

### **MCC Control Boards**

#### **GENERAL FEATURES:**

Our MCC control boards contain the necessary instruments for the control purposes as well as the main feeding units. In addition to this, these boards have the required communication infrastructure for the PLC, central automation and SCADA systems.

It is particularly taken attention to the matter that all of our equipments and switch materials which are used in our boards are quality certified products.

All of the sheet parts and switch material groups from among the materials which are used in the manufacturing works of Gmach, type tested and TSE certified electric boards are the branded products with the worldwide standards.

The electric boards which are produced by us are tested and certified up to 5000 A. In addition to this, our boards ensure protection under the IP45 conditions against the dust particle other leakages to come from outside.







#### **Product Data Sheet**

### **MCC Control Boards**





10-002-01	CONTROL PANEL (MCC)
10-002-01-0008	210X80x50 MCC Control Panel - Glass
10-002-01-0095	210X80x50 MCC Control Panel - Button Hole
10-002-01-0042	210X80x50 MCC Control Panel - Button Hole and Glass
10-002-01-0027	210X100x50 MCC Control Panel - Glass
10-002-01-0028	210X100x50 MCC Control Panel - Glass
10-002-01-0038	210X80x80 MCC Control Panel - Double Door and Glass
10-002-01-0063	210X60x50 MCC Control Panel - Glass

10-002-01	CONTROL PANEL (MCC)
Board Type	Welded Modular Structure in the Internal Type Boards
Standard Measurements	210 x 80 x 50 (Wide Size Range for the Formation of the Configurations Required)
Protection Class	IP44
Paint Color	RAL7035 Electrostatic powder (Contact us for different color options)
Sheet Specifications	Chassis - Assembly Parts 2 mm DKP Sheet Internal accessories are made of 2 mm Galvanized Sheet
Sealing	Telescopic seal which is resistant against temperatures, dust and humidity
Front Door	Espagnolette locked with the locking arms from 4 points, 120° opening, hidden hinges and serigraphy glass"
Side - Rear Covers	Detachable screw
Board Inputs-Outputs	From bottom, upper sides, with sleeve-brush
Eyebolts	Available
Grounding screws	Available
Accessories	Project Pouch, Internal Cloth Covers (Hinged/Locked)
Ventilation	Fan Module for ventilation and fan options which are suitable for different needs"
Base	Mountable Box Base
Rapid and easy mounting	feature



### LW - MW Distribution Boards

#### **GENERAL FEATURES:**

The sheet parts of our boards are being manufactured at the worldwide standards by means of the latest technology. The sheets which are used in our products are products of Erdemir and in appropriate quality in compliance with the 6112 DIN EN 10130-99 DC01 norms for DKP sheet, 1311 DIN EN 10142-00 DX51 D+Z norms for galvanized sheet and 304 or 316 (1,430 1) norms for stainless sheets.

The case-by-case basis labeling and cable color coding processes are carried out and performed in our boards for the purposes of assembly easiness, problem detection, rapid intervention with the problem / failure and problem solving.

The electric boards which are produced by us are tested and certified up to 5000 A. In addition to this, our boards ensure protection under the IP45 - IP65 conditions against the dust particle other leakages to come from outside.

All of the sheet parts and switch material groups from among the materials which are used in the manufacturing works of Gmach, type tested and TSE certified electric boards are the branded products with the worldwide standards.







### **Product Data Sheet**

### **MCC Control Boards**





10-002-02	FLOOR PANEL
10-002-02-0001	35x55x17.5 Floor Panel (Wall Type)
10-002-02-0002	40x65x17.5 Floor Panel (Wall Type)
10-002-02-0003	40x65x22.5 Floor Panel (Wall Type)
10-002-02-0004	50x80x17.5 Floor Panel (Wall Type)
10-002-02-0005	50x80x22.5 Floor Panel (Wall Type)
10-002-02-0006	30x40x17.0 Floor Panel (Wall Type)

