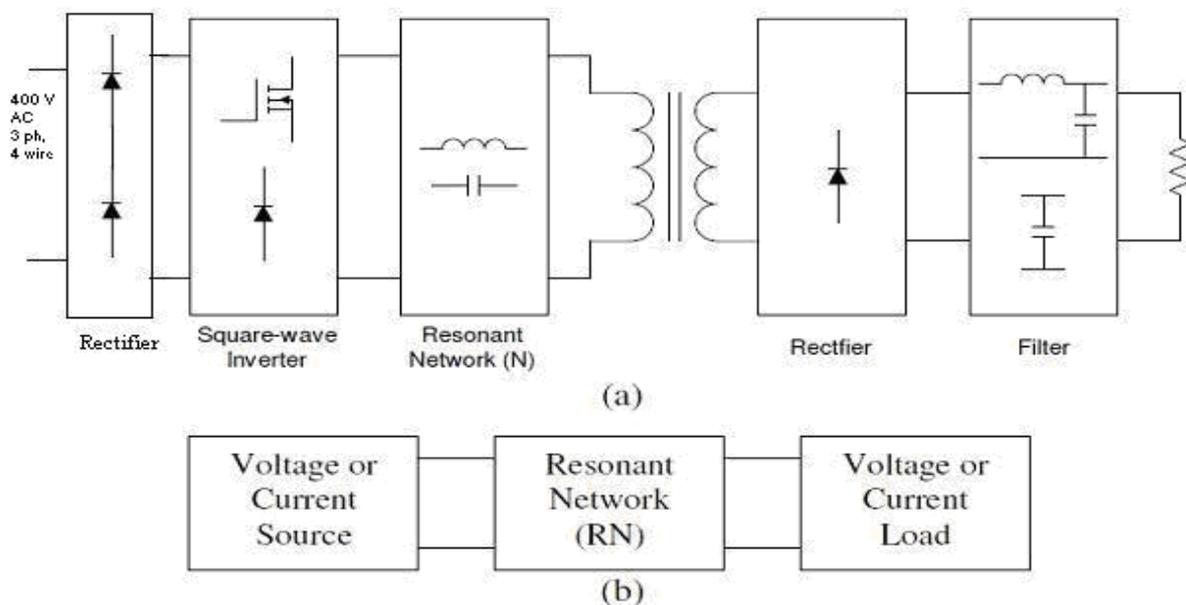


Constant Current Power Supply IGBT For HV DC Source or Current Source



Capacitor charging applications require a power supply designed specifically for the task. The unit supplies allow capacitors to be charged in pulse forming networks and modulators in a very fast, efficient and controllable manner. The units are high power constant current sources that can linearly and rapidly charge a capacitive load to high voltage. Once the load capacitor is charged to the programmed voltage, the supply will switch over to a voltage regulation mode and maintain the load voltage at the programmed level, until the load is discharged.

The unit is self-contained, requiring only AC power and appropriate controls. Several units may be connected in parallel for higher power operation. There is no theoretical limit to the number of units that may be paralleled. Typically one master unit and one or more slave units may be used to obtain as much output power as necessary.

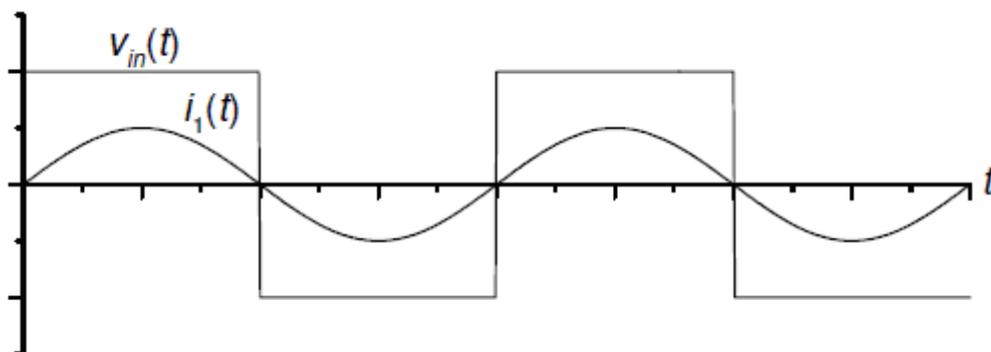
Resonant Immittance Converter Advantages:

An IC is a natural current source. Output current is proportional to the input Voltage and independent of load variation when operated at a particular frequency.

Therefore, output current regulation will be small against wide load variation for Constant input voltage, even without the feedback control of the output current.

Coarsely regulated output current is sufficient for many industrial applications and elimination of feedback control circuit serves to enhance ruggedness of the power converter.

Input impedance of an IC is proportional to the output admittance. With resistive load at the output port, input impedance of an IC is also resistive. This means, input current of an IC is always in phase with input voltage and reduces proportionally with load. Thus, an IC does not draw reactive power from the source, which is typically a bridge of semiconductor switches, minimizing conduction loss and maximizing the efficiency of the source itself. In-phase source voltage and current also results in zero-current-switching, reducing the switching loss.



ACE Electromagnetics Pvt. Ltd.

Power Conditioning way ahead

Technical Specifications:

Technology	IGBT PWM/Inverter
Input Supply	3PH – Balanced – 415V AC + 10% -20%
Frequency	50Hz ± 3Hz
Output	DC Voltage – As Required/Customer Specific
Maximum Output Voltage	100kV
Maximum Wattage	140 kW
Average Charging Rate	Customer Specific
Efficiency	>90%
Humidity	10-90% non Condensing
Average Continuous DC Power	Customer Specific
Polarity	Available as fixed Positive or Negative, Please Specify. Or Dual Polarity is also available.
Stability	0.5% per hour after 1 hour warm up / or Continuous as customer specified
Storage Temperature	0 °C to +50 °C
Operating Temperature	+5 °C to +45 °C
Protection Index	IP20
Cooling	Forced Air
Pulse to Pulse repeatability	100 Hz Standard

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