GTZW-S/D 10-3000kVA

Intelligent Non - Contact Compensated AC Voltage Regulator

Working Principle

This intelligent non-contact compensated AC voltage regulator is adopted the latest high-speed DSP chip control technology, fast AC sampling technology, RMS correction technology, voltage and current zero-crossing switching technology and fast compensation regulator technology, combining the smart instrument, fast regulator and fault diagnosis together. It leads the product to be with high level safe, efficient and sophisticated.

The regulator is mainly composed of isolation transformer, SCR module, DSP control core, fast voltage regulator technology and safety protection device.

With the real-time monitoring output voltage by the DSP, fast calculation chip and control SCR module, to adjust the voltage range and polarity of the of the compensation transformer, the AVR can achieve fast regulation effectively.

Main Features:

High efficiency: more than 98%, low loss

- High efficiency: more than 98%, low self-loss
- High output accuracy ± 1%
- Intelligent instrument display: real-time display accurate voltage, current RMS value, high resolution, thin film key operation, safe and reliable

- Three-phase adjustment: three-phase independently regulation, to ensure that the output voltage of each phase is accurate.
- Wide range of applications: Wide voltage range, to satisfy poor power grid quality or with large voltage fluctuation power conditions
- High-speed response: Within 10ms, without any effect on computer, automation, equipment ect.
- Comprehensive Protection: phase loss, wrong phase, over temperature, overload, overvoltage, under voltage, short circuit, fuse protection etc. to ensure safe operation of the regulator & load.
- Preset function: output voltage, overload, overvoltage, response speed and other parameters can be arbitrarily set within capacity rating.
- Strong Overload capacity: the machine uses high-quality devices, excellent performance, can be continuously working with 100% rated load, and can withstand transient overload without damage to the machine.
- Strong adaptability: strong adaptability to the grid and load, can reliably, continuously and stablywork in a variety of harsh power grid or with complex load conditions
- No distortion: use voltage and current zero-crossing switching technology, no cutoff, no inrush current, the output waveform without distortion in the switching process
- Low loss: less than 0.5% loss without load, which saves a lot of electricity fee for end users.
- Low loss: less than 0.5% loss without load under rated voltage, which saves a lot of electricity for customers

Perfect Application:

Industry, transportation, post and telecommunications, defense, railway, scientific research and other fields of large-scale mechanical and electrical equipment, metal processing equipment. Like production lines, elevators, medical equipment, embroidery textile equipment, air conditioning, radio and television, household appliances and building lighting and other electrical equipment, which needs stable voltage.

Technical Parameters:

Model	D10K-100K（1phase）	S10K-3000K（3phase）
Rated capacity:	10-100KVA	10-3000KVA
Phase:	Single phase, L+N+G	3phase, 3L+N+G
Input Voltage Range	220V/230V/240Vac （110V/120V/127Vcustomizable）	380/400/415Vac （200V/208V/220Vcustomizable）

	Standard ± 15% (± 20% / ± 30% customizable)	
Output Voltage	±10% Settable	±10% Settable
regulation Accuracy:	±1% /±3%/±5% （Settable）	
Efficiency:	10K-50K≥95%， 50K-100K≥97%， >100K≥98%	
Frequency:	50Hz/60Hz auto-sense	
Response time:	<10ms	
Stabilization time:	<500ms	
Insulation class:	F class	
Insulation resistance:	Insulation resistance of the whole machine> 50MΩ	
Dielectric strength:	2000V / 1min no arcing discharge, no breakdown	
Output waveform:	Without distortion, ZERO harmonic increment	
Instantaneous overload capacity:	2 times the rated current	
Display mode:	LCD Display	
Communication interface:	RS232 OR RS485 (Optional)	
Protection:	Overload, overvoltage, undervoltage (settable), short circuit, phase loss, phase sequence wrong, over temperature, fuse	
Lightning protection degree	220V or 380V, 20KA, C-class lightning protection, 1200V, <25ns (optional)	
Filter:	Built-in output filter to solve the transmission, EMT, EMI problems, to optimize the power quality, improve equipment anti-interference ability, the maximum leakage current <2mA, in line with GB7343 standard (optional)	
Isolation:	Built-in or external isolation transformer, to meet the electrical equipment and power grid to eliminate the interference of power grid clutter, to protect equipment and safety of personnel (optional)	
Cooling method:	Forced air cooling, intelligent speed	

IP degree	IP20

Dimensions and weight (for reference only)

Model	Capacity (KVA)	Size (W*D*H) Cm	Weight (Kg)
GTZW-D3K	3KVA	25*53*30	22
GTZW-D5K	5KVA	25*53*30	25
GTZW-D10K	10KVA	25*53*30	32
GTZW-D15K	15KVA	25*53*30	40
GTZW-D20K	20KVA	35*60*40	70
GTZW-D30K	30KVA	35*60*40	80
GTZW-D40K	40KVA	38*78*83	100
GTZW-D50K	50KVA	38*78*83	120
GTZW-D75K	75KVA	43*78*117	150
GTZW-D100K	100KVA	43*78*117	180
3 Phase In and 3 Phase Output			
GTZW-S10K	10KVA	38*78*83	70
GTZW-S20K	20KVA	38*78*83	80
GTZW-S30K	30KVA	38*78*83	90
GTZW-S50K	50KVA	38*78*83	150
GTZW-S80K	80KVA	43*78*117	170
GTZW-S100K	100KVA	43*78*117	190
GTZW-S120K	120KVA	52*83*130	216
GTZW-S150K	150KVA	52*83*130	240
GTZW-S200K	200KVA	52*83*130	280
GTZW-S250K	250KVA	100*80*150	350
GTZW-S300K	300KVA	100*80*150	390

GTZW-S400K	400KVA	100*80*150	420
GTZW-S500K	500KVA	120*80*160	480
GTZW-S600K	600KVA	120*80*160	520
GTZW-S800K	800KVA	150*100*180	600
GTZW-S1000K	1000KVA	150*100*180	660
GTZW-S2000K	2000KVA	180*180*200	750
GTZW-S3000K	3000KVA	180*180*200	850