

**TRINITY ENERGY SYSTEMS PVT. LTD.**

386, Savli – GIDC Estate, Manjusar – 391775, Dist. VADODARA

 Gujarat, INDIA. Telephone No. +91 – 9228004452/53/54  
 Email: [info@trinityenergy.co.in](mailto:info@trinityenergy.co.in), Web: [www.trinityenergy.co.in](http://www.trinityenergy.co.in)


## CASE STUDY

### COMPANY INFORMATION

<b>NAME</b>	TRINITY ENERGY SYSTEMS PVT. LTD.
<b>Address</b>	386, SAVLI, GIDC ESTATE, MANJUSAR
<b>City, state, ZIP Code</b>	VADODARA, GUJRAT, 391775
<b>Phone number</b>	9228004452/53/54
<b>Contact name</b>	MR. YOGESH KUMAR
<b>Title</b>	MANAGER – SALES (NORTH)
<b>Phone number</b>	9718702929
<b>E-mail address</b>	<a href="mailto:yogesh.kumar@trinityenergy.co.in">yogesh.kumar@trinityenergy.co.in</a>
<b>Website address</b>	<a href="http://www.trinityenergy.co.in">www.trinityenergy.co.in</a>
<b>Solution offering</b>	MANUFACTURING OF DIGITAL PANEL METERS, ENERGY METERS, MULTIFUNCTION METERS, MAXIMUM DEMAND CONTROLLERS, APFC RELAYS, RTPFC PANELS, CTs, AMF RELAY, POWER CAPACITORS, HARMONIC DETUNE REACTORS, TSMs, EMS, TIMERS

### CUSTOMER PROFILE

<b>Customer name</b>	SHRI AMOD INDUSTRIES
<b>Address</b>	SHRI LAXMI NAGAR, RUTHI, HARYANA
<b>City, state, ZIP Code</b>	RUTHI, HARYANA
<b>Phone number</b>	9810011111
<b>Industry Type</b>	AGRICULTURAL MACHINE MANUFACTURING
<b>Number of employees</b>	30 APPROX.
<b>Contact name</b>	MR. RAJESH KUMAR
<b>Title</b>	MANAGER
<b>Phone number</b>	9810011111
<b>E-mail address</b>	<a href="mailto:info.ganga@gmail.com">info.ganga@gmail.com</a>

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## CHALLENGE

- GURU AGRO INDS. Wants to **minimize their Energy Consumption** which is costing them to pay the Extra amount in their Electricity Bills.
- Their Energy (KVAH) consumption was very high owing to **Energy Losses because of Very Low Power Factor ( around 0.55 LG – 0.60 LG)**
- Their monthly **Electricity Bill was 90000/- to 1,10,000/-**
- **Maximum Demand was 60KVA.** For 49KVA sanction load.
- They used Fixed Capacitors for Power Factor Improvement but did not get any improvement.
- They were **using Conventional (contactor based) Power Factor Correction Panel** which was not giving satisfactory results.

### **Photo – Conventional PF Correction Panel:-**



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## SOLUTION

- To understand the nature of the problem Trinity did a Load Audit at site.
- After that Audit, Trinity came to know the nature of Electrical Load.
- Their Electrical Load was Imbalance and Very Momentary or jerking (**10 nos. Welding Machines**) and in such Electrical Load condition, Conventional Power Factor Correction Panel could not work.
- After understanding the actual Load condition Trinity Design a **Tailor Made** Product for them, and which is, **60 kvar RTPFC (Real Time Power Factor Correction) Panel with Single Phase Compensation Feature.**
- **RTPFC Panel** installed parallel to their factory Load.

**Photo –60 kvar RTPFC Panel- Trinity**



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## **BENEFITS**

- Their Average PF achieved to 0.95 LG.
- Maximum Demand Reduced to 26 KVA
- Their Energy Consumption reduced up to 45%.
- Their monthly Electricity Bill amount reduced to about 50000/- to 55000/-, so they are saving 40k to 45k every month.
- Since RTPFC Panel is consist of Zero Crossing Cards and Thyristors for switching, irrespective of Normal Apfc Controller and Contactors, its Maintenance cost reduced to almost 1/3 of Conventional PF Correction Panel.