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AC PCB Repairing Course

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Presented By

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Course Overview



Practical classes

- We provide practical class to students from Day 1
- Students are provided with PCB from institution without extra charge
- There is no time limit for students to use the practical class



Theory Classes

- Trainers with over 23+ years of experience
- Doubt clearing sessions
- Classes uses the modern facility

- Difference between window ac and split ac
- Difference between inverter and non-inverter ac
- How to identify AC PCB inverter and non inverter
- All components (22 types)
- Identification & Damage checking of board
- Check supply on board
- PCB reading and tracing Fault finding by error codes
- Power supply, sensor, fan section, EPROM programme, communication section and much more etc.
- Tracing and repairing section
- Use of DSO in PCB repairing
- PCB matching, equivalent finding of all component
- IPM testing and working, IPM changing



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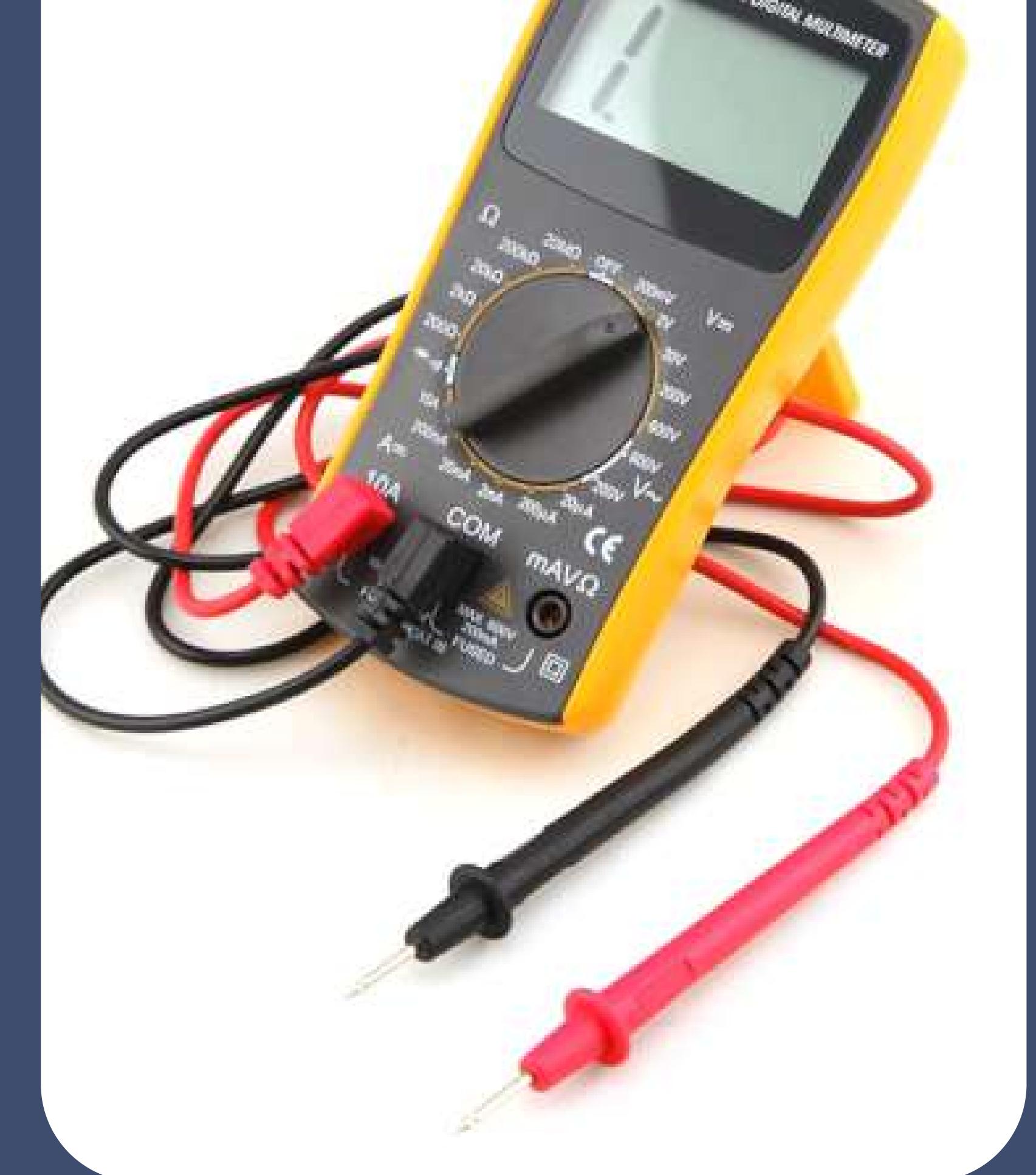
SYLLABUS

