

Three Phase Precision Voltage Regulator (PvR)

High Frequency PWM Driven IGBT Controlled Precision Voltage Regulator (PvR)

KEY FEATURES

- Fast Regulation: Corrects Output Voltage @2500 Volt/sec Minimum
- High efficiency (>97%) at nominal voltage
- Protections against:
 - Over/under voltage, Over load, Over temp.
 - & Short circuit
- System Status Indicator through LCD Display
- High Power to weight ratio
- No switching in power path
- Continuous output voltage control
- Low Impedance
- Noiseless operation
- Cabinet designed for low floor area
- Compatible for all kinds of loads
- Insulation Class H or better



ETIPL's automatic precision line voltage regulator provides output voltage $400V \pm 2\%$ / $415V \pm 2\%$, for input voltage that varies between 340-460VAC (as standard configuration). ETIPL also provides customized Input/Output voltage range as per customer requirement & for this consult ETIPL sales team. PvR is compatible with all loads as it does not switch any components in the power path. There is no electrical motor used for slow correction of output voltage and possibility of over-voltage by system itself.

Typical applications

Where highly unstable mains available and frequent voltage fluctuations are observed. Popular applications include, but are not limited to elevators, medical instrumentation, analytical/laboratory instruments, system calibrations labs, tele-communications, BTS units, Wireless sites, broadcast transmitters, semiconductor production, industrial automation, CNC machines & PLC based machines. PvR's ultra -low impedance assures stability even with the most demanding loads.

How the PvR Works

In this IGBT based PWM type static voltage stabilizer only the difference voltage is switched through IGBT and will be added or subtracted @2500V/sec minimum from the mains. This is done electronically without any step changing in voltage which occurs when the system regulates. This is achieved by a feedback control system using digital signal processor (DSP). The input voltage is sensed by DSP and corrections are made by varying the duty cycle of PWM.

Key benefits

The lightweight, high efficiency PvR's is easy to install in indoor environments. The unit comes in a special designed IP20 rated enclosure with cooling fans. The automatic bypass assures that connected equipment will not shut down, even if the PvR's fails. In addition, a reduction in equipment down time and service costs can be expected. PvR is compatible with all loads as it does not switch any components in the power path. Maximum transformer and regulator performance, reliability and life time is achieved by a design with no moving parts.

SPECIFICATIONS

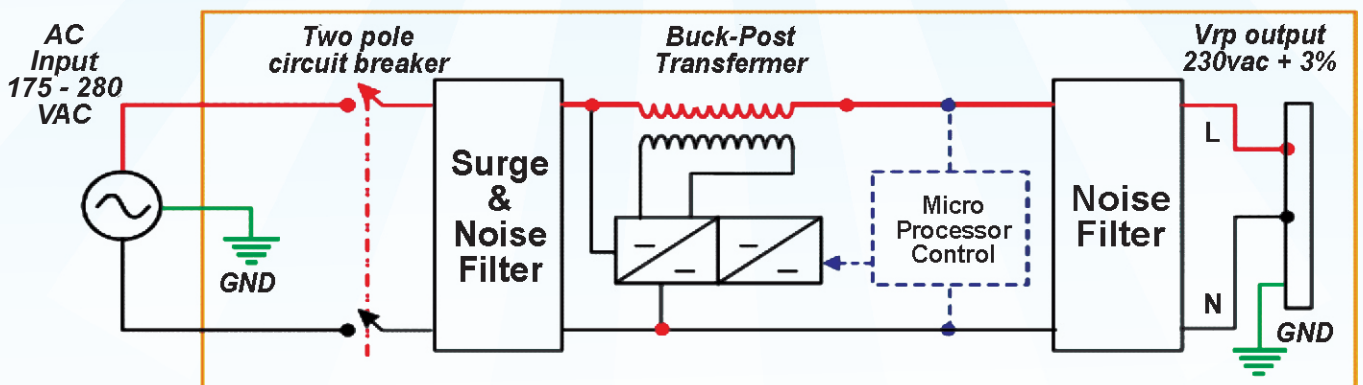
MODELS	Pvr-9000-9313 to 30000-9313	Pvr-40000-9313 to 120000-9313
TECHNOLOGY	High Frequency PWM controlled IGBT driven Line Voltage Conditioner	
CAPACITY	9/15/25/30 KVA	40/50/60/75/100/120KVA
INPUT		
Input Voltage Range	300-500 VAC(LL)***	340-460VAC(LL)***
Input Frequency	50/60Hz \pm 5%	
Input MCB	20A to 63A	80A to 225A
Input Connections	L1, L2, L3, N, G	
OUTPUT		
Output Connections	L1, L2, L3, N, G	
Output Voltage	400 VAC (LL)*	
Line & Load Regulation	Output factory set Voltage \pm 2%**	
Frequency	Same as Input	
Correction Speed	2500V/Sec Minimum	
Response time	50 microsecond	
Fully Load Efficiency	>97% at 230V Nominal Input Voltage	
CONSTRUCTION DETAILS		
Cooling	Natural or Forced Air Cooled	
Protection Grade	IP20	
Weight	100 to 135 Kg	140 to 200 Kg
Ambient temperature	up to 45° C (113° F)	
Product Dimension	900mm (H) x 870mm (W) x 300mm (D)	

* For other Input/Output voltage consult factory/Sales

**For closer tolerance consult factory/Sales

***Other ranges available on request

PVR SYSTEM DIAGRAM



Note : ETIPL is continuously upgrading its products that may lead to change in specifications.

Automatic By pass when overload and over temperature

Note: Unit should be installed as close as possible (Within in 30') of the N to G bond at service entrance, in order to minimize potential difference between N & G. A separate isolation transfer is recommended for installations where distance exceeds above or for grounding system without a N to G bond.



Elcomponics Technologies India Pvt. Ltd.
 A-65, Sector-58, Phase-III, Noida - 201301 (U.P), India.
 Phone : +91120-4229573; Email : salesetipl@elcomponics.com
 Website : www.elcomponics.com

Contact us at :