loads. This helps them determine energy management and maintenance requirements.

Customizability: Distribution Panels can be customized to suit the needs of the store. It can be designed considering the size, type and equipment used of the store.

General Information

Explanation	Applicable Qualification
Trademark	Pnl Kabin
According to Place of Use	LV Power Distribution Equipment
Place of Use	Indoor & Outdoor Environments
Main Busbar Short Circuit Breaking Withstand Current	Icw 100 kA
Short Circuit Peak Withstand Current to Main Busbar	Ipk 220 kA
Hardware Internal Allocation Format	Form 1 / Form 2b (2a) / Form 3b (3a) / Form 4b (4a)
Mechanical Impact Protection Class	IK 10
External Protection Degree (IP)	IP31 / IP41 / IP55 / IP65
Internal Protection Degree (IP)	IP30

Certificates

Applicable Standards
Full Type Test IEC EN 61439-1/2 4000A 100kA Form 4B Low voltage switching and control equipment
TSE EN 61439-1/2 Low voltage switching and control equipment
TSE EN 62208, IEC EN 62208 Empty Enclosures - Low voltage switching and control equipment
Degree of Protection Provided in TSE EN 60529, IEC EN 60529 Enclosures (IP Code)
TSE EN 62262, IEC EN 62262 Protection Degrees Provided by the Enclosure of Electrical Equipment Against External Mechanical Impacts (IK Code)
Control and Protection Scheme for TSE EN 60670-1/24, IEC EN 60670-1/24 Fuse and Vending Boxes
Turkak ISO 9001-2008 Quality Management System
Gost-R ,EAC Russia Declaration
CE 2006-95AT Low Voltage Directive
2014 88671 Trademark Registration
IEC EN 60068-3-3 IEC EN 60068-2-57 IEC EN 60068-2-6 ZONE-4 Criterion 0 Seismic (Earthquake) Certificate
UL ICC-ES AC 156, IEC EN 60068-2-47 Seismic (Earthquake) Certificate
ISO 140001:2015 Environmental Management System
ISO 450001:2015 Occupational Health and Safety Management System
Turkak Measuring and Testing Devices Calibration Certificates

Standard Dimensions

This product group project is measured from some.

Technical Details

According to Facility Conditions	Applicable Qualification
According to Facility Conditions	Indoor/Outdoor Fixed Equipment
By Electric Shock	Authorized Personnel
Operating Voltage(Ue)	400 V AC 3 PHASE+Neutral+Ground
Impact Resistance Back (Uimp) in Main Circuits	8 kV
Impact Resistance Back (Uimp) in Auxiliary Circuits	8 kV
Insulation Voltage(Ui)	690 V
Mains Frequency Withstand Voltage	1000 V
Hardware Operating Current(I _{na})	4000A
Frequency(Fn)	50 HZ and 60HZ
Number of Poles	3 or 4
Electromagnetic Compatibility (EMC) Classification Type	Class A
Hardware Operating Temperature	.5/+35(ort24H)___max+40
Hardware Working Height (m)	2000<
Pollution Degree	3
Hardware Cooling Type (Natural/Forced)	Natural/ALGEBRIC
Busbar Sections Brand/Resistance	Electrolyte Flat (57-58uS)
Cable Type and Feature	Nyaf Halojen Free , H07Z1-K
Cable Labeling	HF Heat Shrink Tubing or KE Overfit
Control Cable Colors	Color codes suitable for the project
Bolt Type	Zinc Coated 8.8 Grade
Connection Terminal Type	Push in Spring Pressed or Screwed



These are electrical panels used to control, monitor and protect the electrical system of a house or flat. These panels organize the various electrical circuits in the home and distribute energy from power sources to different electrical loads.

Fuses or Circuit Breakers: Flat type fuse panels contain fuses or circuit breakers to protect and control each electrical circuit. This prevents fire and other safety hazards by cutting off electricity in the event of overcurrent.

Electrical Distribution: These panels distribute electricity from energy sources among various loads within the apartment. It provides energy to different electrical loads such as lighting, sockets, kitchen appliances, heating and cooling systems.

