



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)-

Rated capacity kVA

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

Pillar iron core

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

Auto-regulator

3. Operation conditions

- 3.1 Temperature: -15°C ~ +45°C;
- 3.2 Altitude: ≤ 1000m;
- 3.3 Relative humidity: 15% ~ 90% (20°C).

**Low Voltage VT & AVR & CT & PT
Automatic Voltage Regulator**

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4. Technical parameter and performance

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	$\pm(1\pm5)\%$	242 \pm 2.2	198 \pm 2.2	When input voltage steps 15V, the output response time $\leq 1.5s$	91
TNDZ(DBW)-30	30									136
TNDZ(DBW)-50	50									227
TNDZ(DBW)-75	75									341
TNDZ(DBW)-100	100									455
TNDZ(DBW)-150	150									682
TNDZ(DBW)-200	200									909
TNSZ(SBW)-30	30	3	50 ~ 60	304 ~ 456	380	$\pm(1\pm5)\%$	418 \pm 3.8	342 \pm 3.8	When input voltage steps 25V, the output response time $\leq 1.5s$	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
TNSZ(SBW)-600	600									912
TNSZ(SBW)-800	800									1216
TNSZ(SBW)-1000	1000									1519
TNSZ(SBW)-1200	1200									1823

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

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

5. Functions and 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
	75kVA	850×690×1450	350
	100kVA	1000×800×1850	400
	150kVA	1100×800×1900	450
	200kVA	1250×1020×2050	500
TNSZ(SBW) three-phase	30kVA	750×610×1250	230
	50kVA	800×610×1375	285
	75kVA	850×690×1450	355
	100kVA	850×690×1450	408
	150kVA	1150×970×1900	630
	180kVA	1150×970×1900	665
	200kVA	1150×970×1900	700
	225kVA	1150×970×1900	750
	250kVA	1150×970×1900	870
	300kVA	1250×1020×2050	1010
	320kVA	1250×1020×2050	1050
	350kVA	1400×1070×2250	1100
	400kVA	1400×1070×2250	1200
	450kVA	1400×1070×2250	1550
	500kVA	1400×1070×2250	1600
	600kVA	1400×1070×2250×2	950×2
	800kVA	1150×970×2250×3	1100×3
	1000kVA	1150×970×2250×3	1150×3
	1200kVA	1150×970×2250×4	1150×4

7. Selection notice

- 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.