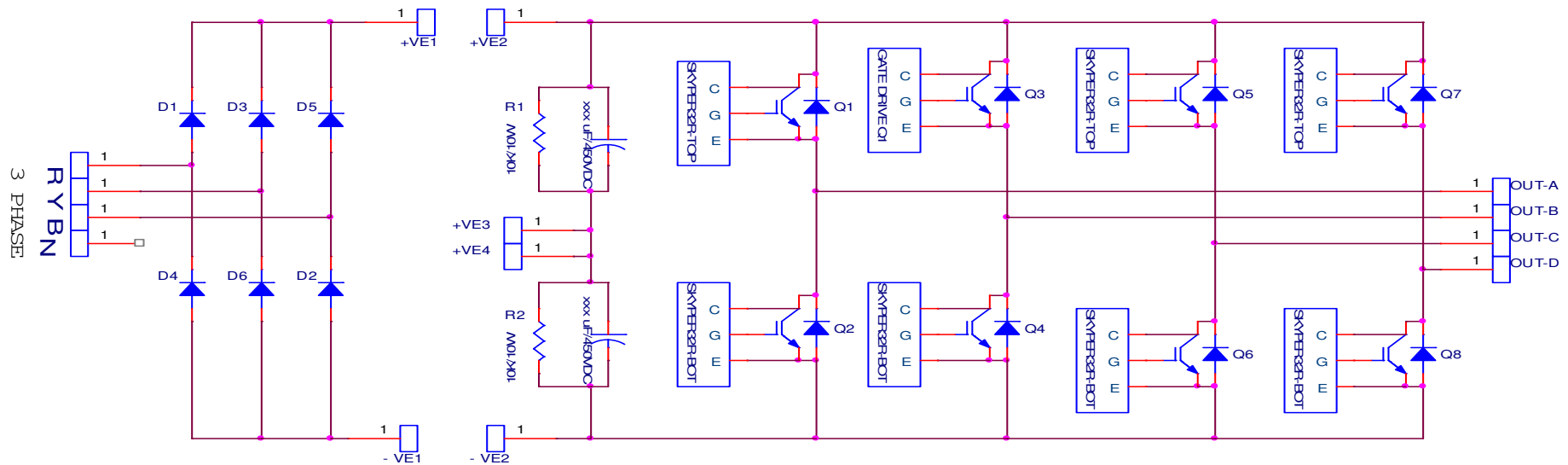


Custom Power Electronics Converters & Inverters



Ademtek provides custom power electronics hardware solutions to universities and research institutions, reducing their development time and R&D Cost. Our hardware is customized to interface directly with the controller of your choice giving you a ready to use solution directly out of the box. With professional wiring and build quality to reduce failure and safety hazards. If you are working on a research project or setting up a power electronics lab, our solutions will suit your needs perfectly.

3Phase Rectifier+4LEG IGBT Inverter Model: 3PINV8S-R



Features

- 100A, 1600V 3phase Rectifier Modules
- It includes 4Leg IGBT modules , 1200V, 100A,with FWD modules
- Isolated IGBT gate drives modules dual output supply with short circuit protection
- 3.3V/5V PWM input signal
- Internal +15V DC Power supply for Gate drivers
- 2300uF/900VDC DC Link Capacitors
- DC link voltage and Current monitoring with Hall effect sensors (optional)
- P3/290mm Heat Sink for IGBT Power Module and ,
- Forced air Co0ling with Exhaust FAN

Note1: Inrush current limit circuit is optional

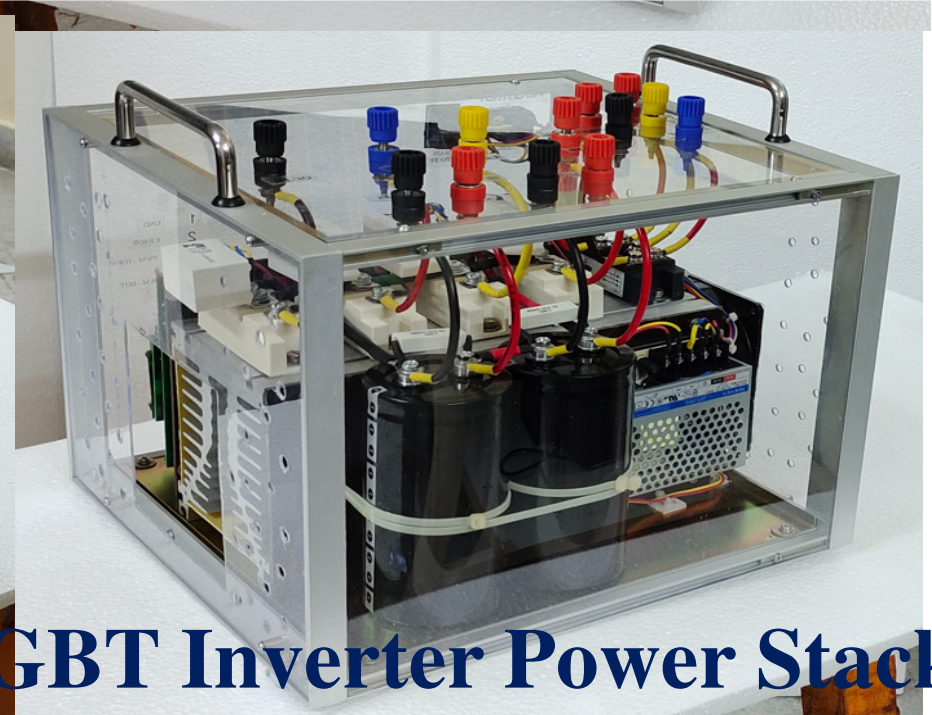
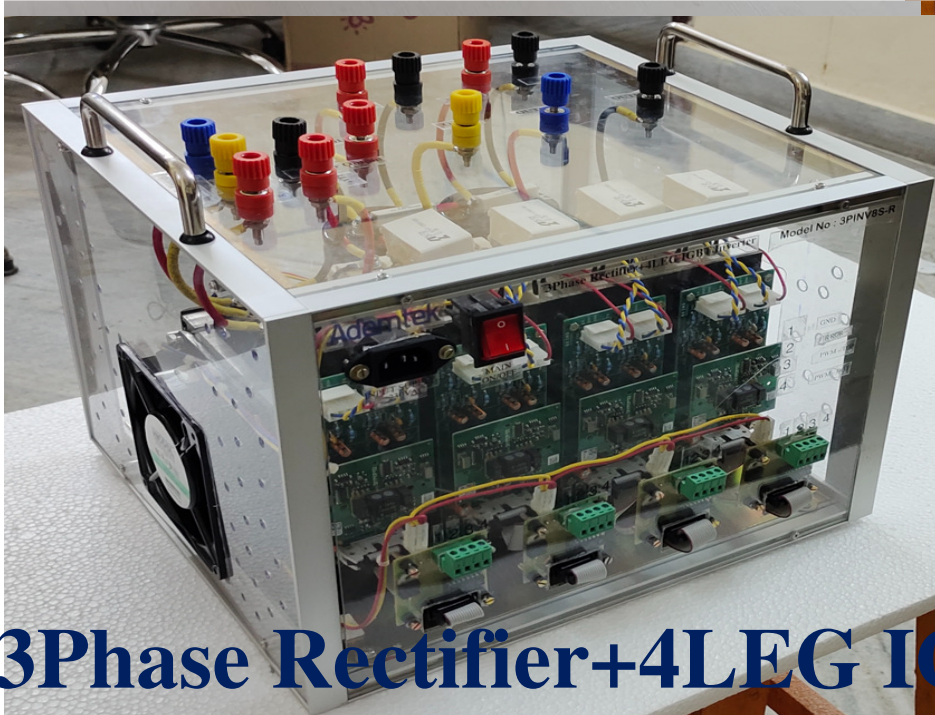
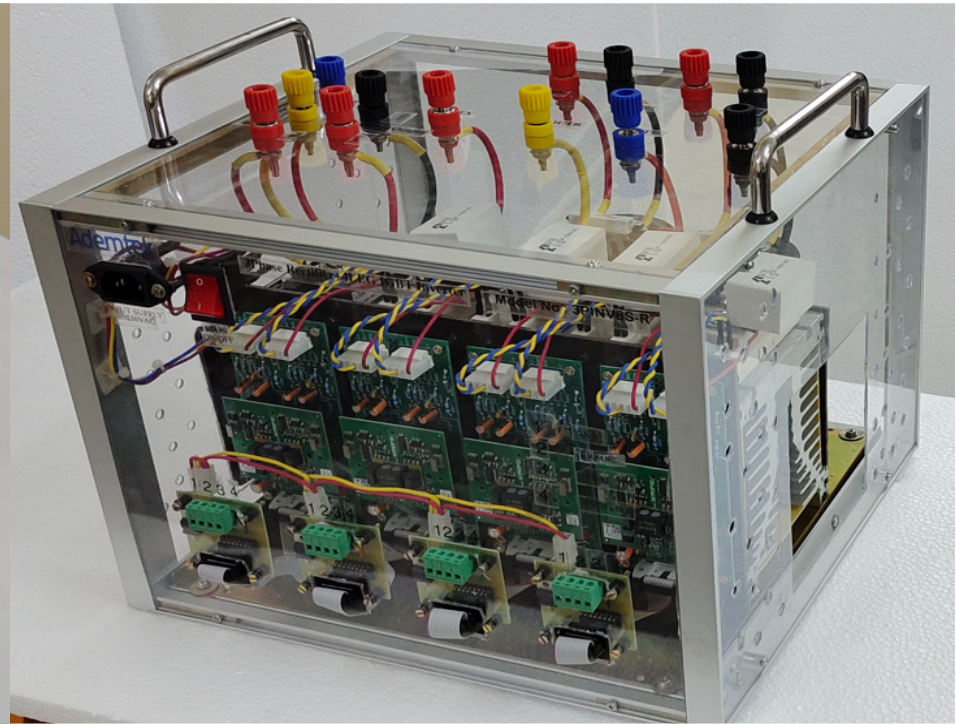
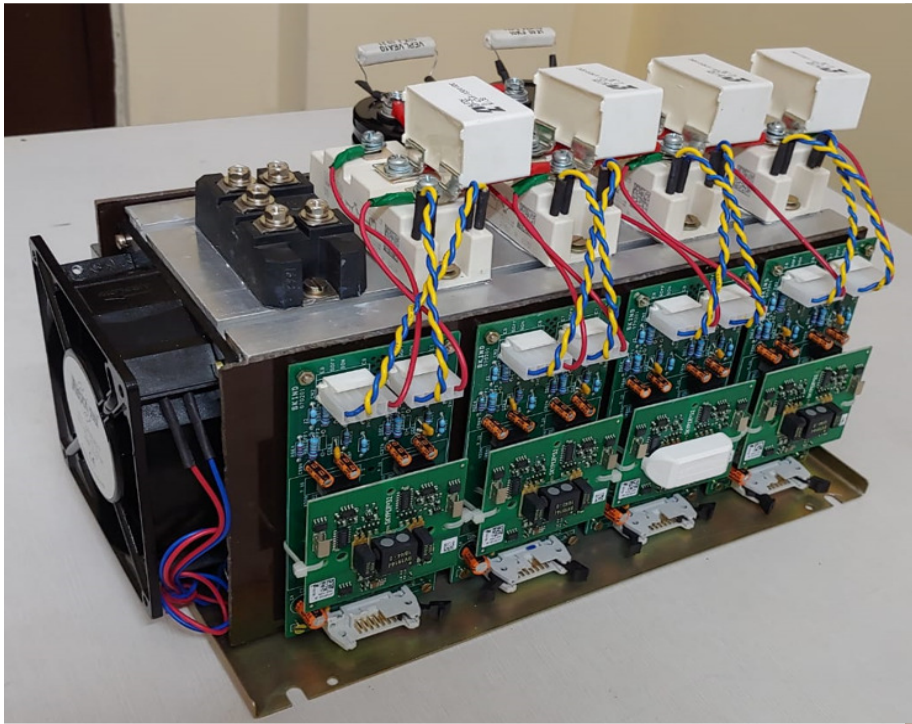
Note2 :DC link voltage and Current measurement meters optional)