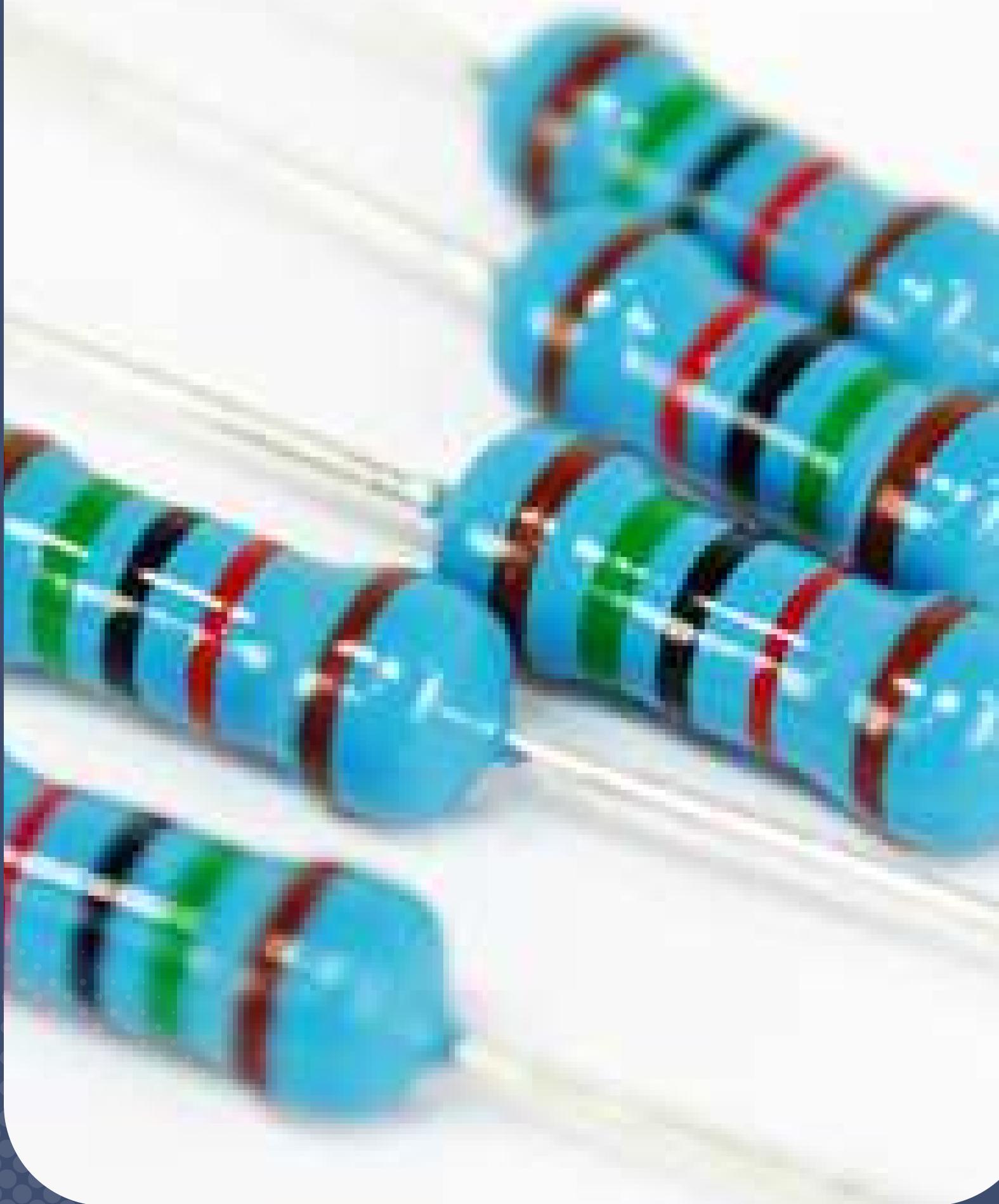
Basic electronics

- Introduction of (Volt, current, watt)
- Introduction of (AC/DC)
- How to use digital multimeter

