ENNERGY EXPERTS PRIVATE LIMITED

Ennergy Experts

We Shape Energy



Reduce Electricity bills by improving power quality

Dynacomp®

INNOVATIVE PROVEN SOLUTION FOR KVAH OPTIMIZATION

www.ennergyexperts.com

Dynacomp®

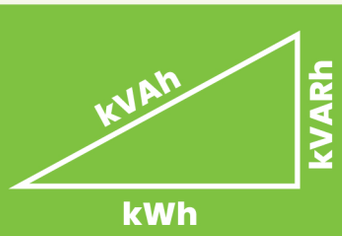
INNOVATIVE PROVEN SOLUTION FOR KVAH OPTIMIZATION

Our technocrats team is involved in Design, Development. Engineering. Manufacturing. Supply. Installation and Commissioning of Proven technology for Fine Reactive Compensation to reduce KVAh and KVA Demand.

We have developed a product **Dynacomp** for Commercial and Industricl Loads, The **Dynacomp** is installed along with existing APFC/RTPFC systems, which are failed to maintain exact KVAr requirement and fine compensation in frequent fluctuating and critical loads causing higher count in KVAh than Kwh units.

This system successfully compensates the fine gap between Kvah and KWH and nullifies the unbalance between all three phases R. Y, B at Real time through specially developed hybrid switching technology.

POWER FACTOR $PF = \frac{kWh}{kVAh}$



kVAh - kWh

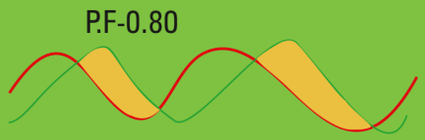
Following are advantages of installing Dynacomp in your Electrical network:

- Fine compensation at real time through Hybrid Switch.
- Nullifies the unbalance load to increase efficiency. Greater efficiency reduces electricity costs and results in commercial savings.
- Equalises the kWhmap units in electricity bils through current injection through Neutral, which reduces the KVAh count and KVA (MD) in electricity bills.
- Improves the power factor consistently during frequent load switching, thus improvement in RKVAh Lag and RK VAh Lead counts in Electricity bills.
- Step less reactive compensation.
- Maintenenace tree (Fit & Forgel solution)
- Compact in Size and floor mounted design. | IP58
- No requirement of AC Fan Cooling systems, etc.



Guaranteed Power Factor > 0.992

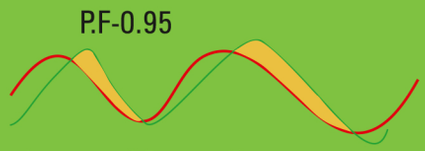
Before Power Factor Correction



No Power Factor Correction system is installed. Low Pf causing more losses.

Lag between Voltage and Current creates Waste

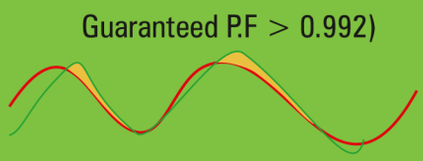
After Power Factor Correction



APFC / RTPFC is installed. But due to unbalanced load Target PF cannot be achieved.KVAH Vs. KWH Gap is more.

Wasteful Lag is reduced thus improved Power Factor

After installation of NeutComp



Dynacomp is installed with existing APFC / RTPFC System. KVAH Vs. KWH Gap is very less & KVA (MD) count is also low.

Power Factor is further improved near to Unity

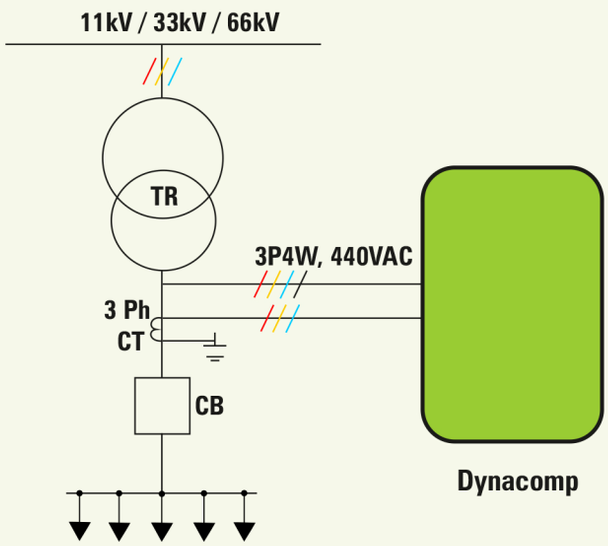


Voltage **Current** **Waste (Increase in KVAh)**

Technical Specifications

PARAMETER	VALUE
- Efficiency	: More than 98.8%
- Reaction Time	: Intelligently
- Target P.F. / Setting	: 0.7IND TO 0.7 CAP
- CT Feedback	: 3 Phase CT
- Accuracy	: Class 0.5
- Supply Voltage	: 440 VAC + -20%
- IP Rating	: IP 58
- Attitude Rating	: Upto1500 Meters
- Humidity	: 10% to 90%RH
- Cable Entry	: Bottom

- Available from 6 AMPS TO 800 AMPS
(Customised Solutions)



SAVE PENALTY ON ELECTRICITY BILLS

APPLICATION

Hotels **Hospitals** **Commercial Buildings** **Offices** **Schools**

Colleges | Institution | Large Residential | Industries

- Penalty has been introduced for leading power factor
- Incentive is applicable on lagging PF only
- Now power factor is being calculated as:

$$KWH\ PF = \checkmark KWh^2 + (RKVAh\ Lag)^2 + (RKVAh\ Lead)$$

- If P.F. <0.90, then penalty will be as MERC order
- If P.F. > 0.95 and RKVAh Lag >= RKVAh Lead, then Incentive is applicable as per MERC Order.
- if P.F. > 0.95 and RKVAh Lag < RKVAh Lead, then NO incentive is applicable.

Dynacomp Minimises The Gap Between KVAh and kWh, thus Saves Electricity Bills

Adjustment	0.000	0.000	0
Assessed Consump	0.000	0.000	0
Total Consumption	100665.000	151583.000	1459

BILLING D		
Billed Demand (KVA)	385 @ Rs.	391
Assessed P.F.	Avg. P.F.	785
Billed P.F.	785 L.F.	21

Before Installation of Dyanacomp
Gap = kVAh - kWh = 50918 Units
Power Factor = 0.785

Adjustment	0.000	0.000	0
Assessed Consump	0.000	0.000	0
Total Consumption	97876.000	98160.000	4751

BILLING D		
Billed Demand (KVA)	313 @ Rs.	411
Assessed P.F.	Avg. P.F.	997
Billed P.F.	997 L.F.	29

After Installation of Dyanacomp
Gap = kVAh - kWh =284 Units
Power Factor = 0.997
Also, kVAh reduction upto a great extent

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COFA Studio