Applications

IGBT Converters can be configured as

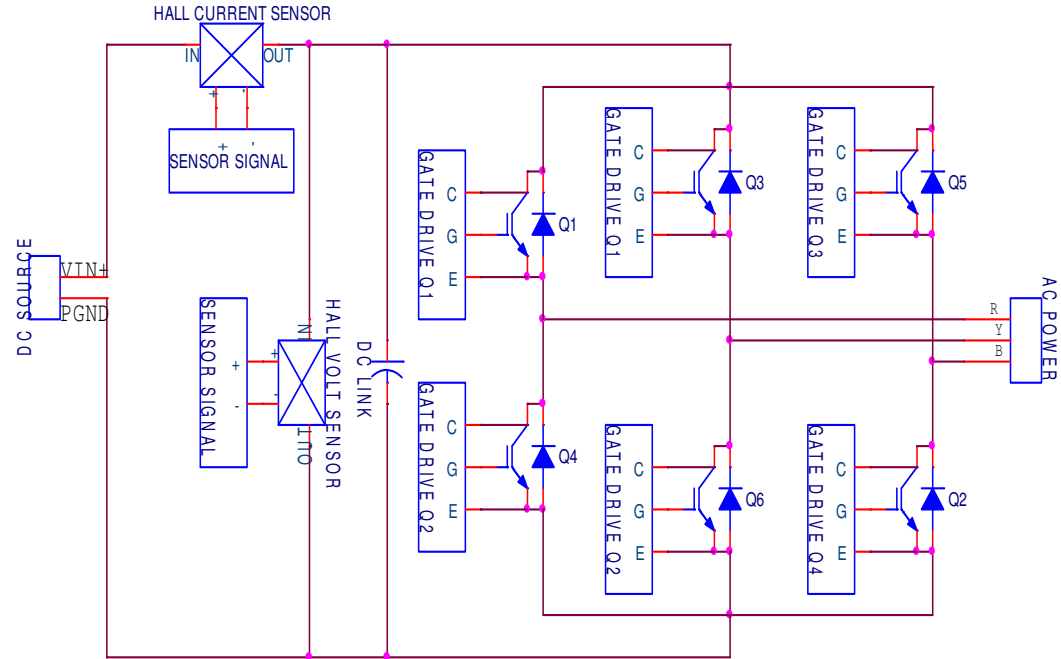
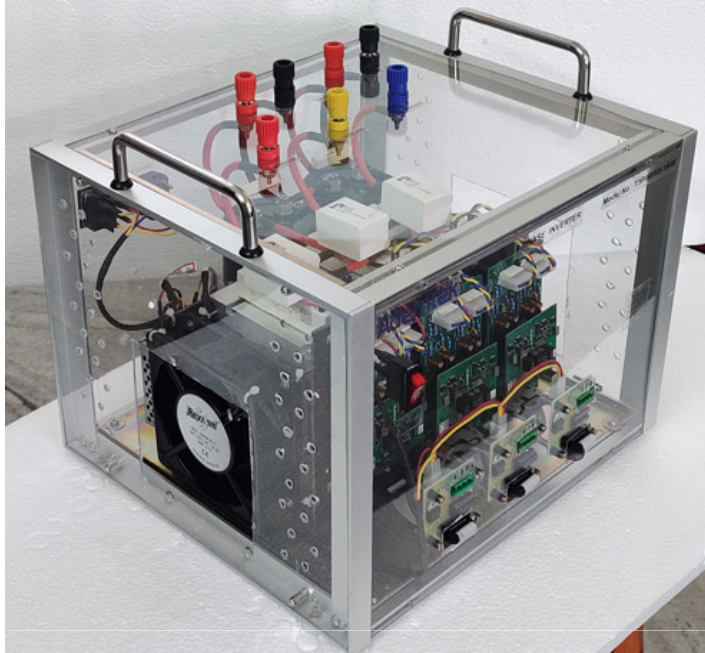
- 1 & 3 Phase Inverters
- Bi- Directional Converter
- Buck Boost Converters
- DC Motor Drives

Cost: Rs67000/Unit



3Phase Rectifier+4LEG IGBT Inverter Power Stack

3Phase IGBT Inverter Stack Model: 3PINV6S-S



Features

- It includes 3Leg IGBT modules , 600/1200V, 100A,with FWD modules
- isolated IGBT gate drives modules dual output supply with short circuit protection
- 3.3V/5V PWM input signal
- Internal +15V DC Power supply for Gate drivers
- DC Link Capacitors
- DC link voltage and Current monitoring with Hall effect sensors

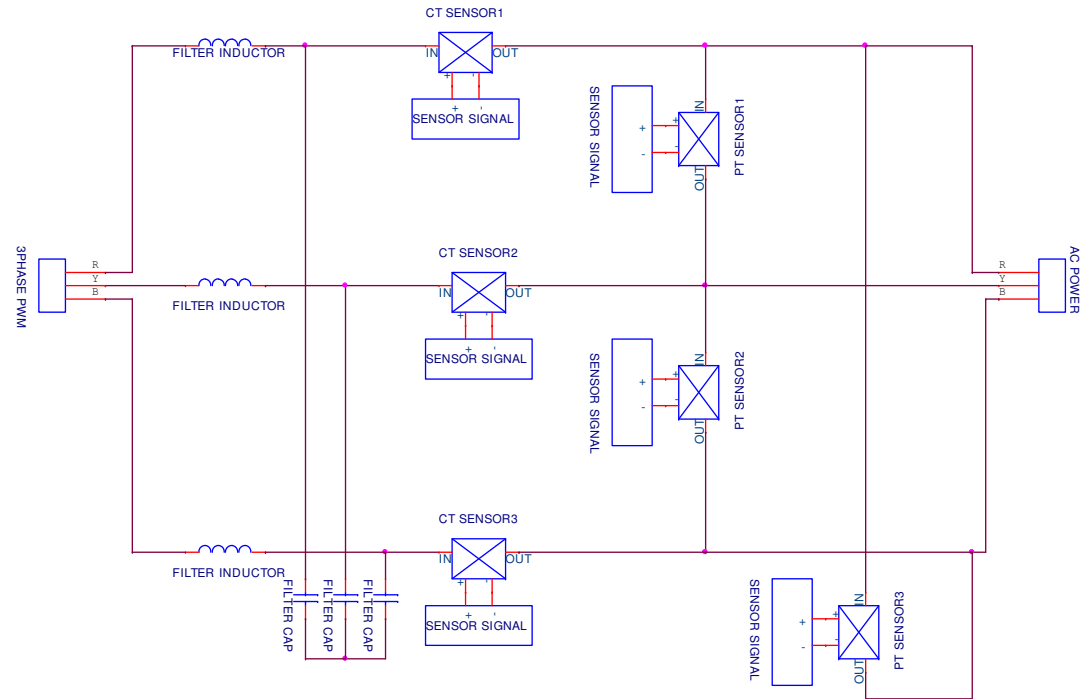
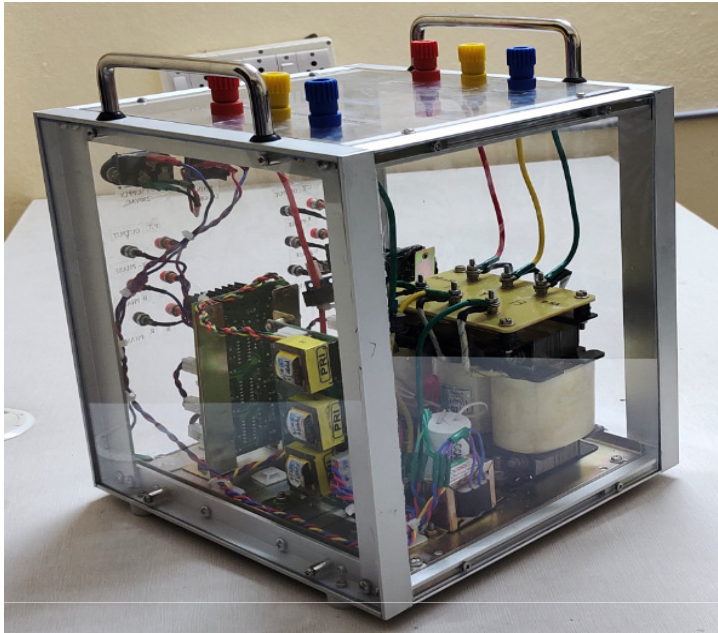
IGBT/MOSFET Based Converters can be configured as

Cost: Rs60000/Unit

- 1 & 3 Phase Inverters
- Bi- Directional Converter
- Buck Boost Converters
- DC Motor Drives
- Wind turbine Converters



3Ph INVERTER LC FILTER MODULE (Model: 3PINV6S-LCF)



Features:

- Sine wave PWM LC Filter
- Potential transformer based Voltage sensor Module
- current transformer based Current sensor Module