Identification of electronics component

- Resistor, capacitor, transistor, mosfet, diode, crystal, IC, transformer, Fuse, Jumper, Thermistor, switch, Coil etc.





resistor

- Denoting letter of resistor
- Identification & testing
- Color coding concept
- SMD resistor value
- Types of resistor

capacitor

- Denoting letter of capacitor
- What is a Capacitor
- Types of capacitor
- Capacitor testing



Diode

- Denoting letter and symbol of diode
- Working concept of diode
- Types of diode
- Bridge rectifier Diode
- concept Testing of Diode

Transistor

- Denoting letter and symbol of transistor
- Working concept of transistor
- Types of Transistor
- SMD and normal transistor
- identification Testing of transistor





Mosfet

- Denoting letter and symbol of Mosfet
- Working concept of Mosfet
- Types of Mosfet
- Testing of Mosfet

Coil

- Denoting letter and symbol of coil
- Looking concept of coil (Inductor)
- Types of coil
- Testing of all types of coil



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IC/CHIP

- Identification of IC
- Working concept of IC
- Testing of IC on board

Transformer

- Denoting letter and symbol of transformer
- Working concept of transformer
- Types of transformer
- Testing of transformer





Crystal

- Symbol of crystal
- Working concept of crystal
- Testing of crystal

Fuse

- Denoting letter and symbol of Fuse
- Working concept of fuse
- Workig of Fuse



Thermistor

- Denoting letter and symbol of thermistor
- Working of thermistor
- Types of Thermistor
- Testing of Thermistor

Varistor

- Denoting letter and symbol of Varistor
- Working of Varistor
- Testing of Varistor



Thermistor



Battery

- Working concept of battery
- Testing of battery

Switch

- Jumper
- Connector
- Regulator IC
- Opto coupler
- Relay



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Main AC electronics components and parts

- Compressor
- AC/DC motor
- Contractor
- Relay
- Regulator IC
- TRIAC
- SSR - Solid state Relay
- Bipolar liner IC
- 7 segment LED display
- Buck converter IC
- IGBT - Insolated Gate Bipolar Transistor
- IPM - Intelligent/Inverter Power Module
- PFCM - Power Factor Corretion Module





Soldering & De-soldering Practice

- How to remove & sold all types of components in E-vehicle like ~ Resistor, Capacitor, Diode, Transistor, Mosfets, etc.

Basic of AC

- About details of AC types
- What is Ton in AC system
- How to calculate best AC ton for room size
- Details of non-inverter AC Details of inverter AC



Types of AC

Window AC

Mechanical Section

- Window AC section details
- Fan motor
- Compressor
- Capacitor
- Swinger blade

PCB section

- Power supply (SMPS, LINEAR, BUCK CONVERTER)
- Regulation
- Relay section
- Micro controller
- Thermistor
- Power relay
- Display/Keypad/IR/induction
- Buzzer beep sound





Split AC

- Mechanical Section
- Non inverter section
- Indoor unit
- Outdoor unit
- Power/SMPS
- Regulation
- Relay
- Swinger blade
- Power Relay
- Micro controller
- BIOS/Crystal
- Display/Indication/Keypad/IR
- Connection
- Connector
- Outdoor fan
- Compressor



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Inverter AC

- Connector
- Split AC indoor and outdoor
- Power supply
- Regulation
- DC fan motor
- Controller
- Crystal/BIOS

IDU details

- Bipolar cleaner IC
- Display / IR / Keypad / Indication
- Swinger motor
- Thermistor
- Communication section





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Outdoor Section

- Power Supply Regulation
- PFC section
- Micro Controller(BIOS/CRYSTAL)
- Sensor Inverter section
- Communication
- Compressor
- Fan Motor



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Instagram

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