
Factory Walkthrough

Hitachi Hi-Rel Power Electronics Pvt. Ltd.

Contents

1. Gandhinagar Manufacturing Facility
2. Sanand Manufacturing Facility

1. Gandhinagar Manufacturing Facility

- **Division** - UPS & Power Conditioning
- **Total Area** - 10,000 m²
- **Products Manufacturing** – Industrial, Commercial & Enterprise UPS, Solar Inverter & Railway Products
- **Facilities** – Designing, Engineering, Manufacturing and Testing
- **Site Connectivity**
 - Located at Gandhinagar; capital of the state of Gujarat, 23 km from Ahmedabad
 - Easy connectivity with NH8, Airport, Railway & Port.
 - 12 km away from National Highway 8
 - 18 km away from Ahmadabad Airport
 - 2 km away from Gandhinagar railway station
 - 300 km away from kandla port

State-of-the-Art Manufacturing Facility

HITACHI
Inspire the Next



State-of-the-Art Manufacturing Facility

HITACHI
Inspire the Next



- Total area about 4,500 m² for manufacturing set up
- In-house testing facility for all manufactured products.
- Anti-static flooring for Manufacturing / Assembling

- **In-house Product Testing Facility**
 - Fully Automated Test Facilities
 - Multiple Test Benches for UPS & Solar Inverter
 - Power Regeneration Capability in the Test Benches
 - Burn-in Chamber Test
 - Heat Run Test
 - Load Banks

- **In-house R&D (Research & Development) Facility**
 - Recognized by DSIR (Department of Scientific & Industrial Research), Govt. of India



- Overhead Crane of 2.5 tone
- Separately defined area for QA/QC of the incoming materials



- Temp. Controlled Production Area,
- Testing
- Dust Free Environment
- Anti-static Flooring



- Burn-in Chamber
- Heat Run Test
- Test Consoles
- Load Banks



- Overhead crane of 10 tone
- Epoxy flooring

- 765 kVA Connected Power
- Air conditioning system for the Assembly & Admin Building
- CCTV Cameras
- Public Address system
- Data Connectivity
- Storm water drainage system
- Landscaped environment
- Secured entrance facilities for incoming materials

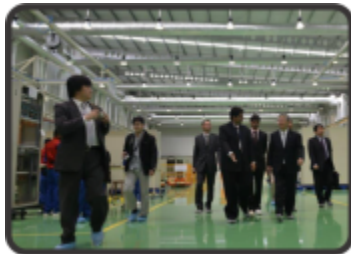
In-House R&D Facility

Enabling development of Valuable New Products, Processes, and Services



2. Sanand Manufacturing Facility

- **Division** – Drives & Automation
- **Total Area** - 26,000 m²
- **Products Manufacturing** – Medium & Low Voltage Drives, Industrial Automation & Control, Customized Products i.e. UMPS, iDip
- **Facilities** – Designing, Engineering, Manufacturing and Testing
- **Site Connectivity**
 - Located at Sanand
 - One of the fastest developing Industrial Hub in India
 - Industrial Park dedicated mainly for Mfg. Facilities for MNCs
 - Neighboring Plants are Major MNCs like Ford Motors, Colgate, Bosch, Allied Refractory, etc.
- Use of Hitachi's Omika Works based Software Tools for Engineering and Manufacturing
 - Dust Free Environment and Anti-static Flooring



Inaugurated by
MR. HIROAKI NAKANISHI
Representative Executive Officer
and President,
HITACHI, LTD. – JAPAN
on
12 /12 /12

State-of-The-Art Manufacturing Facility

HITACHI
Inspire the Next



HITACHI HI-REL POWER ELECTRONICS

HITACHI
Inspire the Next

Hitachi Hi-Rel Power Electronics Pvt. Ltd.