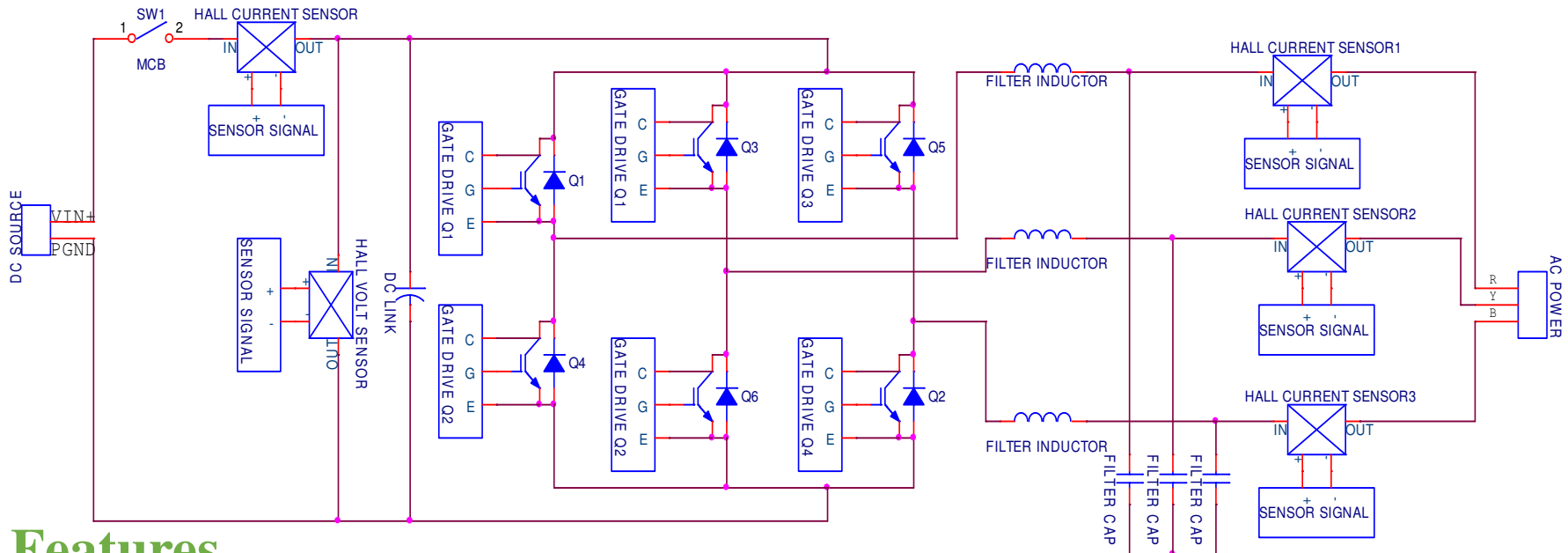
Applications:

- Grid connection inverters
- Solar Inverters
- DC motor drives ,
- Uninterruptible Power Supply (UPS)

LC Filter with VI sensors Cost: Rs50000/Unit

LCL Filter with VI sensors Cost: Rs67000/Unit

3Phase Inverter (Model: 3PINV6SLC)



Features

- It includes 3Leg IGBT modules 1200V, 50A/100A, with FWD modules
- isolated IGBT gate drives modules dual output supply with short circuit protection
- 3.3V/5V PWM input signal
- Internal +15V DC Power supply for Gate drivers
- DC Link Capacitors
- 3Phase LC filter to convert SPWM to Sine wave

Applications:

- Grid connection inverters
- Maximum Power Point Tracking MMPT
- Solar Inverters , - AC motor drives (Induction machines, BLDC motors, PM)
- DC motor drives , - Uninterruptible Power Supply (UPS)

Cost: Rs1lakh/Unit

SIC VOLTAGE SOURCE INVERTERS (Model: SPM-IN3L)

SIC VOLTAGE SOURCE INVERTERS is high power 3 phase inverter stack that comes with optional SiC or IGBT switches suitable for wide variety of applications. It is specially designed with flexibility and reliability in mind for applications such as motor drive inverters, 3 phase active rectifiers and PV-inverters.

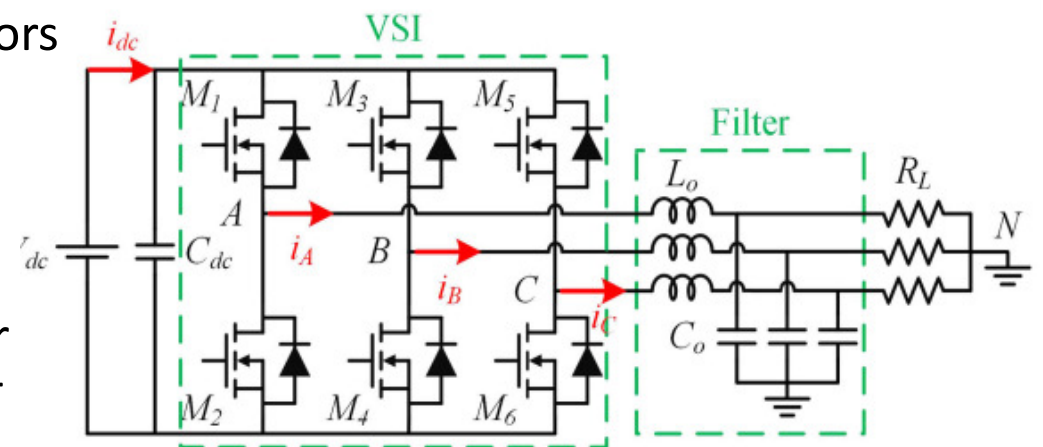
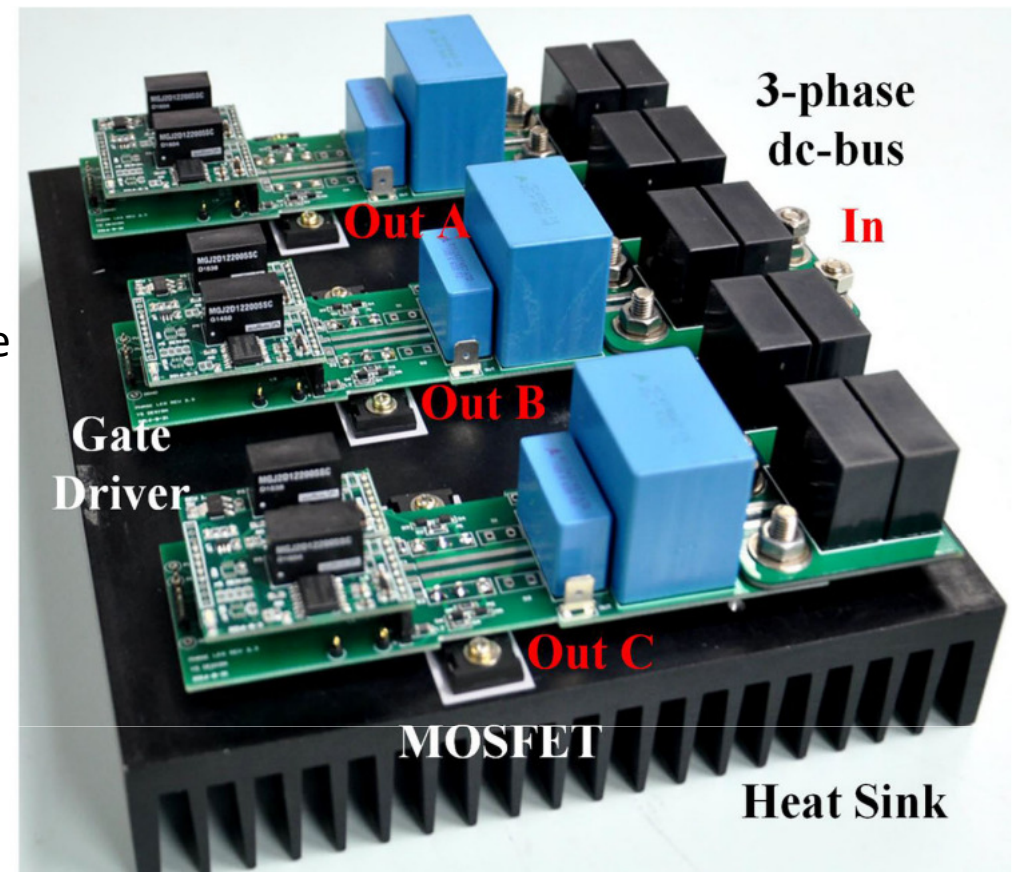
Features

- Upto 40kW | 50A | 750V DC-Link
- Optional IGBT and SiC Power Switches
- High MTBF 900V DC-Link Film Capacitors
- Isolated Control Inputs & Outputs

Applications

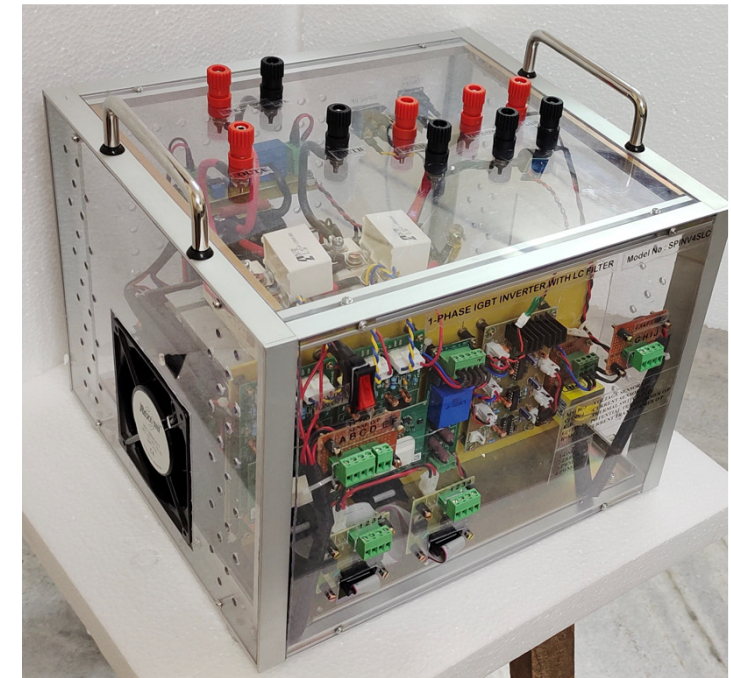
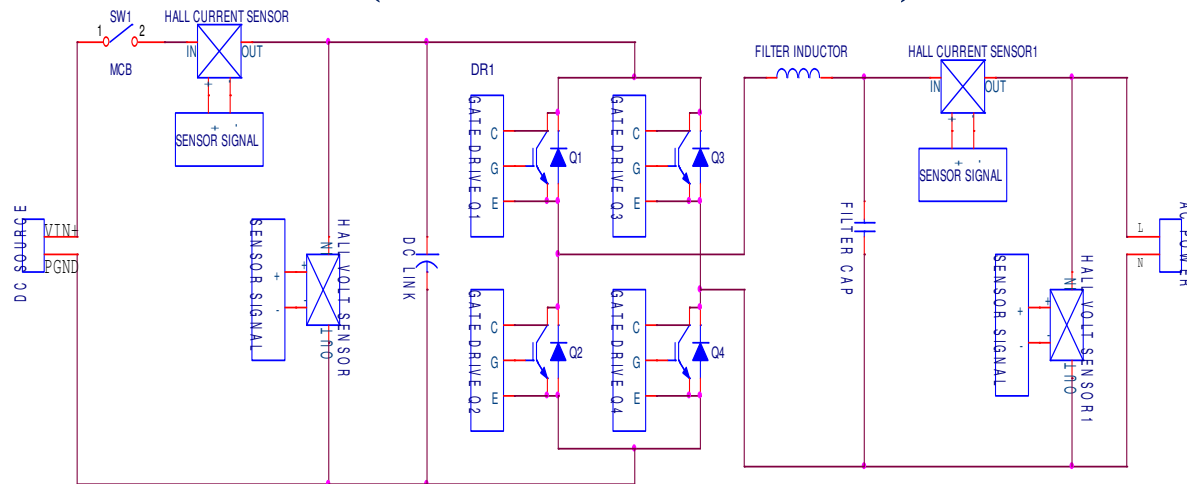
- Three Phase AC Motor Drive
- Three Phase Inverter/Grid-Tie Inverter
- Single Phase Solar Inverter with MPPT
- Active PFC Rectifier

