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APFC PANEL MANUFACTURER IN INDIA

AUTOMATIC POWER FACTOR CORRECTION PANELS

- Reduce Electricity Bills
- Improve Power Factor
- Increase Electrical Efficiency





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WHAT IS AN APFC PANEL?

Automatic Power Factor Correction (APFC) Panel is an intelligent electrical panel that automatically improves power factor by switching capacitor banks ON and OFF depending upon electrical load.

It Helps Industries

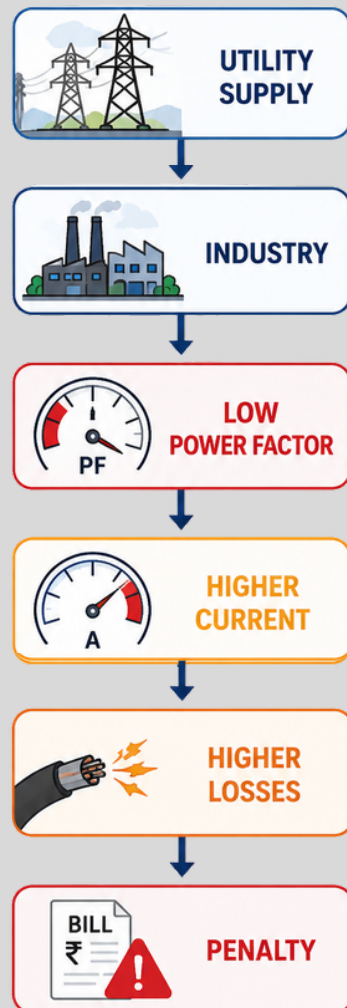
- ✓ Reduce reactive power
- ✓ Avoid power factor penalties
- ✓ Reduce transformer loading
- ✓ Improve voltage stability
- ✓ Improve electrical efficiency



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WHY POWER FACTOR MATTERS?



EXPLANATION

When power factor drops below utility requirements, industries consume higher current for the same load.

THIS LEADS TO





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COMMON PROBLEMS WITHOUT APFC PANEL

Industries often experience

LOW POWER FACTOR

Most electricity boards charge heavy monthly penalties if your power factor drops below a set threshold (usually 0.90 or 0.95).

HIGH ELECTRICITY BILLS

A low power factor increases electricity costs through higher current consumption, demand charges, and utility penalties.

VOLTAGE FLUCTUATION

Low power factor causes voltage fluctuations that affect equipment performance.

INCREASED LINE LOSSES

Low power factor increases line losses due to higher current flow.



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BENEFITS OF INSTALLING AN APFC PANEL

Saves Electricity Cost

Lower Reactive Power

Improves Electrical Efficiency

Better Return on Investment Power

Eliminates Power Factor Penalties

Lower Maintenance Cost

Reduces Transformer Losses

Automatic Capacitor Switching

Better Voltage Regulation

Longer Equipment Life



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HOW APFC PANEL WORKS



1

Incoming Supply



2

Current Transformer



3

**Power Factor
Controller**



4

Capacitors Bank



5

**Automatic
Switching**



6

**Power Factor
Improves**



7

Penalty Eliminated

RESULT: Lower electricity bills, higher efficiency, better performance & longer equipment life.



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MAJOR COMPONENTS OF AN APFC PANEL

Components

- APFC Relay
- Capacitor Bank
- Vacuum Contactors
- MCCB
- MCB
- Busbars
- Current Transformer
- Cooling Fan
- Protection Devices
- Power Cables





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INDUSTRIES USING APFC PANELS

Stone Crusher Plant



**Manufacturing
Industries**

Steel Plants



Textile Industries

Hospitals



Resorts



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HOW TO SELECT THE RIGHT APFC PANEL?

Selection depends on

Existing Power Factor

Connected Load

Utility Penalties

Load Variation

Transformer Capacity

Monthly Electricity Bill

Harmonic Level

Future Expansion



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