Main Switch: Apartment type fuse panels usually have a main switch. This switch has the function of closing or opening all apartment electrical circuits. It allows you to quickly cut off all electrical energy in emergency situations.

Apartment Monitoring and Control: Fuse panels can have smart features and be integrated with remote monitoring and control systems. This provides homeowners with information about energy consumption and security and allows them to control their home remotely.

Protection and Security: Fuse panels ensure user safety by detecting and controlling overcurrent, overvoltage and other dangerous situations. Additionally, it reduces the risk of fire.

Customizability: Apartment type fuse panels can be customized to suit the needs of the home. Homeowners or electricians can adjust the panel's fuse or circuit breaker capacities, number of outlets, and other features.

General Information

Explanation	Applicable Qualification
Trademark	Pnl Kabin
According to Place of Use	LV Power Distribution Equipment
Place of Use	Indoor & Outdoor Environments
Main Busbar Short Circuit Breaking Withstand Current	Icw 100 kA
Short Circuit Peak Withstand Current to Main Busbar	Ipk 220 kA
Hardware Internal Allocation Format	Form 1 / Form 2b (2a) / Form 3b (3a) / Form 4b (4a)
Mechanical Impact Protection Class	IK 10
External Protection Degree (IP)	IP31 / IP41 / IP55
Internal Protection Degree (IP)	IP30

Certificates

Applicable Standards
Full Type Test IEC EN 61439-1/2 4000A 100kA Form 4B Low voltage switching and control equipment
TSE EN 61439-1/2 Low voltage switching and control equipment
TSE EN 62208, IEC EN 62208 Empty Enclosures - Low voltage switching and control equipment
Degree of Protection Provided in TSE EN 60529, IEC EN 60529 Enclosures (IP Code)
TSE EN 62262, IEC EN 62262 Protection Degrees Provided by the Enclosure of Electrical Equipment Against External Mechanical Impacts (IK Code)
Control and Protection Scheme for TSE EN 60670-1/24, IEC EN 60670-1/24 Fuse and Vending Boxes
Turkak ISO 9001-2008 Quality Management System
Gost-R ,EAC Russia Declaration
CE 2006-95AT Low Voltage Directive
2014 88671 Trademark Registration
IEC EN 60068-3-3 IEC EN 60068-2-57 IEC EN 60068-2-6 ZONE-4 Criterion 0 Seismic (Earthquake) Certificate
UL ICC-ES AC 156, IEC EN 60068-2-47 Seismic (Earthquake) Certificate
ISO 140001:2015 Environmental Management System
ISO 450001:2015 Occupational Health and Safety Management System
Turkak Measuring and Testing Devices Calibration Certificates

Standard Dimensions

This product group project is measured from some.

Technical Details

According to Facility Conditions	Applicable Qualification
According to Facility Conditions	Indoor/Outdoor Fixed Equipment
By Electric Shock	Authorized Personnel
Operating Voltage(Ue)	400 V AC 3 PHASE+Neutral+Ground
Impact Resistance Back (Uimp) in Main Circuits	8 kV
Impact Resistance Back (Uimp) in Auxiliary Circuits	8 kV
Insulation Voltage(Ui)	690 V
Mains Frequency Withstand Voltage	1000 V
Hardware Operating Current(I _{na})	4000A
Frequency(Fn)	50 HZ
Number of Poles	3 or 4
Electromagnetic Compatibility (EMC) Classification Type	Class A
Hardware Operating Temperature	.5/+35(ort24H)___max+40
Hardware Working Height (m)	2000<
Pollution Degree	3
Hardware Cooling Type (Natural/Forced)	Natural/ALGEBRIC
Busbar Sections Brand/Resistance	Electrolyte Flat (57-58uS)
Cable Type and Feature	Nyaf Halojen Free , H07Z1-K
Cable Labeling	HF Heat Shrink Tubing or KE Overfit
Control Cable Colors	Color codes suitable for the project
Bolt Type	Zinc Coated 8.8 Grade
Connection Terminal Type	Push in Spring Pressed or Screwed



These are our panel groups designed to control all kinds of technological applications in industrial facilities in the most appropriate way.

