

Technical Specification of SERVO CONTROLLED VOLTAGE STABILISER



Standard Specifications

Specification	1	2
Input Voltage Range	340 – 480 V	300 – 480 V
Out Put Voltage	415 V	415 V
Out Put Voltage Accuracy	± 1% / (0.5 % optional)	
Frequency	47 – 53 Hz.	
Type	Unbalance Supply and Load Conditions	
Response Time	10 msec Max.	
Efficiency	Better than 98 %	
Rate of Correction	Upto -105 V / Sec	
Duty	100 % Continuous / 110 % for 60 Sec. / 150 % for 10 Sec.	
Wave form Distortion	Nil	
Effect of Load Power Factor	Nil	
Cooling	Air / Oil Cooled	
Ambient	0 – 45° C. max. / Relative Humidity upto 90 %	
Environment	Designed for indoor tropical use	
Ratings KVA - Air Cooled	5,10,15,20,25,30,40,50,60,75,100,125,150,175,200,225,250,300 KVA	
Ratings KVA - Oil Cooled	75 ,100,125,150,200,250,300,400,500,600,750,1000,1250,1500, KVA	

Single Phase Servo Voltage Stabiliser

Input Voltage Range	170 – 270 V	150 – 300 V
Out Put Voltage	230 V	230 V
Ratings KVA - Air Cooled	1 , 2 , 3 . 5 , 7.5 , 10 , 15 , 20 KVA	

Standard Features

Regulator	Special Sensing Circuit to maintain constant output voltage even on DG
Metering - Combine	Digital VIF Meter for Input and Output Voltage / Output Current / Frequency.
Out put Voltage Protection	Adjustable Output Under and Over Volt. Alarm / time Delay Circuit / Trip and By pass Facility
Controls	Auto - Manual Switch / Lower – Raise switch
Servo Motor Protection	Voltage Cut-off for Servo Motor at Input Under and Over Voltage
MCB	Std. Upto 20 KVA

Optional Features

MCB / MCCB / ACB	For Over Load and Short Circuit Protection
Input Voltage Protection	Input Under and Over Voltage indication and Cut off
Single Phase Preventer	Single Phasing indication with Cut off (Phase Loss)
Neutral Loss	Output cut-off if Neutral is Missing at Input
GFM	Ground Fault Monitoring with Trip and Indication (Leakage Current)
Output Over Load	Electronic Over Load Protection
SS	Surge Suppressor
SPD (Class C)	Surge Protective Device 8/20 micro sec. as per IEC 61000-4-4 / 61000-4-5
Change Over / Bypass Switch	Stabiliser By pass Switch

Non standard KVA, Input Voltage range and Out Voltages are also available on request.

NEEL reserves the right to amend design and specification without notice as continuous efforts are made to improve products performance.

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Salient Features

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|---------------------------|---|
| ▪ Response Time | Less than 10 m-Seconds |
| ▪ Rate of correction | Upto 105 V / Sec. |
| ▪ Control | Fully Solid state control circuitry |
| ▪ Motor | Variable Speed high torque, DC servo Motor with proportional control |
| ▪ High Efficiency | 98 %, using high grade Laminations and Electrolytic grade Copper. |
| ▪ DG Compatible | Special sensing circuit to maintain output voltage |
| ▪ Electronics Cards | Plug in type Glass Epoxy with masking. All Electronics cards are tested on load at 60 °C and are interchangeable. |
| ▪ Plug in Type Connectors | Polycarbonate for longer life |
| ▪ Raw Materials | 100 % Raw material Inspection as per Quality Plan. |
| ▪ Sub Assembly | 100 % sub-assembly Testing at various stages. |
| ▪ Auto / Manual Control | Facility on Front Control Plate in unlikely events. |
| ▪ Construction | Rugged construction with Caster wheels for easy movement. |

Quality Assurance:

- ✓ All bought out components sourced from reputed manufacturer and supplier as per standards.
- ✓ 100 % Raw materials inspection s per internal Quality Plan.
- ✓ Individual assemblies and sub assemblies tested separately.
- ✓ All Electronics PCB's are tested at 60 °C in oven.
- ✓ Final Equipments are tested for 24 hours with continuous voltage variation from min. to max.

Applications.

- All C.N.C Machines
- Medical Equipments
- Computers
- Telecommunication Equipments
- Lighting
- Commercial Complex
- Hospitals