Cost: Rs50000/Unit



Testing circuit diagram of SiC VSI.

1Phase IGBT Inverter with LC Filter (Model: SPINV4SLC)



Features

- It includes 2leg IGBT modules , 600V,50A with FWD modules
- isolated IGBT gate drives modules dual output supply with short circuit protection
- 3.3V/5V PWM input signal
- Internal +15V DC Power supply for Gate drivers
- DC Link Capacitors
- Hall effect voltage and current sensors for DC voltage(Input side, optional)
- Sine wave PWM LC Filter
- Potential transformer based Voltage sensor Module
- current transformer based Current sensor Module

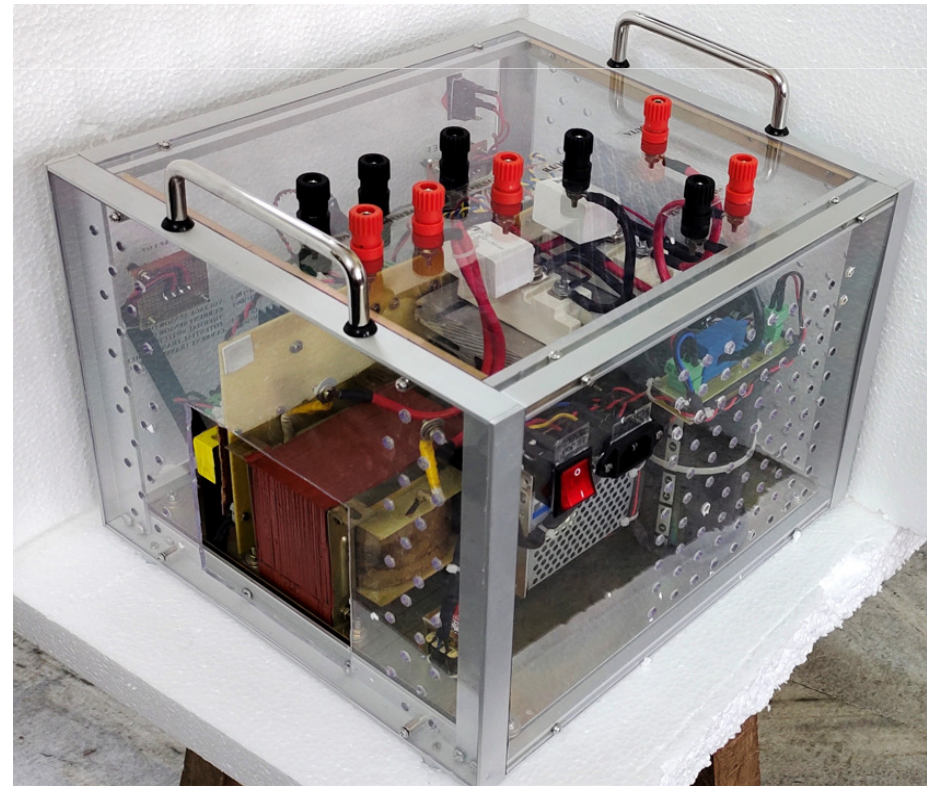
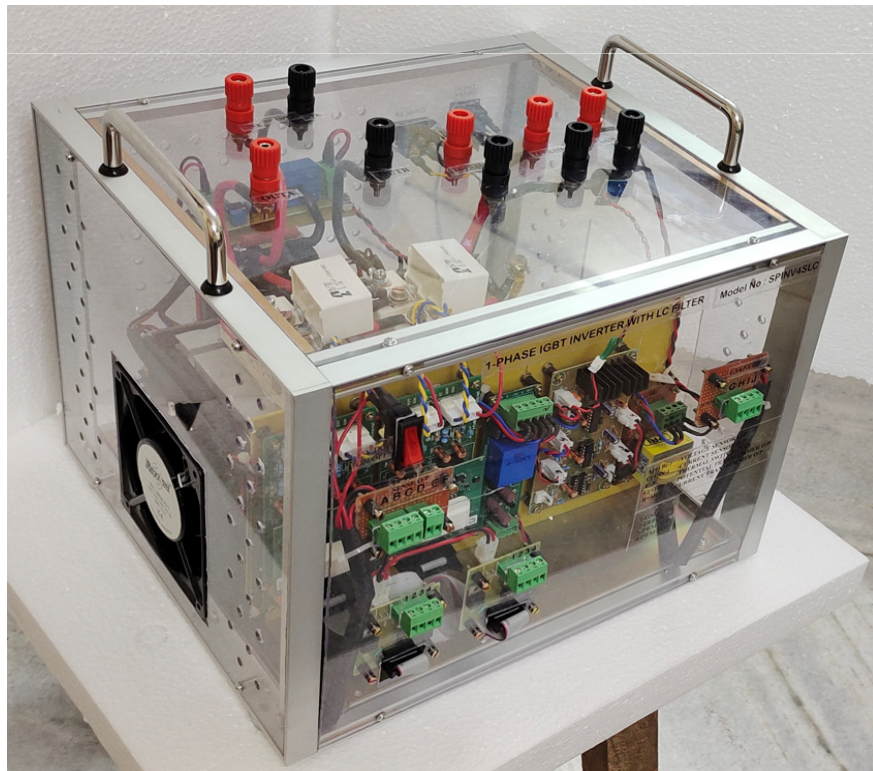
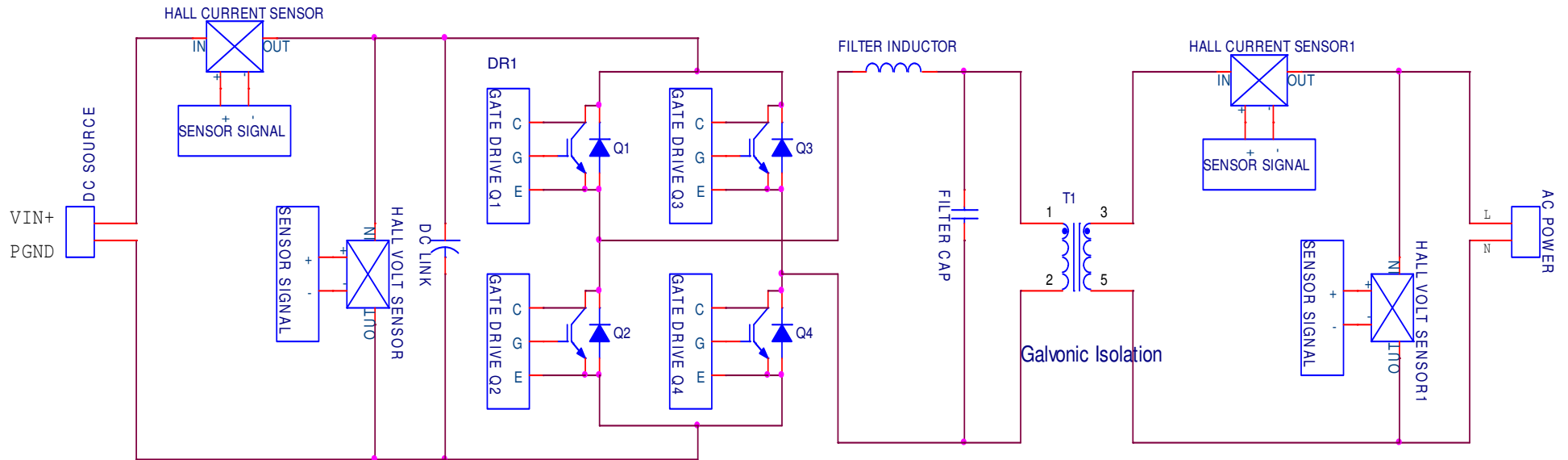
Applications:

- Grid connection inverters
- Solar Inverters, – DC motor drives
- Uninterruptible Power Supply (UPS)

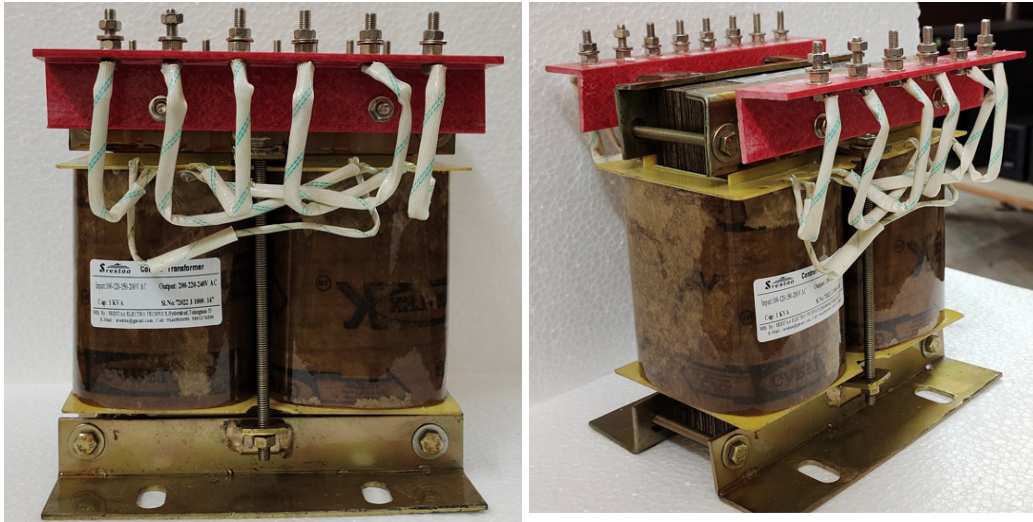
Cost: Rs67000/Unit



1Phase Transformer based Inverter (SPINV4STX)



1Phase Transformer based Inverter (SPINV4STX) Continued...