Panels containing a Programmable Logic Controller (PLC) are generally defined as automation control panels. Our company produces PLC, DCS and SCADA comprehensive automation panels in automation systems, specially designed automation panels for your projects and assembly solutions in accordance with standards. Automation panels are the automation and control systems in industrial enterprises or facilities. These are electrical panels used to manage and monitor. These panels are used to ensure the coordination of machine control, data collection, business processes and automation systems. Automation dashboards analyze data from sensors, take action and present the results to business owners or operators.

Control and Monitoring: Automation panels provide control and monitoring of machines and processes in industrial enterprises. These panels are used to increase production line efficiency, reduce errors and optimize business processes.

Sensors and Actuators: Automation panels collect data from sensors located within the factory or facility and provide the necessary response through actuators. For example, it monitors data such as temperature, pressure or speed and makes appropriate adjustments.

Data Collection and Analysis: Automation dashboards are used to monitor production processes and record data. This data gives business owners the ability to make better decisions.

Programmability: Automation dashboards enable users to program business processes. This means that processes can be modified and optimized.

HMI (Human-Machine Interface): Automation panels may include HMI interfaces to help operators visually monitor and control production processes.

Remote Monitoring and Control: Modern automation panels can be integrated with remote monitoring and control capabilities. This makes it easier for operators to solve problems and manage processes by providing remote access.

Data Integration: Automation dashboards facilitate data integration with other business systems and ERP (Enterprise Resource Planning) software.

General Information

Explanation	Applicable Qualification
Trademark	Pnl Kabin
According to Place of Use	LV Power Distribution Equipment
Place of Use	Indoor & Outdoor Environments
Main Busbar Short Circuit Breaking Withstand Current	Icw 100 kA
Short Circuit Peak Withstand Current to Main Busbar	Ipk 220 kA
Hardware Internal Allocation Format	Form 1 / Form 2b (2a) / Form 3b (3a) / Form 4b (4a)
Mechanical Impact Protection Class	IK 10
External Protection Degree (IP)	IP31 / IP41 / IP54 / IP65
Internal Protection Degree (IP)	IP30

Certificates

Applicable Standards
Full Type Test IEC EN 61439-1/2 4000A 100kA Form 4B Low voltage switching and control equipment
TSE EN 61439-1/2 Low voltage switching and control equipment
TSE EN 62208, IEC EN 62208 Empty Enclosures - Low voltage switching and control equipment
Degree of Protection Provided in TSE EN 60529, IEC EN 60529 Enclosures (IP Code)
TSE EN 62262, IEC EN 62262 Protection Degrees Provided by the Enclosure of Electrical Equipment Against External Mechanical Impacts (IK Code)
Control and Protection Scheme for TSE EN 60670-1/24, IEC EN 60670-1/24 Fuse and Vending Boxes
Turkak ISO 9001-2008 Quality Management System
Gost-R ,EAC Russia Declaration
CE 2006-95AT Low Voltage Directive
2014 88671 Trademark Registration
IEC EN 60068-3-3 IEC EN 60068-2-57 IEC EN 60068-2-6 ZONE-4 Criterion 0 Seismic (Earthquake) Certificate
UL ICC-ES AC 156, IEC EN 60068-2-47 Seismic (Earthquake) Certificate
ISO 140001:2015 Environmental Management System
ISO 450001:2015 Occupational Health and Safety Management System
Turkak Measuring and Testing Devices Calibration Certificates

Standard Dimensions

This product group project is measured from some.

