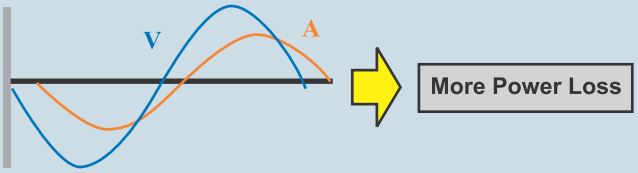
APFC PANEL

SAVE
PRODUCTION • ENERGY • MACHINERY • ENVIRONMENT

◆ Phase shift exists ➡ Poor power factor



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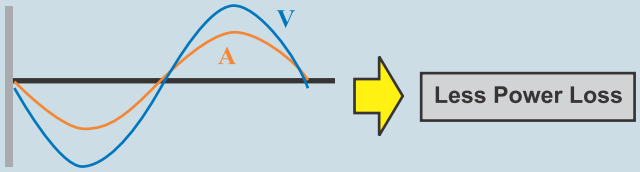

INTRODUCTION

NIFA ELECTRONICS Began outlining sound company framework, built on professional lines way back in 1991. NIFA ELECTRONICS has grown by leaps and bounds in exponential manner to become one of the major player in the field of POWER CONDITIONING, POWER MANAGEMENT & Allied Technical Services..

POWER FACTOR

Most of the industrial loads e.g. motor and transformers are inductive in nature and the power factor will be in the lagging side. Adequate reactive compensation is required at the consumer end to improve the power factor and effectively utilize the allotted Maximum demand. In a highly volatile load environment the reactive requirement of the loads is of maintain the power factor and to control the Relay power (KVA).

To maintain the power factor generally fixed capacitors are installed in industries at various load centers balanced to the connected load level. In the fixed compensation system the amount of capacitors (kVAr) connected in the system will be always constant irrespective of the load variations. In such conditions the power factor maintenance is highly difficult in the ambience of variable load pattern and the over all plant power factor will tent to be lagging or leading.

The leading power factor (i.e. excessive capacitors than the requirement) in the system will result in an excessive raise in the transient voltage during switching of loads and leads to insulation failures in the equipment and generates harmonic oscillations.

BRIEF ABOUT APFC PANEL

Noticing the anxiety of the industry for a dependable solution, we deeply explored the technology and conducted field studies on the current practices to configure a system matching our indian duty and environmental conditions. The configuration in the design of our APFC system with perfectly calculated on line balancing devices for regulation and control is well acclaimed.

FEATURES

- Most reliable and hassle free contactor switching technology.
- "NITEL" VAR BASED, USING MICRO CONTROLLER, P.F. CONTROLLER with Self-diagnostic sensing.
- "NITEL" Capacitor from most modern technology.
- Detuned Harmonic reactors to prevent network resonance and absorb the line harmonics.
- Fastest PF correction time equaling the solid state switching performance.
- Top of the World leading brand components, MCCB's, MCB's and Capacitors.
- Thoughtfully designed panels with insect proof & cooling fans for good ventilation to manage heat load.
- Designs that are suitable for indoor or outdoor use.
- Offers high reliability; long life and is suitable for operation over a temperature range of -10°C to 50°C.
- Designed to minimize Installation time and cost.

SALIENT FEATURES

- Current limiting contactors / thyristor especially designed for capacitor switching
- Load manager and data logger can also be provided in addition for downloading data
- Provision for top and bottom cable entry
- Aesthetically designed dust proof cabinet with powder coating

SAFETY FEATURES

- HRC fuses for back - up protection
- Safety door interlock to prevent door from being opened while Panel is 'ON'
- Each capacitor is provided with an internal discharge resistor

SYSTEM ADVANTAGES WITH UNITY POWER FACTOR

With installation of Automatic Power Factor Control Panel with additional value of capacitors, we will have benefits like,

- Reduced Power Cost.
- Exemption from any penalty for low power factor.
- Release of power system capacity.
- Reduced overloading and therefore less heating of cables and other expensive control panels.
- Reduced losses in feeders.
- Reduction in voltage interference due to welding equipments, etc.
- Reduction in size of electrical equipment for new installation and therefore, less capital expenditure.
- Power Factor Rebate in Electricity Bills.
- Depreciation as per IT Rules, being it is investment for Energy Saving Equipments.

BEST SUITABLE FOR

- Industrial loads
- Installation having Thyristorised loads
- Muncipal water pumping schemes
- Lift, Irrigation schemes
- DoT, Railways, CPWD requirement

TECHNICAL SPECIFICATION

Supply :	3 phase, 4 wire
Rated Voltage :	415/440 VAC
Rated Frequency :	50 Hz
Permissible Over Voltage :	1.2Vn
Permissible Over Current :	1.5Ln
Temperature Category :	50°C
Capacitors Ref. Std. :	IS:13585
Panel Ref. Std. :	IEC 439/1-2

PRODUCT RANGE

- Online UPS
- HT & LT Industrial AVR
- Servo Stabiliser
- Ultra Isolation Transformer
- Automatic Power Factor Control Panel
- Maximum Demand Control Panel
- Special Control Panels

SERVICES

- Power Quality Management
- Energy Audit Study

CUSTOMER SUPPORT

Centrally located in Ahmedabad, the customer support division remains consistent in progressively adding to its well-deserved reputation, spurred by a scientific spirit, entire team of engineers & technicians involved in the maintenance operations, meticulously work to keep customer demands satisfied. Our commitment to the customer goes beyond executing the best possible equipment. To help assure the perfect match of product & application, we offer and extensive direct support at all levels.

**We reserve the rights to change product specification without prior notice.*

GROUP

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