- Reception →
- Admin Building →
- Utility Area →
- Car Parking →
- Staff Entry →
- Two Wheeler Parking →

Modeled on Hitachi's Omika Works, Japan

HITACHI
Inspire the Next



Modeled on Hitachi's Omika Works, Japan

HITACHI
Inspire the Next





- Total area about 4,270 m² for manufacturing set up
- In-house Testing Facility for all manufactured products.
- Anti-Static Flooring for Manufacturing / Assembling

- **In-house Product Testing Facility**
 - Automated Test Facilities for MV Drives and LV Drives
 - 3500 KVA Power Connectivity
 - Four Quadrant VFD Testing from 11 kW to 550 kW
 - Power Rotate Test Facility for Large Power Rating
 - Four Quadrant VFD Testing up to 550 kW
 - Test Setup – MV Drive at Full Speed – load control
 - Automated Test Command Centre
 - 5 MV Drives Test Benches
 - 3 LV Drives Test Benches

Receiving Area



- Overhead Crane of 2.5 tone
- Separated QA/QC for incoming goods
- Rapid shutter facility to minimize dust entering

Main Assembly/ Manufacturing



- Overhead crane of 10 tone
- Air Caster of 10 tone
- Anti static epoxy floor
- Fully Air Conditioning
- Filters to control dust particles of >5 micron

Load Bank & Testing



- LV Drive Test facility
- MV Drive Test Facility
- Automatic Cell Testing Facility
- Test Command Center

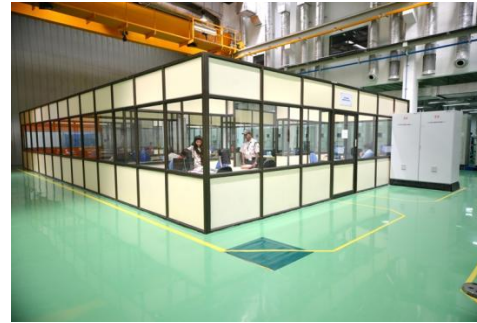
Shipping Area



- Overhead crane of 10 tone
- Epoxy flooring
- Rapid shutter at exit

Load Bank & Testing

- Multiple voltages
 - LV - 340 V to 415 V
 - MV - 2 kV to 11 kV
- 3 nos. MV drives test bays
- 5 nos. LV drives test bays
- Automatic Cell Testing Facility
- Test 11 kW to 550 kW ratings at 340 V and 415 V drives on full power with motor load
- Test up to 5000 kW ratings at 3.3 kV, 6.6 kV, and 11 kV drives on full current with reactor load
- Customer can conduct witness test from automated test command center
- Transformer impulse voltage test facility
- Torque wrench from Japan



Automated Test Command Center



Test Benches



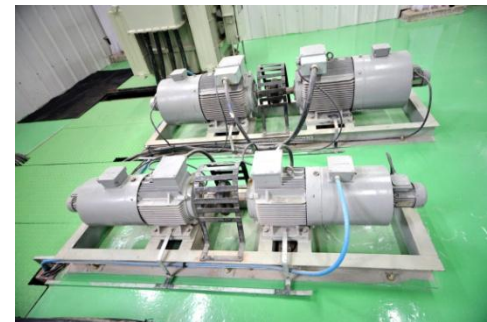
Testing Area



MV Load Bank



6.6 kV Drive Under Test



LV Load Bank

Rapid Shutter



Main Sub station with Panel room & Transformers:

Receives Power from the Local Power company

Pump House with Under ground storage Tanks:

Pump house of 115 m² & Water storage tanks with total capacity of 250,000 liters

Facilities include softening Plant & softened water tank
Pumps for Fire Hydrant system & Raw Water distribution system.



- Auditorium having total seating capacity of approx. 125 persons
- Connected Power of 3500 KVA
- Air conditioning system of 300 TR for the Plant Building & 100 TR VRV system for the Admin. Building. Entire system has filters to control the entry of particle size greater than 5 microns
- AHUs, Chillers & Cooling Towers with necessary piping
- CCTV Cameras
- Secured entry and exit
- High speed data connectivity
- Pressure Booster system for water supply network
- Sewage collection network & package treatment plant of 20,000 ltrs. Capacity
- Landscaped environment
- Smoke detection & Fire Alarm system

END

Factory Walkthrough

State-of-the-Art Manufacturing Facility

May 2014

Hitachi Hi-Rel Power Electronics Pvt. Ltd.

HITACHI
Inspire the Next 