Technical Details

According to Facility Conditions	Applicable Qualification
According to Facility Conditions	Indoor/Outdoor Fixed Equipment
By Electric Shock	Authorized Personnel
Operating Voltage(Ue)	400 V AC 3 PHASE+Neutral+Ground
Impact Resistance Back (Uimp) in Main Circuits	8 kV
Impact Resistance Back (Uimp) in Auxiliary Circuits	8 kV
Insulation Voltage(Ui)	690 V
Mains Frequency Withstand Voltage	1000 V
Hardware Operating Current(Ina)	4000A
Frequency(Fn)	50 HZ and 60HZ
Number of Poles	3 or 4
Electromagnetic Compatibility (EMC) Classification Type	Class A
Hardware Operating Temperature	.5/+35(ort24H)___max+40
Hardware Working Height (m)	2000<
Pollution Degree	3
Hardware Cooling Type (Natural/Forced)	Natural/ALGEBRIC
Busbar Sections Brand/Resistance	Electrolyte Flat (57-58uS)
Cable Type and Feature	HF Heat Shrink Tubing or KE Overfit
Control Cable Colors	Color codes suitable for the project
Bolt Type	Zinc Coated 8.8 Grade
Connection Terminal Type	Push in Spring Pressed or Screwed



It is designed to control secondary outlets most appropriately for all kinds of automation and security applications in Industrial and Residential applications.

It is the type used in ADP panel outputs. TCS panels are chosen as floor distribution panels in projects. They meet the energy needs of switch units, sockets, lighting, and other loads.

Switches and Circuit Breakers: Subdistribution panels contain switches, circuit breakers, or fuses to power and direct energy to subpanels. There is a separate circuit breaker or switch for each circuit or section.

Sub-panels: Sub-distribution panel allows positioning and connections of sub-panels. These sub-panels are used to control specific sections or functions. For example, in a workplace, different subpanels may be used for office lighting, sockets, and machines.

Protection and Security: Subsidiary distribution panels monitor and control overcurrent, overvoltage, and other dangerous situations. This protects electrical systems and user safety.

Energy Distribution: Secondary distribution panels ensure energy is distributed balancedly among various loads. This prevents overload and ineffective use of energy resources.

Remote Monitoring: Modern sub-distribution panels can be integrated with remote monitoring systems. This way, energy consumption and the panel's status can be monitored remotely.

Customizability: Subdistribution panels can be customized to suit the needs of the building or facility. The capacity, number of circuits, and other features of electrical panels can be customized.

General Information

Explanation	Applicable Qualification
Trademark	PNL Kabin
According to Place of Use	LV Power Distribution Equipment
Place of Use	Indoor & Outdoor Environments
Main Busbar Short Circuit Breaking Withstand Current	Icw 100 kA
Short Circuit Peak Withstand Current to Main Busbar	Ipk 220 kA
Hardware Internal Allocation Format	Form 1 / Form 2b (2a) / Form 3b (3a) / Form 4b (4a)
Mechanical Impact Protection Class	IK 10
External Protection Degree (IP)	IP31 / IP41 / IP54 / IP65
Internal Protection Degree (IP)	IP30

