



TND3 Automatic AC Voltage Regulator

1. General

Application: TND3 series automatic AC voltage regulator supplies power for equipment such as computers, duplicating machines, industrial precision equipment, medical apparatuses, household electrical appliances, etc.

2. Type designation

TND3-□

Automatic voltage regulator
Single-phase
Design sequence No.
Rated capacity

3. Operating conditions

- 3.1 Ambient temperature: $-5^{\circ}\text{C} \sim +40^{\circ}\text{C}$.
- 3.2 Relative humidity $\leq 90\%$ (at $+20^{\circ}\text{C}$).
- 3.3 Altitude: $\leq 2000\text{m}$.
- 3.4 Working environment: Indoors, be free from chemical deposition, dirt, harmful corrosive medium, or flammable or explosive gas.



TNDZ(DBW), TNSZ(SBW) Pillar Type AC Automatic Regulator with Compensated

1. General

Application: used in the application requiring stable voltage, such as telecommunication, broadcasting & TV, elevator, silicone controlled apparatus, numerical control machine tool, and various production lines, etc.

2. Type designation

TN □ Z(□BW)-□

Auto-regulator

Pillar iron core

Phases: D means single-phase S means three-phase

DBW is originally model of single-phase
SBW is originally model of three-phase

Rated capacity kVA

3. Operating conditions

3.1 Temperature: -5°C~+45°C;

3.2 Altitude: ≤1000m;

3.3 Relative humidity: 15%~90%(20°C).

4. Technical data

Model	Rated capacity (kVA)	Phase	Frequency (Hz)	Input voltage range	Rated output voltage	Accuracy of regulate voltage	The protect value of output over-voltage	The protect value of output under-voltage	Response time	Rated output current (A)
TNDZ(DBW)-20	20	1	50 ~ 60	176 ~ 264	220	±(1±5)%	242 ± 2.2	198 ± 2.2	When input voltage steps 15V,the output response time≤1.5s	91
TNDZ(DBW)-30	30									136
TNDZ(DBW)-50	50									227
TNSZ(SBW)-30	30	3	50 ~ 60	304 ~ 456	380	±(1±5)%	418 ± 3.8	342 ± 3.8	When input voltage steps 25V,the output response time≤1.5s	46
TNSZ(SBW)-50	50									76
TNSZ(SBW)-75	75									114
TNSZ(SBW)-100	100									152
TNSZ(SBW)-150	150									228
TNSZ(SBW)-180	180									273
TNSZ(SBW)-200	200									304
TNSZ(SBW)-225	225									342
TNSZ(SBW)-250	250									380
TNSZ(SBW)-300	300									456
TNSZ(SBW)-320	320									486
TNSZ(SBW)-350	350									532
TNSZ(SBW)-400	400									608
TNSZ(SBW)-450	450									684
TNSZ(SBW)-500	500									760

Note1: It is no the function of output under voltage what eigibility item when normal regulations product ex-facture, unless the customer request.

Note2: If have other requires you can discuss with manufacture.Such as output voltage is 400V, or output voltage three-phase 220V, and the range of regulate voltage between ±3% can negotiate to order.

5. Features

- 5.1 When fault of phase sequence by power supply or maintenance of transformer, the voltage regulator will automatically check and adjust to ensure the normal working of the regulator.
- 5.2 Adoption of new technology can reduce contactors to increase the reliability of voltage regulator.
- 5.3 With over-voltage protection and alarming
When the voltage is stable, the input voltage is beyond the threshold(456V) or output voltage beyond the threshold(426V±7V),the voltage regulator will cut the power supply and alarm until the input and output voltage reduce to the normal value.
- 5.4 With the function of automatic start when power supply resumes.
- 5.5 With starting delay.

6. Specifications, overall dimensions and weights

Model	Rated capacity	Overall dimensions (mm)	Net weight (kg)
TNDZ(DBW) single-phase	20kVA	800×610×1380	200
	30kVA	800×610×1380	230
	50kVA	850×690×1450	305
TNSZ(SBW) three-phase	30kVA	750×610×1250	210
	50kVA	800×610×1375	270
	75kVA	850×690×1450	320
	100kVA	850×690×1450	390
	150kVA	1070×940×1740	560
	180kVA	1070×940×1740	625
	200kVA	1150×970×1900	670
	225kVA	1150×970×1900	720
	250kVA	1150×970×1900	770
	300kVA	1250×1020×2050	875
	320kVA	1250×1020×2050	920
	350kVA	1400×1070×2250	945
	400kVA	1400×1070×2250	1045
	450kVA	1400×1070×2250	1350
	500kVA	1400×1070×2250	1400

7. Ordering information

- 7.1 Considering impact by inrush current, the safety coefficient should be 1.5-3 times. The safety coefficient is determined by the load.
- 7.2 This product should be connected to the natural line when the input and output circuit is three phase four line.
- 7.3 The capacity of single phase should be less than 1/3 of the product.