



## **SUN SERIES**

### **SINGLE PHASE SERVO MOTOR CONTROL SYSTEM AUTOMATIC VOLTAGE REGULATOR (AVR)**

**500VA - 50kVA**

#### **APPLICATIONS**



Data Center



Telecom



Industry



Server



Security



Medical



Network



Metro



Banking



PC



FAX



Monitor



ADSL



Labs



Home Appliances



\*Technical Specification on Next Page

## SALIENT FEATURES

Daxten Power SUN series automatic voltage regulators are used for regulation against single phase line voltage fluctuations. In contrast to magnetic voltage stabilizers, this type is a real automatic voltage regulator with servomotor control, applicable to very low or high output power. One important feature is the overload capacity which may run to a multiple of the rated value for a short period of time without causing output voltage breakdown. Further advantages are the independence of load power factor, a small phase displacement and very high power efficiency. These regulators are used for single-phase applications. The circuit configuration of a single phase regulator consists of ring-core variable transformer with servomotor, single auxiliary transformer and single-point regulating unit. The single DC servomotor is controlled by the regulating unit and connected to the ring-core variable transformer via a gear. The position of a carbon brush on the variable transformer is set by the servomotor. Dependent of its position, the auxiliary transformer primary winding is supplied with a voltage in phase with or dephased to the line voltage. Thereby, line over voltage and under voltage is compensated.

| MODELS | SUN 0.5kVA | SUN 1kVA  | SUN 1.5kVA | SUN 2kVA  | SUN 3kVA  |           |
|--------|------------|-----------|------------|-----------|-----------|-----------|
|        | SUN 5kVA   | SUN 10kVA | SUN 15kVA  | SUN 20kVA | SUN 30kVA | SUN 50kVA |

## Technical Specification:

| PRODUCT SERIES:        |            | SUN SERIES                                                                                                                                                                                            |      |        |      |      |      |       |       |       |       |       |
|------------------------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------|------|------|------|-------|-------|-------|-------|-------|
| Power Rating:          |            | 0.5kVA                                                                                                                                                                                                | 1kVA | 1.5kVA | 2kVA | 3kVA | 5kVA | 10kVA | 15kVA | 20kVA | 30kVA | 50kVA |
| Current (amp)          | at 110VAC: | 4                                                                                                                                                                                                     | 8    | 12     | 16   | 24   | 40   | 80    | 120   | 160   | 240   | 400   |
|                        | at 220VAC: | 2                                                                                                                                                                                                     | 4    | 6      | 8    | 12   | 20   | 40    | 60    | 80    | 120   | 200   |
| Input Voltage:         |            | 65 -145VAC / 150 - 250VAC                                                                                                                                                                             |      |        |      |      |      |       |       |       |       |       |
| Output Voltage:        |            | 110VAC/220VAC $\pm 1-5\%$ (Accuracy)                                                                                                                                                                  |      |        |      |      |      |       |       |       |       |       |
| Phase:                 |            | Single-phase+N+PE                                                                                                                                                                                     |      |        |      |      |      |       |       |       |       |       |
| Frequency:             |            | 50Hz/60Hz                                                                                                                                                                                             |      |        |      |      |      |       |       |       |       |       |
| Response Time:         |            | Within 0.5 sec.against 10% input voltage deviation                                                                                                                                                    |      |        |      |      |      |       |       |       |       |       |
| Efficiency:            |            | Better than 90%                                                                                                                                                                                       |      |        |      |      |      |       |       |       |       |       |
| Power Factor:          |            | Better than 95%                                                                                                                                                                                       |      |        |      |      |      |       |       |       |       |       |
| Ambient Temperature:   |            | 5°C ~ + 40°C                                                                                                                                                                                          |      |        |      |      |      |       |       |       |       |       |
| Ambient Humidity:      |            | Less than 90% (relative humidity)                                                                                                                                                                     |      |        |      |      |      |       |       |       |       |       |
| Temperature Rise:      |            | Less than 75°C                                                                                                                                                                                        |      |        |      |      |      |       |       |       |       |       |
| Cooling System:        |            | Convection-cooled                                                                                                                                                                                     |      |        |      |      |      |       |       |       |       |       |
| Control System:        |            | DC servo-motor                                                                                                                                                                                        |      |        |      |      |      |       |       |       |       |       |
| Style:                 |            | Stand-alone style                                                                                                                                                                                     |      |        |      |      |      |       |       |       |       |       |
| Insulation Resistance: |            | More than 3 M ohm at DC 500V                                                                                                                                                                          |      |        |      |      |      |       |       |       |       |       |
| Dielectric Strength:   |            | Tested at AC 1500V for 1 min                                                                                                                                                                          |      |        |      |      |      |       |       |       |       |       |
| Option                 |            | It is possible to effect star connection of 3 Single Phase Stabilizer to obtain a 3 Phase Stabilize 380V, with Triple Power. In this case it is necessary to effect neutral connection on input side. |      |        |      |      |      |       |       |       |       |       |

Product specification are subject to change without further notice.