Certificates

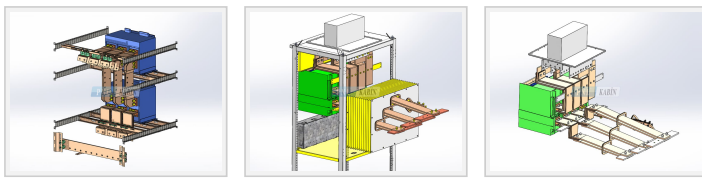
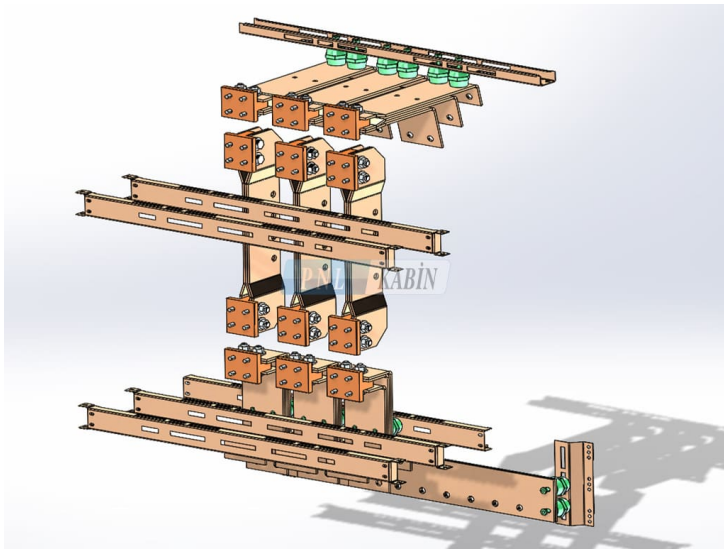
Applicable Standards
Full Type Test IEC EN 61439-1/2 4000A 100kA Form 4B Low voltage switching and control equipment
TSE EN 61439-1/2 Low voltage switching and control equipment
TSE EN 62208, IEC EN 62208 Empty Enclosures - Low voltage switching and control equipment
Degree of Protection Provided in TSE EN 60529, IEC EN 60529 Enclosures (IP Code)
TSE EN 62262, IEC EN 62262 Protection Degrees Provided by the Enclosure of Electrical Equipment Against External Mechanical Impacts (IK Code)
Control and Protection Scheme for TSE EN 60670-1/24, IEC EN 60670-1/24 Fuse and Vending Boxes
Turkak ISO 9001-2008 Quality Management System
Gost-R ,EAC Russia Declaration
CE 2006-95AT Low Voltage Directive
2014 88671 Trademark Registration
IEC EN 60068-3-3 IEC EN 60068-2-57 IEC EN 60068-2-6 ZONE-4 Criterion 0 Seismic (Earthquake) Certificate
UL ICC-ES AC 156, IEC EN 60068-2-47 Seismic (Earthquake) Certificate
ISO 140001:2015 Environmental Management System
ISO 450001:2015 Occupational Health and Safety Management System
Turkak Measuring and Testing Devices Calibration Certificates

Standard Dimensions

This product group is measured on a project basis.

Technical Details

Explanation	Applicable Qualification
According to Facility Conditions	Indoor/Outdoor Fixed Equipment
By Electric Shock	Authorized Personnel
Operating voltage(Ue)	400 V AC 3 PHASE+Neutral+Ground
Impact Resistance Back (Uimp) in main circuits	8 kV
Impact Resistance Back (Uimp) in Auxiliary Circuits	8 kV
Insulation Voltage(Ui)	690 V
Mains Frequency Withstand Voltage	1000 V
Hardware Operating Current(I _{na})	4000A
Frequency(Fn)	50 HZ and 60HZ
Number of Poles	3 or 4
Electromagnetic Compatibility (EMC) Classification Type	Class A
Hardware Operating Temperature	.5/+35(ort24H)___max+40
Hardware Working Height (m)	2000<
Pollution Degree	3
Hardware Cooling Type (Natural/Forced)	Natural//ALGEBRIC
Busbar Sections Brand/Resistance:	Electrolyte Flat (57-58uS)
Cable Type and Feature	Nyaf Halojen Free , H07Z1-K
Cable Labeling	HF Heat Shrink Tubing or KE Over Fit
Control Cable Colors	Color codes suitable for the project
Bolt Type	Zinc Coated 8.8 Grade
Connection Terminal Type	Push in Spring Pressed or Screwed



Copper busbars are copper strips used to transmit electric current in electrical panels. Three-dimensional design is the digital modeling and design of these panels or copper bars in a three-dimensional environment.

During this design process, the dimensions, location, assembly and other details of the panel or copper bars are determined using CAD (Computer-Aided Design) software. This way, designers can better understand how the board or copper bars will look in the real world, how they will work, and how they will be assembled. This design process is important to increase the functionality of the product, reduce assembly errors and reduce production costs.