10-002-01	FLOOR PANEL
Board Type	Welded Modular Structure in the Internal Type Boards
Standard Measurements	210 x 80 x 50 (Wide Size Range for the Formation of the Configurations Required)
Protection Class	IP44
Paint Color	RAL7035 Electrostatic powder (Contact us for different color options)
Sheet Specifications	Chassis - Assembly Parts 2 mm DKP Sheet Internal accessories are made of 2 mm Galvanized Sheet
Sealing	Telescopic seal which is resistant against temperatures, dust and humidity
Front Door	Espagnolette locked with the locking arms from 4 points, 120° opening, hidden hinges and serigraphy glass"
Side - Rear Covers	Detachable screw
Board Inputs-Outputs	From bottom, upper sides, with sleeve-brush
Eyebolts	Available
Grounding screws	Available
Accessories	Project Pouch, Internal Cloth Covers (Hinged/Locked)
Ventilation	Fan Module for ventilation and fan options which are suitable for different needs"
Base	Mountable Box Base
Rapid and easy mounting	feature



### LTD - Switch Panels Center and Secondary Distribution Panels are Inner Covered

#### **GENERAL FEATURES:**

The switch boards is a holistic control board system which ensures not damaging the electricity circuits on account of the excessive flows and voltage fluctuations, opening and closing the circuit normally or opening and closing the circuit instantly or with delays whenever the preset current value is reached and thus ensures the problem-free and safe operation of all of the necessary units in the process.

The sheet components which are being used in such switch boards are manufactured at the worldwide standards with the latest technology. The sheets are products of Erdemir and in appropriate quality in compliance with the 6112 DIN EN 10130-99 DC01 norms for DKP sheet, 1311 DIN EN 10142-00 DX51 D+Z norms for galvanized sheet and 304 or 316 (1,4301) norms for stainless sheets.

The case-by-case basis labeling and cable color coding processes are carried out and performed in switch boards which we manufacture for the purposes of assembly easiness, problem detection, rapid intervention with the problem / failure and problem solving.

All of the sheet parts and switch material groups from among the materials which are used in the manufacturing works of ENDUSTRIYEL, type tested and TSE certified electric boards are the branded products with the worldwide standards.







#### **Product Data Sheet**

### LTD - Switch Panels Center and Secondary Distribution Panels are Inner Covered





10-002-05	SWITCH BOARDS (LTD)
10-002-05-0001	35x55x17.5 Floor Panel (Wall Type)
10-002-05-0002	40x65x17.5 Floor Panel (Wall Type)
10-002-05-0003	40x65x22.5 Floor Panel (Wall Type)
10-002-05-0004	50x80x17.5 Floor Panel (Wall Type)
10-002-05-0005	50x80x22.5 Floor Panel (Wall Type)
10-002-05-0009	30x40x17.0 Floor Panel (Wall Type)
10-002-05-0011	50x80x22.5 Floor Panel (Wall Type)
10-002-05-0018	30x40x17.0 Floor Panel (Wall Type)
10-002-05-0019	50x80x22.5 Floor Panel (Wall Type)

10-002-01	SWITCH BOARDS (LTD)
Board Type	Welded Modular Structure in the Internal Type Boards
Standard Measurements	210 x 80 x 50 (Wide Size Range for the Formation of the Configurations Required)
Protection Class	IP44
Paint Color	RAL7035 Electrostatic powder (Contact us for different color options)
Sheet Specifications	Chassis - Assembly Parts 2 mm DKP Sheet Internal accessories are made of 2 mm Galvanized Sheet
Sealing	Telescopic seal which is resistant against temperatures, dust and humidity
Front Door	Espagnolette locked with the locking arms from 4 points, 120° opening, hidden hinges and serigraphy glass"
Side - Rear Covers	Detachable screw
Board Inputs-Outputs	From bottom, upper sides, with sleeve-brush
Eyebolts	Available
Grounding screws	Available
Accessories	Project Pouch, Internal Cloth Covers (Hinged/Locked)
Ventilation	Fan Module for ventilation and fan options which are suitable for different needs"
Base	Mountable Box Base
Rapid and easy mounting	feature



### **PFC Compensation Panels** are Inner Covered

#### **GENERAL FEATURES:**

The sheet parts of our boards are being manufactured at the worldwide standards by means of the latest technology. The sheets which are used in our products are products of Erdemir and in appropriate quality in compliance with the 6112 DIN EN 10130-99 DC01 norms for DKP sheet, 1311 DIN EN 10142-00 DX51 D+Z norms for galvanized sheet and 304 or 316 (1,430 1) norms for stainless sheets.

