

ZBW SERIES Automatic Static Voltage Stabilizer/AVR 10 - 2000KVA

SPECIFICATION SHEET



INTRODUCTION

ZBW series static automatic AC voltage regulator stabilizer is designed with compensating transformer of high primary to secondary ratio for voltage correction of $\pm 20\%$. Direct AC-AC converter circuit and SCR module controlled to improve the overall system response with fast voltage correction. PWM control operation using high end DSP controller to achieve correction time of 1 to 1.5 cycle. Excellent performance in voltage sensitive application. When the supply voltage of the distribution power grid fluctuates or the load changes, the voltage regulator will stabilize the output voltage automatically. The size is two-thirds of traditional machine, to help customer save space. Humanized design with LCD digital indication, easy to operate.



FEATURES

- SCR Module Controlled , Maintenance Free
- Wide Input Voltage Range
- With Fans For Air Cooling
- Quick Response to Voltage Fluctuations
- High Efficiency
- Automatic Bypass
- Maintenance Free Electronic Voltage Management Technology
- LCD Display For Easy Monitoring
- Independent Voltage Regulation on Three Phase
- Full Protections
- RS485 Communication Port
- Compatible with Genset/Generator

ADVANCED PERFORMANCE

Feature	Description
Quick Response	12-digits high-speed AD sampling, every cycle sampling 128 points, digit processing calculation by SCM, digital module quick compensation
Advanced sampling technology	12-digits AD sampling, digit filtering and effective value calculating by SCM
Precise Control	Perfect combination of mass PLD and SCM
User-friendly MMI	Set all parameter through MMI touching keypad.
No Wave Distortion	Non-contact zero-cross switch, common-frequency, phase lock, Sine wave overlay compensation principle
Harmonic Interference Resistance	Effective value voltage test
Wide Load Range	Compatible with resistive load, capacitive load, inductive load
Delay Output	Output after regulating
Full Protection	When over-voltage, under-voltage occurs, it can protect within 1s or uninterruptedly switch to by-pass, and with function of lack phase, overload, short circuit protection and sound-light alarm when error
Voltage/Current Indication	LCD to indicate voltage, current(phase voltage/line voltage can be switched display.)
Self-recovery	When overload, over-voltage, under-voltage, error occurs, it automatically switches to by-pass or disconnect output, and automatically continue to regulating when recover
Memory	Error will be recorded and can be checked when make maintenance
Communication Interface	RS485 Communication Interface
Indication	LCD or touch LCD

TECHNICAL PARAMETERS

PHASE	SINGLE PHASE	THREE PHASE
Capacity	3-50kva	10-2000Kva
INPUT		
Voltage	220 Vac	380 Vac
Voltage Range (Normal range)*	176-264 Vac	304-456 Vac
FREQUENCY		
Frequency Tolerance	±5%	±5%
Input Connection	Copper busbar terminal	
OUTPUT		
Voltage	220V±2%	380V±2%
Voltage Tolerance	±2% (±1% ~ ±5% optional)	
Response Time	20-100ms	
Power Factor	0.8	
Efficiency	≥98%	
Waveform Distortion	No additional waveforms generated (static)	
Output Connection	Copper busbar terminal	
COMMUNICATION INTERFACE		
LCD Display	Input Voltage Value, Output Voltage Value, Output Load Percent, Output Frequency, Stabilizer Settings, Stabilizer Condition and Failure Info, Warnings (Overload, over temperature, input failure, output failure, etc)	
Remote Management	MOD-BUS RTU with RS485 connection	
PROTECTION		
Over Voltage	cut off output or uninterrupted transfer to bypass, when output voltage over 10%	
Low Voltage	cut off output or uninterrupted transfer to bypass, when output voltage lower than 10%	
Phase Failure	cut off output automatically	
Over Load	electronic detection, cut off output or uninterrupted transfer to main electricity within 3 minutes	
Over Current	with electronic detection and breaker	
Short Circuit	with electronic detection and breaker	
Bypass	uninterrupted automatic bypass	
INDICATION		
Voltage	display A phase value	display A, B, C phase and Σ ABC phase value separately
Current	display A phase value	display A, B, C phase and Σ ABC phase value separately
Working Modes	regulating voltage mode/ main electricity mode	
Abnormal	over voltage, under voltage, overload, fuse blown	
ENVIRONMENTAL CONDITIONS		
Ambient Temperature	0 - 40℃	
Altitude	< 3000 m	
Humidity	0 - 95% (non-condensing)	
Acoustic Noise	≤ 60dB	
Cooling System	forced ventilation (Fan)	

DIMENSIONS

Three Phase

Model	Input Voltage(Vac)	Nominal Capacity(Kva)	Nominal Current(Ah)	Size(L*W*H)mm	Weight(KG)
ZBW-S10	304V-456V	10	15	420*500*700	150
ZBW-S20		20	30	420*500*700	175
ZBW-S30		30	45	420*500*700	183
ZBW-S50		50	76	480*600*800	214
ZBW-S80		80	121	520*700*900	275
ZBW-S100		100	152	520*700*900	315
ZBW-S120		120	182	520*700*1200	350
ZBW-S150		150	228	660*660*1600	420
ZBW-S180		180	273	660*660*1600	450
ZBW-S200		200	300	660*760*1600	650
ZBW-S250		250	380	660*760*1600	700
ZBW-S300		300	486	1100*800*1800	750
ZBW-S400		400	608	1100*800*1800	880
ZBW-S500		500	760	1100*800*1800	1100
ZBW-S600		600	912	1100*800*1800	1260
ZBW-S800		800	1216	1400*1000*2000	1380
ZBW-S1000		1000	1520	1400*1000*2200	1510
ZBW-S1200		1200	1824	1800*1000*2200	1630
ZBW-S1400		1400	2127	1800*1200*2200	1750
ZBW-S1600		1600	2431	1800*1200*2200	1890
ZBW-S2000	2000	3038	1800*1200*2200	2200	

Single Phase

Model	Input Voltage(Vac)	Nominal Capacity(Kva)	Nominal Current(Ah)	Size(L*W*H)mm	Weight(KG)
ZBW-D3	176V-264V	3	13.5	280*500*500	51
ZBW-D5		5	22.5	280*500*500	60
ZBW-D10		10	45	300*600*600	75
ZBW-D15		15	68	300*600*600	97
ZBW-D20		20	91	400*600*1000	110
ZBW-D30		30	137	400*600*1000	120
ZBW-D50		50	228	400*600*1000	195

- Dimensions and weight subject to change without notice
- Custom-made specifications are acceptable