Technical Details

Explanation	Feature
Busbar Sections Brand/Resistance	Electrolyte Flat (57-58uS)
Copper Busbar Coating	Heat Shrink Tube
	Paint
	Tin Plating

General Information

Explanation	Applicable Qualification
Trademark	PNL Kabin
According to Place of Use	LV Power Distribution Equipment
Place of Use	Indoor & Outdoor Environments

Certificates

Applicable Standards

BS EN 13601:2021 Copper and copper alloys.
Turkak ISO 9001-2008 Quality Management System

Standard Dimensions

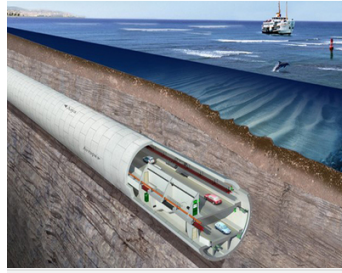
Width (mm)	Height (mm)
160	10
120	10
100	10 / 5
80	10 / 5
60	10 / 5
50	10 / 5
40	10 / 5
30	10 / 5 /
20	10 / 5 / 3



SPORTS FACILITIES



METRO LINES, AIRPORT



TUNNELS, BRIDGES, HIGHWAYS



HOUSING PROJECTS



HOSPITALS



SHOPPING MALLS



POWER PLANTS



HOTELS



BANKS AND FINANCIAL INSTITUTIONS



FOOD INDUSTRY



AIR CONDITIONING - COOLING INDUSTRY



INDUSTRIAL FACILITIES, FACTORIES



HEALTH SECTOR



TURKCELL

COMMUNICATIONS SECTOR



PUBLIC INSTITUTIONS



Sheet Metal Processing CNC Punch Machine



Sheet Metal Processing CNC Press Brake-1



Sheet Metal Processing CNC Press Brake-2



Sheet Metal Processing CNC Polyurethane Gasket Machine



Sheet Metal Processing Guillotine Scissors



Sheet Metal Processing Electrostatic Powder Coating



Sheet Metal Processing Hydraulic Punch Press



Sheet Metal Processing Gas Welding Machines



Sheet Metal Processing Spot Machines



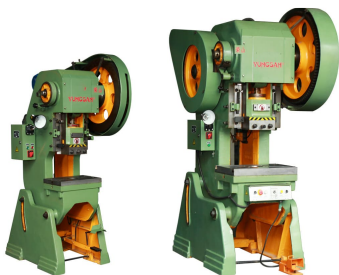
Sheet Metal Processing Stud Welding Machines



Sheet Metal Processing Tig Welding Machine



Sheet Metal Working Surface Cleaning Machines



Sheet Metal Processing Eccentric Presses



General Pneumatic Air Machines



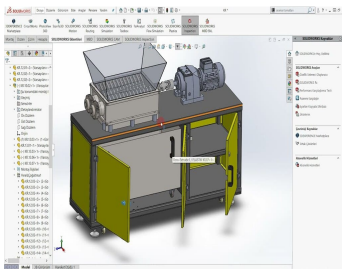
General Pneumatic Compressed Air System



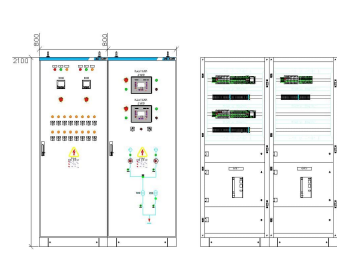
General Generator



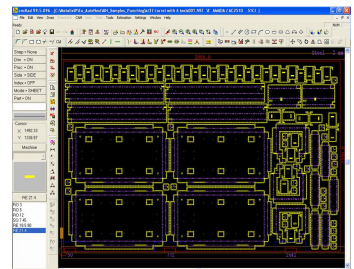
General ERP Enterprise Resource Planning



General 3D Design Program



General Cad Drawing Programs



General CAM Sheet Metal Processing Program



**General Transport and Stacking
Machines**



**Electroassembly CNC Copper
Machining**



Electroassembly Copper Processing



**Electromontage Automatic Cable
Cutting**



**Electromontage Labeling Laser
Engraving Machine**



Electromontage Labeling Cable Tube



**General Testing and Calibration
Devices**



Electromontage Labeling Plotter

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