

High Tension

Automatic Voltage Regulator (HT AVR)



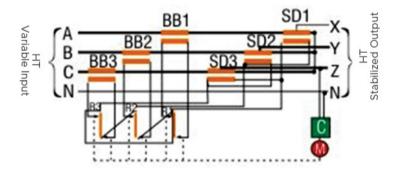
Benefits of Installing HT AVR:

Saves Downtime and Reduces Production Loss Reduction in Production Cost • Saving In Repair Cost Saving in Diesel Consumption • Improvement of Power Factor

HT AVR

POOJA make HT AVR is suitable for indoor / outdoor installations. The standard off-circuit tap changer transformers can correct limited voltage variation and cannot regulate the voltage while in 'On load' conditions. HT Automatic Voltage Regulator operates on load and gives stabilised voltage on the HT side. The fluctuating voltage from the grid is initially controlled by the HT AVR and then fed to the transformer, which provides constant H.T. output within +/- 1% accuracy. HT AVR's robust design has such low internal losses that the distribution transformer can utilise up to 100% capacity.

Technical Specifications	
Range	25 kVA to 5 MVA
Applicable Standards	IS 1180:2014 (Part-1) / IS: 2026- Indian standard for Power Transformers
Vector Group	Dyn11
Winding Material	99.9% pure electrolytic grade copper
Primary Voltage	As per customer specifications and requirement
Secondary Voltage	11, 22, 33 kV or as per customer specifications and requirement
Duty, type	Continuous duty Outdoor/Indoor
No. Of Phases	3 Phase
Class of insulation	Class A
Insulating Oil	Mineral oil as per IS:335 / IEC:296
Frequency	50/60 Hz



- » SD = Stepdown Transformer
- » BB = Buck Boost Transformer
- » R = Regulator

- » M = Servomotor
- » C = Electronic Control Circuit

A typical HT AVR consists of four integral units:

- » Step-down Unit-Double winding
- » Buck/Boost Unit-Double Winding
- » Control Unit and Reversing "Q" Panel (wherever applicable)
- » Regulator Unit-auto-wound, delta connected with rolling contacts capable of moving along the winding through automatic/motorised/manual mechanisms for regulation of output voltage.

Routine Test

(To be carried out at our works before dispatch)

- » Measurement of insulation resistance
- » Separate source power frequency voltage withstand test
- » Induced overvoltage withstands the test.
- » Measurement of no load loss and no load current
- » Measurement of the voltage ratio
- » Measurement of impedance voltage/ short circuit
- » Impedance and load loss
- » Speed of correction test of voltage controller (for automatic and motorised modes only)
- » Stabilisation test (accuracy level test)

Type Test:

- » Temperature Rise Test
- » Measurement of top oil temperature (may be conducted at our works)

Essential Input Data:

- » Capacity in kVA
- » Bandwidth of input voltage fluctuations [i.e., minimum supply voltage and maximum supply voltage]
- » Output voltage
- » Application
- » Details of the load in the plant





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