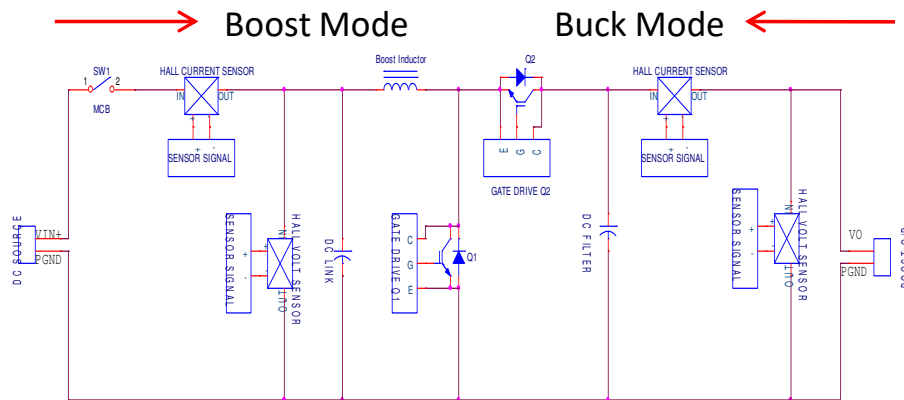
Features

- It includes 2leg IGBT modules , 600V,50A with FWD modules
- isolated IGBT gate drives modules dual output supply with short circuit protection
- 3.3V/5V PWM input signal
- Internal +15V DC Power supply for Gate drivers
- DC Link Capacitors
- Hall effect voltage and current sensors for DC voltage(Input side, optional)
- Sine wave PWM LC Filter
- Potential transformer based Voltage sensor Module
- current transformer based Current sensor Module

Applications:

- Grid connection inverters
- Solar Inverters, – DC motor drives
- Uninterruptible Power Supply (UPS)

Bi-Directional Converter(Model:BB1SW)

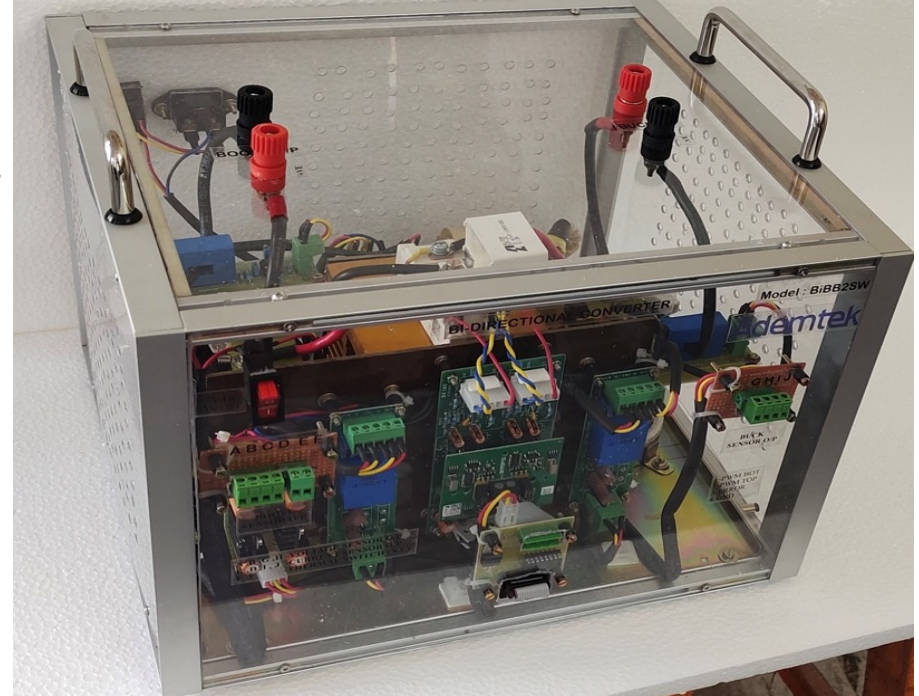
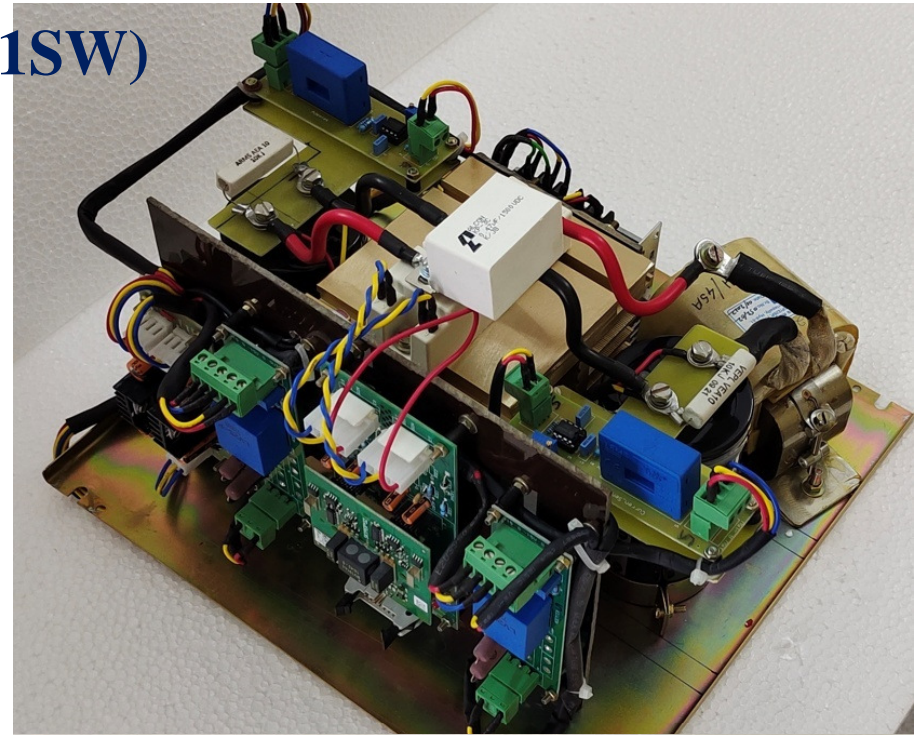


Features:

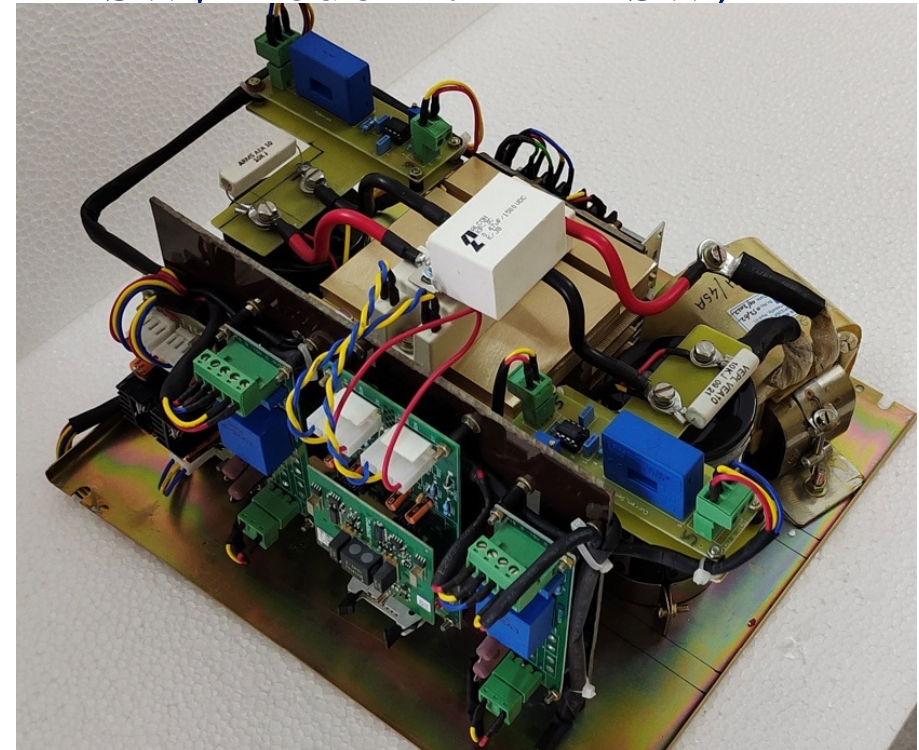
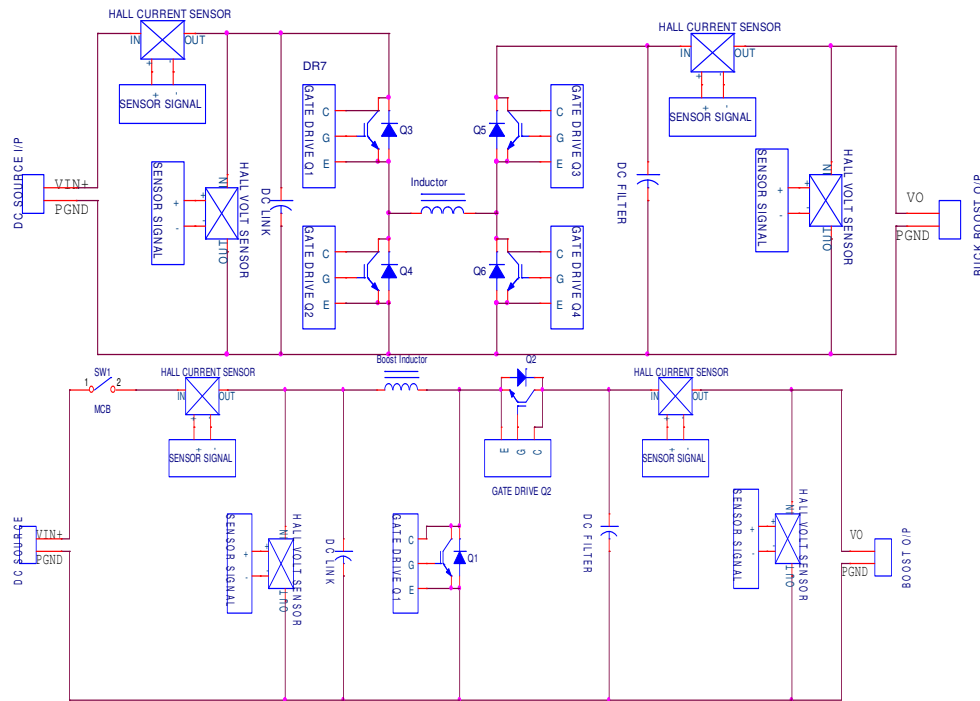
- 600V/1200V/50A/75A/100A IGBT module based with Snubber Capacitor
- IGBT gate drive with 3.3V/5V logic level compatibility
- DC link Capacitors
- Customized Inductor design
- Hall Effect isolated voltage and Current sensor Buck side and Boost side
- Built in IGBT Gate driver and Sensors boards power supplies

