# Technical Specification of
## SERVO CONTROLLED VOLTAGE STABILISER

### Standard Specifications

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

### 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**: 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
- **Surge Suppressor**: 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.
Technical Specification of SERVO CONTROLLED VOLTAGE STABILISER

Salient Features

- **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 ºC 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 as per internal Quality Plan.
- Individual assemblies and sub assemblies tested separately.
- All Electronics PCB’s are tested at 60 ºC 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