The case-by-case basis labeling and cable color coding processes are carried out and performed in our boards for the purposes of assembly easiness, problem detection, rapid intervention with the problem / failure and problem solving.

The electric boards which are produced by us are tested and certified up to 5000 A. In addition to this, our boards ensure protection under the IP45 - IP65 conditions against the dust particle other leakages to come from outside.

All of the sheet parts and switch material groups from among the materials which are used in the manufacturing works of ENDUSTRIYEL, type tested and TSE certified electric boards are the branded products with the worldwide standards.

Note: Special panels which we call external type for exterior envir onments are made.















#### **Product Data Sheet**

# PFC Compensation Panels are Inner Covered



10-002-03	COMPENSATION BOARDS (PFC)
10-002-03-0001	210X80x50 Compensation Boards - Glass Door
10-002-03-0003	210X80x80 Compensation Boards - Double Door with Glass
10-002-03-0004	210X80x50 Compensation Boards - Button Hole and Screan
10-002-03-0006	210X80x50 Compensation Switch Boards - Glass

10-002-03	COMPENSATION BOARDS (PFC)
Board Type	Welded Modular Structure in the Internal Type Boards
Standard Measurements	210 x 80 x 50 (Wide Size Range for the Formation of the Configurations Required)
Protection Class	IP44
Paint Color	RAL7035 Electrostatic powder (Contact us for different color options)
Sheet Specifications	Chassis - Assembly Parts 2 mm DKP Sheet Internal accessories are made of 2 mm Galvanized Sheet
Sealing	Telescopic seal which is resistant against temperatures, dust and humidity
Front Door	Espagnolette locked with the locking arms from 4 points, 120° opening, hidden hinges and serigraphy glass"
Side - Rear Covers	Detachable screw
Board Inputs-Outputs	From bottom, upper sides, with sleeve-brush
Eyebolts	Available
Grounding screws	Available
Accessories	Project Pouch, Internal Cloth Covers (Hinged/Locked)
Ventilation	Fan Module for ventilation and fan options which are suitable for different needs"
Base	Mountable Box Base
Rapid and easy mounting	feature



### **PLC Boards**

#### **GENERAL FEATURES:**

PLC is used in the productions which are realized without any touch of hands in particular on nearly every area in the industrial processes today. Lots of applications such as energy distribution systems, complicated factory automations, conveyors, engine speed control etc could be managed in the most productive manner by means of the PLC systems as well.

The PLC boards are designed in order to automatically perform the process steps which are required to be controlled and the boards at these process steps. In addition to this, these boards have a necessary communication substructure for the SCADA systems as well as a centraliz ed automation.

The sheet parts of our boards are being manufactured at the worldwide standards by means of the latest technology. The sheets which are used in our products are products of Erdemir and in appropriate quality in compliance with the 6112 DIN EN 10130-99 DC01 norms for DKP sheet, 1311 DIN EN 10142-00 DX51 D+Z norms for galvanized sheet and 304 or 316 (1,430 1) norms for stainless sheets.

The electric boards which are produced by us are tested and certified up to 5000 A. In addition to this, our boards ensure protection under the IP45 - IP65 conditions against the dust particle other leakages to come from outside.

All of the sheet parts and switch material groups from among the materials which are used in the manufacturing works of Gmach, type tested and TSE certified electric boards are the branded products with the worldwide standards.