Applications:

- Automotive (HEV – Hybrid Electric Vehicles and EV – Electric Vehicles)
- General Digital Power (Industrial Power and Battery Back-Up Systems)



Bi-Directional Converter (Model 1: BiB4SW, Model 2: BiBB2SW)



Features:

- 600V/1200V/50A/75A/100A IGBT module based with Snubber Capacitor
- IGBT gate drive with 3.3V/5V logic level compatibility
- DC link Capacitors
- Customized Inductor design
- Hall Effect isolated voltage and Current sensor Buck side and Boost side
- Built in IGBT Gate driver and Sensors boards power supplies

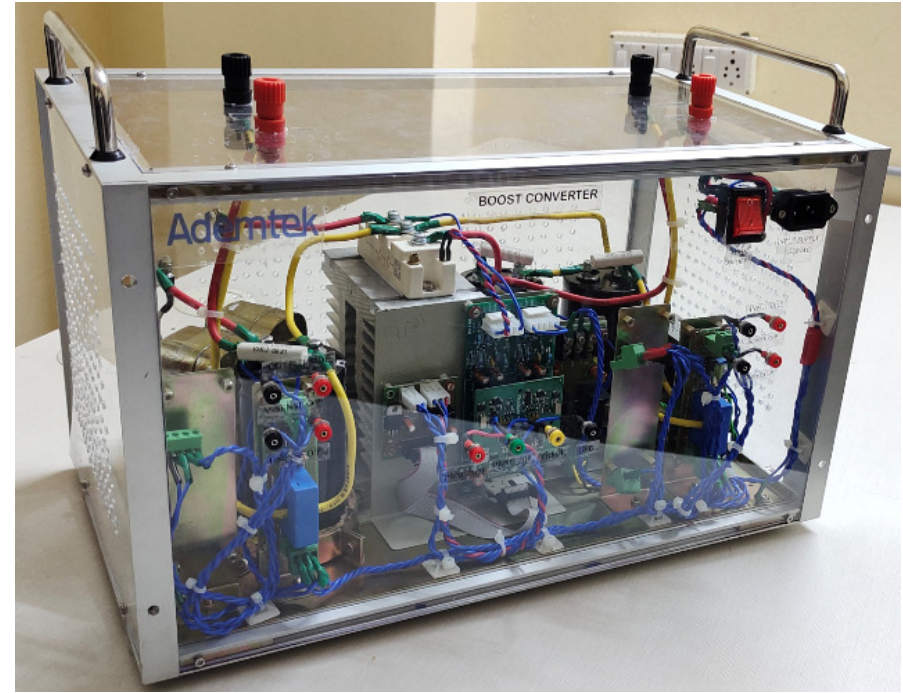
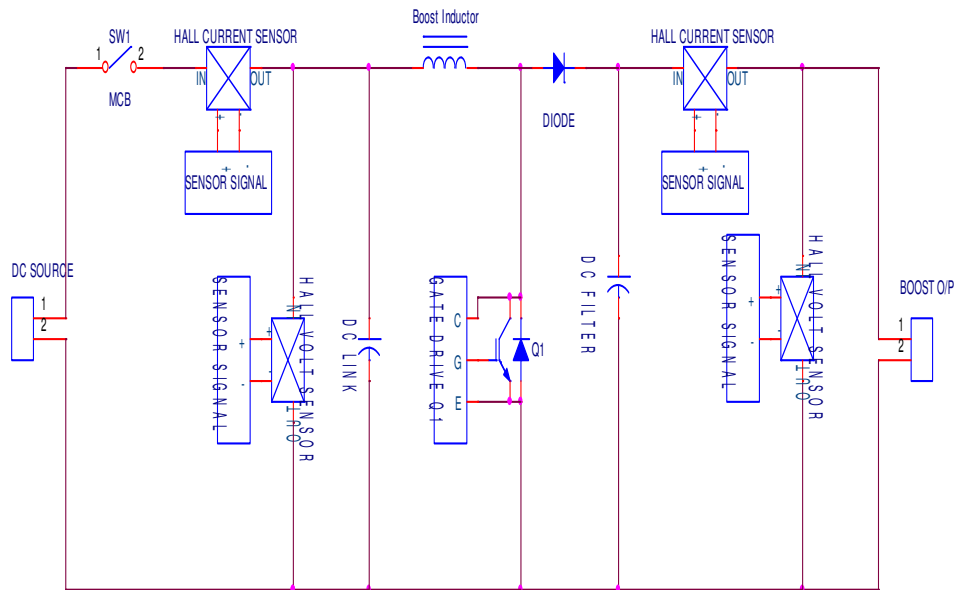
Applications:

- Grid connection inverters
- Maximum Power Point Tracking MMPT, - Voltage Regulators,
- Solar Converters

Cost: Rs60000/Unit



Boost Converter (BO1SW1D-xkW)



Features:

- 600V/1200V/50A/75A/100A IGBT module based with Snubber Capacitor
- IGBT gate drive with 3.3V/5V logic level compatibility
- DC link Capacitor
- Customized Inductor design
- Hall Effect isolated voltage and Current sensor
- Built in IGBT Gate driver and Sensors boards power supplies

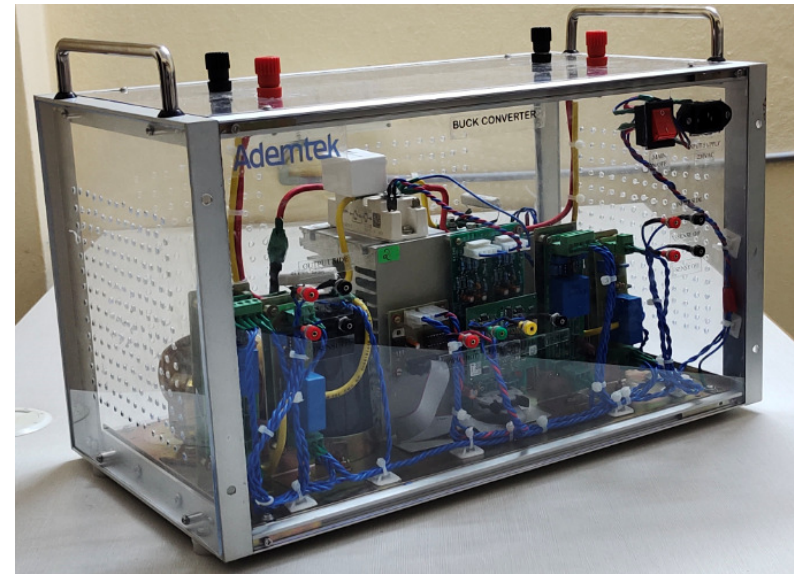
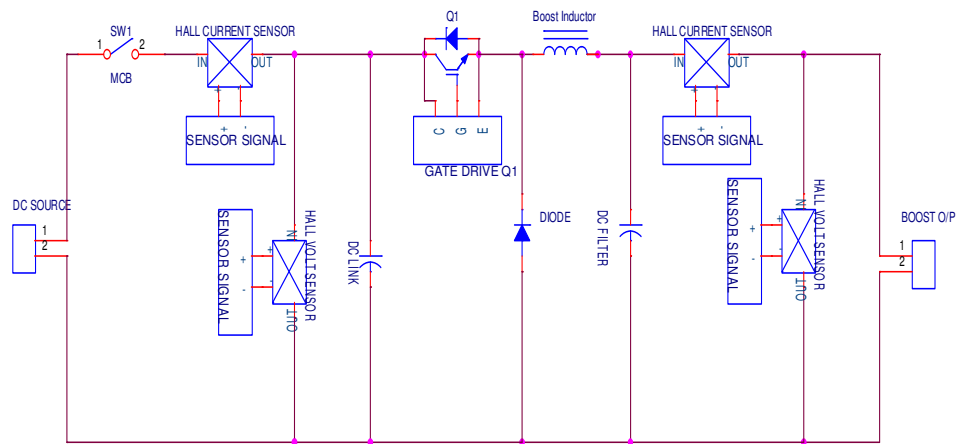
Applications:

- Grid connection inverters
- Maximum Power Point Tracking MMPT
- Voltage Regulators
- Solar Converters

Cost: Rs60000/Unit



Buck Converter (BU1SW1D-xkW)



Features:

- 600V/1200V/50A/75A/100A IGBT module based with Snubber Capacitor
- IGBT gate drive with 3.3V/5V logic level compatibility
- DC link Capacitor
- Customized Inductor design
- Hall Effect isolated voltage and Current sensor
- Built in IGBT Gate driver and Sensors boards power supplies

Applications:

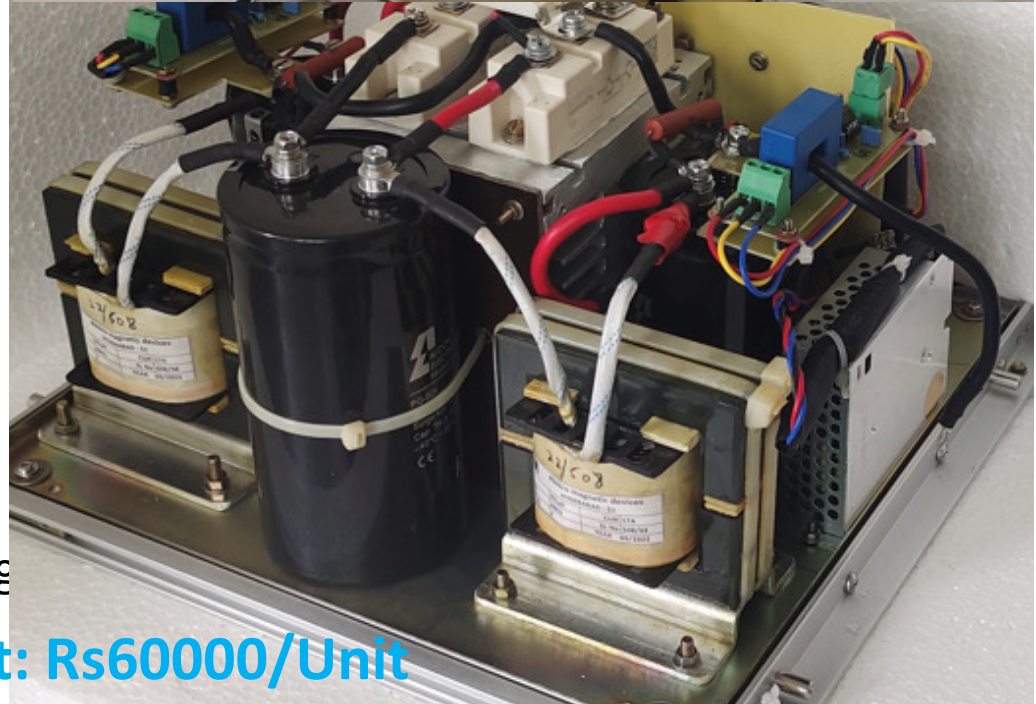
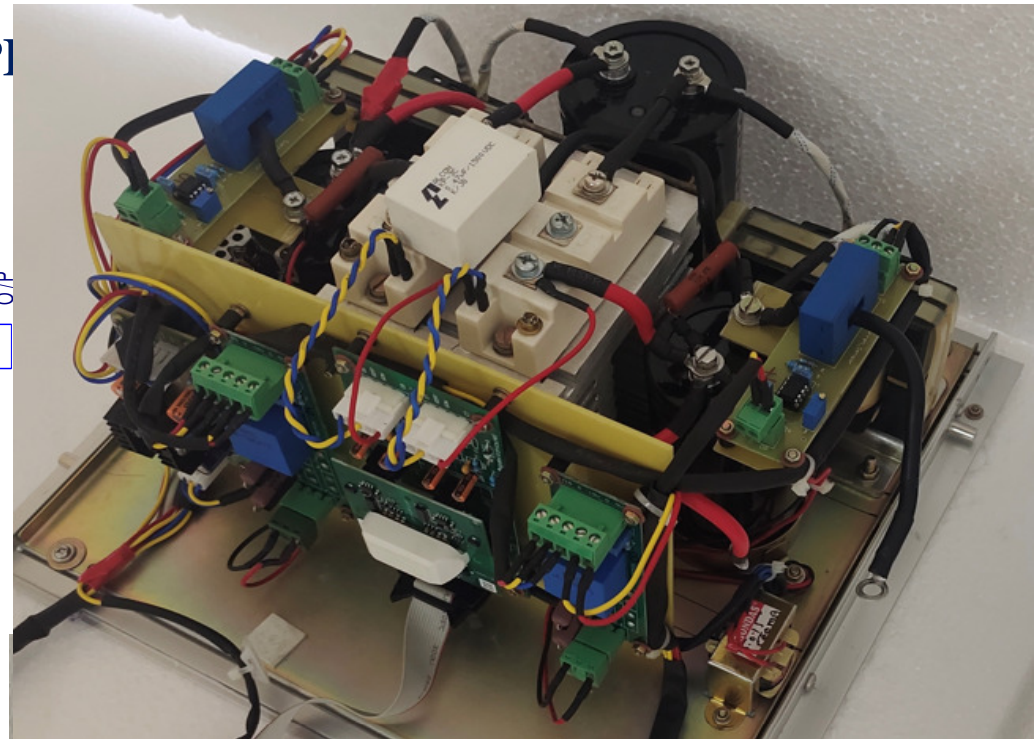
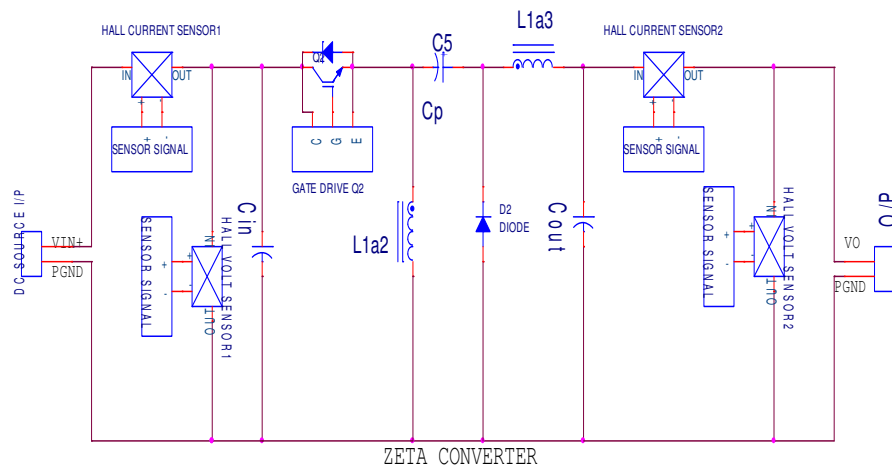
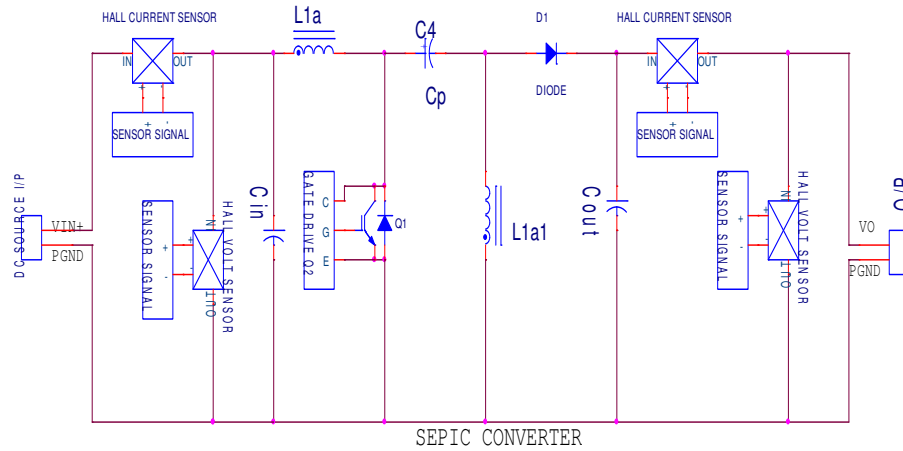
- Grid connection inverters
- Maximum Power Point Tracking MMPT
- Voltage Regulators

Configurations:

- Half Bridge Rectifier
- Buck Converter

Cost: Rs60000/Unit

SEPIC & ZETA Converter (SEPIC)

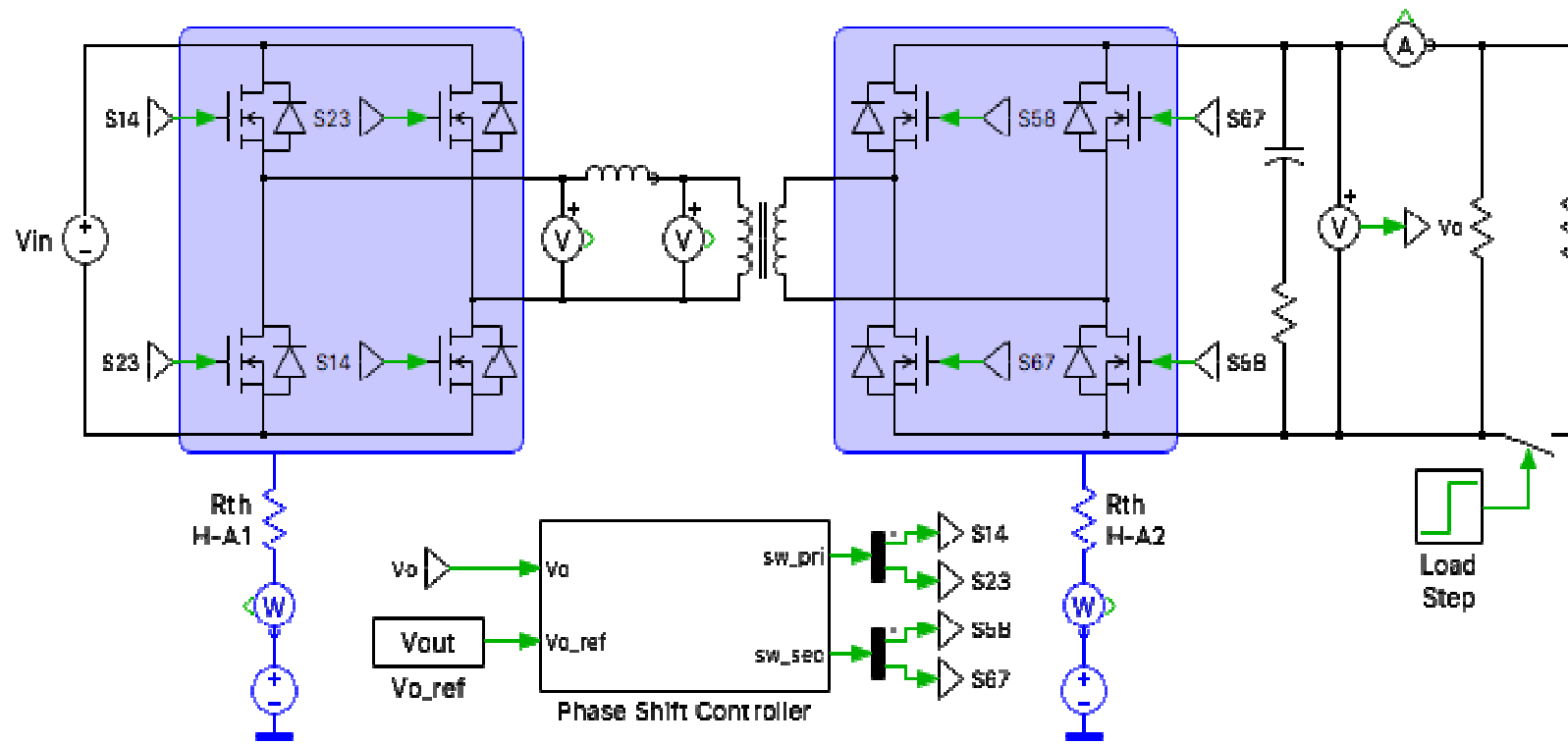


Applications:

- Hybrid PV and Wind Energy for Grid Connected System
- Solar Powered Induction Motor Driving
- Automotive Battery Chargers

