

ACTIVCOMP

Intelligent Real Time Thyristor Switched Power Factor Correction and Harmonic Filtration System



CONTROLLER

3 phase 3 CT controller with inbuilt load & harmonic analyzer



SWITCHING

SCR-SCR Type Solid State, transient free switching module for capacitor groups



INDUCTORS

Class-H insulation and exceptionally low temperature rise



CAPACITORS

Low loss Duca Power super Heavy Duty type in a 3 phase cylindrical aluminium case



INTELLIGENT CONTROL & MONITORING



Background

The Activcomp is a State of the Art, Real Time Thyristor Switching System designed for Power Factor Correction and Harmonic Filtration of fast changing/ Dynamic loads.

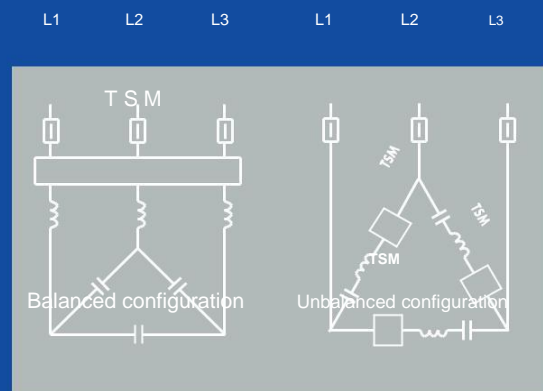
Connection and disconnection of the capacitors to and from the network occurs in real time at zero current crossing. This smooth connection avoids the transient effects typically created by electro mechanically switched PFC Systems.

The Activcomp systems are available in both BALANCED and UNBALANCED configuration to cater to various load requirements of industries. Unbalanced configuration is typically used in compensation of single phase Welding Loads, whereas balanced is used for all other applications.

Many successful Activcomp installations are working satisfactorily all over India and many countries since last many years.

Some of the major advantages of Activcomp system are :

- Fast Real Time Switching
- Transient-Free Switching
- Fixed Capacity & Filter Characteristics over ongl period of time
- Fast and Accurate Compensation
- Simultaneous Group Connection
- Long Life & Reduced Maintenance Cost



Conventional Automatic Power Factor Correction Systems (APFC) which were commonly installed in majority of installations to improve power factor till few years back. These systems are having severe limitations in installations with dynamic load changes, sensitive electronic loads and harmonic generating loads.

Not only conventional APFC are ill-equipped to compensate these types of loads but at a same time generate further operational problems in network by aggravating already poor power quality conditions. This in turn drastically reduces the life span of APFC equipment itself. Repeated investment in solving operational issues and repairing APFC panel becomes regular features of such installations.

Realizing this problem many years back we started offering static solutions for Power Factor Correction. Result is Stat of Art Dynamic Thyristor Switched Activcomp System which offers Dynamic Compensation of Power Factor in Real Time. It is Real Time System where in capacitors are connected and disconnected in the network at zero current crossing through Thyristor switches. This smooth connection and dis-connection avoids the transients effect typically created by Contactors Switched APFC Systems. Additionally this system is used for harmonic filtration through tuned and detuned reactor as per system designed.

Activcomp System offers Real Time and Efficient Reactive Power Compensation for fast variable loads, sensitive loads, unbalanced loads, normal loads with moderate to high harmonics. It has Dual Power Factor setting suitable for reactive power compensation on Utility supply and DG supply.

It is now replacing normal Contactor Switched APFC Systems in most of the commercial and industrial installations. Many Activcomp Systems are running

successfully all over India and abroad since more than last 15 years.

Some of major Activcomp system

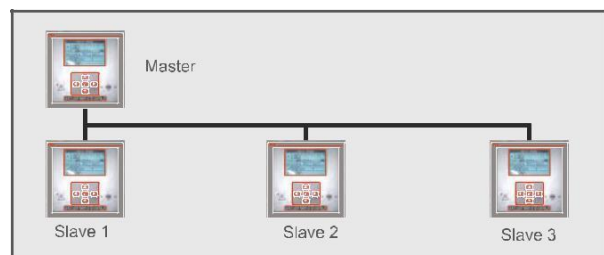
Applications are:

- Welding Machines
- Plastic Injection Moulding
- Industries with Non-Linear Loads
- Hospitals and Other Medical Centres
- Data Centres
- Extrusion
- Office Buildings
- Generator (emergency stand-by, parallel and stand-alone operation)

Activcomp Controller

The Activcomp Controller is capable to compensate the loads where the reactive power varies quickly with time i.e. to compensate for power factor and Harmonics in real time.

The Controller has most advanced features. It is expandable with pluggable type modules. It has an optical port on the front for data downloading.



**Some of the Important features of
Activcomp controller are:**

- Back light graphics 128x80 pixel LCD
- 3CT current sensing for optimal performance
- Master-Slave function for easy addition of future
- Optional communication port on front
- Option of 5A or 1A secondary CT current
- Inbuilt load manager function with wide range
- Voltage of measurement from 100 to 750V
- Optional capacitor protection module
- Optional GSM / GPRS modem modules
- Dual Power Factor settings for DG & Mains
- Automatically creates maintenance alarm
- Extreme reduction of the number of switching operations
- Over Temp. protection by internal sensor
- Current and Voltage harmonic analysis
- Harmonic analysis of current and voltage waveforms recorded for overload events
- Quick CT programming function
- SMS sending for alarm conditions with expansion module

Specifications

Design	: Standardized bolted Modular Sheet Steel Enclosures-Non Compartmentalized / Compartmentalized
Enclosure Finish	: Epoxy powder coated, in grey (RAL 7035) structure finish
Rated Voltage	: 415V-440V/50Hz (Design available for 380V, 480V, 690V, 750V - 50/60Hz)
Output Rating	: 50 to 5000 Kvar
Capacitors	: DUCA POWER Super Heavy Duty Series used are rated at 525V, 690V & 800V, 50/60Hz as per network voltage
Reactors	: H-Class, 5.6%, 6%, 7%, 12.5% , 14% or any other Tuning / Detuning rating on request
Incoming / Outgoing	: MCCB / ACB as Incomer and HRC Fuses for backup Protection (other combinations on request)
Dimension	: Contact our Sales Office
Ambient Temperature	: 50°C max short time 40°C average in 24 hours 35°C annual Average -10°C low limit
Protection class	: IP 40
Unbalanced Activcomp System: For Unbalanced Activcomp System ratings & Specifications Contact our Sales Office	

*Specifications are subject to change without notifications