

**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>Tit</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, POWER CAPACITORS, EMS

### CUSTOMER PROFILE

<b>Customer name</b>	BB EMBROIDERIES
<b>Address</b>	INDUSTRIAL AREA, NEAR HISAR ROAD, ROHTAK
<b>City, state, ZIP Code</b>	ROHTAK, HARYANA, 124001
<b>Phone number</b>	9671155517
<b>Industry Type</b>	TEXTILE INDUSTRY
<b>Number of employees</b>	
<b>Contact name</b>	MR. GAURAV CHAWLA
<b>Title</b>	DIRECTOR
<b>Phone number</b>	9671155517
<b>E-mail address</b>	

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## CHALLENGE

- BB Embroideries 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 0.62 LG – 0.65 LG)**
- Their monthly **Electricity Bill was 50000/- to 52000/-**
- **Maximum Demand was 22KVA.**, for 19KVA sanction load.
- They used Fixed Capacitors for Power Factor Improvement but did not get any improvement.
- They were **using Conventional 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 an Electrical Audit in their Factory.
- After that Audit, Trinity came to know the nature of Electrical Load.
- Their Electrical Load was Imbalance and Very Momentary or Jerking 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, **RTPFC (Real Time Power Factor Correction) Panel with Single Phase Compensation Feature.**
- **RTPFC Panel** installed parallel to their factory Load.

### **Photo – RTPFC Panel- Trinity**



### **• CORRECTIVE ACTION TAKEN BY BB EMBROIDERIES:-**

Their Electricity Board's Energy Meter was AVON Make and this meter does not have THD protection so, it was malfunctioning. After replacing the AVON meter with L&T make their PF achieved to 0.98 LG

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## **BENEFITS**

- Their Average PF achieved to 0.98 LG.
- Maximum Demand Reduced to 14 KVA
- Their Energy Consumption reduced up to 30%.
- Their monthly Electricity Bill amount reduced to about 35000/- to 38000/-, so they are saving 15k to 16k 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.