Cost: Rs60000/Unit

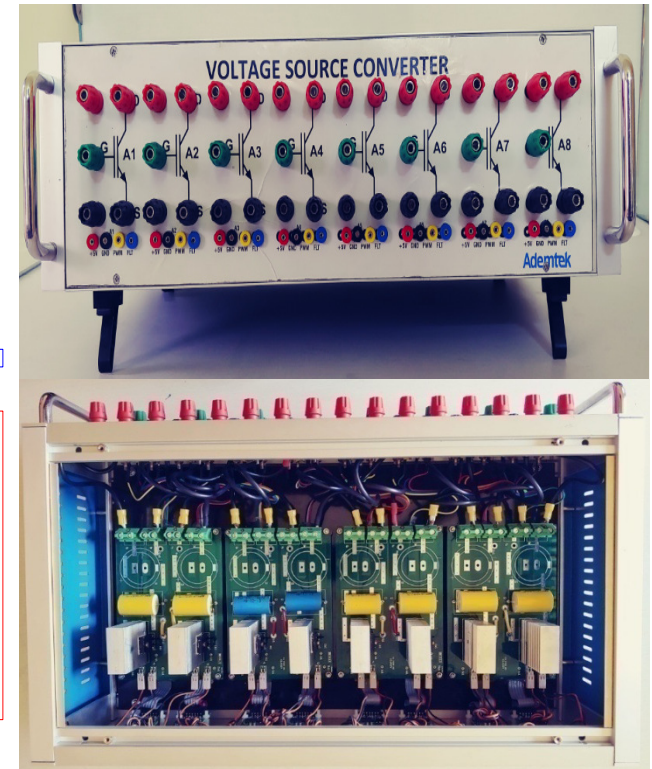
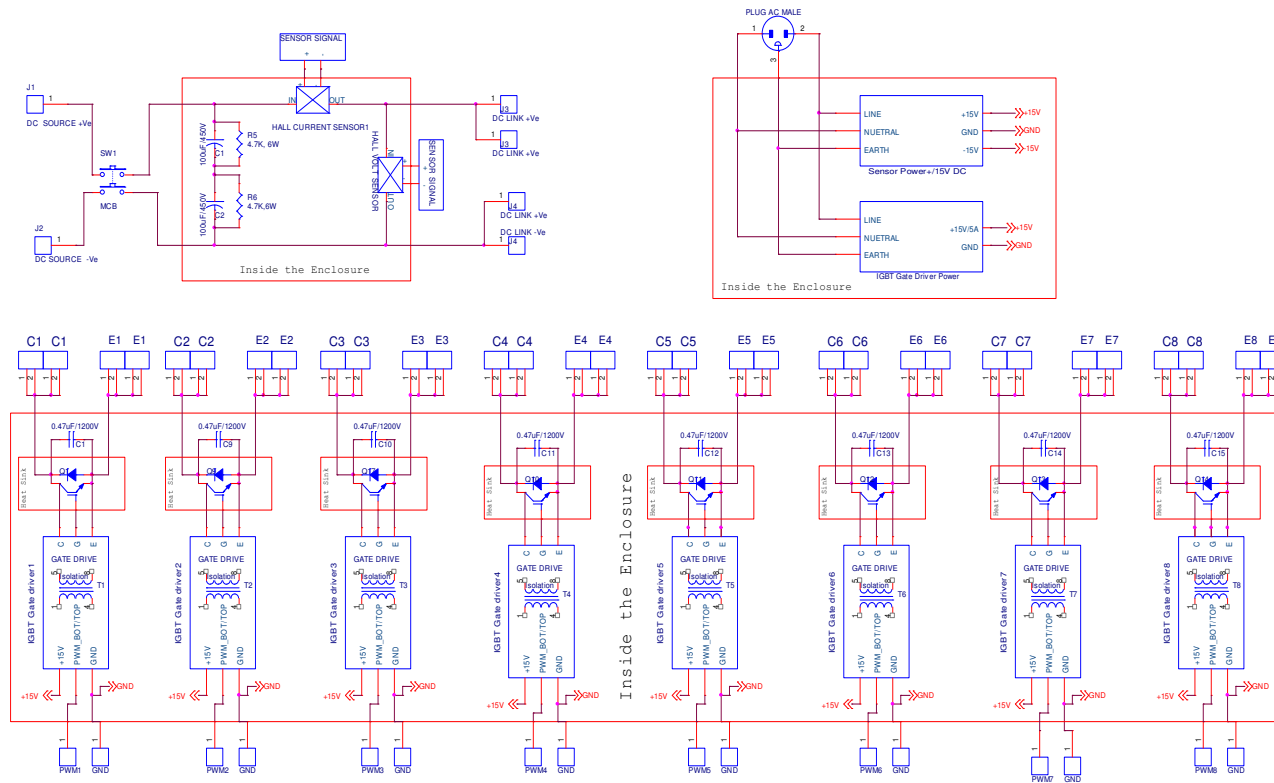
Dual Active Bridge Converter (Model: DABC)



Features

Cost: Rs70000/Unit

Discrete General Purpose IGBT Switch Stack (Model: DSW8IGMO)



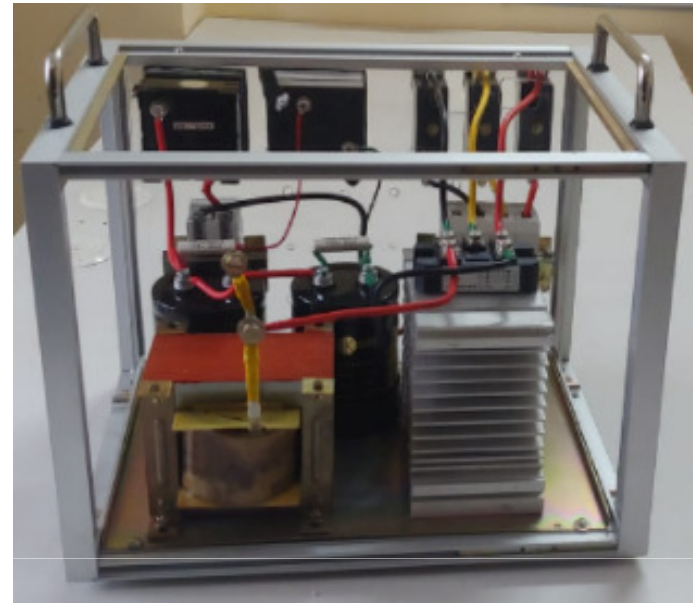
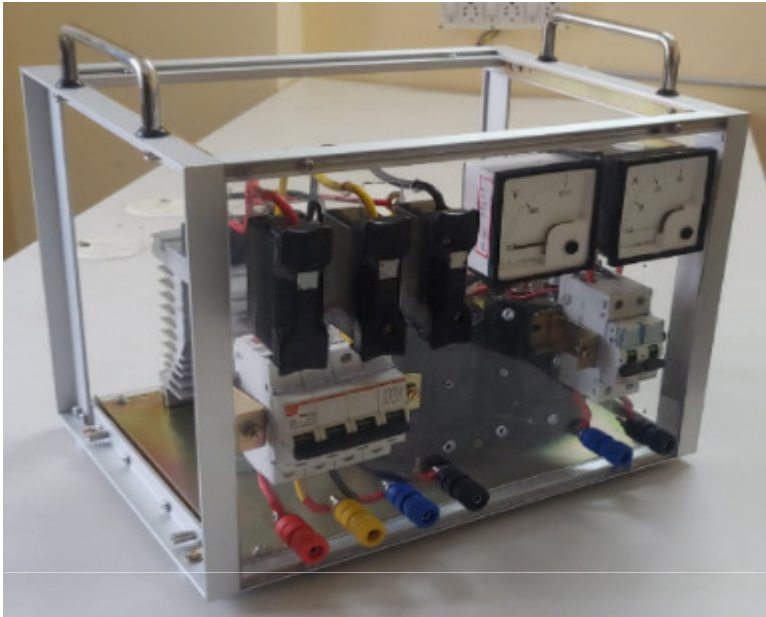
Features

- 8 Nos IGBT/MOSFET with FWD module based on 600V/1200V/45/75A/100A,
- 8 Snubber capacitor - 0.22 uF/1200V - Alcon make.
- 8 Nos IGBT gate drivers with isolation & short circuit protection
- DC link Electrolytic capacitor modules
- 8 Nos IGBT/MOSFET Heatsink

Cost: Rs75000/Unit



Unregulated DC Power Supply 0-350VDC/550VDC, 0-25A



Features

- DC Voltage range: 0-550VDC
- DC Current range: 0-25A
- LC filter to reduce the current ripple and improve the power factor
- 0-600/1000VDC Analog volt meter, - 0-30ADC Analog Ammeter
- Input: 3phase/1phase

Protections:

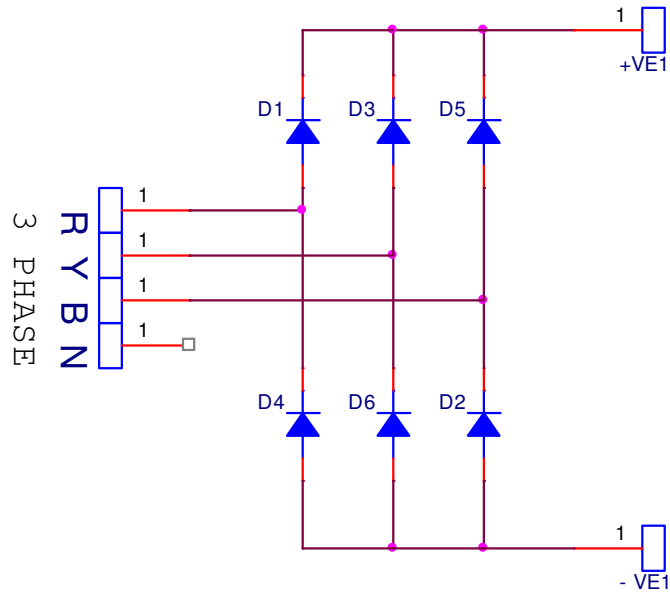
- 4pole 25A MCB input side
- 30A, 3HRC fuses input side (redundancy protection)
- 2 pole, 25A MCB output side

Applications

- DC Power Supply for Converters and Inverters

Cost: Rs45000/Unit

3Phase Rectifier (Model:AD3PHREC)



Features:

- 100A, 1600V 3phase Rectifier Modules
- Heat Sink for Thermal Management
- BT 30 terminal for easy connections
- Option1: Volt and Current meter
- Option2: 4 Pole 4phase MCB for Power O
Over load and short Circuit Protection
- Optional3: Inrush Current limit switch with
Programmable timer