### **Product Data Sheet**

### **PLC Boards**







10-002-04	PLC PANEL (PLC)
10-002-04-0001	210X80x50 PLC Panel - Glass Door
10-002-04-0027	178X80x50 Computer Panel
10-002-04-0028	35X65x30 Wheeled Computer Panel

10-002-04	PLC PANEL (PLC)
Board Type	Welded Modular Structure in the Internal Type Boards
Standard Measurements	210 x 80 x 50 (Wide Size Range for the Formation of the Configurations Required)
Protection Class	IP44
Paint Color	RAL7035 Electrostatic powder (Contact us for different color options)
Sheet Specifications	Chassis - Assembly Parts 2 mm DKP Sheet Internal accessories are made of 2 mm Galvanized Sheet
Sealing	Telescopic seal which is resistant against temperatures, dust and humidity
Front Door	Espagnolette locked with the locking arms from 4 points, 120° opening, hidden hinges and serigraphy glass"
Side - Rear Covers	Detachable screw
Board Inputs-Outputs	From bottom, upper sides, with sleeve-brush
Eyebolts	Available
Grounding screws	Available
Accessories	Project Pouch, Internal Cloth Covers (Hinged/Locked)
Ventilation	Fan Module for ventilation and fan options which are suitable for different needs"
Base	Mountable Box Base
Rapid and easy mounting	feature



### Piano Type and Vertical type Control Panels

#### **GENERAL FEATURES:**

The piano type boards are the boards which are used for the purpose of ensuring the control and monitoring security in the facilities. These boards are designed for the usage place and intended purpose.

In the piano type boards, there is a flow chart pertaining to the process which is kept under control and it is ensured to monitor all of the processes concerned through such flow chart. In this manner, the processing of the system could be followed step by step and the potential failures are being conveyed to the relevant operator by means of the led lights and audio warnings. The piano boards are being operated in coordination with the MCC boards. In cases of operation, termination of the process/system or in cases of failure, it is made possible and enabled to make some local interventions without stopping the entire system at all.

The sheet parts of our boards are being manufactured at the worldwide standards by means of the latest technology. The sheets which are used in our products are products of Erdemir and in appropriate quality in compliance with the 6112 DIN EN 10130-99 DC01 norms for DKP sheet, 1311 DIN EN 10142-00 DX51 D+Z norms for galvanized sheet and 304 or 316 (1,4301) norms for stainless sheets.

The case-by-case basis labeling and cable color coding processes are carried out and performed in our boards for the purposes of assembly easiness, pr oblem detection, rapid intervention with the problem / failure and problem solving.

The electric boards which are produced by us are tested and certified up to 5000 A. In addition to this, our boards ensure protection under the IP45 - IP65 conditions against the dust particle other leakages to come from outside.





#### **Product Data Sheet**

### Piano Type and Vertical type Control Panels





10-002-10	PIANO PANEL
10-002-10-0002	240x230x50 Piano Panel
10-002-10-0011	210x160x60 Piano Panel
10-002-10-0012	210x200x60 Piano Panel
10-002-10-0013	210x240x60 Piano Panel
10-002-10-0014	210x160x50 Piano Panel

10-002-04	PIANO PANEL
Board Type	Welded Modular Structure in the Internal Type Boards
Standard Measurements	210 x 80 x 50 (Wide Size Range for the Formation of the Configurations Required)
Protection Class	IP44
Paint Color	RAL7035 Electrostatic powder (Contact us for different color options)
Sheet Specifications	Chassis - Assembly Parts 2 mm DKP Sheet Internal accessories are made of 2 mm Galvanized Sheet
Sealing	Telescopic seal which is resistant against temperatures, dust and humidity
Front Door	Espagnolette locked with the locking arms from 4 points, 120° opening, hidden hinges and serigraphy glass"
Side - Rear Covers	Detachable screw
Board Inputs-Outputs	From bottom, upper sides, with sleeve-brush
Eyebolts	Available
Grounding screws	Available
Accessories	Project Pouch, Internal Cloth Covers (Hinged/Locked)
Ventilation	Fan Module for ventilation and fan options which are suitable for different needs"
Base	Mountable Box Base
Rapid and easy mounting	feature